

State Investment Board

RETIREMENT & INVESTMENT

Friday, November 19, 2021, 8:30 a.m. WSI Board Room (Virtual Meeting Host) Teleconferencing – 701.328.0950 Participant Code – 761 645 682# 1600 E Century Ave, Bismarck, ND

<u>AGENDA</u>

I. CALL TO ORDER AND ACCEPTANCE OF AGENDA

A. Executive Summary

II. ACCEPTANCE OF MINUTES (October 22, 2021)

III. BOARD EDUCATION (20 minutes)

A. Board Education – Audit Operations – Ms. Sauter Informational

IV. INVESTMENTS (90 minutes)

- A. Callan Asset and Performance Overview Mr. Erlendson, Mr. Browning Board Action
- B. Investment Program/Projects Update Mr. Chin, Ms. Murtha Informational
 - 1. In-State
 - 2. Other
- C. University System Capital Building Investment Fund Ms. Flanagan Board Action

BREAK

V. GOVERNANCE (90 minutes)

- A. Legislative Special Session Update Ms. Murtha Informational
- B. Executive Limitations/Staff Relations Ms. Murtha Informational
- C. CIO Search Committee Update Dr. Lech Board Action
- D. Executive Director Search Discussion– Dr. Lech Discussion
- E. Legacy & Budget Stabilization Fund Advisory Board Update Ms. Murtha Discussion
- F. Securities Litigation Committee Update Mr. Seibel Informational

VI. QUARTERLY MONITORING – Board Acceptance 5 minutes)

- A. Quarterly Audit Activities Report Ms. Sauter Board Action
- B. Quarterly TFFR Ends Report Ms. Murtha Board Action

VII. OTHER (5 minutes)

Next Meetings:

Executive Search Committee: Friday November 19, 2021, approx 11:30 a.m. (following SIB) Audit Committee: Wednesday, February 16, 2022, at 2:30 p.m. SIB: Friday, December 17, 2021, at 8:30 a.m. (For CIO Finalist Interviews)

VIII. ADJOURNMENT

EXECUTIVE SUMMARY

SIB Regular Meeting November 19, 2021 – 8:30am CT

- I. Agenda: The November Board Meeting will be held at the WSI Conference room to accommodate in person attendance, however, a link will also be provided so that Board members and other attendees may join via video conference. There will be a call in number for the public.
- **II. Minutes:** The October 22, 2021 Board meeting minutes are included for review and approval.
- **III. A. Board Education:** Ms. Sauter, RIO Audit Supervisor, will provide board education on the scope of internal audit services and audit plan development.
- **IV. A. Performance Review**: Callan will provide an investment performance review which includes a reconciliation of RIO's reported investment returns and asset valuations with those reported by Northern Trust, noting that Northern Trust serves as our primary custodian and record keeper for SIB client investments.

B. Investment Program/Projects Update: Staff will provide an update on investment program projects with a focus on in-state roll out progress and other non in-state projects such as global equity.

C. University System Capital Building Investment Fund: Ms. Flanagan, RIO CFO/COO will present this request for investment services.

V. A. Legislative Special Session: Ms. Murtha will provide information relating to bills affecting RIO during the Legislative Special Session that concluded on November 12, 2021, including information related to H.B. 1506 and H.B. 1512.

B. Executive Limitations/Staff Relations: Ms. Murtha will provide an update on executive limitations/staff relations including progress made on filling vacancies and staff engagement.

C. CIO Search Committee Update: Committee Chair Dr. Lech will provide the Board with an update on the status of the CIO search efforts and present the search committee's recommendation for a salary range for the CIO position.

D. Executive Director Search: Dr. Lech will begin the discussion for filling the ED position.

E. Legacy & Budget Stabilization Fund Advisory Board Update: Ms. Murtha will present information relating to RIO staff presentations provided to the Advisory Board on October 28 and November 11, as well as communication received from the Advisory Board and RIO's proposed response.

F. Securities Litigation Committee Update: Deputy Attorney General Seibel will provide the Board with an update on the recent committee meeting.

VI. A-B. Quarterly Monitoring: Staff will provide quarterly monitoring reports for internal audit activities and TFFR Ends.

Adjournment.

OCTOBER 22, 2021, BOARD MEETING

MEMBERS PRESENT:	Brent Sanford, Lt. Governor, Chair Rob Lech, TFFR Board, Vice Chair Thomas Beadle, State Treasurer Keith Kempenich, Legacy/Budget Stab. Adv. Board Bryan Klipfel, Director of WSI Cody Mickelson, TFFR Board Adam Miller, PERS Board Mel Olson, TFFR Board Jodi Smith, Commissioner of Unv & School Lands Yvonne Smith, PERS Board
MEMBERS ABSENT:	Jon Godfread, Insurance Commissioner Troy Seibel, PERS Board, Parliamentarian
STAFF PRESENT:	Eric Chin, Interim CIO Connie Flanagan, Chief Financial Officer Jayme Heick, Retirement Programs Spec Missy Kopp, Executive Assistant Jan Murtha, Interim Exec Dir Matt Posch, Investment/Compliance Officer Ann Nagel, Investment Accountant Sara Sauter, Internal Audit Supvr Stephanie Starr, Retirement Programs Spec Dottie Thorsen, Internal Auditor Tami Volkert, Employer Svs Coordinator Susan Walcker, Senior Financial Accountant
GUESTS:	Jace Beehler, Governor's Office Dean DePountis, Attorney General's Office Scott Miller, PERS Adam Montgomery, Securities Commission Ryan Rauschenberger, Tax Commissioner Bryan Reinhardt, PERS Hope Wedul, HRMS

CALL TO ORDER:

Lt. Governor Sanford, Chair, called the State Investment Board (SIB) regular meeting to order at 8:30 a.m. on Friday, October 22, 2021. The meeting was held at Workforce Safety and Insurance, 1600 E Century Ave., Bismarck, ND.

The following members were present: Treasurer Beadle, Mr. Klipfel, Dr. Lech, Mr. Mickelson, Mr. Miller, Mr. Olson, Lt. Gov. Sanford, Commissioner Smith, and Ms. Smith

ACCEPTANCE OF AGENDA:

The Board considered the agenda for the October 22, 2021, meeting.

IT WAS MOVED BY MR. KLIPFEL AND SECONDED BY TREASURER BEADLE AND CARRIED BY A VOICE VOTE TO APPROVE THE AGENDA AS DISTRIBUTED.

AYES: COMMISIONER SMITH, TREASURER BEADLE, MR. MILLER, MR. OLSON, MR. KLIPFEL, MR. MICKELSON, DR. LECH, MS. SMITH, AND LT. GOV. SANFORD NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER GODFREAD AND MR. SEIBEL

MINUTES:

The Board considered the minutes of the September 24, 2021, SIB meeting.

IT WAS MOVED BY DR. LECH AND SECONDED BY MS. SMITH AND CARRIED BY A VOICE VOTE TO APPROVE THE SEPTEMBER 24, 2021, MINUTES AS DISTRIBUTED.

AYES: MR. MICKELSON, COMMISSIONER SMITH, MS. SMITH, MR. KLIPFEL, TREASURER BEADLE, DR. LECH, COMMISSIONER GODFREAD, MR. OLSON, MR. MILLER, AND LT. GOV. SANFORD NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER GODFREAD AND MR. SEIBEL

BOARD EDUCATION:

SIB Investment Program Operations:

Ms. Flanagan provided Board education on the role fiscal operations plays in fund allocation, monitoring, and rebalancing. The RIO agency is made up of 19 full-time employees (FTEs) and manages the retirement and investment programs. RIO staff and the SIB are "managers of managers" for the investment program which has \$19.7 billion in assets under management as of August 31, 2021. The investment program has ten asset classes, 26 investment client funds, 33 asset class pools, 42 investment managers, 77 investment strategies, and 135 custodian bank accounts. The program works with external partners including investment managers, consultants, and custodian banks.

The Board recessed at 9:40 a.m. and reconvened at 9:55 a.m.

INVESTMENTS:

Asset and Performance Update:

Mr. Chin provided an update on investment performance and projects for the first quarter of the current fiscal year. Based on preliminary, unaudited market data, the top five NDSIB clients are estimated to end slightly positive for the first quarter. Small cap equity managers had a strong quarter with outperformance estimated at over three percent relative to the Russell 2000. Following recent Board approval, staff has worked to onboard Adams Street 2021 Global Fund and Arrowstreet international ACWI ex-US. Staff is finalizing the contract with Northland Securities for pricing agent services relating to the private market investment opportunity and has conducted preliminary work on indicative pricing for the private market investment opportunity. Interviews are underway for the Chief Risk Officer (CRO) position and staff hope to have the position filled by December 2021.

Legacy and Budget Stabilization Fund Advisory Board Update:

Ms. Murtha provided an update from the Legacy and Budget Stabilization Fund Advisory Board meeting held on October 21, 2021. Staff presented in-state impact and performance updates for the Committee. Staff also proposed a process for manager searches. Staff would conduct two separate searches to implement the In-State Preference Program. Board discussion followed.

Watch List:

Mr. Posch reviewed the background on what the watch list is, reasons for designating managers to the list and why they would be removed. Staff continually performs an assessment of current investment managers through both a quantitative and qualitative lens. If a review is warranted, staff will bring a recommendation to place the manager on the Watch list until the review is completed. There are currently two managers on the Watch list, LSV and Epoch. Staff recommends maintaining both LSV and Epoch on watch. LSV has improved performance in the past year, but staff would like to see this improvement carry over into a longer time period. Regarding Epoch, staff may look into initiating a new manager search after completing an evaluation on how to improve the structure of the Global Equity allocation in the Pension Pool.

GOVERNANCE:

Executive Search Committee Update:

Dr. Lech provided an update of the activities of the Executive Search Committee. The Committee has continued to meet and is receiving applicants for the CIO position. The Committee will meet today following the SIB meeting to discuss the compensation range for the CIO, current search status, and to develop a schedule for interviews.

Audit Committee Update:

Dr. Lech provided an update from the NDSIB Audit Committee. The Committee was asked by the SIB to examine governance for the SIB. A proposal is not ready yet, but they have provided a draft so the Board can provide feedback before the first reading. The Committee is developing a policy on onboarding and education for Board members which is focused on governance and education. The Committee looked at the Teachers' Fund for Retirement's (TFFR) Governance and Policy Review Committee (GPR) and the function that they serve. The Committee thinks the SIB should consider mirroring that model because they have been effective in reviewing policies for the TFFR Board.

Committee Assignments:

Ms. Murtha shared the open committee assignments that will occur with the resignation of Commissioner Smith. The openings created by her departure are on the Audit Committee, Securities Litigation Committee, and Executive Search Committee. The Audit Committee assignment represents appointed and elected officials and is approve by the Board. The Securities Litigation and Executive Search opening are appointed by the SIB Chair. Lt. Gov. Sanford appointed Commissioner Godfread to the Executive Search Committee effective October 23, 2021. The new Land Commissioner will be appointed to the Securities Litigation Committee.

IT WAS MOVED BY DR. LECH AND SECONDED BY MR. OLSON AND CARRIED BY A ROLL CALL VOTE TO APPOINT TREASURER BEADLE TO THE SIB AUDIT COMMITTEE.

AYES: MR. OLSON, COMMISSIONER SMITH, MR. MICKELSON, MS. SMITH, MR. MILLER, TREASURER BEADLE, MR. KLIPFEL, DR. LECH, AND LT. GOVERNOR SANFORD NAYS: NONE MOTION CARRIED ABSENT: MR. SEIBEL AND COMMISSIONER GODFREAD

SIB Customer Satisfaction Survey:

Ms. Sauter reviewed the results of the SIB Customer Satisfaction survey. The survey is sent out annually as a part of the ends to ensure satisfaction of the provided services. The scores overall were up for the past year. Comments were positive with a concern raised that staffing resources are able to manage the investments.

QUARTERLY MONITORING:

Executive Limitations/Staff Relations:

Ms. Murtha provided an update on the special Legislative session, RIO facility move, current procurement activity, IT unification, and staffing. Staff testimony for the House Interim Budget Committee was shared with the SIB. RIO's move date is November 23, 2021. Staff is working to notify members and other stakeholders about the move. The Request for Proposal was issued for temporary investment personnel. Two temporary employees started this week and an offer has been made for a new Retirement Assistant. Interviews are being conducted for the CRO and the Contracts and Retention Assistant. Staff are presenting before the Personnel Board to request that the CRO position become unclassified.

IT WAS MOVED BY TREASURER BEADLE AND SECONDED BY DR. LECH AND CARRIED BY A VOICE VOTE TO ACCEPT THE EXECUTIVE LIMITATIONS/STAFF RELATIONS, BUDGET/FINANCIAL CONDITIONS, AND INVESTMENT PROGRAMS QUARTERLY MONITORING REPORTS.

AYES: TREASURER BEADLE, MR. MICKELSON, MR. KLIPFEL, COMMISSIONER SMITH, MS. SMITH, DR. LECH, MR. MILLER, MR. OLSON, AND LT. GOV. SANFORD NAYS: NONE ABSENT: COMMISSIONER GODFREAD AND MR. SEIBEL

ADJOURNMENT:

With no further business to come before the SIB, Lt. Gov. Sanford adjourned the meeting at 11:28 a.m.

Respectfully Submitted:

Lt. Governor Sanford, Chair State Investment Board

Missy Kopp Recorder

Annual Audit Planning

Sara Sauter

Supervisor of Internal Audit

Education

1

Internal Audit Purpose

- Established by the State Investment Board
 - Assist the SIB in carrying out its oversight responsibilities as they relate to RIO
 - Primary objective of internal audit function is to assist the SIB and management in the effective discharge of their responsibility
- To protect the organization
- It is a best business practice to have internal audit

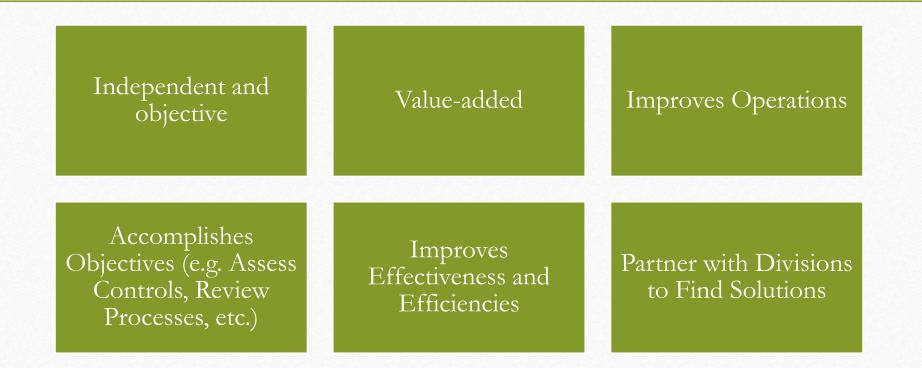
Internal Audit Structure at *RIO*

Reports administratively to Executive Director and functionally to the Audit Committee of the SIB

Executive Director

SIB Audit Committee Supervisor of Internal Audit Sara Sauter Internal Auditor Dottie Thorsen

What is Internal Auditing?



The IIA Standards

Independence

Professional Proficiency

Scope

Performance of Audit

Management

Code of Ethics

Internal Audit Responsibilities

- Offer Insight and Advice
- Evaluate Risks
- Assess Controls
- Ensure Accuracy
- Improve Operations
- Promote Ethics
- Review Processes and Procedures
- Monitor Compliance
- Assure Safeguards
- Investigate Fraud

Accounting vs. Internal Auditing

	Accounting	Internal Auditing
Area of Focus	 Financial analysis Develop Internal Controls Transaction processing Budgeting Record keeping 	 Determining accuracy of financial reporting Test and Access Internal Controls Compliance Effectiveness and efficiency of operations Governance structure Risk management
Method of Working	Transaction processingCyclical financial reporting and budgeting	 Project based May include committee work and ongoing risk assessments
Certifications	CPA, CMA, <i>etc</i> .	CPA, CIA, CISA, CFE, etc.

Types of Auditors

External Auditors

- Hired by an organization
- Often financial statement
- Historical Data
- 25,000' view
- Produce a report with an opinion

Regulatory Auditors

- From a government agency or grantor
- May be called auditors, inspectors, compliance officers
- Ensure compliance with regulations
- Report, score card, or dashboard

Internal Auditors

- Work for the organization
- Risk-based audit plan
- Current Issues
- Variety of audits based on industry
- Report recommendations

Risk Based Internal Auditing

Institute of Internal Auditors defines risk based internal auditing (RBIA) as a methodology that **links internal auditing** to an organization's overall risk management framework. RBIA allows internal audit to provide assurance to the board that risk management processes are managing risks effectively, in relation to the risk appetite.

Internal Audit staff at RIO uses a risk-based internal auditing approach when it comes to annual audit planning.

Process

Understand the organization/programs

Identify, assess, and prioritize risks Ø



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Coordinate with other providers

Estimate resources

Propose the plan and solicit feedback



Finalize and communicate the plan



Assess risks continuously



Update the plan and communicate updates.

Understand, Identify & Prioritize



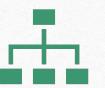
Mission of Organization & Board ΔŢ

Legal & Regulatory Requirements Change in Management



Emerging Risks

Communicate, Estimate, & Finalize



Discuss risks with Management, Board, and External Auditors



Estimate the Time for Audits and Other Requests

Two Full-time Staff (Administrative, Leave, Audits, Consulting, Etc.)



Formalize Plan

Present to Audit Committee for Approval

Continuous Monitoring and Adjusting



Fluid Plan



New Risks or Issues Emerge Adjust Audit Plan



Discuss with Management



Communicate to the Audit Committee



Questions?

Thank You!

Callan



Retirement & Investment

November 19, 2021

North Dakota State Investment Board

Performance Evaluation as of September 30, 2021

Paul Erlendson Senior Vice President

Alex Browning Senior Vice President

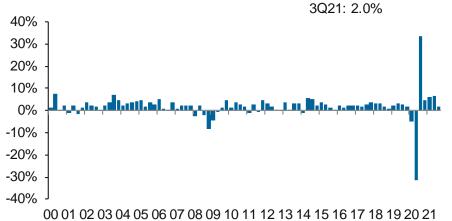
Callan

Market Update

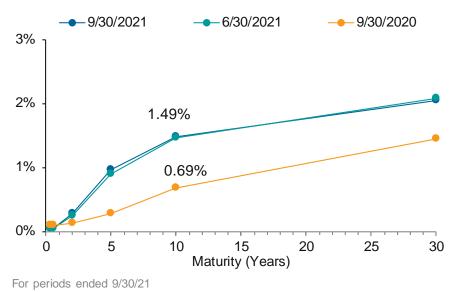
Third Quarter 2021

U.S. Economy—Summary

Quarterly Real GDP Growth

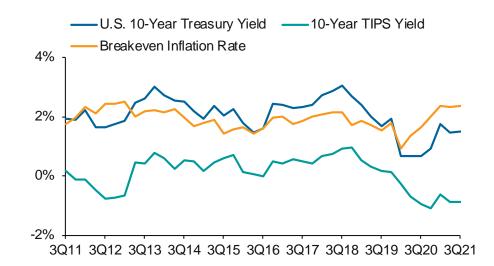


U.S. Treasury Yield Curves





Historical 10-Year Yields



Sources: Bloomberg, Bureau of Labor Statistics, Callan.

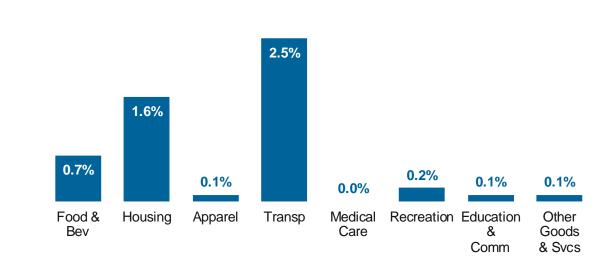
Contributors to Recent Inflation: Primary Categories

Transportation, including new and used cars, parts, and gasoline, has seen a spike in inflation with year-over-year prints that are more than three times higher than any other category.

 With a meaningful 15% weight in the index, transportation makes a significant contribution to headline CPI.

Housing and food and beverage have also seen big inflation increases.

 While inflation within these categories has been far lower than transportation, their large index weights make them meaningful contributors to overall inflation.



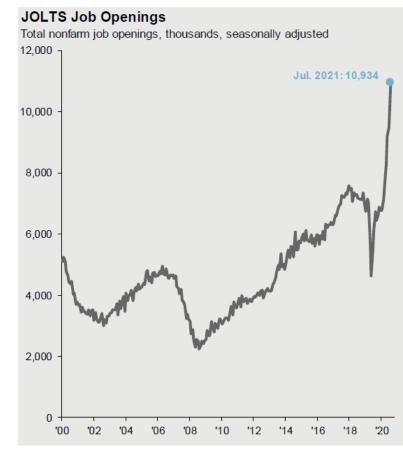
Contribution to September 2021 YoY Inflation

		Year-over-Year Change								
Primary Category	Primary Category Weight	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep
All Items	100.0%	1.4%	1.7%	2.6%	4.2%	4.9%	5.3%	5.3%	5.2%	5.4%
Food & Bev	15.2%	3.7%	3.5%	3.4%	2.3%	2.1%	2.4%	3.4%	3.7%	4.5%
Housing	42.4%	1.8%	1.8%	2.1%	2.6%	2.9%	3.1%	3.3%	3.5%	3.9%
Apparel	2.7%	-2.6%	-3.6%	-2.5%	1.9%	5.6%	4.9%	4.2%	4.2%	3.4%
Transportation	15.2%	-1.4%	0.6%	5.9%	14.8%	19.7%	21.2%	19.1%	17.6%	16.5%
Medical Care	8.9%	1.9%	2.0%	1.8%	1.5%	0.9%	0.4%	0.3%	0.4%	0.4%
Recreation	5.8%	0.1%	0.8%	1.1%	2.1%	1.6%	2.4%	3.5%	3.4%	3.5%
Education & Communication	6.8%	1.7%	1.7%	1.5%	1.7%	1.9%	2.1%	1.1%	1.2%	1.7%
Other Goods & Svcs	3.2%	2.1%	2.1%	2.4%	2.7%	2.7%	2.5%	2.9%	3.5%	3.4%

Source: U.S. Bureau of Labor Statistics



Employment and Wage Inflation





	50-yr. avg.	Jul. 2021	Aug. 2021
Headline CPI	3.9%	5.3%	5.2%
Core CPI	3.8%	4.2%	4.0%
Food CPI	3.9%	3.4%	3.7%
EnergyCPI	4.5%	23.6%	24.9%
Headline PCE deflator	3.4%	4.2%	4.3%
Core PCE deflator	3.3%	3.6%	3.6%

- Job openings at all time high, labor force participation falling
- The Great Resignation, quits in August 2.6% of labor force
- Impact of labor-job mismatch is higher wage growth,
 Employment Cost Index up 4.2% in 3Q (yoy), fastest since 1990

Callan Periodic Table of Investment Returns

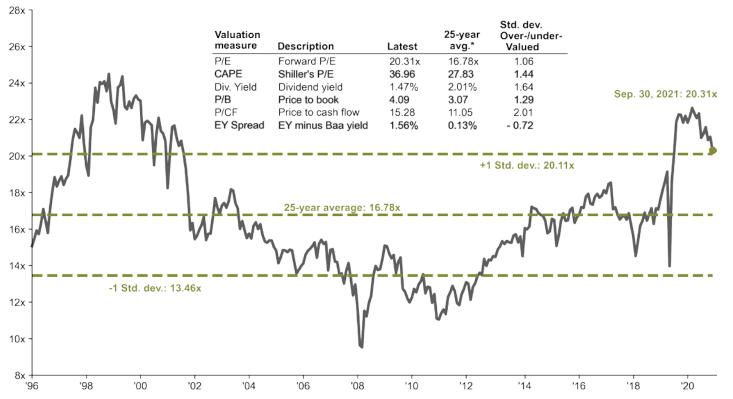
Cumulative Returns Ending September 30, 2021							Monthly Returns	
Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	July 2021	August 2021	Sept 2021
Real Estate	Small Cap Equity	Large Cap Equity	Real Estate					
6.41%	47.68%	15.99%	16.90%	14.01%	16.63%	2.38%	3.04%	2.09%
High Yield	Large Cap Equity	Small Cap Equity	Small Cap Equity	Small Cap Equity	Small Cap Equity	Real Estate	Emerging Market Equity	High Yield
0.89%	30.00%	10.54%	13.45%	11.90%	14.63%	2.09%	2.62%	-0.01%
Large Cap Equity	Dev ex-U.S. Equity	Emerging Market Equity	Emerging Market Equity	Real Estate	Real Estate	U.S. Fixed Income	Small Cap Equity	U.S. Fixed Income
0.58%	26.50%	8.59%	9.23%	7.93%	8.92%	1.12%	2.24%	-0.87%
U.S. Fixed Income	Emerging Market Equity	Dev ex-U.S. Equity	Dev ex-U.S. Equity	High Yield	Dev ex-U.S. Equity	Dev ex-U.S. Equity	Real Estate	Dev ex-U.S. Equity
0.05%	18.20%	7.87%	8.88%	5.89%	7.88%	0.66%	2.09%	-2.87%
Dev ex-U.S. Equity	Real Estate	High Yield	Real Estate	Dev ex-U.S. Equity	High Yield	High Yield	Dev ex-U.S. Equity	Small Cap Equity
-0.66%	13.64%	6.91%	6.56%	5.69%	7.42%	0.38%	1.60%	-2.95%
Small Cap Equity	High Yield	Real Estate	High Yield	Emerging Market Equity	Emerging Market Equity	Small Cap Equity	High Yield	Emerging Market Equity
-4.36%	11.28%	6.13%	6.52%	5.62%	6.09%	-3.61%	0.51%	-3.97%
Emerging Market Equity	U.S. Fixed Income	Emerging Market Equity	U.S. Fixed Income	Large Cap Equity				
-8.09%	-0.90%	5.36%	2.94%	3.26%	3.01%	-6.73%	-0.19%	-4.65%

Sources:
Bloomberg Barclays Aggregate
Bloomberg Barclays Corp High Yield
Bloomberg Barclays Global Aggregate ex US

• NCREIF ODCE Val Wtd • MSCI World ex USA • MSCI Emerging Markets • Russell 2000 • S&P 500

U.S. Equity Large Cap Valuations

S&P 500 Index: Forward P/E ratio



Price-to-earningsisprice divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since September 1996, and J.P. Morgan Asset Managementfor September 30, 2021. Current next 12months consensus earnings estimates are \$214. Average P/E and standard deviations are calculated using 25 years of IBES history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-months consensus dividend divided by most recent price. Price-to-book ratio is the price divided by bookvalue per share. Price-to-cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. Std. dev. over-/under-valuedis calculated using the average and standard deviation over 25 years for each measure. *P/CF is a 20-year average due to cash flow availability.

Guide to the Markets – U.S. Data are as of September 30, 2021.

- Valuations are 1.06 standard deviations above the 25-year average based on forecast earnings.

- While still rich, many valuation measures down modestly from levels in 2Q

-Longer-term historical valuations are also elevated.

- Shiller's cyclically adjusted price earnings (CAPE) ratio at 1.44 standard deviations above average
- -Stock prices reflect anticipated rather than historical earnings, looking well beyond a one-year timeframe.

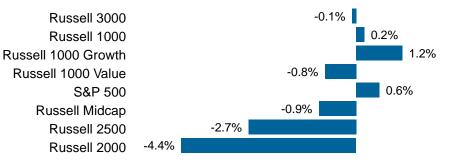
Sources: FactSet, FRB, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management.

U.S. Equity Performance: 3Q21

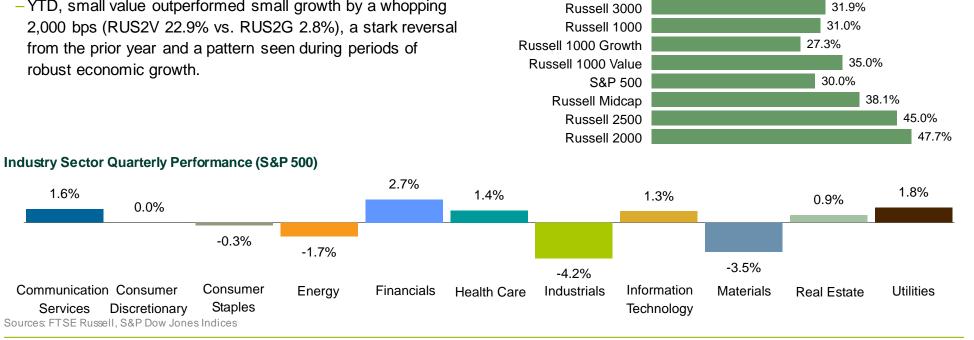
Returns compress over mounting concerns

- -S&P 500 rose a modest 0.6% in 3Q21, and smaller cap growth indices posted their first negative guarter since the March 2020 low.
- Slowing economic growth, supply chain disruptions, and inflationary pressure, as well as uncertainty around monetary policy, decreased investors' risk appetite.
- In general, high quality topped lower quality in large cap.
- -Economically sensitive sectors such as Industrials (-4.2%) and Materials (-3.5%) lagged; Financials (+2.7%) benefited.
- -Growth outperformed value in large cap, and value outperformed growth in small cap.
- -YTD, small value outperformed small growth by a whopping 2,000 bps (RUS2V 22.9% vs. RUS2G 2.8%), a stark reversal from the prior year and a pattern seen during periods of robust economic growth.

U.S. Equity: Quarterly Returns



U.S. Equity: One-Year Returns



Callan Knowledge. Experience. Intearity.

1.6%

Services

Global ex-U.S. Equity Performance: 3Q21

Fears of stagflation stoke market volatility

- Delta variant flare-ups and slowdown in China weighed on the global recovery.
- COVID-driven supply chain disruption continues to push inflation higher.
- Small cap outpaced large as global recovery concerns disproportionately punished large cap companies.
- Emerging markets struggled relative to developed markets as growth prospects were under pressure for China and Brazil.

Market pivots to cyclicals

- Energy crunch fueled the sector to the highest return in the quarter as demand outstripped supply.
- Financials outperformed; Real Estate and Utilities generally underperformed with higher interest rate expectations.

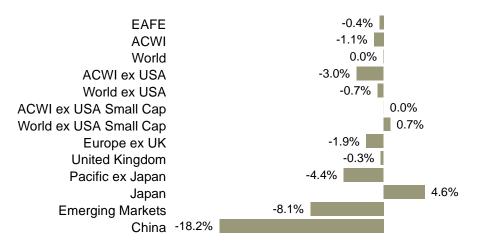
U.S. dollar vs. other currencies

 The U.S. dollar rose against other major currencies as the Fed signaled tapering is imminent, which notably detracted from global ex-U.S. results.

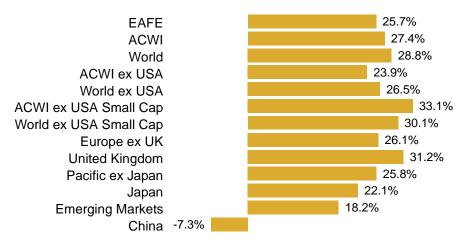
Growth vs. value

- Value outpaced growth in emerging markets due to the Energy rally, while both were relatively flat in developed markets.

Global Equity: Quarterly Returns



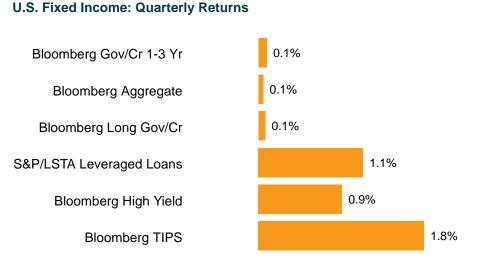
Global Equity: One-Year Returns



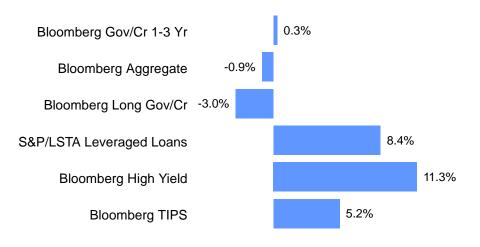
Source: MSCI

Callan | Knowledge. Experience. Integrity.

U.S. Fixed Income Performance: 3Q21



U.S. Fixed Income: One-Year Returns



Treasury yields largely unchanged from 2Q21

- Yields ended a volatile quarter only slightly higher after the Fed signaled it may soon begin tapering its bond buying program.
- 2-year and 10-year Treasury yields rose 3 and 7 bps, respectively.
- TIPS outperformed nominal Treasuries, and 10-year breakeven spreads widened 5 bps to 2.37%.

Bloomberg Aggregate flat as spreads widen

- Minor gains in Treasuries and agency MBS were offset by declines in government-related, CMBS, and corporates.
- IG corporates trailed Treasuries by 15 bps (durationadjusted) as spreads widened within long bonds.

High yield and leveraged loans continue rally

- Leveraged loans (+1.1%) outperformed high yield, driven by favorable supply/demand dynamics.
- High yield issuers' default rate declined to 0.9% in September, the lowest since March 2014.

Munis underperform Treasuries

- Supply was modest and demand was fueled by expectations for higher tax rates and strong credit fundamentals.
- Lower-quality bonds continued their trend of outperformance as investors sought yield.

Source: Bloomberg

Callan Know

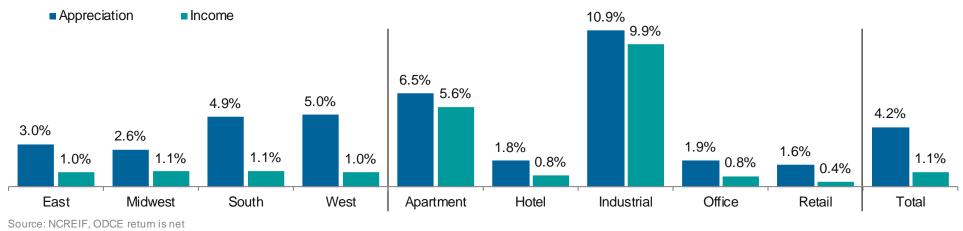
U.S. Private Real Estate Market Trends

Continued strong performance across the asset class

Strongest gains for ODCE in history

- ODCE posted best return ever in 3Q21; Industrial the best performer.
- Income returns were positive except in Hotel and Retail sectors.
- Appraisers are pricing in a recovery due to strong fundamentals in Industrial and Multifamily.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.
- Niche sectors self-storage and life sciences continued to be accretive.

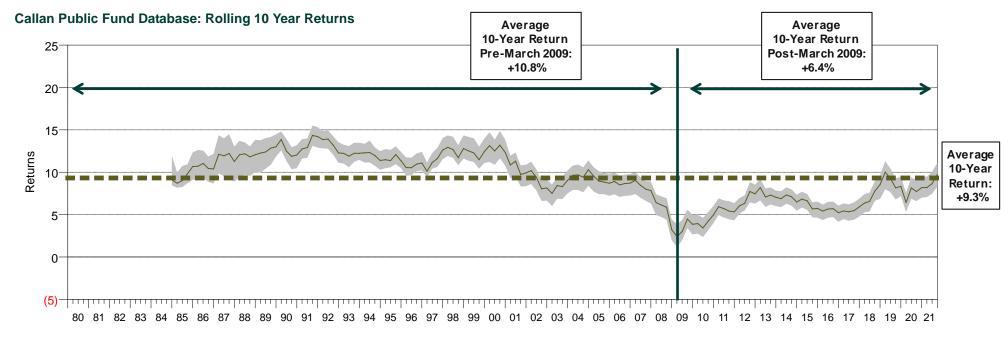
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
NCREIF ODCE	6.4%	13.6%	6.1%	6.6%	8.9%
Income	0.8%	3.1%	3.1%	3.2%	3.6%
Appreciation	5.6%	10.4%	2.9%	3.3%	5.2%
NCREIF Property Index	5.2%	12.2%	6.7%	6.8%	9.0%
Income	1.1%	4.2%	4.4%	4.5%	4.9%
Appreciation	4.2%	7.7%	2.3%	2.3%	3.9%



NCREIF Property Index Trailing One-Year Returns by Region and Property Type

Callan Knowledge. Experience. Integrity.

Historical Public Fund Asset Allocation and Returns



10 Year Return	10.7%	12.0%	11.4%	12.4%	8.7%	5.0%	5.7%	9.7%
Asset Class	1985	1990	1995	2000	2005	2010	2015	2021
Domestic Equity	49%	46%	40%	46%	45%	39%	33%	31%
Domestic Fixed Income	52%	51%	38%	28%	26%	30%	26%	23%
Non-U.S. Equity			9%	16%	16%	15%	16%	18%
Non-U.S. Fixed Income			5%	4%	5%	4%	4%	2%
Real Estate		3%	5%	4%	5%	4%	9%	7%
Other Alternatives			2%	2%	3%	7%	11%	19%
Cash Equivalents			1%			1%	1%	1%

Allocations are as of December 31 of the applicable year except the current year which is September 30.



NDSIB Total Performance Summary

NDSIB Consolidated Gross Performance Summary

As of September 30, 2021

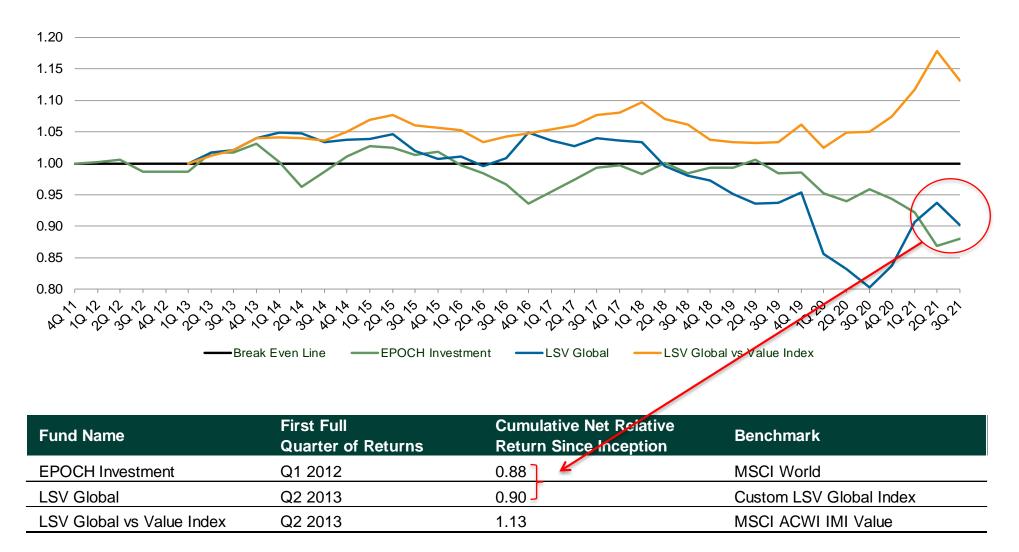
	Last Quarter	Last Year	Last 5 Years
Consolidated Pension Trust	0.40%	21.52%	10.81%
Consolidated Pension Trust Target	0.84%	21.65%	10.16%
Relative Performance vs. Target	-0.44%	-0.13%	0.65%
PERS Total Fund	0.37%	21.79%	10.89%
NDSIB PERS Total Fund Target	0.75%	21.50%	10.15%
Relative Performance vs. Target	-0.38%	0.29%	0.74%
TFFR Total Fund	0.45%	21.39%	10.77%
NDSIB TFFR Total Fund Target	0.95%	22.08%	10.23%
Relative Performance vs. Target	-0.50%	-0.69%	0.54%
WSI Total Fund	0.28%	8.67%	7.24%
NDSIB WSI Total Fund Target	0.41%	7.23%	6.02%
Relative Performance vs. Target	-0.13%	1.44%	1.22%
Legacy - Total Fund	0.17%	17.31%	9.44%
NDSIB Legacy - Total Fund Target	0.14%	16.24%	8.68%
Relative Performance vs. Target	0.03%	1.07%	0.76%
Budget - Total Fund	0.25%	2.60%	2.48%
NDSIB Budget - Total Fund Target	0.09%	0.30%	1.89%
Relative Performance vs. Target	0.16%	2.30%	0.59%



Manager Relative Performance

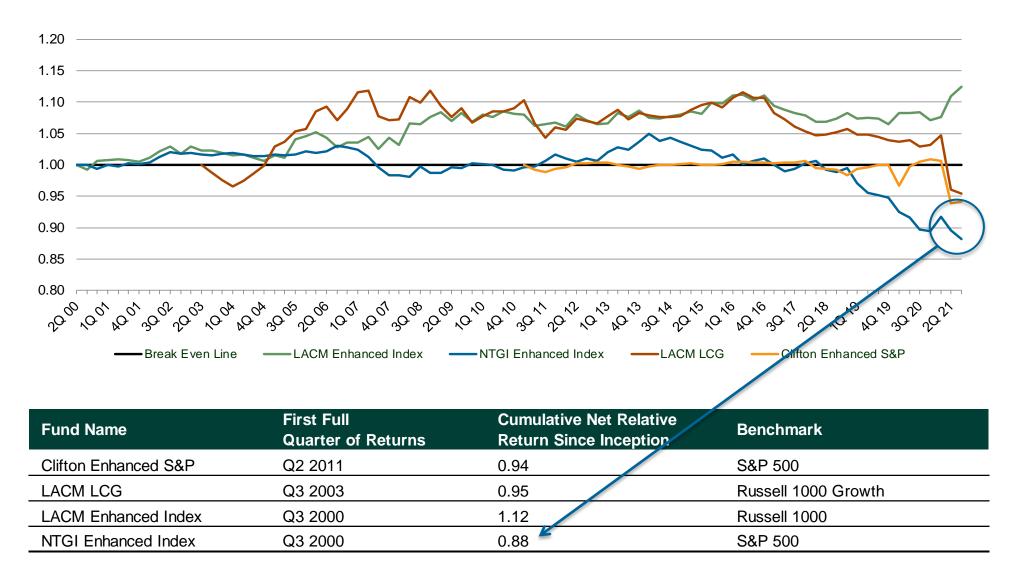
Word Equities

Cumulative Net Relative Return Since Inception, as of September 30, 2021



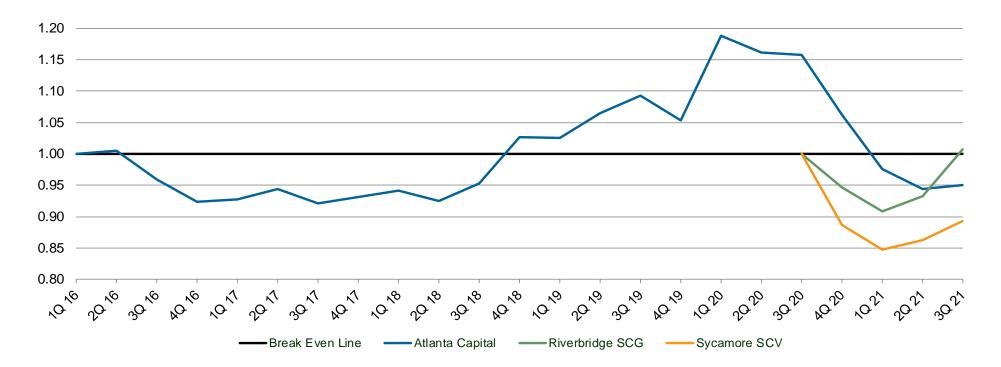
U.S. Large Cap Equities

Cumulative Net Relative Return Since Inception, as of September 30, 2021



U.S. Small Cap Equities

Cumulative Net Relative Return Since Inception, as of September 30, 2021

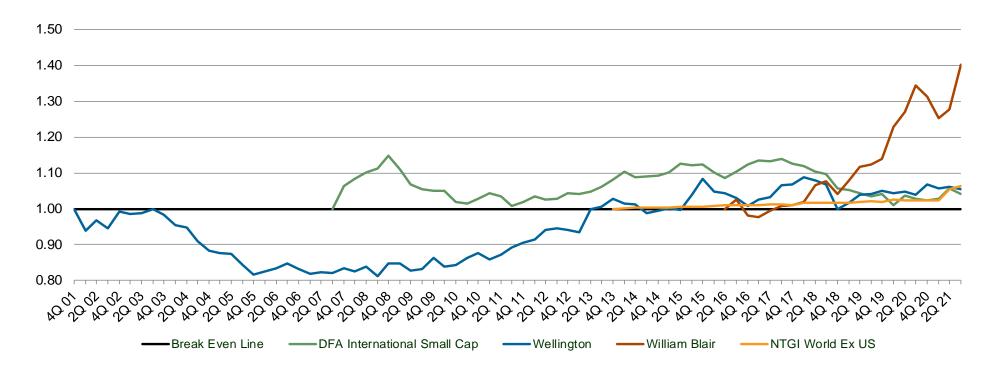


Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
Atlanta Capital	Q2 2016	0.95	S&P 600 Small Cap
Riverbridge SCG	Q4 2020	1.01	Russell 2000 Growth
Sycamore SCV	Q4 2020	0.89	Russell 2000 Value

Note: Next quarter will include Riverbridge and Sycamore

Developed International Equities

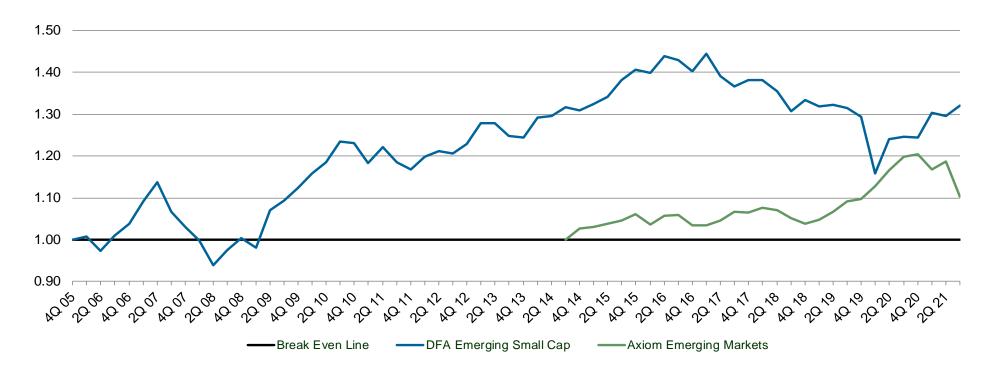
Cumulative Net Relative Return Since Inception, as of September 30, 2021



Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
DFA International Small Cap	Q4 2007	1.04	MSCI World Ex US SC Value
NTGI World Ex US	Q1 2014	1.06	MSCI World Ex US
Wellington	Q1 2002	1.05	BMI, EPAC, <\$2 B
William Blair	Q3 2016	1.40	MSCI ACWI Ex US IMI

Emerging Market Equities

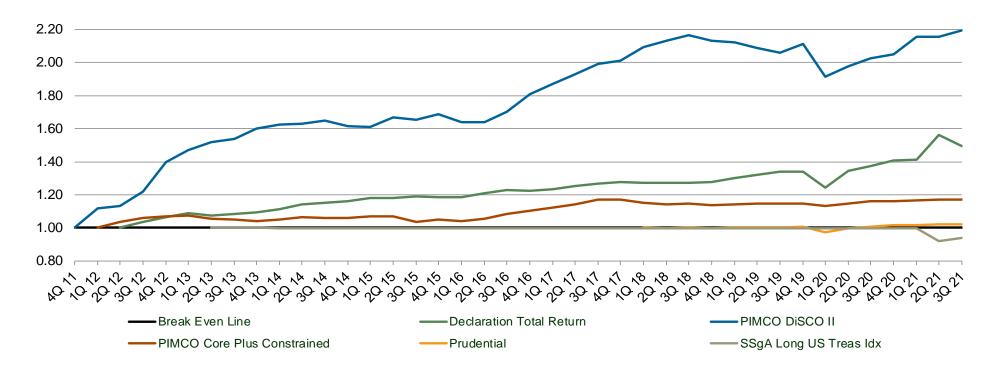
Cumulative Net Relative Return Since Inception, as of September 30, 2021



Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
Axiom Emerging Markets	Q4 2014	1.10	MSCI Emerging Market
DFA Emerging Small Cap	Q1 2006	1.32	MSCI Emerging Market

Investment Grade Fixed Income

Cumulative Net Relative Return Since Inception, as of September 30, 2021

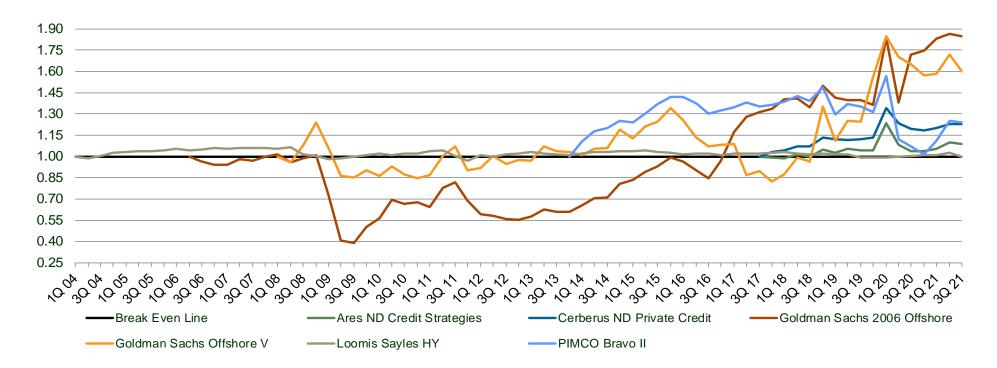


Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
Declaration Total Return	Q3 2012	1.50	3-Month LIBOR
PIMCO DiSCO II	Q1 2012	2.19	Bloomberg Aggregate
PIMCO Core Plus Constrained	Q2 2014	1.17	PIMCO Custom Benchmark
Prudential	Q2 2018	1.02	Bloomberg Aggregate
SSgA Long US Treas Idx	Q3 2013	0.94	Bloomberg Long Treasury

The PIMCO Custom Benchmark reflects the returns of 3-month Libor through Feb. 28, 2014; The fund's performance through March 31, 2014; 3-month Libor through June 30, 2018; and the BImbg Agg thereafter.

Below Investment Grade Fixed Income

Cumulative Net Relative Return Since Inception, as of September 30, 2021



Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
Ares ND Credit Strategies	Q4 2017	1.09	S&P:LSTA Leveraged Loan B
Cerberus ND Private Credit	Q4 2017	1.23	S&P:LSTA Leveraged Loan B
Goldman Sachs 2006 Offshore	Q3 2006	1.85	Bloomberg: HY Corp 2% Iss Cap
Goldman Sachs Offshore V	Q4 2007	1.60	Bloomberg: HY Corp 2% Iss Cap
Loomis Sayles HY	Q2 2004	1.00	Bloomberg: HY Corp 2% Iss Cap
PIMCO Bravo II	Q1 2014	1.24	Bloomberg: HY Corp 2% Iss Cap

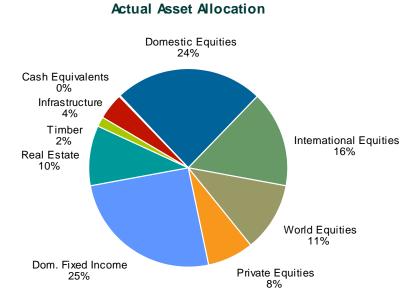
Callan

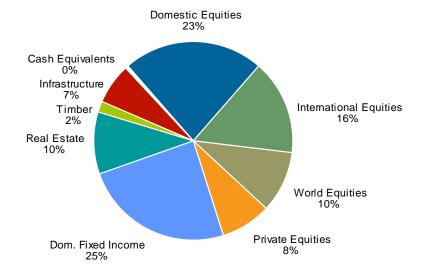
Consolidated Pension Trusts Quarterly Review

- Public Employees Retirement System
- Teachers' Fund for Retirement

Consolidated Pension Trust Allocation

As of September 30, 2021

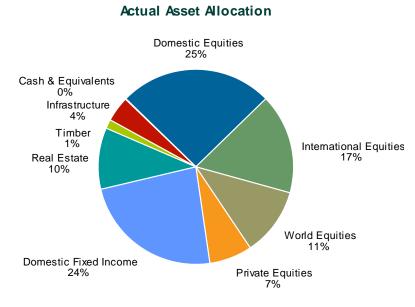




	\$000s	Weight		Percent	\$000s
Asset Class	Actual	Actual	Target	Dif f erence	Dif f erence
Domestic Equities	1,830,895	24.4%	22.8%	1.6%	120,371
International Equities	1,180,184	15.7%	15.5%	0.2%	14,293
World Equities	848,023	11.3%	10.0%	1.3%	96,499
Private Equities	563,882	7.5%	8.2%	(0.7%)	(52,453)
Dom. Fixed Income	1,905,246	25.4%	24.5%	0.8%	61,669
Real Estate	735,801	9.8%	10.1%	(0.3%)	(24,891)
Timber	116,553	1.6%	1.6%	0.0%	0
Infrastructure	319,830	4.3%	6.9%	(2.6%)	(197,270)
Cash Equivalents	14,829	0.2%	0.4%	(0.2%)	(18,219)
Total	7,515,243	100.0%	100.0%		. ,

PERS Allocation

As of September 30, 2021

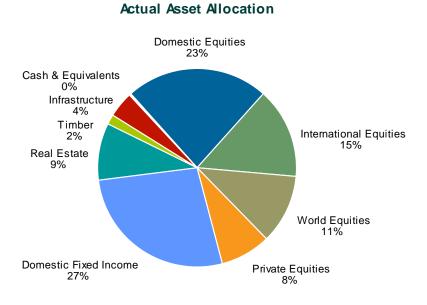


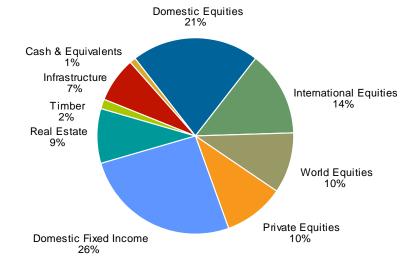
Domestic Equities 24% Infrastructure 7% Timber 1% Real Estate 11% Morld Equities 10% Domestic Fixed Income 23%

	\$000s	Weight		Percent	\$000s
Asset Class	Actual	Actual	Target	Dif f erence	Dif f erence
Domestic Equities	1,019,995	25.4%	24.1%	1.3%	50,422
International Equities	667,744	16.6%	16.9%	(0.3%)	(10,952)
World Equities	456,136	11.3%	10.0%	1.3%	54,117
Private Equities	286,724	7.1%	7.0%	0.1%	5,310
Domestic Fixed Income	950,322	23.6%	23.0%	0.6%	25,679
Real Estate	408,504	10.2%	11.0%	(0.8%)	(33,717)
Timber	58,940	1.5%	1.5%	(0.0%)	0
Infrastructure	166,961	4.2%	6.5%	(2.4%)	(95,715)
Cash & Equivalents	4,863	0.1%	0.0%	0.1%	4,863
Total	4,020,188	100.0%	100.0%		

TFFR Allocation

As of September 30, 2021

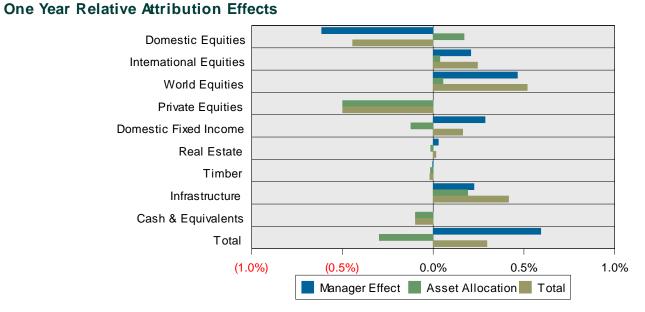




	\$000s	Weight		Percent	\$000s
Asset Class	Actual	Actual	Target	Dif f erence	Dif f erence
Domestic Equities	747,360	23.2%	21.0%	2.2%	70,222
International Equities	477,042	14.8%	14.0%	0.8%	25,617
World Equities	365,048	11.3%	10.0%	1.3%	42,602
Private Equities	264,073	8.2%	10.0%	(1.8%)	(58,374)
Domestic Fixed Income	874,469	27.1%	26.0%	1.1%	36,109
Real Estate	298,599	9.3%	9.0%	0.3%	8,397
Timber	52,611	1.6%	1.6%	(0.0%)	(0)
Infrastructure	136,426	4.2%	7.4%	(3.1%)	(101,165)
Cash & Equivalents	8,836	0.3%	1.0%	(0.7%)	(23,409)
Total	3,224,464	100.0%	100.0%		

PERS Performance and Attribution

As of September 30, 2021



Returns for 1 Year Ended 09/30/2021

Return Type	Return (%)
Gross	21.79%
Net of fees	21.47%
Target	21.50%
Net added	-0.03%

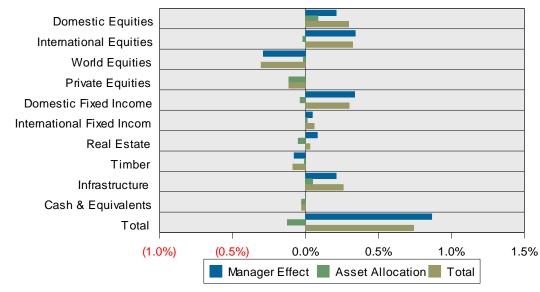
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relativ e Return
Domestic Equities	25%	24%	31.78%	34.80%	(0.61%)	0.17%	(0.44%)
International Equities	17%	16%	25.88%	24.56%	0.21%	0.04%	0.24%
World Equities	13%	11%	31.95%	28.82%	0.46%	0.05%	0.52%
Private Équities	5%	7%	57.42%	57.42%	0.00%	(0.50%)	(0.50%)
Domestic Fixed Incon	ne 23%	23%	3.74%	2.68%	0.29%	(0.12%)	0.16%
Real Estate	10%	11%	12.41%	12.15%	0.03%	(0.01%)	0.02%
Timber	2%	2%	4.87%	5.01%	(0.00%)	(0.02%)	(0.02%)
Infrastructure	4%	6%	14.20%	10.02%	0.23%	0.19%	0.42%
Cash & Equivalents	1%	0%	0.08%	0.08%	0.00%	(0.10%)	<u>(0.10%)</u>
Total			21.79% =	21.50%	+ 0.59% +	(0.30%)	0.30%

PERS Performance and Attribution

As of September 30, 2021

Five Year Annualized Relative Attribution Effects



Returns for 5 Years Ended 09/30/2021

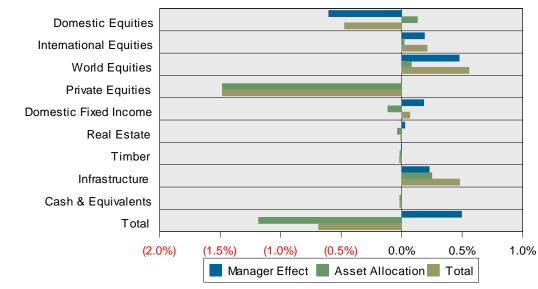
Return Type	Return (%)
Gross	10.89%
Net of fees	10.62%
Target	10.15%
Net added	0.47%

Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	17.37%	16.34%	0.21%	0.09%	0.30%
International Equities	16%	15%	11.20%	9.03%	0.34%	(0.02%)	0.32%
World Equities	16%	15%	11.73%	13.74%	(0.29%)	(0.02%)	(0.30%)
Private Equities	4%	7%	15.01%	15.01%	0.00%	(0.11%)	(0.11%)
Domestic Fixed Income	22%	22%	5.57%	4.02%	0.34%	(0.04%)	0.30%
International Fixed Incom	1%	1%	-	-	0.05%	0.01%	0.06%
Real Estate	11%	11%	7.55%	6.84%	0.08%	(0.05%)	0.03%
Timber	2%	2%	0.48%	2.90%	(0.08%)	(0.01%)	(0.09%)
Infrastructure	5%	6%	8.40%	3.99%	0.21%	0.05%	0.26%
Cash & Equivalents	1%	0%	1.20%	1.20%	0.00%	(0.03%)	(0.03%)
Total			10.89% =	10.15% +	- 0.87% +	(0.12%)	0.74%

TFFR Performance and Attribution

As of September 30, 2021



One Year Relative Attribution Effects

Returns for 1 Year Ended 09/30/2021

Return Type	Return (%)
Gross	21.39%
Net of fees	21.09%
Target	22.08%
Net added	-0.99%

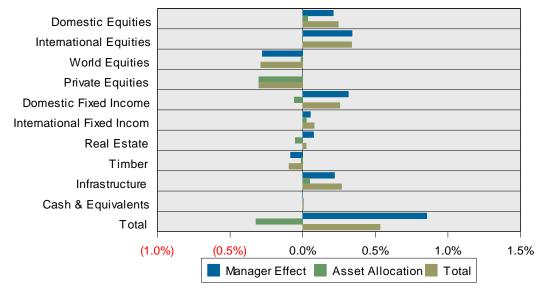
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relativ e Return
Domestic Equities	23%	21%	31.75%	34.69%	(0.60%)	0.13%	(0.47%)
International Equities	15%	14%	25.91%	24.51%	0.19%	0.02%	0.21%
World Equities	13%	11%	31.96%	28.82%	0.48%	0.08%	0.56%
Private Équities	6%	9%	57.44%	57.44%	0.00%	(1.48%)	(1.48%)
Domestic Fixed Incom	ne 26%	25%	3.26%	2.71%	0.18%	(0.11%)	0.07%
Real Estate	9%	9%	12.40%	12.15%	0.03%	(0.04%)	(0.01%)
Timber	2%	2%	4.87%	5.01%	(0.00%)	(0.02%)	(0.02%)
Infrastructure	4%	7%	14.20%	10.02%	0.23%	0.25%	0.48%
Cash & Equivalents	1%	1%	0.08%	0.07%	0.00%	(0.02%)	(0.02%)
Total			21.39% =	= 22.08%	+ 0.50% +	(1.18%)	(0.69%)

TFFR Performance and Attribution

As of September 30, 2021

Five Year Annualized Relative Attribution Effects



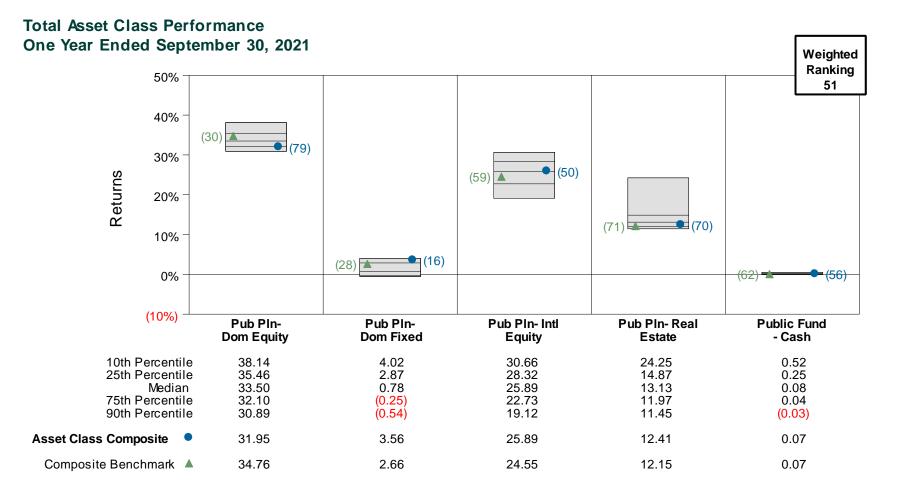
Returns for 5 Years Ended 09/30/2021

Return Type	Return (%)
Gross	10.77%
Net of fees	10.51%
Target	10.23%
Net added	0.28%

Five Year Annualized Relative Attribution Effects

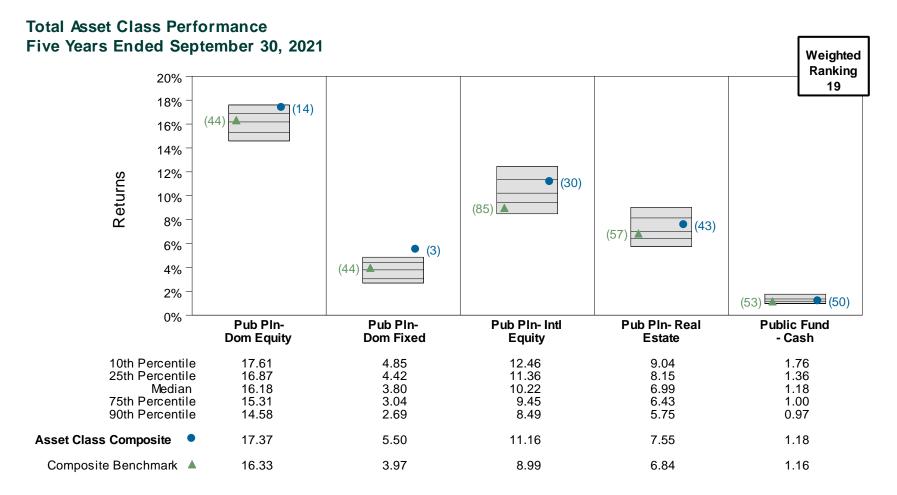
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	17.40%	16.37%	0.21%	0.04%	0.25%
International Equities	15%	14%	11.13%	8.93%	0.34%	(0.00%)	0.34%
World Equities	16%	15%	11.73%	13.74%	(0.28%)	(0.01%)	(0.29%)
Private Equities	4%	7%	15.00%	15.00%	0.00%	(0.30%)	(0.30%)
Domestic Fixed Income	22%	22%	5.39%	3.93%	0.31%	(0.06%)	0.26%
International Fixed Incom	1%	2%	-	-	0.05%	0.03%	0.08%
Real Estate	10%	10%	7.55%	6.84%	0.08%	(0.05%)	0.02%
Timber	2%	2%	0.48%	2.90%	(0.08%)	(0.01%)	(0.09%)
Infrastructure	5%	6%	8.40%	3.99%	0.22%	0.05%	0.27%
Cash & Equivalents	1%	1%	1.20%	1.16%	0.00%	0.00%	0.01%
Total			10.77% =	10.23% +	+ 0.86% +	(0.32%)	0.53%

Consolidated Pension Trust Asset Class Results vs. Other Public Pension Funds



- Domestic and International Equity allocations continued to drive absolute returns over the trailing 12 months.
- International equity, real estate, and domestic fixed income outperformed their respective peer group medians.

Consolidated Pension Trust Asset Class Results vs. Other Public Pension Funds



- All asset classes outperformed their respective benchmarks over the trailing five years.
- All asset classes ranked above median over the trailing five years (except for Cash).

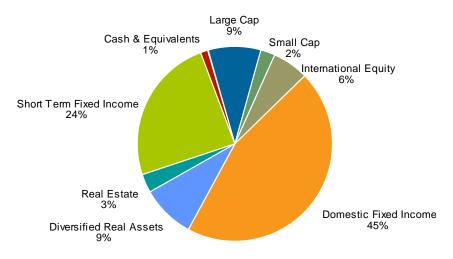
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Consolidated Insurance Trust Quarterly Review

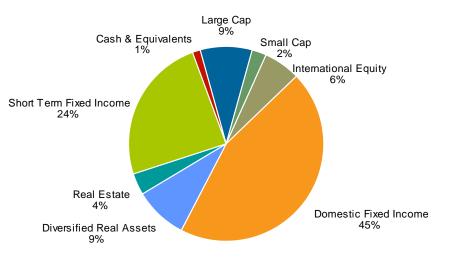
- Workforce Safety and Insurance Legacy Fund
- Budget Stabilization Fund

Consolidated Insurance Trust Allocation

As of September 30, 2021



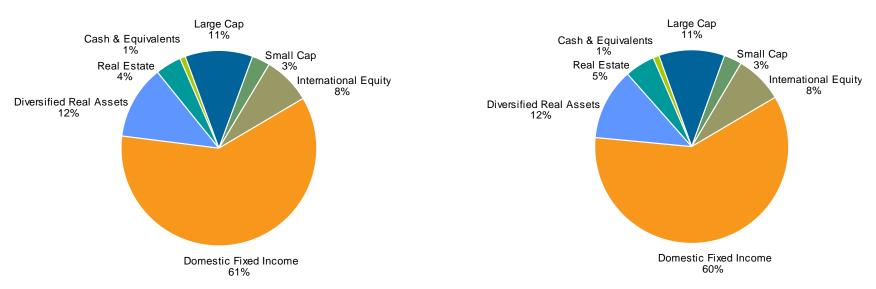
Actual Asset Allocation



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	277,264	8.7%	8.6%	0.1%	3,938
Small Cap	77,743	2.4%	2.4%	0.0%	33
International Equity	192,337	6.0%	6.1%	(0.1%)	(2,891)
Domestic Fixed Income	1,443,303	45.2%	44.8%	0.4%	11,688
Diversified Real Assets	285,718	8.9%	8.8%	0.1%	4,644
Real Estate	100,109	3.1%	3.6%	(0.5%)	(15,205)
Short Term Fixed Income	779,676	24.4%	24.4%	0.0%	0
Cash & Equivalents	38,891	1.2%	1.3%	(0.1%)	(2,207)
Total	3,195,041	100.0%	100.0%		

WSI Allocation

As of September 30, 2021



Actual Asset Allocation

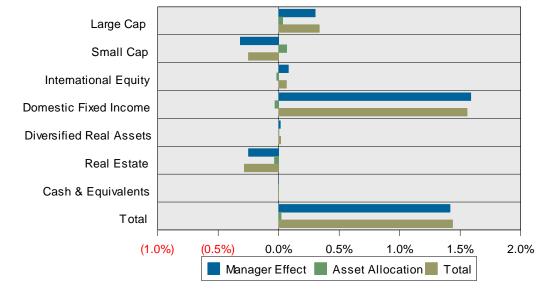
	\$000s	Weight		Percent	\$000s
Asset Class	Actual	Actual	Target	Difference	Dif f erence
Large Cap	257,151	11.2%	11.0%	0.2%	3,936
Small Cap	69,078	3.0%	3.0%	0.0%	19
International Equity	181,375	7.9%	8.0%	(0.1%)	(2,782)
Domestic Fixed Income	1,392,811	60.5%	60.0%	0.5%	11,636
Diversified Real Assets	280,861	12.2%	12.0%	0.2%	4,626
Real Estate	99,893	4.3%	5.0%	(0.7%)	(15,205)
Cash & Equivalents	20,789	0.9%	1.0%	(0.1%)	(2,230)
Total	2,301,959	100.0%	100.0%	•	

Target Asset Allocation

Callan Knowledge. Experience. Integrity.

WSI Performance and Attribution

As of September 30, 2021



One Year Relative Attribution Effects

Returns for 1 Year Ended 09/30/2021

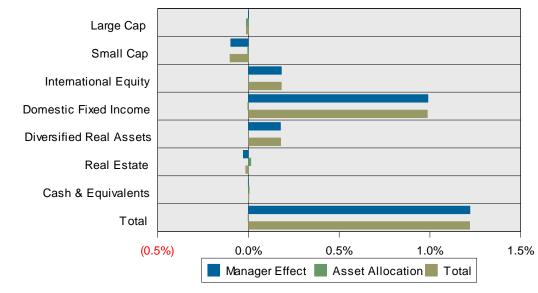
Return Type	Return (%)
Gross	8.67%
Net of fees	8.45%
Target	7.23%
Net added	1.22%

One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	34.21%	30.96%	0.30%	0.03%	0.34%
Small Cap	3%	3%	35.98%	47.68%	(0.32%)	0.07%	(0.25%)
International Equity	8%	8%	27.81%	26.50%	0.08%	(0.02%)	0.07%
Domestic Fixed Incor	ne 60%	60%	1.58%	(0.90%)	1.59%	(0.03%)	1.56%
Diversified Real Asse	ets 12%	12%	6.01%	` 5.87%´	0.01%	0.00%	0.02%
Real Estate	4%	5%	6.31%	12.15%	(0.25%)	(0.04%)	(0.28%)
Cash & Equivalents	1%	1%	0.04%	0.07%	(0.00%)	(0.00%)	(0.00%)
Total			8.67% =	7.23%	+ 1.42% +	0.02%	1.44%

WSI Performance and Attribution

As of September 30, 2021



Five Year Annualized Relative Attribution Effects

Returns for 5 Years Ended 09/30/2021

Return Type	Return (%)
Gross	7.24%
Net of fees	7.04%
Target	6.02%
Net added	1.02%

Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	17.01%	17.11%	0.00%	(0.01%)	(0.01%)
Small Cap	3%	3%	10.44%	13.45%	(0.10%)	(0.00%)	(0.10%)
International Equity	8%	8%	10.92%	8.88%	0.18%	(0.00%)	0.18%
Domestic Fixed Incom	e 57%	57%	4.73%	2.94%	0.99%	(0.00%)	0.99%
Diversified Real Asset	s 13%	13%	5.58%	4.28%	0.18%	0.00%	0.18%
Real Estate	6%	5%	5.81%	6.84%	(0.03%)	0.01%	(0.01%)
Cash & Equivalents	1%	1%	1.04%	1.16%	(0.00%)	0.00%	0.00%
Total			7.24% =	6.02%	+ 1.22% +	(0.00%)	1.22%

Budget Stabilization Fund Allocation

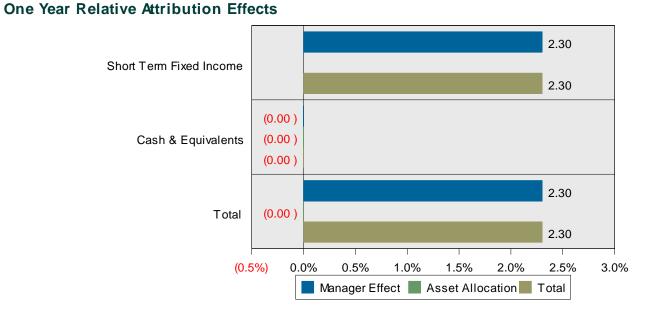
As of September 30, 2021



	\$000s	Weight		Percent	\$000s
Asset Class	Actual	Actual	Target	Dif f erence	Difference
Short Term Fixed Income	743,525	99.0%	99.0%	(0.0%)	(34)
Cash & Equivalents	7,773	1.0%	1.0%	0.0%	34
Total	751,298	100.0%	100.0%		

Budget Stabilization Fund Performance and Attribution

As of September 30, 2021



Returns for 1 Year Ended 09/30/2021

Return Type	Return (%)
Gross	2.60%
Net of fees	2.48%
Target	0.30%
Net added	2.18%

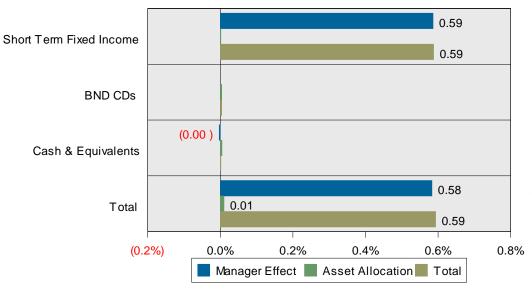
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Inc Cash & Equivalents	ome99% 1%	99% 1%	2.62% 0.04%	0.30% 0.07%	2.30% (0.00%)	0.00% (0.00%)	2.30% (0.00%)
Total			2.60% =	0.30% ·	+ 2.30% +	(0.00%)	2.30%

Budget Stabilization Fund Performance and Attribution

As of September 30, 2021

Five Year Annualized Relative Attribution Effects



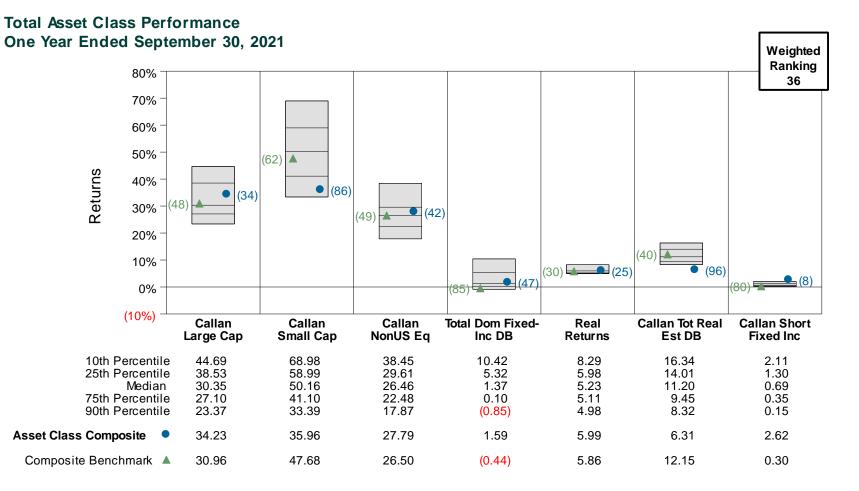
Returns for 5 Years Ended 09/30/2021

Return Type	Return (%)
Gross	2.48%
Net of fees	2.33%
Target	1.89%
Net added	0.44%

Five Year Annualized Relative Attribution Effects

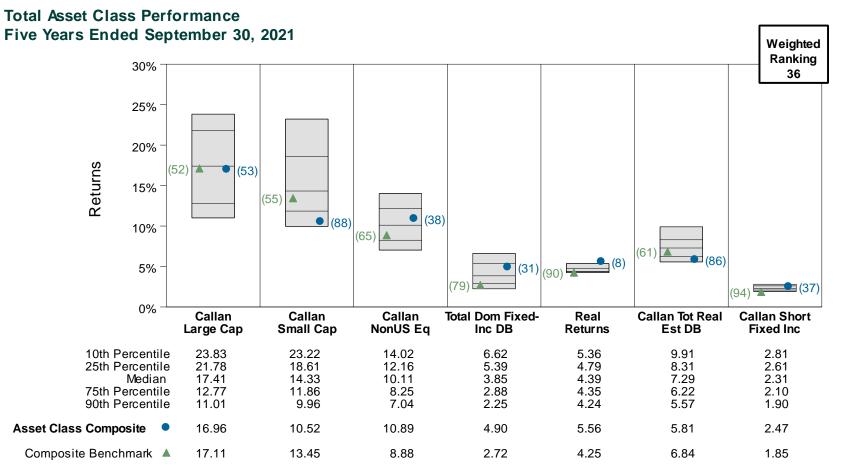
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Inco		96%	2.46%	1.85%	0.59%	0.00%	0.59%
BND CDs Cash & Equivalents	2% 3%	2% 3%	- 1.03%	- 1.16%	0.00% (0.00%)	0.00% 0.00%	0.00% 0.00%
Total			2.48% =	1.89% +	0.58% +	0.01%	0.59%

Consolidated Insurance Trust Asset Class Results vs. Callan Style Groups



- U.S. Small Cap Equity and Real Estate trailed the composite benchmark over the trailing year with all other asset classes outperforming.
- Small cap equity performed in the bottom quartile, while real estate also performed in the bottom decile.

Consolidated Insurance Trust Asset Class Results vs. Callan Style Groups



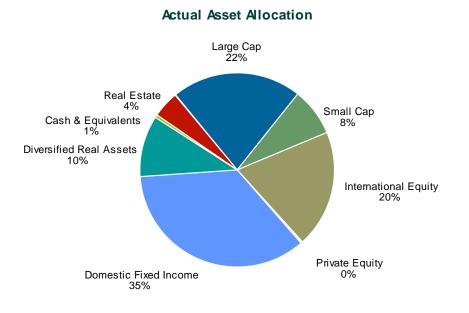
- U.S. Small Cap Equity has trailed the benchmark over the trailing 5-year period, as has the Real Estate portfolio. Fixed Income, International Equity, and Real Returns have outpaced the benchmark.
- Small Cap and Real Estate rank in the bottom quartile over the period. Large Cap equity is near median, while all other strategies are above median. Real Returns ranks in the top decile.



Legacy Fund Quarterly Review

Legacy Fund Allocation

As of September 30, 2021



Large Cap 22% Real Estate 5% Diversified Real Assets 10% Domestic Fixed Income 35%

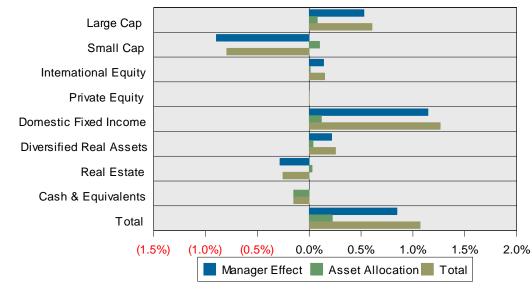
Target Asset Allocation

Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	1,790,586	21.6%	22.0%	(0.4%)	(31,366)
Small Cap	663,616	8.0%	8.0%	0.0%	1,087
International Equity	1,620,857	19.6%	20.0%	(0.4%)	(35,463)
Private Equity	25,631	0.3%	0.0%	0.3%	25,631
Domestic Fixed Income	2,925,185	35.3%	35.0%	0.3%	26,624
Diversified Real Assets	847,204	10.2%	10.0%	0.2%	19,043
Cash & Equivalents	43,999	0.5%	0.0%	0.5%	43,999
Real Estate	364,525	4.4%	5.0%	(0.6%)	(49,556)
Total	8,281,603	100.0%	100.0%		

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Legacy Performance and Attribution

As of September 30, 2021



One Year Relative Attribution Effects

Returns for 1 Year Ended 09/30/2021

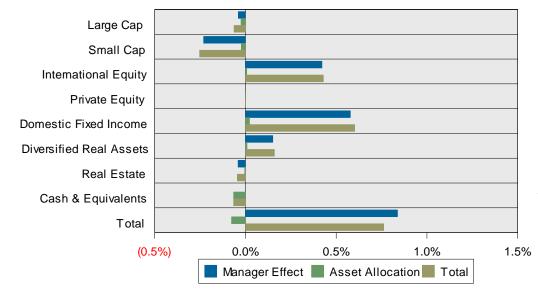
Return Type	Return (%)
Gross	17.31%
Net of fees	17.04%
Target	16.24%
Net added	0.80%

One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relativ e Return
Large Cap	23%	22%	33.58%	30.96%	0.53%	0.08%	0.61%
Small Cap	8%	8%	35.71%	47.68%	(0.90%)	0.10%	(0.80%)
International Equity	20%	20%	27.29%	26.50%	0.14%	0.01%	0.15%
Private Equity	0%	0%	11.59%	11.59%	0.00%	0.00%	0.00%
Domestic Fixed Incom		35%	2.09%	(0.90%)	1.15%	0.12%	1.26%
Diversified Real Asset		10%	9.15%	6.84%	0.22%	0.04%	0.25%
Real Estate	4%	5%	6.23%	12.15%	(0.28%)	0.03%	(0.25%)
Cash & Equivalents	1%	0%	0.04%	0.04%	0.00%	(0.15%)	<u>(0.15%)</u>
Total			17.31% =	16.23% -	+ 0.85% +	0.22%	1.07%

Legacy Performance and Attribution

As of September 30, 2021



Five Year Annualized Relative Attribution Effects

Returns for 5 Years Ended 09/30/2021

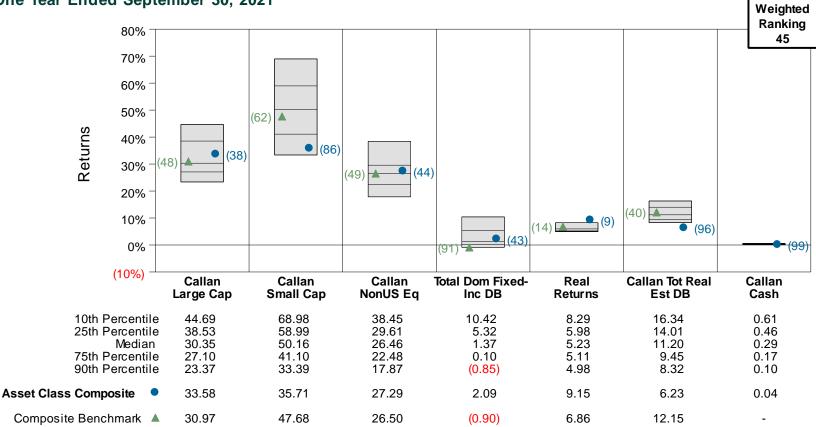
Return Type	Return (%)
Gross	9.44%
Net of fees	9.22%
Target	8.68%
Net added	0.54%

Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relativ e Return
Large Cap Small Cap	22% 8%	22% 8%	16.87% 10.75%	17.11% 13.45%	(0.04%) (0.23%)	(0.02%) (0.02%)	(0.06%) (0.25%)
International Equity	20%	20%	10.75%	8.88%	0.42%	0.01%	0.43%
Private Equity Domestic Fixed Income	0% e 35%	0% 35%	- 4.70%	- 2.94%	0.00% 0.58%	0.00% 0.02%	0.00% 0.60%
Diversified Real Assets	s 10%	10%	5.75%	4.17%	0.15%	0.01%	0.16%
Real Estate Cash & Equivalents	5% 1%	5% 0%	5.76% 1.03%	6.84% 1.03%	<mark>(0.04%)</mark> 0.00%	(0.00%) (0.07%)	(0.04%) _(0.07%)
Total			9.44% =	8.68%	+ 0.84% +	(0.08%)	0.76%

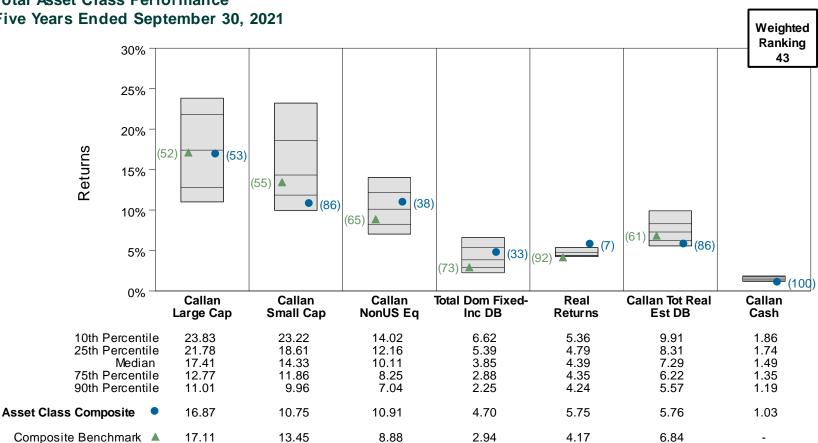
Legacy Fund Asset Class Results vs. Callan Style Groups





- U.S. SC Equity significantly underperformed the benchmark. Real Estate also underperformed. Fixed Income outperformed, as did Non-U.S. Equity and U.S. LC Equity.
- U.S SC Equity ranked in the bottom quartile among peers and Real Estate ranked in the bottom decile, while all other asset class outperformed their respective median manager.

Legacy Fund Asset Class Results vs. Callan Style Groups



Total Asset Class Performance Five Years Ended September 30, 2021

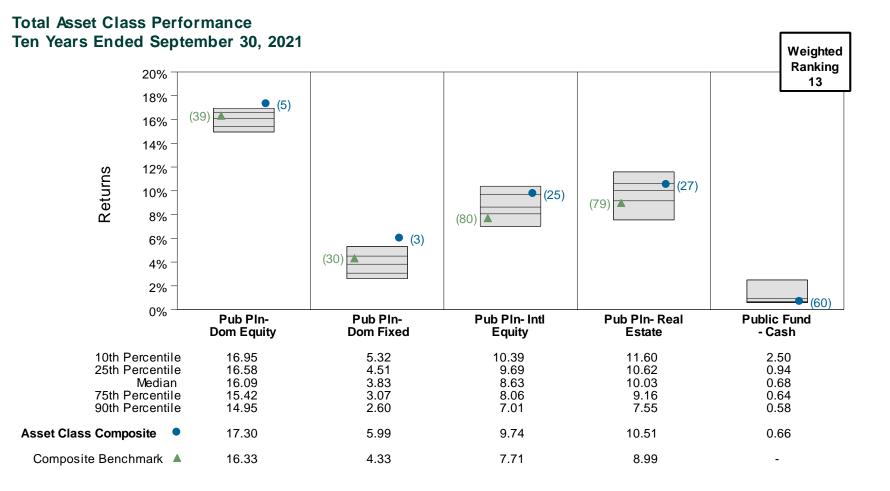
- Non-U.S. Equities, Domestic Fixed Income, and Real Returns all beat their respective benchmarks over the past five years.
- Real Returns ranked in the top decile, while Non-U.S. Equity and Fixed Income ranked above median.

Callan

Appendix A

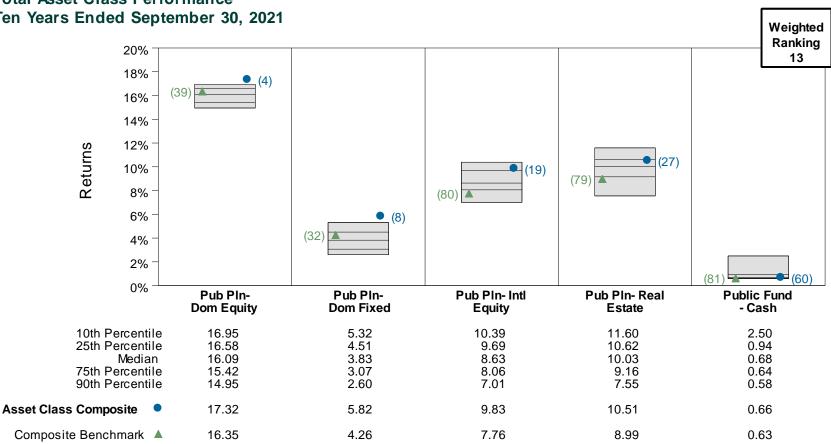
Consolidated Asset Class Rankings

PERS' Asset Class Results vs. Other Public Pension Funds



- All asset classes have outperformed their benchmarks and all asset classes except for Real Estate performed in the top quartile over the last 10 years (excluding cash).
- Domestic Equity and Fixed Income ranked in the top decile over the period.

TFFR's Asset Class Results vs. Other Public Pension Funds



Total Asset Class Performance Ten Years Ended September 30, 2021

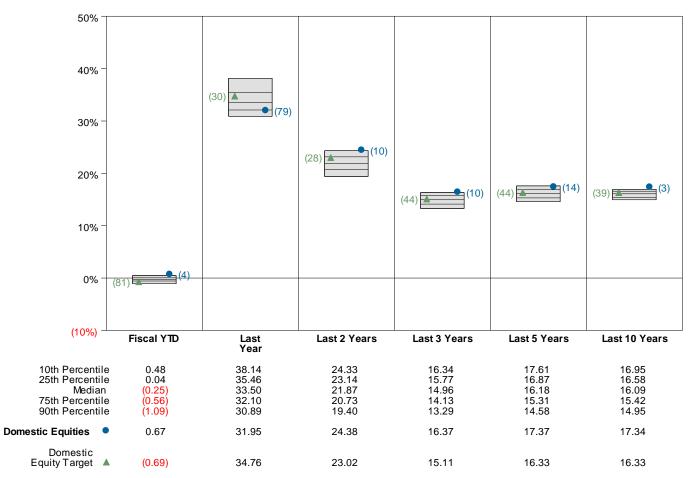
• All asset classes have outperformed their benchmarks over the last 10 years.

• U.S. Equity, Fixed Income, and International Equity all ranked in the top quartile.

Consolidated Pension Trust: Domestic Equity

As of September 30, 2021

Performance vs Public Fund - Domestic Equity (Gross)



- The Domestic Equity composite underperformed the benchmark over the one-year period, but has outperformed over longer horizons.
- NDSIB's Domestic Equity portfolio has a meaningful growth tilt versus other Public Pension Funds.

Consolidated Pension Trust: International Equity

As of September 30, 2021

Performance vs Public Fund - International Equity (Gross)



• NDSIB's International Equity outperformed the benchmark over all measured periods.

• The portfolio has performed in the top quartile over the ten-year period and above median in all measured periods.

• NDSIB's international equity portfolio also benefits from a growth tilt versus other Public Pension Funds.

Consolidated Insurance Trust: Large Cap Equity

As of September 30, 2021

Performance vs Callan Large Capitalization (Gross)

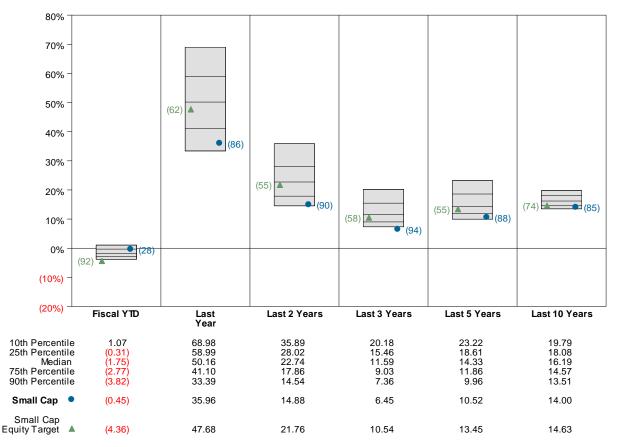


• The portfolio has generally performed near the median among peer composites.

Consolidated Insurance Trust: Small Cap Equity

As of September 30, 2021

Performance vs Callan Small Capitalization (Gross)

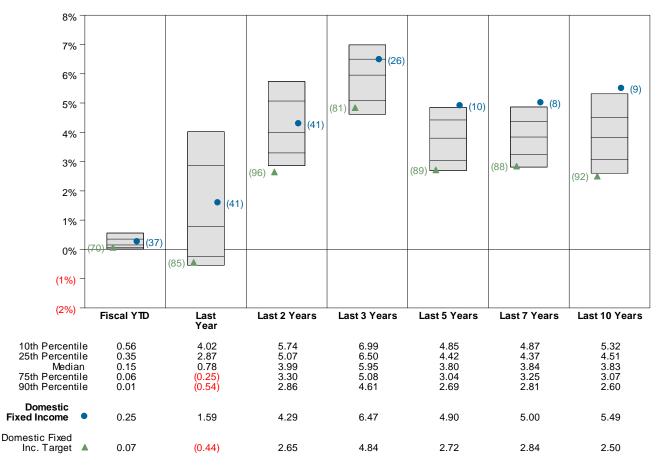


• The asset class underperformed the benchmark over all periods greater than last quarter.

Consolidated Insurance Trust: Domestic Fixed Income

As of September 30, 2021

Performance vs Public Fund - Domestic Fixed (Gross)



• The asset class outperformed the target over all measured periods.

• The domestic fixed income asset class ranked in the top decile for the five, seven, and ten-year periods. The asset class is above median for all periods.

How Can Trustees Make Use of Performance Evaluation Data?

Conclusions and observations

- 1. Are the Plan's assets invested as outlined in the Plan's Investment Policy Statement?
 - Each of the Trust's asset allocation were within policy ranges as of September 30, 2021
- 2. Are the Plan's cash flows being managed consistent with the Plan's strategic asset allocation policy?
 - Each of the Trust's cash flows were managed to rebalance towards strategic targets as of September 30, 2021.
- 3. Is the Plan's performance meeting its strategic objectives?
 - Returns for PERS, TFFR, WSI, Budget Stabilization and Legacy Funds have each exceeded their respective Total Fund benchmarks on a net-of-fee basis for the trailing five-year period ended September 30, 2021.
 - The small cap equity allocation within the Pension, Insurance, and Legacy has underperformed benchmark over most cumulative periods ended September 30, 2021. Two small cap managers were terminated due to performance concerns and were replaced by new firms (Riverbridge and Sycamore) within the last year.
- 4. Are the fees paid to managers reasonable given the competitive landscape and given the value delivered?
 - Total Fund net-of-fee results exceed benchmark.
- 5. Are any corrective steps necessary to bring the Plan back into compliance with long-term objectives?
 - As of September 30, 2021, no specific action steps are recommended as the Plans are meeting objectives.

Callan Update

Published Research Highlights from 3Q21

Comparing Actuarial and Consultant Rates of Return



The Role of Target Date Funds in Retirement



Infrastructure and Real Estate Debt in Portfolios



Research Café: Property Technology



Recent Blog Posts

GPs Take	Seeking Yield in	PCE vs. CPI:
'Credit'for	All the Right	What's the
Higher IRRs	Places	Difference?
Jonathan Farr	Nathan Wong	Fanglue Zhou

Additional Reading

Private Equity Trends quarterly newsletter Active vs. Passive quarterly charts Capital Markets Review quarterly newsletter Monthly Updates to the Periodic Table Market Pulse Flipbook quarterly markets update

Callan Institute Events

Upcoming conferences, workshops, and webinars

Callan College

Intro to Investments - Learn the Fundamentals

This course is for institutional investors, including trustees and staff members of nonprofits, and public and corporate funds. This session familiarizes trustees and staff with basic investment theory, terminology, and practices.

Join our next LIVE session in Chicago (1.5-day session):

December 1-2, 2021

Introductory Workshop for DC Plan Fiduciaries

This one-day workshop centers on the fundamentals of administering a defined contribution (DC) plan. Designed primarily for ERISA fiduciaries and supporting staff members, attendees will gain a better understanding of the key responsibilities of an ERISA fiduciary and best practices for executing those responsibilities.

Join our LIVE session in San Francisco:

March 23, 2022

Mark Your Calendar

2022 National Conference

April 25-27, 2022, in San Francisco Palace Hotel 2 New Montgomery St, San Francisco, CA 94105

Watch your email for further details and an invitation.

Webinars

Research Café: DOL Cybersecurity Tips Nov. 10, 2021 – 9:30am (PT)

Research Café: Dissecting the Overlap Between Listed Real Assets Categories and Benchmarks

Dec. 8, 2021 – 9:30am (PT)

Market Intelligence

Jan. 22, 2022 – 9:30am (PT)

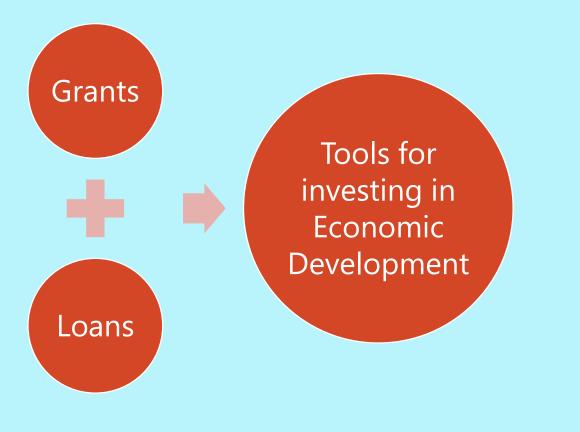
STATE INVESTMENT BOARD RETIREMENT & INVESTMENT OFFICE IN-STATE PROGRAM ROLL-OUT



Be Legendary.

LEGACY FUND "INVESTMENTS" – DEFINING THE OBJECTIVE.

Economic Development



Financial Markets



KEY COMPONENTS OF H.B. 1425

Manager Preference

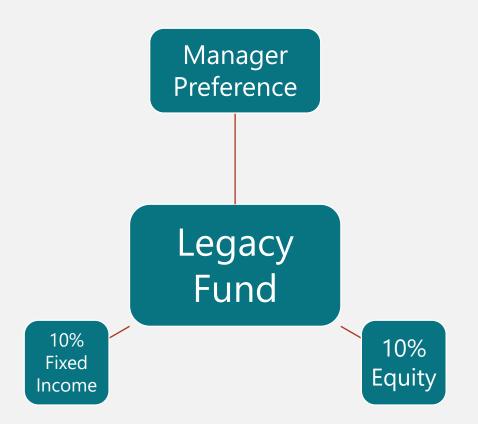
• Develop a preference program for in-state managers

10% Equity

- At least 3% private markets focus (50 South)
- Remainder of equity program likely invested in private markets given limited public equity opportunities

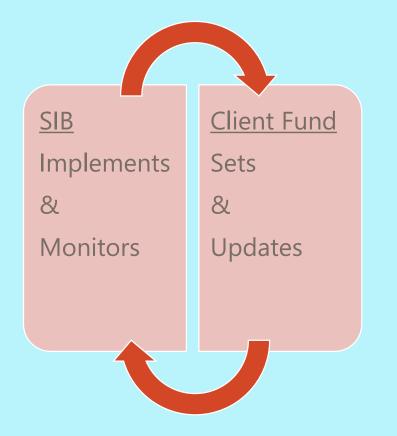
10% Fixed Income

- 40% infrastructure loans with 1.5% return
- 60% BND match loans with yields equivalent to comparable treasuries



ASSET ALLOCATIONS

Process

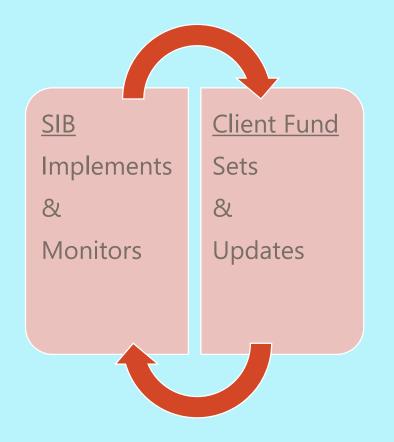


NDCC 21-10-02.1

- The governing body of each fund... shall establish policies on investment goals and objectives and asset allocation for each respective fund..
- The asset allocation and any subsequent allocation changes for each fund must be approved by the governing body of that fund and the state investment board.

S.B. 2291 - FACTORS

Process



N.D.C.C. 21-10-08.1

- As used in this section, "social investment" means the consideration of socially responsible criteria in the investment or commitment of public funds for the purpose of obtaining an effect other than a maximized return to the state.
- 2. Except as otherwise provided in a state investment policy relating to the investment of the legacy fund and unless the state investment board can demonstrate a social investment would provide an equivalent or superior rate of return compared to a similar investment that is not a social investment and has a similar time horizon and risk, the state investment board may not invest state funds for the purpose of social investment.

ASSET ALLOCATION STUDY – WHY NOW?

Staff recommends conducting an asset allocation study to address key issues:

- Determine allocation targets of the 80% non-in-state portion of the Legacy Fund to meet expected biennial earnings and account for lower returning assets in the In-State Fixed Income Program
- Ascertain maximum amount of illiquid strategies in the Legacy Fund
- Adjust allocation targets to existing illiquid strategies if necessary
- Establish a pacing schedule for the In-State Equity Program
- Determine appropriate investment guidelines for the entire In-State Equity Program.
- Directed by H.B. 1425 and S.B. 2291.

NEXT STEPS

Advisory Board Directs Study

Client Fund must vote to perform Study.
Voted 10-28-21.

Advisory Board Selects Consultant

•RIO researches consultant capabilities. RIO & Procurement collaborate to issue RFP. Client selects.

RIO Coordinates Efforts

•Work with Consultant and Advisory Board to develop allocation targets and guidelines.

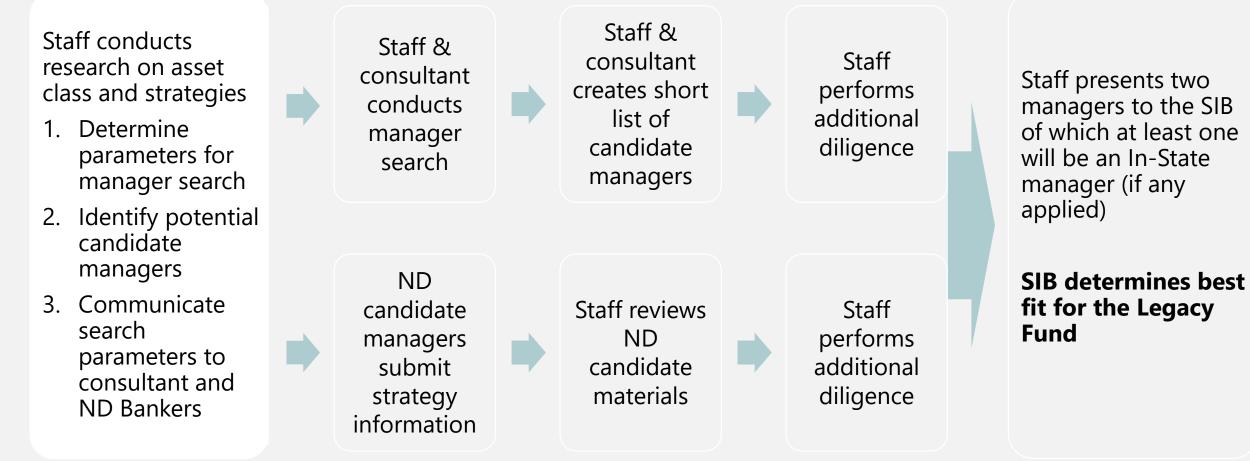
LEGACY FUND – TIMELINE PERSPECTIVE

First Asset Allocation Timeline

2011	 Sept First Deposit Dec Advisory Board directed asset allocation 100% in short term bonds.
2012	 Aug Advisory Board directs new asset allocation study. Sept R.V. Kuhn hired. Nov Study begins & consultant meets with Advisory Board.
2013	 April - Final study presentation & Advisory Board approved new Asset Allocation. Aug RIO begins implementation.

MANAGER PREFERENCE PROGRAM

Staff conducts two separate searches to implement the In-State Preference Program





RIO STAFFING

Contingent on Legislature

- CIO –Search Committee Narrows Candidate Pool.
- Personnel Board approves CRO for unclassified status.
- CRO Final Interview.
- 6 New FTEs granted.

November

December

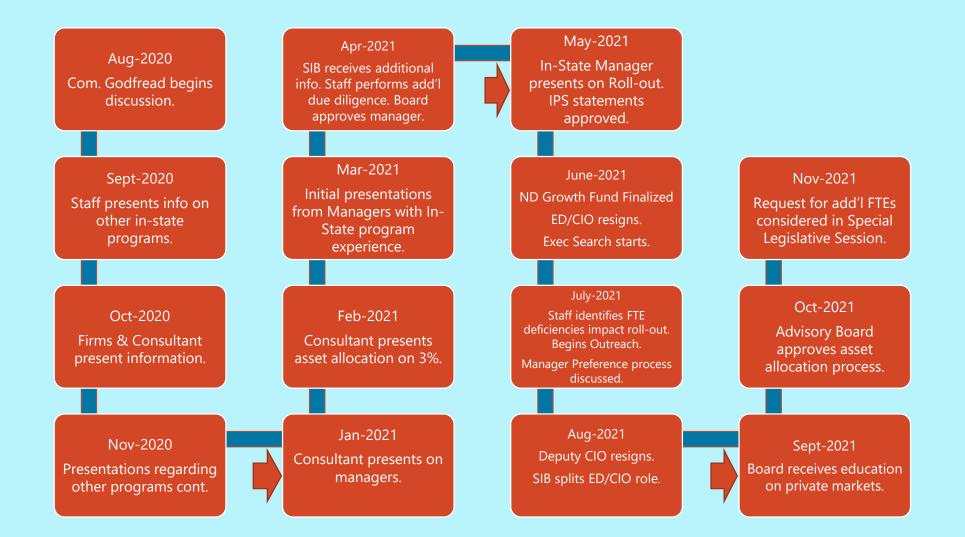
- Search Committee conducts Initial CIO Interviews.
- SIB Conducts Final CIO Interviews.
- CRO starts.
- RIO Staff work w/ HRMS to classify & post new FTEs.

• CIO Starts.

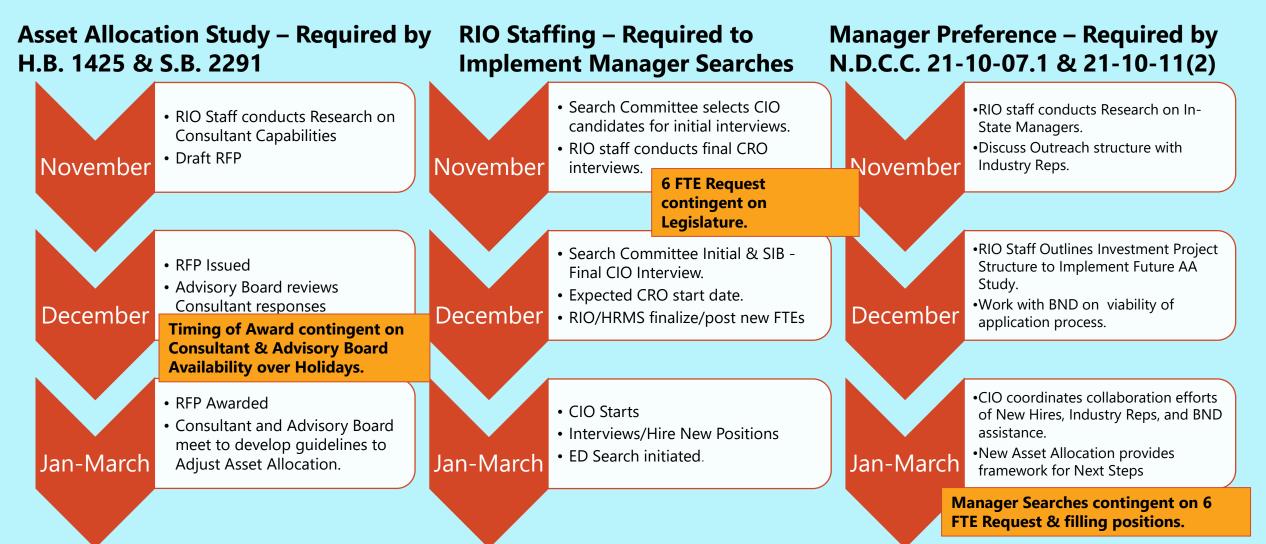
- New FTEs Interviewed/Hired.
- ED Search Initiated.

January-March

IN-STATE PROGRAM ROLLOUT BEGINS AUGUST 2020 – NOVEMBER 2021



IN-STATE PROGRAM ROLLOUT CONTINUES



STATE INVESTMENT BOARD RETIREMENT & INVESTMENT OFFICE IN-STATE PROGRAM & OTHER



Be Legendary.

NEXT STEPS FOR IN-STATE EQUITY

Define Scope of Search for Consultant(s)

• Evaluate consultants capabilities

• Identify key deliverables for study

Develop/Issue RFP & Select Consultant(s) Staff collaborates with Legacy Advisory Board to select consultant(s)

	Conduct asset allocation study & define investment policy for In-State Equity	 Concentration li in-state equity Economic impact 	ns for 80% non-in-state component imits (sector, asset class, etc.) for it measures and objectives mence formal manager searches
		Conduct Manager Searches	 Staff works with Private Markets/In-State consultant to identify managers

CONSULTANT OUTREACH

Three broad categories of consulting firms:

General Consultants

- Large firms that provide a variety of investment services from strategic planning, performance and risk monitoring, manager evaluation etc.
- Sophisticated team of economists, mathematicians, and actuaries to perform complex asset/liability studies
- Knowledgeable across multiple
 asset classes

Private Markets Specialists

- Core business is focused on private markets or a subset of private markets
- Experts in their asset class from manager selection/evaluation, risk monitoring, to pacing
- Understand the nuances of their asset class from investment diligence, operational diligence, and quantitative measures

In-State Banks

- Boots on the ground knowledge on local business needs & transactions
- Extensive network of North Dakota businesses
- Real-time deal flow from commercial banking business

EVALUATING IN-STATE OPPORTUNITIES Laying down groundwork to deploy capital for the In-State equity program

ND Bankers Association and In-State Banks

- Reaching out to ND Bankers association and In-State banks to ascertain investment capabilities
- Evaluating private markets programs, joint ventures, investments through the banks' financing arms etc.
- In-State consultant capability

Leverage Relationships with Existing Managers

- Fund of funds managers are working with Staff to identify regional or industry focused privates markets managers that may have In-State investment capabilities
- Exploring co-investment programs, joint ventures and separately managed accounts

Identify Strategies to Complement ND Growth Fund

- Staff is researching regional and industry focused private markets managers
- Dedicated Privates Market Investment Officer and Outreach Coordinator will be invaluable to developing RIO's In-State investment capabilities

CHALLENGES TO DEPLOY IN-STATE EQUITY

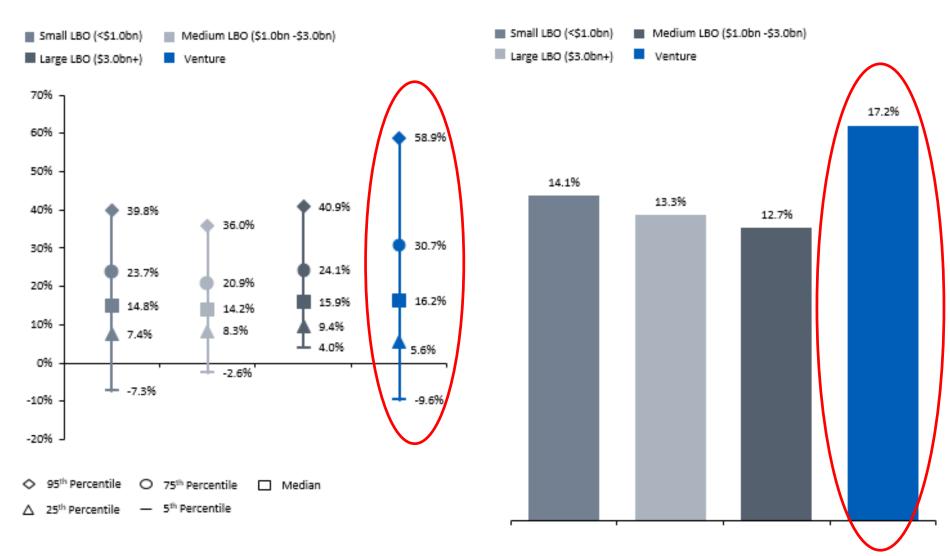
In-State Equity Program must be managed by qualified investment firms, financial institutions or equity funds

- No turn key or off-the-shelf solutions identified to date
- Privates markets manager universe is opaque compared to public markets manager universe—dedicated resources invaluable to identifying managers
- Likely to invest with smaller firms, which often comes with additional business risk. Smaller managers require resource intensive due diligence and vetting
- Private transactions have less information and require specialized expertise

DISPERSION OF RETURNS PE/VC

Dispersion of Burgiss Returns - Net IRR

Aggregate Burgiss Pooled Performance - Net IRR



- Wide dispersion of returns in private equity, notably the widest dispersion is in venture
- Manager selection is essential to perform well in this space

GLOBAL EQUITY UPDATE

Staff continues to review the Global Equity portfolio

- Recent portfolio review with Epoch—Staff believes a change is warranted
- Reviewing options with Callan
 - Staff is conducting initial research on potential replacements for Epoch
 - Identifying parameters for a formal search
 - Considering removing the Global Equity allocation outright as a step to harmonize equity portfolios across the three pools



State Investment Board

RETIREMENT & INVESTMENT

Memorandum

- TO: State Investment Board
- FROM: Connie Flanagan
- DATE: November 3, 2021

RE: New Investment Client – University System Capital Building Fund

Senate Bill 2033 was passed in the 2021 Legislative Session. This bill included language creating the University System Capital Building Fund and indicated the State Board of Higher Education may provide for the fund to be invested under the supervision of the State Investment Board (SIB).

Representatives from the University System have been in contact with staff regarding the process to transfer the assets of the fund to the SIB. The current balance in the fund is approximately \$3.3 million and there will be future appropriations added to the fund over time. However, there is a limit to how long the funds can remain in the fund so the overall balance will likely not increase significantly.

The fund will be used for capital building projects within the University System. In addition to the \$3.3 million current balance, another \$19 million has been appropriated for the 2021-23 biennium. The funds will be used as projects are identified and any excess balance from the current biennium appropriation will be added to the fund. Because of this, it is anticipated that there will be a low risk tolerance and a need for liquidity. RIO staff has determined a full asset allocation study is not necessary and is recommending an asset allocation of 100% short-term bonds and cash within the Insurance Pool.

The University System Budget and Finance Committee will be meeting on November 16 to develop a recommendation for the full Board of Higher Education at their December 9th meeting. Industrial Commission approval is also required for a new contracted investment client. The next meeting of the Industrial Commission is November 30 and this request is tentatively on the agenda.

SIB Governance Policy E-13 generally dictates that the approval process for new investment clients happens in stages over two board meetings. However, because there is not a regular SIB meeting in December, and new clients are only accepted at the end of a quarter, staff is requesting that the **Board approve bringing on this new client on December 31, 2021, contingent upon receiving the final approvals from the Industrial Commission and the Board of Higher Ed**. A draft of the Investment Policy Statement (IPS) is included for reference. The final version will be brought back at the January SIB meeting for final acceptance.

INVESTMENT MANAGEMENT AGREEMENT

This agreement is entered into by and between the North Dakota State Investment Board ("NDSIB") and the North Dakota University System ("Trustee").

WHEREAS, the Trustee desires to retain the NDSIB as its investment manager with respect to the Capital Building Funds("Fund") and the NDSIB desires to provide investment management services to the Trustee as set forth in this agreement;

WHEREAS, the NDSIB is authorized to provide investment management services to, and manage the money of, any agency, institution, or political subdivision of the state, subject to agreement with the Industrial Commission, under North Dakota Century Code (N.D.C.C.) § 21-10-06;

WHEREAS, the Industrial Commission, by resolution dated ______, has given its approval for the NDSIB to provide investment management services to the Trustee;

NOW THEREFORE, in consideration of the covenants to be performed by each party on behalf of the other, as hereinafter set forth, it is understood and AGREED by and between the parties hereto as follows:

SECTION 1: APPOINTMENT OF THE MANAGER.

The Trustee appoints NDSIB as its investment manager.

SECTION 2: POWERS OF THE MANAGER.

NDSIB has complete discretionary authority to allocate the Fund's assets according to the Fund's Statement of Investment Goals, Objectives and Policies (Attachment A) which is attached and incorporated by reference. The governing body of the Fund shall ensure that Attachment A meets the requirements of and follows the procedures set forth in N.D.C.C. § 21-10-02.1. NDSIB will utilize money managers and can delegate discretionary authority to the individual money managers as to selection, retention, and sale of individual securities.

SECTION 3: FUND ACCOUNT.

The NDSIB will establish separate fund accounts on its internal accounting system, and any other accounts with the NDSIB's master custodian as may be appropriate, to maintain separate accounting for the Fund's assets. It is understood that the NDSIB, when investing the Fund's assets, may commingle those assets with other funds under the control of the NDSIB. Separate accounting will be maintained at all times.

The Trustee has the right at any time to make withdrawals from and additions to the fund accounts. Written notice of any withdrawal or addition must be provided to NDSIB prior to the action that is intended to be taken.

All assets will be custodied by the NDSIB's master custodian or such other bank or trust company as is acceptable to the NDSIB. Such custodian shall have physical possession of the assets in the account and is responsible for the safekeeping of the assets. All payments, distributions, and other transactions in cash or securities with respect to the fund account must be delivered promptly to or by the custodian and NDSIB is not responsible or liable with respect to the acts or omissions of the custodian in this regard.

SECTION 4: SERVICE TO OTHER FUNDS.

It is understood that NDSIB may from time to time give advice and take action with respect to other trust funds, which may differ from the advice given or the timing or the nature of action taken with respect to this Fund.

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SECTION 5: <u>RECORDS</u>.

NDSIB will keep accurate books and records relating to its transactions under this agreement including records of all purchase and sale transactions. Confirmations of such transactions are available to the Trustee. NDSIB books and records relating to its transactions are open during regular office hours for inspection. NDSIB will provide reports to the Trustee of its performance and activities under this Agreement according to the schedule set forth on Attachment B and incorporated by reference. The parties understand that all records generated or maintained pursuant to this agreement are subject to North Dakota open records law.

SECTION 6: <u>AUTHORIZED PERSONNEL</u>.

NDSIB will provide the Trustee a written list of NDSIB's employees who are authorized to act under this Agreement which is attached as Attachment C and incorporated by reference. The Trustee will provide NDSIB a written list of individuals authorized to provide written instructions to NDSIB relating to matters contained herein which is attached as Attachment D and incorporated by reference.

SECTION 7: NDSIB STANDARDS.

NDSIB will apply the prudent investor rule in investing for funds under its supervision pursuant to N.D.C.C. § 21-10-07. This means that the NDSIB in making investments 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

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to the permanent disposition of funds, considering probable safety of capital as well as probable income. However, NDSIB may raise any legally available defense for any act or omission of itself or authorized personnel or any agent connected with NDSIB's obligations under this Agreement. In addition to carrying out its fiduciary responsibilities under the prudent investor rule, the NDSIB's fiduciary responsibilities include establishing and implementing policies in accordance with N.D.C.C. § 21-10-02.1 and approving investment regulations or resolutions recommended to it by the investment director pursuant to N.D.C.C. § 21-10-05. Additionally, NDSIB as a statutorily created state agency and fiduciary shall competently perform any duty imposed on it pursuant to N.D.C.C. ch. 21-10 or any other applicable law.

SECTION 8: FEES AND EXPENSES OF MANAGER.

The Fund is responsible for the actual fees attributable to the Fund charged by money managers, the master custodian, consultants, and other professionals pursuant to N.D.C.C. § 21-10-06.2. If the Fund's assets are commingled with other NDSIB funds, such fees will be the Fund's proportional shares of those same fees charged to the NDSIB.

In addition, the Fund will pay to the NDSIB an administrative fee, payable quarterly, based on the Fund's pro rata share of the NDSIB's administrative expenses. A minimum fee of the lesser of 15 basis points of the total market value of the Fund or \$1,000 per year will apply. All fees will be paid directly out of the Fund's assets.

SECTION 9: NOTICES.

Any notice or demand made under the terms of this Agreement must be made in writing and delivered to the addresses set forth as follows:

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a. If to NDSIB at:

North Dakota Retirement and Investment Office 3442 East Century Avenue, P.O. Box 7100 Bismarck, ND 58507-7100

- b. If to the Trustee at: North Dakota University System
 600 East Boulevard Ave Dept 215 Bismarck ND 58505
- c. The above addresses may be changed at any time by written amendment.

SECTION 10: TERM and TERMINATION.

This Agreement will commence on the date by which all necessary signatures have been obtained and continue until terminated. This Agreement may be terminated at any time by either party by giving the other party ninety (90) days written notice of termination or such other shorter notice as may be mutually agreed upon. Termination shall be without prejudice to any obligations or liabilities of either party already accrued prior to the termination.

SECTION 11: MERGER CLAUSE.

This agreement constitutes the entire agreement between the parties. No waiver, consent, modification, or change of terms of this agreement shall bind either party unless in writing and signed by both parties. Such waiver, consent, modification, or change, if made, shall be effective only in the specific instance and for the specific purpose given. There are no understandings, agreements, representations, oral or written, not specified herein regarding this agreement. The parties, by the signature of their authorized representatives,

hereby acknowledge that they have read this agreement, understand it, and agree to be bound by its terms and conditions.

SECTION 12: FORCE MAJEURE

NDSIB shall not be held responsible for delay or default caused by fire, flood, riot, acts of God or war if the event is beyond NDSIB'S reasonable control and NDSIB gives notice to Trustee immediately upon occurrence of the event causing the delay or default or that is reasonably expected to cause a delay or default.

SECTION 13: APPLICABLE LAW AND VENUE

This contract is governed by and construed in accordance with the laws of the State of North Dakota. Any action to enforce this contract must be adjudicated exclusively in the State District Court of Burleigh County, North Dakota.

Effective this ____ day of ____, 2021.

NORTH DAKOTA STATE INVESTMENT BOARD

North Dakota State Board of Higher Education

By:	
-	

Ву:_____

Title:

Title:

LIST OF ATTACHMENTS

Fund's Statement of Investment Goals, Objectives and Policies

Report Listing

NDSIB Authorized Employees List

Trustee Authorized Employees List

Attachment A

Attachment B

Attachment C

Attachment D

Attachment B

NORTH DAKOTA STATE INVESTMENT BOARD REPORTING SERVICES

Reporting services to be provided by the North Dakota State Investment Board to the Trustee will be as follows:

Monthly - Financial Statements - Based on reconciled custodian reports generally available 45 calendar days after the close of the month.

Preliminary Performance Reports - Based on reconciled custodian reports and preliminary manager returns generally available 45 calendar days after the close of the month.

Annually - Copy of North Dakota Retirement and Investment Office's audited annual financial statements as prepared by NDSIB's independent auditor; generally available December 15 for fiscal year ending June 30.

Attachment C

NORTH DAKOTA STATE INVESTMENT BOARD DELEGATION OF AUTHORITY

The following North Dakota Retirement and Investment Office employees are authorized to act under this agreement.

NAME	<u>TITLE</u>	EMAIL/PHONE
Janilyn Murtha	Interim Executive Director	janilynmurtha@nd.gov/701-328-9895
Eric Chin	Interim CIO	echin@nd.gov/701-328-9920
Connie Flanagan	Chief Financial Officer	cflanagan@nd.gov/701-328-9892
Susan Walcker	Senior Financial Accountant	swalcker@nd.gov/701-328-9838
Ann Nagel	Investment Accountant	amnagel@nd.gov/701-328-9883

Attachment D

TRUSTEE DELEGATION OF AUTHORITY

The following employees are authorized to provide written instructions to the North Dakota State Investment Board under this agreement:

<u>Name</u> David Krebsbach	<u>Email/Phone</u> David.krebsbach@no 701-328-4116	<u>Signature</u> lus.edu
Ву:		Effective Date
 Title		
NDUSO Legal Re Date:		

ND UNIVERSITY SYSTEM CAPITAL BUILDING INVESTMENT FUND

INVESTMENT POLICY STATEMENT

1. PLAN CHARACTERISTICS AND FUND CONSTRAINTS

The North Dakota University System (Trustee) has established the Capital Building Fund to support Capital Building projects on a continuing basis for allocations to the institutions under the control of the state board of higher education as directed by the legislative assembly in the accordance of chapter 15-54.1. Any interest or earnings of the fund must be allocated to the capital building fund pool within the university system capital building fund.

The North Dakota University System Capital Building Fund (Fund) will be initially established with a \$3,334,839 investment contribution on DATE: ______ and expects to withdraw as needed within the current biennium. Additional contributions may occur in future years and may potentially alter its investment risk, return and liquidity profile.

2. FUND GOALS

The investment objectives of the Fund reflect a low risk tolerance and short-term liquidity needs. Operating considerations shape the Fund's policies and priorities as outlined below:

Objective #1: Investment income is needed as a funding source. This will be achieved through a diversified portfolio of high quality, short-term fixed income and cash.

Objective #2: Growth of capital is minimal to preserve the real purchasing power of Fund assets as the investment term is not expected to be more than a few years.

Objective #3: Sufficient liquidity must be maintained as the fund will be drawn down over the next few years. Short-term fixed income and cash equivalent investments shall be used to achieve this objective.

3. **RESPONSIBILITIES AND DISCRETION OF THE STATE INVESTMENT CLIENT (SIB)**

The ND University System (Trustee) has entered into a contract with the SIB for investment services as allowed under NDCC 21-10-06. The Trustee is responsible for establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and investing the assets of the Fund in the manner provided in NDCC 21-10-07, the prudent investor rule. Under this rule, 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 Fund must be invested exclusively for the benefit of the members and their beneficiaries in accordance with this investment policy.

Management responsibility for the investment program not assigned to the SIB in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, who must establish written policies for the operation of the investment program, consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria, procedures, and making decisions with respect to hiring, keeping, and terminating money managers. SIB investment responsibility also includes selecting performance measurement services, consultants, report formats, and frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

4. RISK TOLERANCE

The Trustee's risk tolerance with respect to the management of the Fund's asset is low. The Trustee is unwilling to undertake investment strategies that might jeopardize the ability of the Fund to maintain principal value over time.

5. INVESTMENT OBJECTIVES

The Trustee's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB.

- 1. The fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over the investment period of approximately three years.
- 2. The fund's risk, measured by the standard deviation of net returns, should not exceed 1% of the policy benchmark over a minimum evaluation period of three years.
- 3. The risk-adjusted performance of the fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of three years.

6. POLICY ASSET MIX

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 allocation analysis designed to assist the Trustee in determining an acceptable volatility target for the fund and an optimal asset allocation policy mix. This analysis estimates the potential impact of various asset class mixes on key measures of total Fund risk.

After consideration of all the inputs and a discussion concerning risk tolerance, the Trustee approves the appropriate policy asset mix for the Fund.

Asset Class Policy Target(%) Short-Term Fixed Income and Cash 100 While the Trustee recognizes fluctuations in market values will lead to short-term deviations from policy targets, the Trustee does not intend to engage in tactical asset allocation. Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

7. **RESTRICTIONS**

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivatives use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction shall be made which threatens the tax exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the exclusive benefit rule, and it can be substantiated that the investment provides an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, social investing is defined as the consideration of socially responsible criteria in the investment or commitment of public fund money for the purpose of obtaining an effect other than a maximized return to the Fund.

g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Trustee's policy favors investments which will have a positive impact on the economy of North Dakota.

8. INTERNAL CONTROLS

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for investment manager selection and monitoring. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

9. EVALUATION AND REVIEW

Investment management of the Fund will be evaluated against the Fund's investment objectives. Emphasis will be placed on three (or five) year results, if applicable. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

Performance reports will be provided to the Trustee periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including, but not limited to:

- 1. A list of the advisory services managing investments for the SIB.
- 2. A list of investments at market value, compared to previous reporting period, of each account managed by each advisory service.
- 3. Earnings, percentage earned, and change in market value of each account's investments.
- 4. Comparison of the performance of each account managed by each advisory service to other accounts under the SIB's control and to generally accepted market indicators.
- 5. All material legal or legislative proceedings affecting the SIB.
- 6. Compliance with this investment policy statement.

Approved by:

ND UNIVERSITY SYSTEM	STATE INVESTMENT BOARD
Title:	
Date:	Date:
NDUSO Legal Review:	
Date:	

POLICY TITLE: ACCEPTING NEW CLIENTS

NDCC 21-10-06 states "The state investment board may provide investment services to, and manage the money of, any agency, institution, or political subdivision of the state, subject to agreement with the industrial commission. The scope of services to be provided by the state investment board to the agency, institution, or political subdivision must be specified in a written contract. The state investment board may charge a fee for providing investment services and any revenue collected must be deposited in the state retirement and investment fund."

When a request is received by staff from a potential new investor requesting investment services from the State Investment (SIB), the following steps shall be followed.

- 1. Staff will conduct initial discussions with the potential client regarding type of fund, risk tolerance, size of fund, services to be provided, costs, etc.
- 2. Staff will recommend that an Asset/Liability study be conducted by the potential client if one has not been done recently. This discussion will include a description of the asset classes available for investment with the SIB to be included in their study.
- 3. If the potential client is still interested in participating in the SIB program, staff will bring the preliminary request to the SIB for acceptance. It shall be the policy of the SIB to take the following into consideration when determining if a new investor request will be accepted.
 - a. Internal staff administrative capacity.
 - b. Compatibility of new investor's goals and risk tolerances with the existing SIB program structure.
 - c. Whatever other factors the SIB determines to be appropriate to the decision.
- 4. If the SIB chooses to accept the preliminary request, staff will provide the necessary template documents to the potential client for review and completion. These documents include a contract for services and investment guidelines.
- 5. Once documentation is completed, staff will request to have the issue included on the Industrial Commission's agenda for their approval. Copies of all documentation will be provided for their review.
- 6. If approved by the Industrial Commission, final documentation will be presented to the SIB for final acceptance.
- 7. If accepted, staff will work with the new client to set up transfer of funds and implementation of asset allocation as directed. All new clients will be brought in as of the last day of a calendar quarter.
- 8. Fees will be charged with the intention of covering all associated costs as described in RIO Fiscal Management procedure "Investment Fee Allocations".

Policy Implemented: November 20, 2009

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Retirement and Investment

MEMORANDUM

TO:SIBFROM:Jan Murtha, Interim Executive DirectorDATE:November 17, 2021RE:Legislative Special Session Update

The 2021 Special Legislative Session concluded last Friday, November 12, 2021. Following are descriptions of three bills related to RIO operations and the investment program.

H.B. 1506 (Section 16) passed both House and Senate and is pending signature of the Governor. This bill authorized RIO's 6 FTE request and additional budget adjustments. Testimony submitted in support of HB 1506 is attached. The bill may be found at:

https://www.legis.nd.gov/assembly/67-2021/special-session/documents/21-1130-07000.pdf

H.B. 1512 passed both House and Senate and is pending signature of the Governor. This bill expanded the number of Advisory Board members from 7 to 10; increasing legislators from 4 to 6, removing the Director of OMB, and adding the Insurance Commissioner, and State Treasurer. It also added enabling language regarding the development of investment guidelines. The bill may found at:

https://www.legis.nd.gov/assembly/67-2021/special-session/documents/21-1117-03000.pdf

S.B. 2345 passed both House and Senate and is pending signature of the Governor. This bill expanded the list of funds that the SIB is required to invest by statute to include the Water Projects Stabilization Fund. The bill may found at:

https://www.legis.nd.gov/assembly/67-2021/special-session/documents/21-1123-04000.pdf

BOARD INFORMATION ONLY. No board action requested.

Retirement and Investment

NORTH

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MEMORANDUM

TO: Rep. Jeff Delzer, Chairman House Appropriations Committee FROM: Jan Murtha, Interim Executive Director DATE: November 8, 2021 RE: Testimony in Support of H.B. 1506 Section 15 regarding RIO resource needs.

Thank you for the opportunity to appear before you with this appropriation request. The Retirement and Investment Office is responsible for the administration of two programs. The State Investment Board program, which is the focus of this request and which serves 26 government client funds, and the Teachers' Fund for Retirement Program which serves over 20,000 members. The State Investment Board program currently has approximately 19.7 billion dollars in assets under management (AUM) as of August 31, 2021; compared with 4.8 billion AUM in fiscal year 2010. RIO's investment program, has more than quadrupled in just over a decade.

In order to prudently manage, monitor, and rebalance complex investment programs for our clients, in an increasingly risk prone market, and based on comparisons with other public sector investment programs, we seek to dedicate 1 investment professional per 2 to 2.5 billion dollars in AUM. Currently we have 19 allotted FTE's across these two programs, in 2010 we had 17 allotted FTE's. Only 4 of our 19 FTE's are dedicated investment professionals. Of the 4 dedicated investment professionals only 2 of the investment professional positions are filled. The two unfilled investment positions are the Chief Risk Officer and Chief Investment Officer. Initial interviews have been conducted for the Chief Risk Officer, and RIO hopes to complete final interviews in November, 2021 for this position. The SIB is scheduled to conduct final interviews for the Chief Investment Officer(CIO) in December 2021. The final position to fill is that of the Executive Director (ED), and the SIB will undertake filling the ED position subsequent to filling the CIO position. Approval of the agency request during the upcoming special legislative session would provide the new CIO the opportunity to build their investment team at the same time they are asked to build the in-state program.

As the assets under management have increased so too has the complexity of the program, and the need for additional resources will continue to increase so long as the AUM and program complexity increase. Additional investment professionals will be invaluable for managing the larger asset base and navigating the ever challenging markets, which in turn is key to generating excess returns net of fees above the benchmark. The benchmark rate is the returns you expect to receive; excess returns represent the additional dollars earned over what you expected. The 5-year excess returns, so returns above and beyond what was expected from client investments and net of fees, exceeded 500 million dollars.

The implementation of H.B. 1425 introduced substantial additional complexity and demands on resources to the investment program. H.B. 1425 contained three major mandates, developing a

preference program for in-state managers and directing the in state investment of 10% fixed income and 10% equity. The majority if not all of the 10% will be invested in private markets which requires far greater due diligence and monitoring than public equities because of the private long term nature of the investment. To develop the manager preference program, we have reached out and received feedback from our state financial institution associations on how to effectively incorporate in-state managers into the search process. For this preference program to be implemented by the agency and not contracted out to a consultant we require additional resources to dedicate to outreach efforts with stakeholders and staff to perform the review. The positions being requested and how they would be used are outlined in the attached Exhibit. The agency is seeking an appropriation to spend special fund dollars equal to approximately 1% of the average excess returns generated on an annual basis.

Without the ability to add additional staff members to assist with developing the in-state investment program and maintain and grow the current investment portfolios prior to the next biennium, the agency and the State Investment Board will be in the unenviable position of: determining what realistically can be accomplished now, what priorities must wait, what must be simplified, and what can be contracted out to consultants. Staff will endeavor to continue to provide excellent service and diligent care for government client investments, however, without additional resources to support this growing program we are concerned that the agency will fall short of meeting the expectations of our clients, our stakeholders, and the people of North Dakota.

Thank you in advance for your support of this important state program and for your service to the people of North Dakota.



Retirement and Investment

MEMORANDUM

TO:State Investment BoardFROM:Jan MurthaDATE:November 17, 2021RE:Executive Limitations/Staff Relations

Ms. Murtha will provide a verbal update to the SIB on agency efforts to address current and future organizational risk through strategic planning. Including updates on the following topics:

- 1. **Facility Move:** RIO is confirmed to move to the WSI space the week of November 22, 2021. Notice of the move has been added to the RIO website and all staff email signatures.
- 2. Staff Engagement: Attached for your reference is the results of the State Engagement Survey conducted in October of this year. Survey results indicated statistically significant increases in 5 of 12 areas of engagement compared with 2020 survey results; and results exceed the State mean in 11 of 12 categories. These results help to inform future agency team trainings and workshops. WSI has offered to assist RIO with training efforts. One such training facilitated by WSI will be on Crucial Conversations which we hope to schedule in early 2022.

Employee Title	Status
Executive Director	Discussion scheduled 11/21 (CIO search first priority)
Chief Investment Officer	Finalist Interviews Scheduled 12/21
Chief Risk Officer	Finalist Interviews Scheduled 11/21
Contracts/Records Admin	Offer accepted, scheduled to start 11/29/21
Retirement Program	
Admin	Started 11/15/21
Front Desk Temp	Started 10/18/21
Membership Specialist	
Temp	Started 10/18/21; reposted 11/16/21
Employer Reporting Intern	Posted in Fall 2021, reposted for Spring of 2022.
	Authorized by HB 1506 in 2021 Legislative Special Session:
Investment #1	staff is creating JDQ's
	Authorized by HB 1506 in 2021 Legislative Special Session:
Investment #2	staff is creating JDQ's
	Authorized by HB 1506 in 2021 Legislative Special Session:
Investment #3	staff is creating JDQ's
	Authorized by HB 1506 in 2021 Legislative Special Session:
Investment #4	staff is creating JDQ's
	Authorized by HB 1506 in 2021 Legislative Special Session:
Accounting #1	staff is creating JDQ's
	Authorized by HB 1506 in 2021 Legislative Special Session:
Programs Coordinator	staff is creating JDQ's

3. Retirements/Resignations/FTE's/Temporary Assistance:

Item #3 Continued from Page 1: Staff has been diligently attempting to fill vacancies and plan for future positions. As part of this effort Staff requested the State Personnel Board approve declassifying the Chief Risk Officer Position and maintaining the unclassified status of the Deputy Chief Investment Officer Position. The testimony submitted to the State Personnel Board is attached. The State Personnel Board voted to grant RIO's request at its meeting on November 3, 2021.

4. Current Procurement Activities including:

- **PAS Project** The project is in the pre-award contract negotiation stage. The November 2021 PAS Project Update is attached.
- **Temporary Assistance for specialized services** The agency issued an RFP for temporary assistance firms that can provide contract services for additional investment personnel. An award was made to two firms.
- **5. IT Unification**: Unification efforts continue to progress, with both internal and external progress meetings. RIO accepted an invitation to participate in a strategic planning project with ITD, meetings to be scheduled. The agency summary document created for the Kick-Off of this process is attached.

BOARD ACTION REQUESTED: Board Acceptance.

Employee Engagement

ND State EE Engagement Survey - trending - Oct. 2021

Oct 18, 2021 - Oct 31, 2021

Reporting Group: Direct | Agency - 19000



Q¹² Mean

The Gallup Q¹² score represents the average, combined score of the 12 elements that measure employee engagement. Each element has consistently been linked to better business outcomes.



*Sentiment Distribution is not available when n<50

*No topics available when n < 250. 5 topics available when n \ge 250. 10 topics available when n \ge 1000.

*All text analytics are machine generated. Because we use machine learning to generate sentiments, results may not be 100% accurate.

*Percent Engaged available when $n \ge 30$. All categories available when $n \ge 100$.

* - Scores are not available due to data suppression. Respondents can select multiple responses for multi-select questions.

Gallup Q¹² Items Mean Percentile **Company Overall** Rank - Gallup Change Questions Total N Current Mean Last Mean Overall Current Mean 3.69 12 4.00 **+**0.31 46 3.69 Q00: Overall Satisfaction 12 4.084.06 +0.02Q01: Know What's Expected 18 4.19 12 4.33 4.31+0.02Q02: Materials and Equipment 58 4.03 12 3.92 4.00-0.08 3.89 Q03: Opportunity to do Best 31 12 4.17 4.06 +0.11Q04: Recognition 3.41 68 12 4.58 4.19**+**0.39 68 Q05: Cares About Me 4.07 12 4.17 4.00+0.1755 3.75 Q06: Development 12 3.69 4.00**+**0.31 Q07: Opinions Count 54 3.52 12 4.92 4.19 **+**0.73 3.91 Q08: Mission/Purpose 93 12 4.42 4.50 -0.08 3.95 Q09: Committed to Quality 66 11 3.55 3.63 -0.08 Q10: Best Friend 39 3.28 12 +0.144.083.94 Q11: Progress 49 3.69 12 4.42 4.13 +0.2965 3.88 Q12: Learn and Grow

*Not shown if n < 4 for Mean, Top Box, Verbatim Responses, and Sentiment, n < 10 for Frequency, or data is unavailable.

* - Scores are not available due to data suppression. Respondents can select multiple responses for multi-select questions.

Percentile Rank in Gallup Overall Database

< 25th Percentile 25-49th</p>

25-49th Percentile 50-74th Percentile

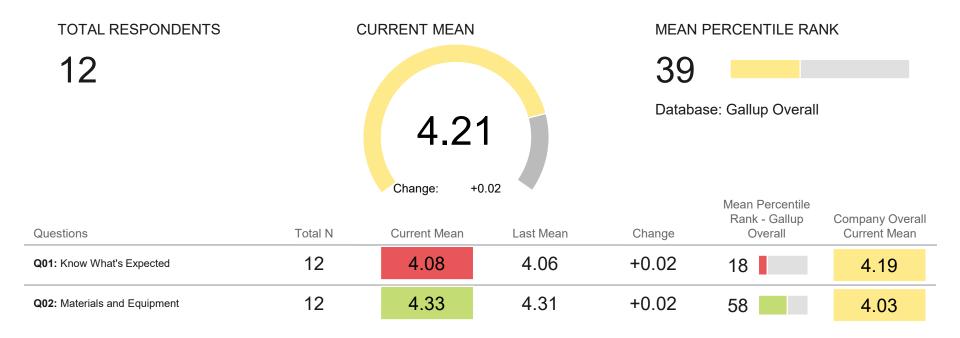
75-89th Percentile

>= 90th Percentile

GALLUP

Basic Needs - What do I get?

Employees need to have a clear understanding of what excellence in their role looks like so they can be successful. Groups with high scores on the first element are more productive, cost-effective, creative and adaptive.



*Not shown if n < 4 for Mean, Top Box, Verbatim Responses, and Sentiment, n < 10 for Frequency, or data is unavailable.

* - Scores are not available due to data suppression. Respondents can select multiple responses for multi-select questions. < 25th Percentile

Percentile Rank in Gallup Overall Database

25-49th Percentile

50-74th Percentile

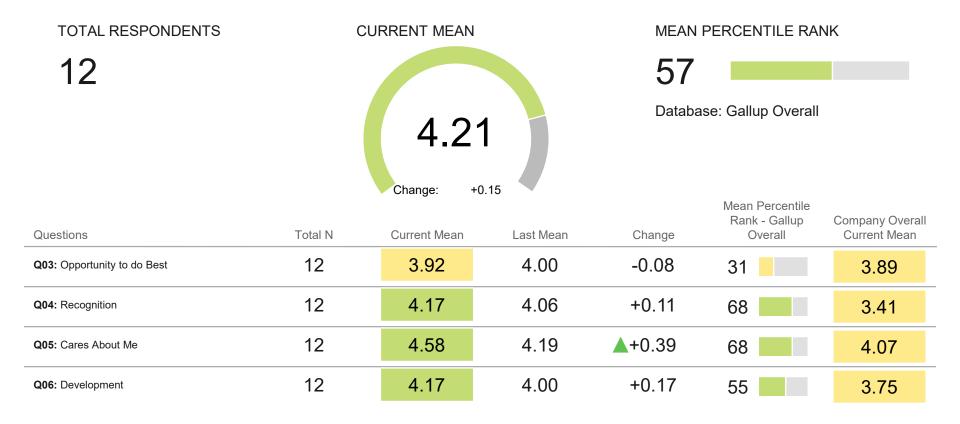
75-89th Percentile

>= 90th Percentile

GALLUP

Individual - What do I give?

Employees want to know about their individual contributions and their worth to the organization. Manager support is especially important during this stage because managers typically define and reinforce value.



*Not shown if n < 4 for Mean, Top Box, Verbatim Responses, and Sentiment, n < 10 for Frequency, or data is unavailable.

* - Scores are not available due to data suppression. Respondents can select multiple responses for multi-select questions. < 25th Percentile

Percentile Rank in Gallup Overall Database

25-49th Percentile 50-74th Percentile 75-89th Percentile

>= 90th Percentile

GALLUP

Teamwork - Do I belong here?

Employees need to feel like they belong and are a good fit with their team. They need to know they are part of something bigger than themselves. As a manager, encourage opportunities for teamwork and a sense of belonging.

TOTAL RESPONDENTS	C	URRENT MEAN		MEAN	PERCENTILE RAN	IK
12				61		
		4.22	2	Databa	se: Gallup Overall	
Questions	Total N	Current Mean	Last Mean	Change	Mean Percentile Rank - Gallup Overall	Company Overall Current Mean
Q07: Opinions Count	12	4.00	3.69	+ 0.31	54	3.52
Q08: Mission/Purpose	12	4.92	4.19	+ 0.73	93	3.91
Q09: Committed to Quality	12	4.42	4.50	-0.08	66	3.95
Q10: Best Friend	11	3.55	3.63	-0.08	39	3.28

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* - Scores are not available due to data suppression. Respondents can select multiple responses for multi-select questions. < 25th Percentile

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50-74th Percentile

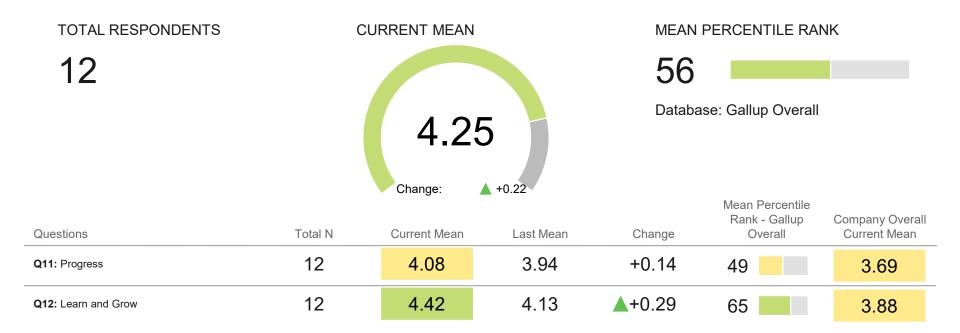
75-89th Percentile

>= 90th Percentile

GALLUP

Growth - How can I grow?

Employees need to be challenged to learn something new and find better ways to do their jobs. They need to feel a sense of movement and progress as they mature in their roles.



*Not shown if n < 4 for Mean, Top Box, Verbatim Responses, and Sentiment, n < 10 for Frequency, or data is unavailable.

* - Scores are not available due to data suppression. Respondents can select multiple responses for multi-select questions. < 25th Percentile</p>

Percentile Rank in Gallup Overall Database

25-49th Percentile

50-74th Percentile

75-89th Percentile

>= 90th Percentile

GALLUP

Engagement Index

There is a powerful link between employees who are engaged in their jobs and the achievement of crucial business outcomes.

ENGAGEMENT INDEX RATIO

*

ENGAGEMENT INDEX

*

Engaged

Employees are highly involved in and enthusiastic about their work and workplace. They are psychological "owners", drive performance, innovation, and move the organization forward.

Not Engaged

Employees are essentially psychologically unattached to their work and company. Because their engagement needs are not being fully met, they're putting time – but not energy or passion – into their work.

Actively Disengaged

Employees aren't just unhappy at work – they are resentful that their needs are not being met and are busy acting out their unhappiness. Every day, these workers potentially undermine what their engaged coworkers accomplish.

*Percent Engaged available when $n \ge 30$. All categories available when $n \ge 100$.

* - Scores are not available due to data suppression. Respondents can select multiple responses for multi-select questions.

Thank You



Retirement and Investment

MEMORANDUM

TO: Stacey Breuer, Chief People Officer, Human Resource Management Services FROM: Jan Murtha, Interim Executive Director, RIO DATE: October 25, 2021 RE: Testimony regarding RIO resource needs.

Thank you for the opportunity to present this request. The purpose of this memorandum is to request that the Deputy Chief Investment Officer position retain its unclassified status subsequent to the split of the Executive Director and Chief Investment Officer position, and to request that the Chief Risk Officer position be removed from the state's classified services because of the special nature of this position's duties. N.D.C.C. 54-44.3-20(7) states that a position can be excluded from the classified service if deemed inappropriate for the classified service due to the special nature of the position as determined by the HRMS division and approved by the State Personnel Board.

I. Agency Background

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The Retirement and Investment Office is responsible for the administration of two programs. The State Investment Board program, which is the focus of this request and which serves 26 government client funds, and the Teachers' Fund for Retirement Program which serves over 20,000 members. The State Investment Board program currently has approximately 19.7 billion dollars in assets under management (AUM) as of August 31, 2021; compared with 4.8 billion AUM in fiscal year 2010. RIO's investment program, has more than quadrupled in just over a decade.

As the assets under management have increased so too has the complexity of the program, and the need for additional resources will continue to increase as long as the AUM and program complexity increase. The implementation of H.B. 1425, passed in the 2021 regular legislative session, introduced substantial additional complexity and demands on resources to the investment program. H.B. 1425 contained three major mandates, developing a preference program for in-state managers and directing the in state investment of 10% fixed income and 10% equity. The majority if not all of the 10% equity will be invested in private markets which requires far greater due diligence and monitoring than public equities because of the private long term nature of the investment.

The Retirement and Investment Office currently has a request for an additional 6 FTEs pending before the legislature for consideration in the 2021 special legislative session. In order to prudently manage, monitor, and rebalance complex investment programs for our clients, in an increasingly risk prone market, and based on comparisons with other public sector investment programs, we seek to dedicate 1 investment professional per 2 to 2.5 billion dollars in AUM. Currently we have 19 allotted FTEs across these two programs., In 2010 we had 17 allotted FTEs. Only 4 of our 19 FTEs are dedicated investment professionals. Of the 4 dedicated investment professionals only 2 of the investment professional positions are filled. The two unfilled investment positions are the Chief Risk

Officer and Chief Investment Officer. Initial interviews have been conducted for the Chief Risk Officer and the SIB hopes to conduct final interviews for the Chief Investment Officer (CIO) in November and fill the position in December 2021 or January 2022. The final position to fill is that of the Executive Director (ED), and the SIB will undertake filling the ED position subsequent to filling the CIO position. Approval of the agency request during the upcoming special legislative session would provide the new CIO the opportunity to build their investment team at the same time they are asked to build the in-state program.

II. Unclassified Position Request

Subsequent to the vacancy of the combined Executive Director/Chief Investment Officer position in June, the SIB made the decision to split the position. A search is currently underway for a dedicated Chief Investment Officer (CIO). RIO will use the salary funding from the previously combined position, and the investment FTE authorized in the 2021 regular session, to staff the CIO position. It is expected that the Executive Director salary will be within a range of similar director positions within the state, and thus less than the CIO position. All other positions will be compensated at rates below the ED salary.

The Deputy CIO position was also vacated in August, 2021. That position was filled with an internal promotion, leaving the position of Chief Risk Officer (CRO) vacant. The CRO position has been posted and received a large number of applicants. Upon reviewing the applicant pool and conducting first round interviews, it became clear that the position salary range, as currently classified within the state system, falls well below the market rate for similar positions in peer public funds, even with a pay-grade exception up to grade 108 granted by Human Resource Management Services (HRMS).

Prior to the splitting of the ED/CIO position, RIO had three approved non-classified positions (ED/CIO, Deputy ED/Chief Retirement Officer, and Deputy CIO). As a result of the ED/CIO split, the three unclassified positions are now filled by the Executive Director, Deputy Executive Director/ Chief Retirement Officer, and the Chief Investment Officer. The duties of the Deputy Chief Investment Officer did not change as a result of the ED/CIO split, rather, the State Investment Board recognized that the investment program had grown such that it has become imperative for the Chief Investment Officer to dedicate the entirety of his or her focus to the investment program.

RIO is requesting the State Personnel Board to approve both the Deputy CIO and Chief Risk Officer positions as non-classified positions.

As previously indicated, as AUM in the SIB investment program has grown, so has program complexity; and the expertise needed to successfully manage these funds on behalf of the State of North Dakota and its client funds has increased. RIO must not only compete with private sector opportunities in filling it vacant positions, but the pay in similar public sector positions far outpace that which RIO can currently offer under the classification system.

RIO staff has provided HRMS with confidential public sector compensation survey data that is protected from disclosure pursuant to N.D.C.C. 44-04-18.4(1)&(2)(a)(b). The survey data indicates that the cap on the Chief Risk Officer position, even with a salary exception to grade 108, falls below the 25^{th} percentile for similar positions in other public sector employment. In fact, many of the highly qualified applicants which have applied for the Chief Risk Officer position currently make \$100K to \$150K more than what the salary cap of the Chief Risk Officer position not be approved for continued unclassified status, the salary disparity between other public sector programs and what RIO could

offer becomes even greater. RIO's current dilemma in being able to successfully recruit and retain qualified individuals to staff this growing program is similar to that faced by the Bank of North Dakota in 2019 when it requested that its employees be unclassified. As indicated in the testimony offered in support of H.B. 1141 offered during the 2019 legislative session, RIO, like BND, has and will continue to lose qualified personnel to private market opportunities, and has and will continue to be hampered in recruitment efforts in comparison to other public sector programs, if it continues to offer bottom quartile salaries.

During the testimony offered in support of H.B. 1141(2019), and the need to attract and retain qualified staff, BND indicated that its assets had grown to approximately 7 billion. The Land Department, another agency responsible for investing state money, currently manages just under 6 billion. The RIO investment program surpassed this level of assets under management almost 10 years prior, and currently manages \$19.7 billion. Over the five years ended June 30, 2021, the SIB Investment Program generated an average excess return over its passive market benchmark of over \$100 million per year (over \$500 million for the five-years). This amount is after the payment of all fees and expenses. The additional amount of appropriation requested for the remainder of the 2021-23 biennium during the upcoming special legislative session, includes reasonable, though still low, salary assumptions for the currently open and newly requested positions, and equates to less than 1.2% per year of that net annual excess return amount.

III. Summary

Without the ability to recruit qualified staff members to assist with developing the in-state investment program and maintain and grow the current investment portfolios prior to the next biennium, the agency and the State Investment Board will be in the unenviable position of: determining what realistically can be accomplished now, what priorities must wait, what must be simplified, and what can be contracted out to consultants. More specifically, the rollout of the In-State Investment Program mandated by H.B. 1425 would be negatively impacted and significantly delayed. Staff will endeavor to continue to provide excellent service and diligent care for government client investments, however, without additional resources to support this growing program we are concerned that the agency will fall short of meeting the expectations of our clients, our stakeholders, and the people of North Dakota.

We therefore, respectfully request that the State Personnel Board approve both the Deputy CIO and Chief Risk Officer positions as non-classified positions. The position descriptions are included for your review and consideration. Thank you in advance for your support of this important state program and for your service to the people of North Dakota.

Retirement and Investment

MEMORANDUM

TO:TFFR BoardFROM:Jan Murtha, Interim Executive Director – Chief Retirement OfficerDATE:November 16, 2021RE:PAS Project Update

The following summarizes the efforts of RIO agency staff to complete Phase 1 and initiate Phase 2 of the PAS project from July 2021 through the current date:

• All Phase 1 Deliverables have been accepted by Staff.

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- Phase 2 has been initiated (Procurement of Solution).
- The ESC approved contracting with Segal for assistance through Phase 3 of the PAS Project.
- Due to the need to prioritize resources for succession planning and all agency communication, Retirement Services staff reduced the frequency of meetings to discuss operation items and PAS related topic review from bi-monthly to monthly. Issue specific trainings to identify areas of improvement for both applicable processes and recommendations for changes to the law will resume once vacancies in the division have been filled.
- NDIT, RIO staff, and Segal meet weekly to discuss PAS project status and review progress on interim recommendations.
- The vendor solution RFP was issued June 1, 2021; responses were due July 21, 2021.
- Vendor responses were received, reviewed, and an initial analysis was conducted.
- We are currently in the contract negotiating phase of the procurement process prior to award.

BOARD INFORMATION ONLY. No board action requested.

Retirement & Investment Office

WHO WE ARE

15 of 25 Full-time Team Members Filled *6 new FTE HB 1506

2 of 3 Temporary Team Members

Filled

55 Major Consultants & Professional Services

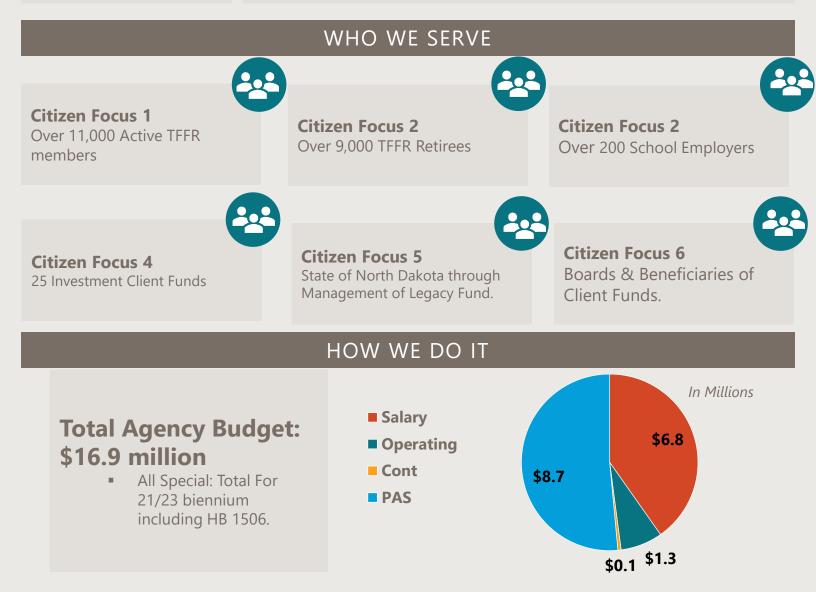
WHAT WE'RE ABOUT

Mission: Provide the Best Possible Customer Service to our Clients & Members.

Vision: Innovate our Business Model, Develop our Team members, & Educate our Stakeholders.

Values: Integrity, Transparency, and Responsiveness in fulfillment of our Fiduciary Responsibilities.

Goals/Objectives: Develop a Strategic Plan to staff to needs and improve business operations, support a permanent hybrid workforce model, increase scope and effectiveness of outreach efforts with clients, members, and stakeholders.



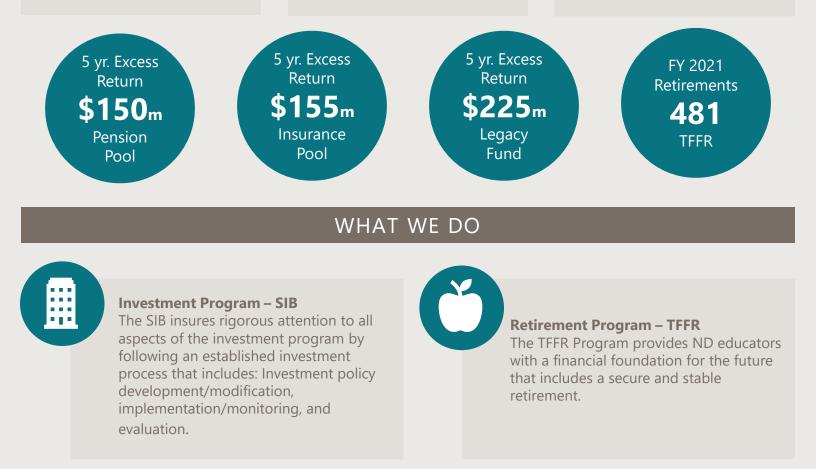
Retirement & Investment Office

WHAT WE'RE PROUD OF

Agency Accomplishment

30+ Years of Unmodified Audit Opinions. Agency Accomplishment Investment Program more than

Quadrupled since 2010. Now 19.8 Billion as of 10/2021. **Agency Accomplishment** TFFR Plan projected to achieve 100% Funded Status by 2036.



HOW WE MEASURE SUCCESS

Measure of Success Client & Member Satisfaction Surveys. **Measure of Success** Excess Returns Net of Fees. **Measure of Success** Attendance at Outreach Activities. **Measure of Success** Awards & Recognition for Transparency & Excellence in Administration and

Financial Reporting.

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Retirement and Investment

MEMORANDUM

TO:SIBFROM:Jan Murtha, Interim Executive DirectorDATE:November 17, 2021RE:Executive Search Committee – CIO Search Update

Subsequent to the posting of the CIO position and specifications in September EFL began receiving applications for the position and speaking with prospective candidates.

The Executive Search Committee met Friday October 22, 2021, subsequent to the conclusion of the SIB meeting. The search committee reviewed and discussed compensation parameters for the CIO position.

The search committee recommends that the CIO Salary Range be set in the current biennium with a cap of \$271,456. This reflects the salary range cap previously approved for the ED/CIO position.

The search committee will meet again on November 19, 2021, subsequent to the SIB meeting to review and discuss candidates. The CIO search schedule is currently set as follows:

Authority	Date	Description
Search Committee	11/19/21	Select Semi-Finalist Candidates to Interview
Search Committee	TBD (December 1-8)	Semi-Finalist Interviews
SIB	12/17/21	Finalist Interviews

BOARD ACTION REQUESTED: Approve CIO Salary Range with a cap of \$271,456.

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MEMORANDUM

TO:SIBFROM:Jan Murtha, Interim Executive DirectorDATE:November, 2021RE:Legacy and Budget Stabilization Fund Advisory Board Update

The Legacy and Budget Stabilization Fund Advisory Board met three times within the last month to discuss the in-state investment program. The dates and links to the meetings and presentation materials provided by RIO staff to the Advisory Board are attached for your reference.

Date	Link to Meeting/Presentation Materials
October 21, 2021	https://www.legis.nd.gov/assembly/67-2021/interim/23-5073-02000- meeting-agenda.pdf
October 28, 2021	https://www.legis.nd.gov/assembly/67-2021/interim/23-5078-02000- meeting-agenda.pdf
November 11, 2021	https://www.legis.nd.gov/assembly/67-2021/interim/23-5091-02000- meeting-agenda.pdf

The Advisory Board also issued a communication to the SIB on November 11, 2021. This communication as well as RIO's proposed response will be provided to SIB members prior to the meeting.

BOARD ACTION REQUESTED: Board Discussion.



MEMORANDUM

TO: SIB FROM: Jan Murtha, Interim Executive Director November 17, 2021 DATE: **Securities Litigation Committee Update** RE:

The Securities Litigation Committee convened on Thursday November 4, 2021. Elections were held, and the committee received updates on securities monitoring and 5 securities litigation cases. The agenda is attached for your reference.

NO BOARD ACTION REQUESTED: Information only.



State Investment Board

RETIREMENT & INVESTMENT

Securities Litigation Committee Meeting Thursday, November 4, 2021, 2:00 p.m. North Dakota Retirement and Investment Office (Virtual Meeting Host) Teleconferencing – 701.328.0950 Participant Code – 923 981 884# 3442 E Century Ave, Bismarck, ND

<u>AGENDA</u>

- 1. Call to Order and Approval of Agenda Chief Deputy Attorney General Seibel Committee Action
- 2. Minutes (February 4, 2021) Committee Action
- 3. Governance (15 minutes)

a. Annual Review of Charter and Policy, Election of Chair & Vice Chair, and Meeting Schedule – Ms. Murtha (5 minutes) Committee Action

b.Committee Approved Securities Litigation Firms – Ms. Flanagan (5 minutes) Informational

4. Securities Litigation Case Updates (75 minutes) Informational

- a.K&L Gates (Tribune) Mr. Ryan Tosi * Possible Executive Session for confidential and privileged attorney client consultation pursuant to NDCC 44-04-17.1(4), NDCC 44-04-19.1 and NDCC 44-04-19.2
- b.Robbins Geller Rudman & Dowd (Daimler) Ms. Roxana Pierce * Possible Executive Session for confidential and privileged attorney client consultation pursuant to NDCC 44-04-17.1(4), NDCC 44-04-19.1 and NDCC 44-04-19.2
- c. Kessler Topaz Meltzer & Check (Nissan) Ms. Emily Christiansen * *Possible Executive* Session for confidential and privileged attorney client consultation pursuant to NDCC 44-04-17.1(4), NDCC 44-04-19.1 and NDCC 44-04-19.2
- d.Grant & Eisenhofer (Volkswagen and Danske Bank) Mr. Marc Weinberg * Possible Executive Session for confidential and privileged attorney client consultation pursuant to NDCC 44-04-17.1(4), NDCC 44-04-19.1 and NDCC 44-04-19.2
- 5. Monitoring (10 minutes)
 - a.Annual Securities Litigation Activity Report for FY2021 Ms. Flanagan (5 minutes) Informational
- 6. Adjournment



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MEMORANDUM

TO:SIBFROM:Jan Murtha, Interim Executive DirectorDATE:November 17, 2021RE:Executive Director Search

Dr. Lech, Chair of the search committee, will initiate a discussion regarding filling the Executive Director position. At its August 2021 meeting, the Board voted to split the combined Executive Director and Chief Investment Officer positions, and to proceed with the CIO search. As the CIO search is coming to a close, the Board is requested to begin the discussion regarding filling the Executive Director position.

RETIREMENT AND INVESTMENT OFFICE Internal Audit 2021-2022 1st Quarter Audit Activities Report July 1, 2021 – September 30, 2021

The audit objective of Internal Audit (IA) is twofold: first, to provide comprehensive, practical audit coverage of the Retirement and Investment Office (RIO) programs; second, to assist RIO management and the State Investment Board (SIB) by conducting special reviews or audits.

Audit coverage is based on the July 1, 2021 through June 30, 2022 work plan approved by the SIB Audit Committee. The audit activities undertaken are consistent with the Internal Audit charter and goals, and the goals of RIO. To the extent possible, our audits are being carried out in accordance with the International Standards for the Professional Practice of Internal Auditing. Audit effort is being directed to the needs of RIO and the concerns of management and the SIB Audit Committee.

There were several events that occurred during the first quarter of 2021-22 that altered the original work plan. The events were as follows: The Executive Director/Chief Investment Officer and the Deputy Chief Investment Officer resigned from their positions. Also, three Retirement Service/Administrative Services staff members retired - the Supervisor of Administrative Services, the Office Assistant, and the Membership Specialist. These staff members represent over one hundred years of service to RIO.

Investment and Agency Audit Activities

Executive Limitation Audit

Each year the SIB conducts a customer satisfaction survey. The purpose of this annual survey is to determine how well the SIB, through the staff of the RIO, is meeting the expectations of its clients. This survey is part of the SIB's ongoing effort to be more responsive to the needs of their clients and to continually improve the services that are provided. IA facilitated the survey in August and September 2021 and results were provided to the SIB at their October 22, 2021 meeting.

Due to the SIB separating the role of the Executive Director/Chief Investment Officer into two positions, the Executive Director and the Chief Investment Officer, the Supervisor of IA is having to review, evaluate, and make revisions to the audit program for Executive Limitations.

• External Audit Support

IA provided support to our external audit partners, CliftonLarsonAllen (CLA), during the GASB 68 Census Data Audit. In July 2021, IA sent out twelve employer confirmations as part of the financial statement audit. This task required more administrative time due to one employer not responding in a timely manner. CLA completed the GASB 68 Census Data Audit work would conclude in October. The June 30, 2021 Financial Statement Audit and GASB 68 Census Data Audit was completed in November 2021.

• SIB Board Governance Review

At the May 21, 2021 SIB meeting, the Board requested that the SIB Audit Committee review SIB Governance Policy B-2, governing style, in Section B governance process. The SIB Audit Committee was to clearly define inquiry and to review the Board's structure and how it operates, and bring a recommendation back to the full Board. The SIB operates under the Carver Board Governance Model.

The SIB Board structure and membership is established in statute and would require statute to amend. IA researched and reviewed board governance and presented a report to the SIB Audit Committee. In the report, there were questions to be discussed/answered and possible recommendations for the SIB Audit Committee to consider at the August 11, 2021 Audit Committee meeting.

After discussion at the August meeting, the SIB Audit Committee requested IA to develop a comprehensive on-boarding process for new SIB members, to develop a plan for annual Board education, and to establish a standing Governance and Policy Committee for the SIB. The draft report was reviewed at a special SIB Audit Committee meeting held October 2021 and then was presented to the SIB Board the October 2021 meeting.

• SIB Executive Search Committee

The Executive Director/Chief Investment Officer of RIO (ED/CIO) resigned from his position effective June 22, 2021.

The SIB Board selected and approved Board members to serve on the Executive Search Committee (ESC) at the August 2021 meeting. EFL, an executive recruitment service, was selected for the search at the end of July 2021. At the August 27, 2021, SIB meeting, the SIB voted to divide the combined Executive Director/Chief Investment Officer (ED/CIO) position into two separate positions to better serve RIO's needs for current and future operations. The ESC proceeded with filling the CIO role first. EFL felt that the applicant pool would increase by dividing the position as the two positions require different skill sets. The Supervisor of IA assisted the ESC with scoring the RFPs for the executive recruitment service and attended meetings in the search for Executive Recruitment Services.

• Succession Planning

Due to five staff members resigning/retiring during the first quarter, RIO Management has reorganized the agency structure and job duties to better fit the current and future needs of the agency. During the first quarter, IA reviewed and analyzed the responsibilities for three of the vacant positions. IA wanted to ensure that current requirements and deadlines continued to be met. The responsibilities were classified by function – Executive Boards, Continuity of Operations (Business Continuity), Human Resources, Procurement, Records Management, Risk Management (Risk Management/Workforce Safety programs), Investment Services, Fiscal Services, and Retirement Services (TFFR Administrative Assistant/Office Assistant). The duties were forwarded to RIO Management to assign to the newly organized positions.

Retirement Program Audit Activities

Annual Employer Participant Data/Salary Verification Review

On an annual basis, IA verifies retirement salaries and contributions reported to TFFR for the prior fiscal year for 65 randomly selected member accounts. TFFR eligibility and service hours were also verified. The project increases the number of participating employers included in the overall audit activities and reinforces to our participating employers the importance of accurate reporting.

The Annual Participant Data/Salary Verification Review report on fiscal year 2018-19 was issued May 11, 2021 and was presented to the SIB Audit Committee at the May 2021 meeting. IA had three recommendations in the report. IA has been working with Retirement Services on their response during the first quarter. The report will be presented to the TFFR Board at the November 2021 meeting.

• TFFR File Maintenance Audit

On an annual basis, IA will review system generated (CPAS) audit tables to ensure transactions initiated by staff are expected and appropriate given an individual's role with the organization. Member account information from Member Action Forms, Address Change Forms, Direct Deposit Authorization

Forms, and Point of Contact Forms are reviewed to verify that contact and demographic information has been updated correctly. The Records Management review was moved to Succession Planning.

Audit fieldwork started the end of June 2021 and continued during the months of July and August 2021. IA was reviewing information for the month of May 2020 during the fourth quarter of 2020 (new procedures due to COVID) and the month of October 2020 during the second quarter of 2021.

Due to the Succession Planning review, the fieldwork was suspended and the audit has not been completed.

• TFFR Pension Administration Software Assistance (PAS Project)

TFFR was approved spending for a pension system upgrade in fiscal year 2020-21. IA can help significantly reduce risk by playing a role that is educational, consultative or audit in nature, and by bringing independent subject-matter expertise to the most common risk areas. IA's ability to operate across the agency and across all individual work streams in a program provides visibility of risks that might otherwise be lost between silos. IA also went to training on project management for auditors to help with the upgrade process.

RIO was on schedule and completed Stage 1 of the PAS project at the close of fiscal year 2020-21. In Stage 2 of the project, RIO planned procurement, developed the RFP, and issued the RFP on June 1, 2021. During the month of July, RIO management (including IA) reviewed the responses received to the issued RFP. RIO staff (including IA) also attended scheduled software demonstrations during the month of August. RIO is now in the negotiation process of procurement procedures.

Administrative Activities

The IA staff attended the monthly RIO staff meetings, monthly RIO manager's meetings, divisional meetings, one Audit Committee meeting, three SIB meetings, and two TFFR meetings.

Professional Development/CE/General Education

The Supervisor of IA participated in training with the rest of the management team of RIO on change management. The Internal Auditor attending training on DOL standards for cashing checks and IT quarterly training on phishing.

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE INTERNAL AUDIT DIVISION

FISCAL YEAR 2021 -2022	FY 2021	FY 2021	FY 2022	FY 2022	FY 2022 TOTAL
	1st QTR	2nd QTR	3rd QTR	4th QTR	IUIAL
Audit Activities					
Retirement Program Audits:					
TFFR Employer Audit Program					0
Employer (used Data Analytics)					0.00
General Employer Audits					
Audit Peer Reviews/TFFR Meeting(s)/Audit Planning/Audit Notifications	32				32
TFFR Pension Data System - PAS	131				131
TFFR File Maintenance Audit	66				66
Annual Salary Verification Project	7				7
Agency Administrative and Investment Audits:					
Executive Limitations Audit and Executive Review Committee	7				7
Executive Search Committee	13				13
Admistrative Policy Review	6				6
Consulting	34				34
Governance Review	56				56
RIO External Auditor Assistance	26				26
RIO Succession Planning	132				132
Administrative Activities					
Administrative - Staff Mtgs, Time Reports, Email, Records Retention, General Reporting	122				122
Division, COVID-19 Meetings, Preparation, etc.	30				30
Audit Committee/SIB/TFFR Attendance and Preparation	210				210
Professional Development/CE/General Education	0				0
Annual Leave, Sick Leave, and Holidays	193				193
Quarterly Total:	1065	0	0	0	1065

Total Hours for 2021-2022	4,160
D. Thorsen Total Hours 2021-2022	2,080
S. Sauter Total Hours 2021-2022	2,080



Audit Results Presentation to: North Dakota Retirement and Investment Office – Audit Committee

November 16, 2021

WEALTH ADVISORY | OUTSOURCING | AUDIT, TAX, AND CONSULTING

Agenda

- 2021 Audit Results
- Required Communications
- Financial Highlights
- 2021 GASB 68 Schedules Audit Results





Create Opportunities 2

2021 Audit Results

- Independent Auditors' Report Unmodified "clean" opinion that the financial statements are presented fairly, in all material respects, in conformity with U.S. Generally Accepted Accounting Principles (GAAP).
- Limited procedures were performed, and no opinion rendered, on management's discussion and analysis, required supplemental information, supplemental schedules, and the Introductory, Investment, Actuarial, and Statistical sections.
- 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*
 - No material weaknesses were identified.
 - No significant deficiencies were identified.
- Letter to the Board providing required communications with those charged with governance







Required Governing Body Communications

- Auditor's responsibility under U.S. Generally Accepted Auditing Standards
- Significant accounting policies
- Management judgments and accounting estimates
 - Valuation of alternative investments
 - Actuarial assumptions and methods used
- Significant Financial Statement Disclosures
- Significant Transactions







Other Communications

- Management was very cooperative and professional during the audit process
- No disagreements with management
- Management did not consult with other accountants on the application of GAAP or GAAS
- No major issues were discussed with management prior to retention
- Management Representation Letter







Financial Highlights – TFFR Net Pension Liability



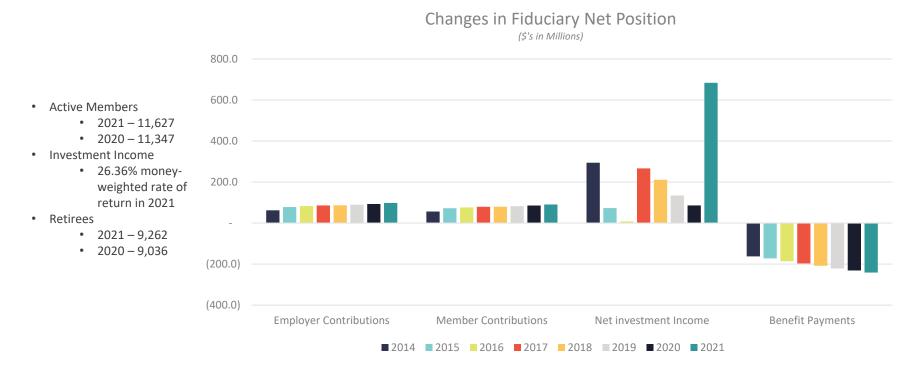
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Create Opportunities 6

Financial Highlights – TFFR Changes in Fiduciary Net Position



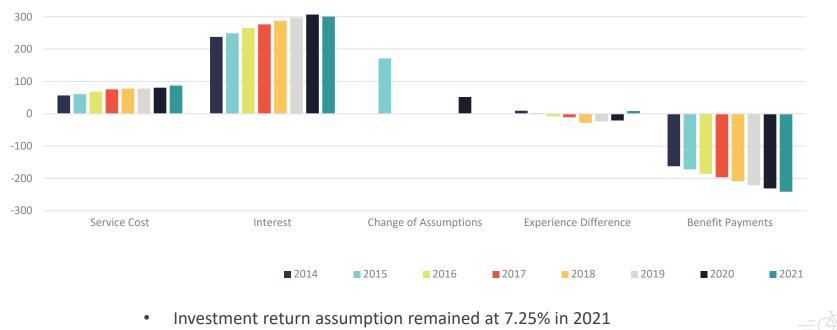


Create Opportunities 7

Financial Highlights – TFFR Changes in Total Pension Liability

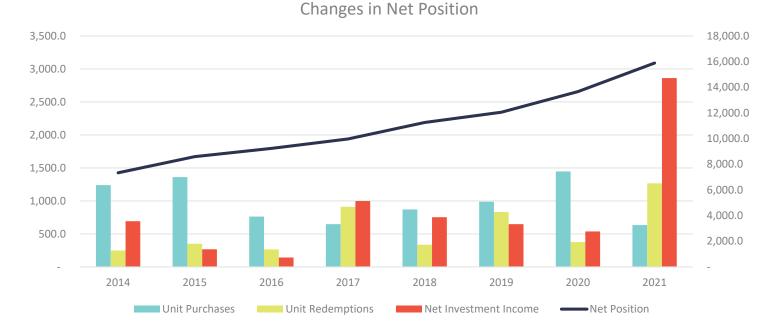
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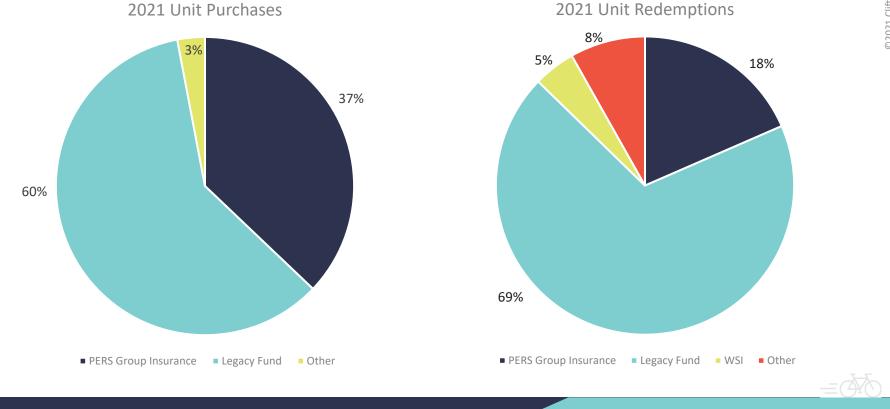
Financial Highlights – Investment Trust Changes in Fiduciary Net Position



- Unit Purchases and Redemptions See next slide •
- Net time-weighted rates of return for the Legacy Fund, Pension Pool and Insurance Pool were 22.68%, ۲ 26.75% and 9.74%, respectively, for the year ended June 30, 2021



Financial Highlights – Investment Trust Unit Purchases and Redemptions



2021 Audit Results – Schedules of Employer Allocations and Pension Amounts by Employer

- Independent Auditors' Report Unmodified "clean" opinion that the schedule of employer allocations and the net pension liability, total deferred outflows, total deferred inflows and total pension expense are presented fairly, in all material respects, in conformity with U.S. Generally Accepted Accounting Principles (GAAP).
- 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*
 - No material weaknesses were identified
 - No significant deficiencies were identified
- Employer Census Testing
 - Tested individual employee census data at 12 separate employers
 - 142 total employees tested No errors noted







Thomas Rey, CPA Engagement Principal thomas.rey@claconnect.com Direct 410-453-5574

WEALTH ADVISORY | OUTSOURCING | AUDIT, TAX, AND CONSULTING

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State Investment Board Teachers' Fund for Retirement North Dakota Retirement and Investment Office Bismarck, North Dakota

We have audited the financial statements of the North Dakota Retirement and Investment Office (RIO) as of and for the year ended June 30, 2021, and have issued our report thereon dated November 2, 2021. We have previously communicated to you information about our responsibilities under auditing standards generally accepted in the United States of America, as well as certain information related to the planned scope and timing of our audit. Professional standards also require that we communicate to you the following information related to our audit.

Significant audit findings

Qualitative aspects of accounting practices

Accounting policies

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by RIO are described in Note 1 to the financial statements.

No new accounting policies were adopted and the application of existing policies was not changed during fiscal year 2021.

We noted no transactions entered into by RIO during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. There were significant estimates in the valuation of alternative investments and the calculation of the actuarial information included in the footnotes and required supplementary information.

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 15% 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, 2021. 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 sampled funds. Furthermore, we reviewed management's estimate and found it to be reasonable.



The actuarially calculated information was based on the assumptions and methods adopted by the Board, including an expected investment rate of return of 7.25% per annum compounded annually. The valuation takes into account all of the promised benefits required by the Retirement Code to which members are entitled as of July 1, 2021. Our audit procedures included reviewing the actuarial valuation and related assumptions used therein and we believe the estimate to be reasonable.

Financial statement disclosures

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. There were no particularly sensitive financial statement disclosures.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties encountered in performing the audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Uncorrected misstatements

Professional standards require us to accumulate all misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management did not identify and we did not notify them of any uncorrected financial statement misstatements.

Corrected misstatements

Management did not identify and we did not notify them of any financial statement misstatements detected as a result of audit procedures.

Disagreements with management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditors' report. No such disagreements arose during our audit.

Management representations

We have requested certain representations from management that are included in the attached management representation letter dated November 2, 2021.

Management consultations with other independent accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to RIO's financial statements or a determination of the type of auditors' opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Significant issues discussed with management prior to engagement

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to engagement as RIO's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our engagement.

Other information in documents containing audited financial statements

With respect to the required supplementary information (RSI) accompanying the financial statements, we made certain inquiries of management about the methods of preparing the RSI, including whether the RSI has been measured and presented in accordance with prescribed guidelines, whether the methods of measurement and preparation have been changed from the prior period and the reasons for any such changes, and whether there were any significant assumptions or interpretations underlying the measurement or presentation of the RSI. We compared the RSI for consistency with management's responses to the foregoing inquiries, the basic financial statements, and other knowledge obtained during the audit of the basic financial statements. Because these limited procedures do not provide sufficient evidence, we did not express an opinion or provide any assurance on the RSI.

With respect to the schedules of administrative expenses, consultant expenses, investment expenses, and appropriations – budget basis – fiduciary funds (collectively, the supplementary information) accompanying the financial statements, on which we were engaged to report in relation to the financial statements as a whole, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period or the reasons for such changes, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves. We have issued our report thereon dated November 2, 2021.

Other information is being included in documents containing the audited financial statements and the auditors' report thereon. Our responsibility for such other information does not extend beyond the financial information identified in our auditors' report. We have no responsibility for determining whether such other information is properly stated and do not have an obligation to perform any procedures to corroborate other information contained in such documents. As required by professional standards, we read the introductory, investment, actuarial and statistical sections of the comprehensive annual financial report (the other information) in order to identify material inconsistencies between the audited financial statements and the other information. We did not identify any material inconsistencies between the other information and the audited financial statements.

Our auditors' opinion, the audited financial statements, and the notes to financial statements should only be used in their entirety. Inclusion of the audited financial statements in a document you prepare, such as an annual report, should be done only with our prior approval and review of the document.

* * *

North Dakota Retirement and Investment Office Page 4

This communication is intended solely for the information and use of the State Investment Board, the Board of the Teachers' Fund for Retirement and management of RIO and is not intended to be, and should not be, used by anyone other than these specified parties.

Clifton Larson Allen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland November 2, 2021



3442 East Century Avenue | P.O. Box 7100 | Bismarck, ND 58507-7100 Telephone: 701-328-9885 | Toll Free: 800-952-2970 | Fax: 701-328-9897 | www.rio.nd.gov

November 2, 2021 CliftonLarsonAllen LLP 1966 Greenspring Drive, Suite 300 Timonium, MD 21093

This representation letter is provided in connection with your audit of the financial statements of North Dakota Retirement and Investment Office (RIO), which comprise the fiduciary net position of the entity as of June 30, 2021, and the related changes in fiduciary net position for the year then ended, and the related notes to the financial statements, for the purpose of expressing opinions on whether the financial statements are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP).

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

We confirm, to the best of our knowledge and belief, as of November 2, 2021 the following representations made to you during your audit.

Financial Statements

- 1. We have fulfilled our responsibilities, as set out in the terms of the Contract between the State of North Dakota and CliftonLarsonAllen LLP dated March 29, 2021, for the preparation and fair presentation of the financial statements in accordance with U.S. GAAP. The financial statements include all properly classified funds and other financial information of the primary government and all component units required by generally accepted accounting principles to be included in the financial reporting entity.
- 2. We acknowledge and have fulfilled our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
- 3. We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.
- 4. All significant plan amendments, adopted during the period or subsequent to the date of the financial statements, and their effects on benefits and financial status have been disclosed in the financial statements.
- 5. The values of non-readily marketable investments represent good faith estimates of fair value. The methods and significant assumptions used result in a measure of fair value appropriate for financial measurement and disclosure purposes.
- 6. Significant estimates have been appropriately accounted for and disclosed in accordance with the requirements of U.S. GAAP. Significant estimates are estimates at the financial statement date that could change materially within the next year.
- 7. No events, including instances of noncompliance, have occurred subsequent to the financial statement date and through the date of this letter that would require adjustment to, or disclosure in, the financial statements.
- 8. We have not identified or been notified of any uncorrected financial statement misstatements.

- 9. The effects of all known actual or possible litigation, claims, and assessments have been accounted for and disclosed in accordance with U.S. GAAP.
- 10. Guarantees, whether written or oral, under which the entity is contingently liable, if any, have been properly recorded or disclosed in accordance with U.S. GAAP.
- 11. We have no plans or intentions that may materially affect the carrying value or classification of assets and liabilities.
- 12. With respect to actuarial assumptions and valuations:
 - a. Management agrees with the actuarial methods and assumptions used by the actuary for funding purposes and for determining the total pension liability and has no knowledge or belief that would make such methods or assumptions inappropriate in the circumstances. We did not give any, nor cause any, instructions to be given to RIO's actuary with respect to values or amounts derived, and we are not aware of any matters that have impacted the independence or objectivity of RIO's actuary.
 - b. There were no omissions from the participant data provided to the actuary for the purpose of determining the total pension liability and other actuarially determined amounts in the financial statements.
 - c. There have been no changes in the actuarial methods or assumptions used in calculating the amounts recorded or disclosed in the financial statements. There have been no changes in plan provisions between the actuarial valuation date and the date of this letter.
- 13. We believe the plan and trust established under the plan is qualified under the appropriate section of The North Dakota Century Code, and we intend to continue them as a qualified plan and trust.
- 14. We are not aware of any present legislative intentions to terminate the plan.

Information Provided

- 1. We have provided you with:
 - a. Access to all information, of which we are aware, that is relevant to the preparation and fair presentation of the financial statements such as records, documentation, and other matters.
 - b. Additional information that you have requested from us for the purpose of the audit.
 - c. Unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
 - d. Complete minutes of the meetings of the governing board and related committees, or summaries of actions of recent meetings for which minutes have not yet been prepared.
 - e. All actuarial reports prepared for the plan during the year.
- 2. All material transactions have been recorded in the accounting records and are reflected in the financial statements.
- 3. We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
- 4. We have no knowledge of any fraud or suspected fraud that affects the entity and involves:
 - a. Management;
 - b. Employees who have significant roles in internal control; or

- c. Others when the fraud could have a material effect on the financial statements.
- 5. We have no knowledge of any allegations of fraud, or suspected fraud, affecting the entity's financial statements communicated by employees, former employees, regulators, or others.
- 6. We have no knowledge of any instances of noncompliance or suspected noncompliance with laws and regulations and provisions of contracts, or abuse whose effects should be considered when preparing financial statements.
- 7. We have disclosed to you all known actual or possible litigation, claims, and assessments whose effects should be considered when preparing the financial statements.
- 8. There are no other material liabilities or gain or loss contingencies that are required to be accrued or disclosed in accordance with U.S. GAAP.
- 9. We have disclosed to you the identity of the entity's related parties and all the related party relationships and transactions of which we are aware.
- 10. We are responsible for compliance with the laws, regulations, and provisions of contracts applicable to RIO, and we have identified and disclosed to you all laws, regulations, and provisions of contracts that we believe have a direct and material effect on the determination of financial statement amounts or other financial data significant to the audit objectives, including legal and contractual provisions for reporting specific activities in separate funds.
- 11. There are no violations or possible violations of budget ordinances, laws and regulations (including those pertaining to adopting, approving, and amending budgets), provisions of contracts, or any debt covenants whose effects should be considered for disclosure in the financial statements, or as a basis for recording a loss contingency, or for reporting on noncompliance.
- 12. The entity has complied with all aspects of contractual agreements that would have a material effect on the financial statements in the event of noncompliance.
- 13. We have followed all applicable laws and regulations in adopting, approving, and amending budgets.
- 14. Investments, derivative instruments, and land and other real estate held by RIO are properly valued.
- 15. Expenses have been appropriately classified the statement of changes in net position, and allocations have been made on a reasonable basis.
- 16. Revenues are appropriately classified in the statement of changes in net position.
- 17. Interfund, internal, and intra-entity activity and balances have been appropriately classified and reported.
- 18. Deposits and investment securities and derivative instruments are properly classified as to risk and are properly valued and disclosed.
- 19. Capital assets, including infrastructure and intangible assets, are properly capitalized, reported, and, if applicable, depreciated.
- 20. We acknowledge our responsibility for the required supplementary information (RSI). The RSI is measured and presented within prescribed guidelines and the methods of measurement and presentation have not changed from those used in the prior period. We have disclosed to you any significant assumptions and interpretations underlying the measurement and presentation of the RSI.
- 21. We acknowledge our responsibility for presenting the schedules (the supplementary information) in accordance with U.S. GAAP, and we believe the supplementary information, including its form and content, is fairly presented in

accordance with U.S. GAAP. The methods of measurement and presentation of the supplementary information have not changed from those used in the prior period, and we have disclosed to you any significant assumptions or interpretations underlying the measurement and presentation of the supplementary information. If the supplementary information is not presented with the audited financial statements, we will make the audited financial statements readily available to the intended users of the supplementary information no later than the date we issue the supplementary information and the auditors' report thereon.

K. Murtha Title: Interim Executive Director

Signature:

onnio Killanogu Title: Chief Financial Officer

Signature:

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE Bismarck, ND

FINANCIAL STATEMENTS June 30, 2021 and 2020

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INDEPENDENT AUDITORS' REPORT

Governor Doug Burgum The Legislative Assembly Janilyn Murtha, Interim Executive Director 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, 2021 and 2020, 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, 2021 and 2020, 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.



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

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, 2021 and 2020, and the changes in its financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America. Also, in our opinion, the combining and individual fund financial statements referred to above present fairly, in all material respects, the respective financial position of each of the individual funds of RIO as of June 30, 2021 and 2020, and the changes in financial position of such funds for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1, the financial statements of RIO are intended to present the financial position and the changes in financial position of only that portion of the State of North Dakota that is attributable to the transactions of RIO. They do not purport to, and do not, present fairly the financial position of the State of North Dakota as of June 30, 2021 and 2020, 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 NPL and NOL – ND Public Employees Retirement System and employer contributions – ND Public Employees Retirement System and related notes, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, 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.

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

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 (schedules), as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

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 November 2, 2021, on our consideration of RIO's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of RIO's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering RIO's internal control over financial reporting and compliance.

Clifton Larson Allen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland November 2, 2021



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

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

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the 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, 2021, and the related notes to the financial statements, and have issued our report thereon dated November 2, 2021.

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.



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

Compliance and Other Matters

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

Purpose of this Report

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

Clifton Larson Allen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland November 2, 2021 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, 2021 and 2020. 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 26 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 \$2.86 billion (17.5%) and \$1.64 billion (11.2%) in FY2021 and FY2020, respectively. Approximately 39% of the FY2021 increase and 53% of the FY2020 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 \$380.6 million and \$596.6 million, and net investment income exceeded \$1.6 billion and \$277 million in FY2021 and FY2020.

Total additions in the fiduciary funds for FY2021 increased by \$2.1 billion (94.2%) and \$307.0 million (15.8%) in FY2020. Net investment income increased in FY2021 by \$2.9 billion due to exceptionally strong financial markets following the pull back that occurred near the end of FY2020 causing a decrease in net investment income in FY2020 of \$158.7 million. Changes in purchases of units each year are highly dependent on Legacy Fund deposits and thus on oil and gas production. There was a decrease in purchases of units in the investment program in FY2021 as oil and gas production activity pulled back due to the global pandemic after increasing in FY2020 due to strong oil and gas tax collections. The increase in FY2020 was also due to deposits into the Budget Stabilization Fund that brought that fund back to statutory limits. Total fiduciary fund purchases of units decreased \$811.4 million (56.1%) in FY2021 and increased by \$458.8 million (46.4%) in FY2020.

Deductions in the fiduciary funds increased in FY2021 by \$901.8 million (147.6%) and decreased by \$448.4 million (42.3%) in FY2020. The vast majority of the changes in deductions are driven by redemptions of units due to the constitutionally mandated earnings transfers from the Legacy Fund to the State's general fund every two years. The State Constitution requires that all earnings accrued after June 30, 2017, be transferred to the general fund at the end of each biennium. A transfer of \$871.7 million was made in July, 2021, and accrued as of the end of FY2021.

Payments to TFFR members in the form of benefits and refunds increased by \$10.3 million (4.5%) and \$9.6 million (4.3%) in FY2021 and FY2020, 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, 2021 and 2020, the TFFR pension plan had a Net Pension Liability (NPL) of \$1.05 and \$1.53 billion, and Plan Fiduciary Net Position as a percent of Total Pension Liability (TPL) of 75.7% and 63.4%, 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, 2021 and 2020, were \$20.15 billion and \$16.4 billion, respectively, and were comprised mainly of investments. Total assets increased by \$3.8 billion (23.0%) and \$1.2 billion (7.9%) from each prior year primarily due to on-going deposits to the Legacy Fund and Budget Stabilization Fund as well as extremely strong financial markets in FY2021.

Total liabilities as of June 30, 2021 and 2020, were \$980.5 million and \$72.6 million. Nearly 89% of the liabilities (\$871.7 million) as of June 30, 2021, were the Legacy Fund's earnings that were due to be transferred to the State's general fund at the end of the biennium. Previous year-end liabilities were comprised mainly of the securities lending collateral payable.

RIO's fiduciary fund total net position was \$ 19.2 billion and \$16.3 billion at the close of fiscal years 2021 and 2020, respectively.

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

	2021		2020	Total % Change
Assets				
Investments	\$ 19,948.0	\$	16,220.7	23.0%
Securities Lending Collateral	88.9		58.8	51.2%
Receivables	89.4		85.3	4.7%
Cash & Other	26.1		21.4	21.8%
Total Assets	20,152.4		16,386.2	23.0%
Deferred Outflows of Resources				
Deferred outflows related to pensions	2.7		0.9	201.6%
Liabilities				
Obligations under Securities Lending	88.9		58.8	51.2%
Accounts Payable & Accrued Expenses	891.6	1	13.8	6344.4%
Total Liabilities	980.5		72.6	1250.1%
Deferred Inflows of Resources				
Deferred inflows related to pensions	0.8		0.9	-18.2%
Total Net Position	\$ 19,173.8	\$	16,313.6	17.5%
				Total %
	 2020		2019	Total % Change
Assets	 			Change
Investments	\$ 16,220.7	\$	15,028.7	<u>Change</u> 7.9%
Investments Securities Lending Collateral	\$ 16,220.7 58.8	\$	15,028.7 46.3	<u>Change</u> 7.9% 27.1%
Investments Securities Lending Collateral Receivables	\$ 16,220.7 58.8 85.3	\$	15,028.7 46.3 87.7	Change 7.9% 27.1% -2.7%
Investments Securities Lending Collateral Receivables Cash & Other	\$ 16,220.7 58.8 85.3 21.4	\$	15,028.7 46.3 87.7 20.5	Change 7.9% 27.1% -2.7% 4.1%
Investments Securities Lending Collateral Receivables	\$ 16,220.7 58.8 85.3	\$	15,028.7 46.3 87.7	Change 7.9% 27.1% -2.7%
Investments Securities Lending Collateral Receivables Cash & Other	\$ 16,220.7 58.8 85.3 21.4	\$	15,028.7 46.3 87.7 20.5	Change 7.9% 27.1% -2.7% 4.1%
Investments Securities Lending Collateral Receivables Cash & Other Total Assets	\$ 16,220.7 58.8 85.3 21.4	\$	15,028.7 46.3 87.7 20.5	Change 7.9% 27.1% -2.7% 4.1%
Investments Securities Lending Collateral Receivables Cash & Other Total Assets Deferred Outflows of Resources	\$ 16,220.7 58.8 85.3 21.4 16,386.2	\$	15,028.7 46.3 87.7 20.5 15,183.2	Change 7.9% 27.1% -2.7% 4.1% 7.9%
Investments Securities Lending Collateral Receivables Cash & Other Total Assets Deferred Outflows of Resources Deferred outflows related to pensions	\$ 16,220.7 58.8 85.3 21.4 16,386.2	\$	15,028.7 46.3 87.7 20.5 15,183.2	Change 7.9% 27.1% -2.7% 4.1% 7.9%
Investments Securities Lending Collateral Receivables Cash & Other Total Assets Deferred Outflows of Resources Deferred outflows related to pensions Liabilities	 16,220.7 58.8 85.3 21.4 16,386.2 0.9	\$	15,028.7 46.3 87.7 20.5 15,183.2 1.2	Change 7.9% 27.1% -2.7% 4.1% 7.9% -23.7%
Investments Securities Lending Collateral Receivables Cash & Other Total Assets Deferred Outflows of Resources Deferred outflows related to pensions Liabilities Obligations under Securities Lending	 16,220.7 58.8 85.3 21.4 16,386.2 0.9 58.8	\$	15,028.7 46.3 87.7 20.5 15,183.2 1.2 46.3	Change 7.9% 27.1% -2.7% 4.1% 7.9% -23.7% 27.1%
Investments Securities Lending Collateral Receivables Cash & Other Total Assets Deferred Outflows of Resources Deferred outflows related to pensions Liabilities Obligations under Securities Lending Accounts Payable & Accrued Expenses	 16,220.7 58.8 85.3 21.4 16,386.2 0.9 58.8 13.8	\$	15,028.7 46.3 87.7 20.5 15,183.2 1.2 46.3 465.0	Change 7.9% 27.1% -2.7% 4.1% 7.9% -23.7% 27.1% -97.0%
Investments Securities Lending Collateral Receivables Cash & Other Total Assets Deferred Outflows of Resources Deferred outflows related to pensions Liabilities Obligations under Securities Lending Accounts Payable & Accrued Expenses Total Liabilities	 16,220.7 58.8 85.3 21.4 16,386.2 0.9 58.8 13.8	\$	15,028.7 46.3 87.7 20.5 15,183.2 1.2 46.3 465.0	Change 7.9% 27.1% -2.7% 4.1% 7.9% -23.7% 27.1% -97.0%

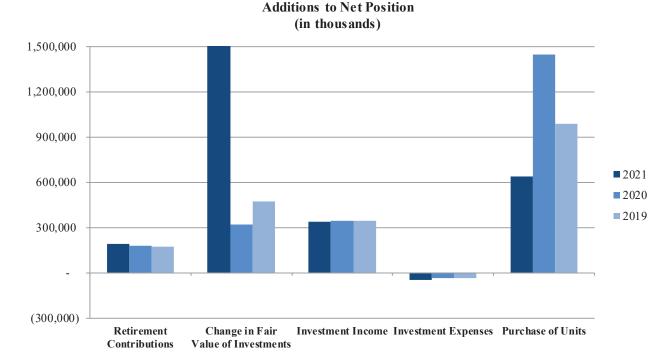
North Dakota Retirement and Investment Office Changes in Net Position – Fiduciary Funds (In Millions)

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

	2020		2019		Total % Change	
Additions						
Contributions	\$	181.1	\$	173.9	4.1%	
Net Investment Income		622.9		781.6	-20.3%	
Net Securities Lending Income		0.9		1.2	-20.2%	
Purchase of Units		1,446.6		987.8	46.4%	
Total Additions		2,251.5		1,944.5	15.8%	
Deductions						
Payments to TFFR members		230.8		221.2	4.3%	
Administrative Expenses		3.9		4.0	-3.8%	
Redemption of Units		376.1		833.9	-54.9%	
Total Deductions		610.8		1,059.2	-42.3%	
Total Change in Net Position	\$	1,640.7	\$	885.4	85.3%	

Statement of Changes in Net Position – Additions

Contributions collected by the pension trust fund increased by \$10.4 million (5.7%) in FY2021 and \$7.2 million (4.1%) in FY2020 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) increased by \$2.9 billion (468.4%) in FY2021 and decreased by \$158.9 million (20.3%) in FY2020. Financial markets pulled back in FY2020 in comparison to the previous year but recovered substantially in FY2021. Deposits of funds into the investment trust fund (purchase of units) increased from FY2019 to FY2020 by \$458.8 million but decreased by \$811.4 million in FY2021, mainly due to changes in amounts available for deposits to the Legacy Fund and Budget Stabilization Fund.



Statement of Changes in Net Position – Deductions

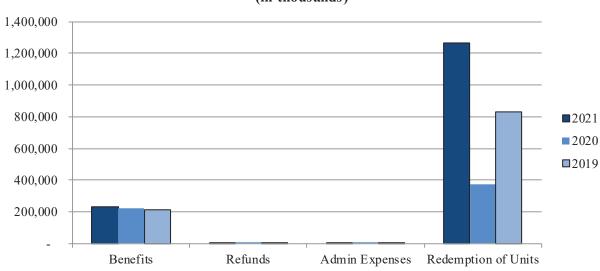
Benefits paid to TFFR plan participants, including partial lump-sum distributions, increased by \$10.8 million (4.8%) and \$9.0 million (4.2%) in FY2021 and FY2020, respectively. The increases are due to an increase in the total number of retirees in the plan as well as an increased retirement salary on which the benefits are based. Refunds decreased by \$566,000 (8.7%) in FY2021 after increasing by \$589,000 (10.0%) FY2020.

Administrative expenses increased by \$960,000 in fiscal year 2021 after decreasing in fiscal year 2020 by nearly \$154,000. Approximately half of the increase in FY2021 was due mainly to an increase in the agency's portion of the pension expense from the ND Public Employees Retirement System pension plan for the State of ND. That increase was driven by a change in actuarial assumptions, specifically a decrease in the discount rate.

An additional portion of that increase relates to the Pension Administration System (PAS) modernization project that began at the end of FY20 and ramped up during FY21. A project management consultant was hired and a Request for Proposals (RFP) was issued during the fiscal year. The total budget for this multi-year project is \$9.3 million, with approximately \$331,000 expended through June 30, 2021. The remaining appropriation authority for this project will be carried forward into the next biennium to complete the project.

The decrease in FY20 was related to the global pandemic that caused a halt in travel for staff and board member education and due diligence on-site visits, which were replaced with virtual on-line conferences and manager meetings.

The redemption of units in the investment trust funds increased by \$890.5 million in FY2021 after decreasing by \$457.9 million in FY2020. Biennial swings will continue in this line item due to the biennial earnings transfers from the Legacy Fund required under the State Constitution.



Deductions from Net Position (in thousands)

Conclusion

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

For the fiscal year ended June 30, 2020, the pension investment pool and the TFFR pension plan generated net time weighted returns of over 3.4%, exceeding their respective policy benchmarks. The Legacy Fund and insurance investment pool achieved higher absolute returns of 4.2% and 5%, respectively, but trailed policy benchmarks for that year. Investment returns were below long-term expectations in fiscal 2020 largely due to the impact of the global pandemic in the first quarter. Investment performance in the first half of fiscal 2020 benefited

from continuing favorable U.S. income tax policy which bolstered revenues, margins and capital spending. Despite a very sharp and severe market decline in the first calendar quarter of 2020, the markets materially recovered in the second quarter to push returns into positive territory for the fiscal year ended June 30, 2020. Public equity returns were mixed as U.S. equities earned over 8%, while international equities were flat and global equities were down over 7% within the pension pool. Fixed income results were strong, but mixed, as U.S. investment grade debt earned over 9%, while non-investment grade debt earned less than 1% in FY20 within the pension pool. Real asset performance was also mixed with above benchmark returns for timber (up 6%) and infrastructure (up 4%), while real estate posted a 2.2% return, which trailed policy benchmarks within the pension pool last year. Private equity returns were disappointing within the pension pool earning slightly over 3% for the 1-year ended June 30, 2020, largely due to poor results in liquidating strategies, but trending favorably in recent years with our two long-term strategic partners.

While the post-lockdown recovery has been strong and global economic growth projections remain favorable (the international monetary fund (IMF) expects global economic growth to be 6% for 2021 and 4.9% for 2022), there remain a number of concerns surrounding markets. Notable concerns include:

- Although global COVID-19 case counts have begun to recede following the delta surge, additional market impact from COVID remains a very real possibility.
- Supply chain issues and associated inflation concerns are headwinds for the economy.
- Apprehension over China's ongoing economic deceleration, which was further exacerbated by Evergrande's recent woes continue to weigh on the global economy.
- Rising uncertainty over fed policy as it relates to inflation, as well as questions on whether Fed Chairman Jerome Powell will remain for a second term continue to add volatility to the markets.

While there is a strong case for continued economic growth, there exist notable headwinds and navigating the markets will continue to be challenging. The State Investment Board will continue to evaluate the ever-evolving markets and research investment strategies to prudently manage its investment portfolios.

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

TFFR's funding level increased from 65.7% to 68.6% on an actuarial basis (and on a market basis from 63.4% to 75.7%) from July 1, 2020 to July 1, 2021. As net investment gains over the past 5 years are recognized, the plan's funding level is expected to improve, if all actuarial assumptions are met in the future, including the 7.25% investment return assumption.

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

Contacting RIO Financial Management

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

North Dakota Retirement and Investment Office Statement of Net Position – Fiduciary Funds June 30, 2021 and 2020

		Pension T	rust		Investm	ent Trust		Т	otal	
	_	2021	2020		2021	2020		2021		2020
Assets:										
Investments, at fair value										
Global equities	\$	1,843,851,776 \$	1,500,306,819 \$	\$	7,923,977,037	\$ 6,047,922,	687 \$	\$ 9,767,828,813	\$	7,548,229,506
Global fixed income		859,935,213	609,737,594		6,287,302,991	5,437,603,	865	7,147,238,204		6,047,341,459
Global real assets		480,647,867	466,252,190		2,261,103,560	1,989,786,		2,741,751,427		2,456,038,458
Cash equivalents		38,081,928	23,710,131		253,103,896	145,396,	714	291,185,824		169,106,845
Total investments		3,222,516,784	2,600,006,734		16,725,487,484	13,620,709,	534	19,948,004,268		16,220,716,268
Invested securities lending										
collateral		13,508,350	7,594,167		75,402,097	51,197,	270	88,910,447		58,791,437
Receivables:										
Investment income		11,296,690	12,709,777		50,014,693	51,681,	680	61,311,383		64,391,457
Contributions		28,014,669	20,919,360		-		-	28,014,669		20,919,360
Miscellaneous		5,566	5,683		24,181	24,	662	29,747		30,345
Total receivables		39,316,925	33,634,820		50,038,874	51,706,	342	89,355,799		85,341,162
Due from other state agency		-	-		-		-	-		-
Cash and cash equivalents		25,620,714	21,060,210		463,338	353,	025	26,084,052		21,413,235
Equipment & Software (net of depr)		1,349	3,149		-		-	1,349		3,149
Total assets	_	3,300,964,122	2,662,299,080		16,851,391,793	13,723,966,	171	20,152,355,915		16,386,265,251
Deferred outflows of resources										
Related to pensions	_	1,547,047	549,008		1,172,782	352,	915	2,719,829		901,923
Liabilities:										
Accounts payable		151,625	165,186		269,770	261,	446	421,395		426,632
Investment expenses payable		2,537,244	2,038,386		11,428,225	8,513,	217	13,965,469		10,551,603
Securities lending collateral		13,508,350	7,594,167		75,402,097	51,197,	270	88,910,447		58,791,437
Accrued expenses		3,455,406	1,973,137		2,061,222	843,	730	5,516,628		2,816,867
Miscellaneous payable		-	-		28,999	29,	597	28,999		29,597
Due to other state funds		-	-		871,687,384		-	871,687,384		-
Due to other state agencies		10,974	7,961		3,917	3,	218	14,891	_	11,179
Total liabilities	_	19,663,599	11,778,837		960,881,614	60,848,	478	980,545,213		72,627,315
Deferred inflows of resources										
Related to pensions		442,740	536,950		326,334	403,	422	769,074		940,372
Fiduciary net position:										
Restricted for pensions		3,282,404,830	2,650,532,301		-		-	3,282,404,830		2,650,532,301
Held in trust for investment pool										
participants:										
Pension pool		-	-		4,293,189,642	3,433,370,	472	4,293,189,642		3,433,370,472
Insurance pool		-	-		3,206,265,290	2,987,425,	838	3,206,265,290		2,987,425,838
Held in trust for individual investment										
accounts			-		8,391,901,695	7,242,270,	876	8,391,901,695	_	7,242,270,876
Total fiduciary net position	\$	3,282,404,830 \$	2,650,532,301 \$	s	15,891,356,627	\$ 13,663,067,	186 \$	\$ 19,173,761,457	\$	16,313,599,487
Each participant unit is valued at \$1.00 Participant units outstanding					15,891,356,627	13,663,067,	186			

The accompanying notes are an integral part of the financial statements. 13

North Dakota Retirement and Investment Office Statement of Changes in Net Position – Fiduciary Funds Years Ending June 30, 2021 and 2020

	Pens	ion Trust	Investmen	nt Trust	Tot	al
	2021	2020	2021	2020	2021	2020
Additions:						
Contributions:						
Employer contributions	\$ 98,264,202	\$ 93,032,453 \$	- \$	-	\$ 98,264,202 \$	93,032,453
Member contributions	90,557,210	85,735,134	-	-	90,557,210	85,735,134
Purchased service credit	2,559,121	2,175,497	-	-	2,559,121	2,175,497
Interest, penalties and other	126,112	158,683	-	-	126,112	158,683
Total contributions	191,506,645	181,101,767	-		191,506,645	181,101,767
Investment income:						
Net change in fair						
value of investments	640,469,814	37,928,921	2,618,257,668	278,642,657	3,258,727,482	316,571,578
Interest, dividends and other incom	e 51,912,318	54,664,894	282,043,704	286,561,726	333,956,022	341,226,620
	692,382,132	92,593,815	2,900,301,372	565,204,383	3,592,683,504	657,798,198
Less investment expenses	8,388,601	6,523,407	39,305,773	28,437,549	47,694,374	34,960,956
Net investment income	683,993,531	86,070,408	2,860,995,599	536,766,834	3,544,989,130	622,837,242
Securities lending activity:						
Securities lending income	223,739	169,620	1,002,370	988,246	1,226,109	1,157,866
Less securities lending expenses	(44,740)) (33,911)	(200,426)	(197,478)	(245,166)	(231,389)
Net securities lending income	178,999	135,709	801,944	790,768	980,943	926,477
Purchase of units (\$1 per unit)			635,230,202	1,446,622,465	635,230,202	1,446,622,465
Total additions	875,679,175	267,307,884	3,497,027,745	1,984,180,067	4,372,706,920	2,251,487,951
Deductions:						
Benefits paid to participants	234,211,585	223,936,233	-	-	234,211,585	223,936,233
Partial lump-sum distributions	993,499	425,297	-	-	993,499	425,297
Refunds	5,923,187	6,489,704	-	-	5,923,187	6,489,704
Administrative expenses	2,678,375	2,095,405	2,158,611	1,781,619	4,836,986	3,877,024
Redemption of units (\$1 per unit)	-	-	1,266,579,693	376,059,310	1,266,579,693	376,059,310
Total deductions	243,806,646	232,946,639	1,268,738,304	377,840,929	1,512,544,950	610,787,568
Channes in filtrainers						
Change in fiduciary net position	631,872,529	34,361,245	2,228,289,441	1,606,339,138	2,860,161,970	1,640,700,383
Fiduciary net position:						
Beginning of year	\$ 2,650,532,301	\$ 2,616,171,056 \$	13,663,067,186 \$	12,056,728,048	\$ <u>16,313,599,487</u> \$	14,672,899,104
End of Year	\$_3,282,404,830	\$ 2,650,532,301 \$	15,891,356,627 \$	13,663,067,186	\$ 19,173,761,457 \$	16,313,599,487

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.

Fiduciary Fund

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

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

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

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

Use of Estimates

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

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

Budgetary Process

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

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

Capital Assets and Depreciation

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

	Years
Office equipment	5
Furniture and fixtures	5

Investments

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

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

Pooled Investments

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

Investment Valuation and Income Recognition

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

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

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

Pensions and Other Postemployment Benefits (OPEB)

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

Note 2 - Cash and Cash Equivalents

Custodial Credit Risk

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

Pension Trust Fund

Deposits held by the Pension Trust Fund at June 30, 2021 were deposited in the Bank of North Dakota. At June 30, 2021 and 2020, the carrying amount of TFFR's deposits was \$25,620,714 and \$21,060,210, respectively, and the bank balance was \$25,635,028 and \$21,073,623, respectively. The difference results from checks outstanding or deposits not yet processed by the bank. These deposits are exposed to custodial credit risk as uninsured and uncollateralized. However, these deposits at the Bank of North Dakota are guaranteed by the State of North Dakota through NDCC Section 6-09-10.

Investment Trust Funds

Certificates of deposit, an insurance pool cash account, a pension pool cash account and a Legacy Fund cash account are recorded as investments and have a cost and carrying value of \$88,921,637 and \$136,809,065 at June 30, 2021 and 2020, respectively. In addition, these funds carry cash and cash equivalents totaling \$463,338 and \$353,025 at June 30, 2021 and 2020, 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, 2021 and 2020, the following tables show the investments by investment type and maturity (expressed in thousands).

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

North Dakota Retirement and Investment Office Notes to Financial Statements June 30, 2021 and 2020

		_ /						June		, 2021 allu 2
	,	Fotal Fair	L	ess than					M	ore than 10
2020		Value	1 Year		1-6 Years		6-10 Years		Years	
Asset Backed Securities	\$	459,221	\$	104	\$	122,916	\$	95,116	\$	241,085
Bank Loans		898		_	•	898	•	-	•	_
Collateralized Bonds		2,633		-		-		217		2,416
Commercial Mortgage-Backed		294,632		2,588		913		1,965		289,166
Commercial Paper		33,978		33,978		-		-		-
Corporate Bonds		2,230,382		77,375		1,142,807		519,710		490,490
Corporate Convertible Bonds		10,197		-		4,534		1,825		3,838
Government Agencies		38,491		1,918		16,412		14,179		5,982
Government Bonds		540,285		5,049		225,629		60,235		249,372
Gov't Mortgage Backed		882,440		6		6,682		40,851		834,901
Gov't-issued CMB		62,317		-		7,526		36,243		18,548
Index Linked Government Bonds		585,354		-		268,167		84,069		233,118
Municipal/Provincial Bonds		46,452		3,299		11,713		5,448		25,992
Non-Government Backed CMOs		115,408		-		2,745		7,555		105,108
Short Term Bills and Notes		58,648		58,648		-		-		-
Funds/Pooled Investments		1,481,985		27,098		1,018,852		184,510		251,525
Total Debt Securities	\$	6,843,321	\$	210,063	\$	2,829,794	\$	1,051,923	\$	2,751,541

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

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

Interest-only (IO) and principal-only (PO) strips are transactions which involve the separation of the interest and principal components of a security. They are highly sensitive to prepayments by mortgagors, which may result from a decline in interest rates. The SIB held POs valued at \$6.5 million and \$0.0 million and IOs valued at \$26.4 million and \$24.4 million at June 30, 2021 and 2020, 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, 2021 and 2020, (expressed in thousands).

North Dakota Retirement and Investment Office Notes to Financial Statements June 30, 2021 and 2020

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

US Gov't & Agencies ** Total Debt Securities

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1,540,623
$ 7,513,179
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						(Credit Rating*					
2020	Total Fair Value	AAA	AA	А	BBB	BB	В	CCC	CC	С	D	NR
Asset Backed Securities	\$ 459,221	\$ 239,274	\$ 57,836	\$ 41,573	\$ 48,308	\$ 6,957	\$ 1,424	\$ 3,669	\$ 1,707	s - s	5 1,102 \$	5 57,371
Bank Loans	898	-	-	-	-	-	130	316	-	-	-	452
Collateralized Bond	2,633	2,633	-	-	-	-	-	-	-	-	-	-
Commercial Mortgage Backed	294,632	222,765	7,606	9,032	5,452	3,243	4,082	1,685	-	-	-	40,767
Commercial Paper	33,978	-	-	-	-	-	-	-	-	-	-	33,978
Corporate Bonds	2,230,382	14,432	102,599	654,018	1,130,019	217,674	74,429	26,995	286	1,105	485	8,340
Corporate Convertible Bonds	10,197	-	-	-	915	2,635	923	2,639	-	-	20	3,065
Gov't Agencies	35,950	9,347	4,653	6,926	13,607	-	-	1,417	-	-	-	-
Gov't Bonds	122,856	2,479	9,698	1,725	56,336	34,417	10,249	-	3,286	-	921	3,745
Gov't Mortgage Backed	723,348	-	710,210	1,023	3,399	-	7,941	-	-	-	-	775
Gov't Issued CMB	46,648	2,044	44,604	-	-	-	-	-	-	-	-	-
Index Linked Government Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Municipal/Provincial Bonds	46,452	2,522	21,104	14,331	4,206	1,866	-	-	481	-	634	1,308
Non-Gov't Backed CMOs	115,408	37,218	4,281	7,884	14,053	1,128	1,446	902	1,168	-	152	47,176
Short Term Bills & Notes	6,098	-	6,098	-	-	-	-	-	-	-	-	-
Funds/Pooled Investments	1,481,985	380,142	247,276	656,131	116,280	18,038	26,709			-	-	37,409
Total Credit Risk of Debt Securities	5,610,686	\$ 912,856	\$ 1,215,965	\$ 1,392,643	\$ 1,392,575	\$ 285,958	\$ 127,333	\$ 37,623	\$ 6,928	\$ 1,105 \$	3,314 \$	3 234,386

US Gov't & Agencies ** Total Debt Securities

1,232,635 \$ 6,843,321

- * Ratings are determined in the following order:

 - S&P rating
 Moody's rating
 - 3. Fitch rating

 - Manager-determined rating (internal rating)
 If no ratings available using steps 1-4, then shown as not rated.

** US government agency securities explicitly guaranteed by the US government are categorized here. Credit ratings of US government agency securities that are only implicitly guaranteed by the US government are categorized accordingly in the main body of these tables. Implicitly guaranteed agency securities included in the *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, and SLMA.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of an investment in a single issuer. As of June 30, 2021 and 2020, the SIB's portfolio has no single issuer exposure that comprises 5% or more of the overall portfolio, excluding investments issued or explicitly guaranteed by the US government and investments in mutual funds, external investment pools, and other pooled investments. Therefore, there is no concentration of credit risk.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. Although the SIB does not have a formal investment policy governing foreign currency risk, the SIB manages its exposure to fair value loss by requiring their international securities investment managers to maintain diversified portfolios to limit foreign currency and security risk. The SIB's exposure to foreign currency risk is presented in the following tables as of June 30, 2021 and 2020 (expressed in thousands).

2021					10 0 0, 2021 and 2
Currency	Short-Term	Debt	Equity	Real Estate	Total
Argentine peso	\$ 65	\$ 364	\$ -	\$ -	\$ 429
Australian dollar	1,305	133	85,215	-	86,653
Brazilian real	(10,006)	13,514	4,080	-	7,588
British pound sterling	(45,730)	47,308	262,384	-	263,962
Canadian dollar	(624)	561	36,173	-	36,110
Chinese yuan renminbi	427	-	23,707	-	24,134
Chilean peso	822	-	-	-	822
Colombian peso	(508)	-	-	-	(508)
Danish krone	575	-	87,460	-	88,035
Euro	(35,762)	37,980	609,331	651	612,200
Hong Kong dollar	816	-	155,260	-	156,076
Hungarian forint	(335)	-	2,875	-	2,540
Indian rupee	-	427	-	-	427
Japanese yen	1,604	-	294,524	-	296,128
Mexican peso	(825)	952	1,440	-	1,567
New Israeli shekel	(492)	491	3,605	-	3,604
New Taiwan dollar	334	-	7,660	-	7,994
New Zealand dollar	(245)	-	8,445	-	8,200
Norwegian krone	232	-	23,304	-	23,536
Peruvian nuevo sol	(2,183)	2,065	-	-	(118)
Polish zloty	(224)	-	-	-	(224)
Russian ruble	7	-	-	-	7
Singapore dollar	303	-	10,712	-	11,015
South African rand	638	-	1,168	-	1,806
South Korean won	-	-	12,253	-	12,253
Swedish krona	237	-	105,046	-	105,283
Swiss franc	4	-	179,514	-	179,518
Thai baht	-	-	3,296	-	3,296
Turkish lira	-	-	1,321	-	1,321
International commingled					
funds (various currencies)			1,353,624	34,534	1,388,158
Total international					
investment securities	\$ (89,565)	\$ 103,795	\$ 3,272,397	\$ 35,185	\$ 3,321,812

2020					
Currency	Short-Term	Debt	Equity	Real Estate	Total
Argentine peso	\$ 205	\$ 416	\$ -	\$ -	\$ 621
Australian dollar	(453)	704	63,821	-	64,072
Brazilian real	458	-	3,903	-	4,361
British pound sterling	(25,312)	26,067	237,714	-	238,469
Canadian dollar	(690)	369	37,124	-	36,803
Chinese yuan renminbi	278	-	-	-	278
Colombian peso	452	-	-	-	452
Danish krone	64	-	72,330	-	72,394
Euro	(30,138)	32,755	459,666	613	462,896
Hong Kong dollar	1,038	-	142,692	-	143,730
Hungarian forint	243	-	2,169	-	2,412
Indonesian rupiah	55	-	-	-	55
Japanese yen	2,616	-	288,982	-	291,598
Malaysian ringgit	203	-	-	-	203
Mexican peso	(24)	-	1,189	-	1,165
New Israeli shekel	-	-	3,463	-	3,463
New Taiwan dollar	23	-	8,138	-	8,161
New Zealand dollar	101	-	17	-	118
Norwegian krone	133	-	8,613	-	8,746
Polish zloty	(47)	-	-	-	(47)
Russian ruble	(52)	-	-	-	(52)
Singapore dollar	276	-	8,120	-	8,396
South African rand	1,098	-	480	-	1,578
South Korean won	-	-	11,816	-	11,816
Swedish krona	37	-	72,201	-	72,238
Swiss franc	1,618	-	148,008	-	149,626
Thai baht	-	-	3,088	-	3,088
International commingled					
funds (various currencies)			980,048	35,004	1,015,052
Total international					
investment securities	\$ (47,818)	\$ 60,311	\$ 2,553,582	\$ 35,617	\$ 2,601,692

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, 2021 and 2020, 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 \$232.5 and \$65.4 million for fiscal years 2021 and 2020, respectively. At June 30, 2021 and 2020, the SIB investment portfolio had the notional futures balances shown below (expressed in thousands).

Futures	Notional Value			ie
	Jur	ne 30, 2021	Jur	ne 30, 2020
Cash & Cash Equivalent Derivative Futures Long Short	\$	172,043 (653,875)	\$	- (258,482)
Commodity Derivative Futures				
Long Short		(31,463)		-
Equity Derivative Futures				
Long		662,160		1,064,665
Short		-		-
Fixed Income Derivative Futures				
Long		771,100		262,374
Short		(1,213,556)		(1,703,654)
Total Futures	\$	(293,591)	\$	(635,097)

Options

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

and \$5.3 million for fiscal years 2021 and 2020, respectively. At June 30, 2021 and 2020, the SIB investment portfolio had the following option balances (expressed in thousands).

<u>Options</u>	Fair Value							
	June	June	30, 2020					
Cash & Other Options								
Call	\$	99	\$	201				
Put		767		537				
Fixed Income Options								
Call		(220)		(146)				
Put		(170)		(70)				
Total Options	\$	476	\$	522				

Swaps

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

Gains and losses on swaps are determined based on fair values and are recorded with the net change in fair value of investments in the statement of changes in net position and totaled \$(3.0) and \$(22.5) million for fiscal years 2021 and 2020, respectively. The maximum loss that would be recognized at June 30, 2021 and 2020, if all counterparties failed to perform as contracted is \$2.3 million and \$3.0 million, respectively. Swap fair values are determined by a third party pricing source. At June 30, 2021 and 2020, the SIB's investment portfolio had the swap fair value balances as shown below (expressed in thousands).

Credit Default Swaps

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

North Dakota Retirement and Investment Office

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		Notional	Amou	nt		Fair Value				
Counterparty/Moody's Rating		June 30, 2021		2 30, 2020	Expiration Date Range	June	30, 2021	June	30, 2020	
Bank of America/Aa2 (3 contracts)	\$	(3,400)	\$	-	2021	\$	10	\$	-	
Bank of America/Aa2 (5 contracts)		(-))		(3,730)	2021 - 2025				(71)	
Citibank/Aa3 (27 contracts)		(3,000)			2023 - 2024		(12)			
Citibank/Aa3 (33 contracts)				3,715	2020 - 2024				(262)	
Citigroup Global Markets/A1 (5 contracts)		(6,804)			2024 - 2026		623			
Citigroup Global Markets/A1 (2 contracts)				(400)	2024				(9)	
Credit Suisse First Boston/A1 (12 contracts)		(18,361)			2022 - 2026		1,505			
Credit Suisse First Boston/A1 (9 contracts)				(3,675)	2020 - 2024				(114)	
Deutsche Bank/A3 (2 contracts)				2,000	2059				(15)	
Goldman Sachs/A2 (4 contracts)		(1,700)			2023 - 2024		8			
Goldman Sachs/A3 (4 contracts)				(1,700)	2023 - 2024				(55)	
JP Morgan Chase/Aa2 (1 contract)		26,110			2026		(667)			
JP Morgan Chase/Aa2 (4 contracts)				(25,515)	2025 - 2029				852	
Morgan Stanley/A1 (1 contract)		(100)			2024		1			
Morgan Stanley/A3 (5 contracts)				2,555	2024 - 2025				(35)	
Total Credit Default Swaps	\$	(7,255)	\$	(26,750)		\$	1,468	\$	291	

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

Interest Rate Swaps

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

		Notional	Amo	unt			Fair V	/alue	
Counterparty/Moody's Rating	Jun	e 30, 2021	Jun	e 30, 2020	Expiration Date Range	June 30, 2021		June	30, 2020
Citigroup Global Markets/A1 (17 contracts)	\$	55,438	\$	-	2022 - 2051	\$	(41)	\$	-
Citigroup Global Markets/A1 (16 contracts)				112,251	2020 - 2050				443
Credit Suisse First Boston/A1 (13 contracts)		132,778			2023 - 2051		1,145		
Credit Suisse First Boston/A1 (22 contracts)				185,220	2020 - 2050				714
JP Morgan Chase/Aa2 (129 contracts)		160,807			2023 - 2035		(4,026)		
JP Morgan Chase/Aa2 (100 contracts)				367,049	2020 - 2045				4,871
Total Interest Rate Swaps	\$	349,023	\$	664,520		\$	(2,922)	\$	6,028

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).

North Dakota Retirement and Investment Office Notes to Financial Statements June 30, 2021 and 2020

		Notional	Amour	nt			Fair Value			
Counterparty/Moody's Rating	June 30, 2021		June 30, 2020		Expiration Date Range	June 30, 2021		June 3	30, 2020	
Citigroup Global Markets/A1 (4 contracts) JP Morgan Chase/Aa2 (21 contracts)	\$	13,240 17,220	\$	-	2026 2026 - 2031	\$	(402) (369)	\$	-	
Total Inflation Swaps	\$	30,460	\$	-		\$	(771)	\$	-	

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

Total Return Swaps

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

		Notional	Amoui	nt			Fair V	/alue	
Counterparty/Moody's Rating	June	30, 2021	June	30, 2020	Expiration Date Range	June 30	0, 2021	June 3	0, 2020
Credit Suisse International/Aa3 (2 contracts) Credit Suisse International/A1 (2 contracts)	\$	2,764	\$	- 2,764	2041 2041	\$	7	\$	- 2
Total Total Return Swaps	\$	2,764	\$	2,764		\$	7	\$	2

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 \$(3.2) million and \$2.4 million for fiscal years 2021 and 2020, respectively. At June 30, 2021 and 2020, the SIB's investment portfolio included the currency forwards balances shown below (expressed in thousands).

							Fair V	/alue	
Currency	Co	ost	Pur	chases	Sales	6/	30/2021	6/	30/2020
Australian dollar	\$	(131)	\$	-	\$ (131)	\$	(128)	\$	(737)
Brazilian real		(8,393)		6,733	(15,126)		(9,541)		(2)
British pound sterling	(66,012)		24,676	(90,688)		(64,811)		(39,408)
Canadian dollar		(399)		-	(399)		(404)		(579)
Chilean peso		1,733		1,733	-		1,702		-
Colombian peso		-		-	-		-		167
Euro	(1	35,085)		89,223	(224,308)		(131,704)		(60,502)
Japanese yen		(521)		-	(521)		(516)		-
New Israeli shekel		(1,953)		-	(1,953)		(1,970)		-
Peruvian nuevo sol		(2,236)		-	(2,236)		(2,183)		-
Russian ruble		6		6	-		7		(52)
South African rand		(1,032)		-	(1,032)		(986)		-
United States dollar	2	14,023		336,394	(122,371)		214,023		99,701
Total forwards subject to	currenc	y risk				\$	3,489	\$	(1,412)

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, 2021 and 2020, the tables below show the SIB's derivative investments subject to interest rate risk (expressed in thousands).

2021	N	Fotal otional Value	3 mon	ths or less	3 to	6 months	6 to	12 months	1-5	years	5-10) years		r than ears
Futures-interest rate contracts	\$	(924,288)	\$	(675,150)	\$	(403,466)	\$	(17,715)	\$ 1	72,043	\$	-	\$	-
Margined Options-interest rate contracts		-		-		-		-		-		-		-
Total	\$	(924,288)	\$	(675,150)	\$	(403,466)	\$	(17,715)	\$ 1	72,043	\$	-	\$	-
	Тс	tal Fair											Greate	r than
		Value		ths or less		6 months	6 to	12 months	1-5	years	-) years	10 y	ears
Options - interest rate contracts		Value 818	3 mon \$	(20)	<u>3 to</u> \$	6 months	6 to \$	-	<u>1-5</u> \$	years -	<u>5-10</u> \$) years -		ears 838
Options - interest rate contracts Options on futures						6 months - -	6 to \$		<u>1-5</u> \$	years - -	-) years - -	10 y	
1		818		(20)			6 to \$	-	<u>1-5</u> \$	years - (760)	-) years - (3,095)	10 y	
Options on futures		818 (342)		(20) (371)		<u>- 6 months</u> - - 10	6 to \$	- 29	1-5 \$	-	-	-	10 y	838

2020	Total												
	Notional											Great	er than
	Value	3 mo1	nths or less	3 to 6 n	nonths	6 to 1	2 months	1-5	years	5-10	years	10	years
Futures-interest rate contracts	\$(1,699,762)	\$	(265,954)	\$ (1,1	75,326)	\$	(86,077)	\$ (1	72,405)	\$	-	\$	-
Margined Options-interest rate contracts	(3)		(3)		-		-		-		-		-
Total	\$(1,699,765)	\$	(265,957)	\$ (1,1	75,326)	\$	(86,077)	\$ (1	72,405)	\$	-	\$	-
	Total Fair Value	<u>3 moi</u>	or less	3 to 6 n	nonths	6 to 1	12 months	1-5	years	5-10	years		er than years
Options - interest rate contracts		<u>3 moi</u>	nths or less (7)	<u>3 to 6 n</u> \$	nonths	<u>6 to 1</u> \$	12 months	<u>1-5</u> \$	years	<u>5-10</u> \$	years		
Options - interest rate contracts Options on futures	Value	\$				6 to 1 \$		<u>1-5</u> \$	<i>.</i>	<u>5-10</u> \$	years - -	10	years
1	Value \$ 731	\$	(7)			<u>6 to 1</u> \$	-	<u>1-5</u> \$	<i>.</i>	<u>5-10</u> \$	<u>years</u> - - 250	10	years
Options on futures	Value \$ 731 (209)	\$	(7) (209)		-	<u>6 to 1</u> \$	-	<u>1-5</u> \$	-	<u>5-10</u> \$		10	738 -

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, 2021 and 2020 (expressed in thousands).

North Dakota Retirement and Investment Office Notes to Financial Statements

June 30, 2021 and 2020

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

North Dakota Retirement and Investment Office Notes to Financial Statements June 30, 2021 and 2020

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

North Dakota Retirement and Investment Office Notes to Financial Statements

June	30,	2021	and	2020
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		Dollars in (000)									
					Fair Value Measures Usi	ng					
2020			Que	oted Prices in		0					
			Activ	ve Markets for	Significant Other	Si	gnificant				
	Fa	air Value	Inde	ntical Assets	Observable Inputs	Unobs	ervable Inputs				
		6/30/20		(Level 1)	(Level 2)	(Level 3)				
Investments by Fair Value Level											
Short Term Securities											
Commercial Paper	\$	33,978	\$	-	\$ 33,978	\$	-				
Short Term Bills and Notes		58,648		-	58,648		-				
Total Short Term Securities		92,626		-	92,626		-				
Fixed Income Investments											
Asset Backed Securities		458,001		-	458,001		-				
Bank Loans		898		-	898		-				
Collateralized Bonds		2,633		-	2,633		-				
Commercial Mortgage-Backed		294,632		-	294,632		-				
Corporate Bonds		2,228,985		-	2,226,656		2,329				
Corporate Convertible Bonds		10,197		-	10,197		-				
Funds - Fixed Income ETF		24,430		24,430	-		-				
Government Agencies		38,491		-	35,309		3,182				
Government Bonds		540,285		-	540,285		-				
Government Mortgage Backed Securities		866,696		-	866,696		-				
Gov't-issued Commercial Mortgage-Backed		62,317		-	62,317		-				
Index Linked Government Bonds		585,354		-	585,354		-				
Municipal/Provincial Bonds		41,223		-	41,223		-				
Non-Government Backed C.M.O.s		110,132		-	110,132		-				
Other Fixed Income		76		67	9		-				
Total Fixed Income Investments		5,264,350		24,497	5,234,342		5,511				
Equity Investments											
Common Stock		4,689,513		4,689,513	-		-				
Convertible Equity		15,417		15,417	-		-				
Funds - Equities ETF		86,628		86,628	-		-				
Preferred Stock		2,262		2,262	-		-				
Rights/Warrants		257		257	-		-				
Stapled Securities		2,666		2,666	-		-				
Total Equity Investments		4,796,743		4,796,743	-		-				
Derivative Investments											
Exchange Cleared Swaps		6,806		-	6,806		-				
Options		522		(209)	731		-				
Swaps		(485)		-	(485)						
Total Derivative Investments		6,843		(209)	7,052		-				
Total Investments by Fair Value Level	\$ 1	0,160,562	\$	4,821,031	\$ 5,334,020	\$	5,511				

	 Dolla	rs i	n (000)		
			Unfunded	Redemption Frequency	Redemption
Investments Measured at the Net Asset Value (NAV)			Commitments	(If Currently Eligible)	Notice Period
Commingled Funds-Debt	\$ 1,457,557	\$	- 5	Daily, monthly	1-15 days
Commingled Funds-Equities	1,086,970		-	Daily, monthly	1-15 days
Distressed Debt	245,445		90,604	Quarterly, Not eligible	60 days
Long/Short	263,941		-	Monthly	15 days
Mezzanine Debt	229		8,499	Not eligible	Not eligible
Private Credit	413,775		191,200	Not eligible	Not eligible
Private Equity	290,360		332,373	Not eligible	Not eligible
RealAssets	1,886,206		246,371	Quarterly, Not eligible	30-90 days
Total Investments Measured at the NAV	\$ 5,644,483	\$	869,047		
Investments at Other Than Fair Value					
Cash and adjustments to cash	\$ 298,319				
Bank Certificates of Deposit	88,433				
Other miscellaneous securities	28,919				
Total Investments at Other Than Fair Value	\$ 415,671				
Total Investments	\$ 16,220,716				

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, 2021 and 2020, unfunded commitments in one of its two distressed debt funds totaled \$75.0 million and \$90.6 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, 2021 and 2020.

Mezzanine Debt — This strategy is a hybrid of debt and equity financing. It is essentially debt capital that gives the lender the rights to convert to an ownership or equity interest in the company if the loan is not paid back in time and in full. It is generally subordinated to senior debt. The SIB utilizes this strategy, through a limited partnership structure, in its global fixed income allocation. The two funds in this category are not eligible for redemptions, have remaining lives of 1-2 years, and unfunded commitments of \$8.5 million as of June 30, 2021 and 2020.

Private Credit — These investments include loans to private companies, privately placed debt of public companies, or loans backed by real assets. Loan repayment can be derived from either cash flows from an operating company or cash flows generated by a physical or esoteric asset. Private debt is typically secured and has various protections/covenants in place. The debt is customized to the borrower's requirement, thus rendering it illiquid. The SIB includes these strategies within its global fixed income allocation through limited partnership-type structures. Private credit issuers may be investment grade but are typically below-investment grade and similar in some respect to the syndicated bank loan and high yield markets. The SIB participates in two senior private credit funds, commonly referred to as direct lenders, which are structured as custom managed accounts and are not eligible for redemptions during their investment lives. Due to the perpetual nature of the funds, the remaining investment lives fluctuate based on timing of new commitments, and the unfunded commitments totaled \$181.2 million and \$191.2 million as of June 30, 2021 and 2020, respectively.

Private Equity — Private Equity investments are typically private interests in corporations across different areas of the capital structure and in different stages of the corporations' development via limited partnership vehicles. Private Equity investments are illiquid and long term in nature (10-12 years), typically held until maturity. Private Equity portfolios generally have a "J-Curve Effect" whereby there are low to negative returns in the initial years due to the payment of investment management fees and initial funding of investments made by the General Partner during a period when investments are typically carried at cost and returns have not been realized. To diversify the program, Private Equity investments are made across business cycles, vintage years, and different strategies. The SIB has a dedicated sub-asset class for private equity investments within its global equity allocation in the pension pool. 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 \$862.0 million and \$333.3 million in unfunded private equity commitments as of June 30, 2021 and 2020, 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 10 different real estate funds in the portfolio. Four of those funds are open-ended vehicles that accept redemption requests quarterly with a 30-90 day notification period. There were no unfunded commitments totaling \$45 million as of June 30, 2021; and two of the four open-ended funds had unfunded commitments totaling \$45 million as of June 30, 2020. The remaining five funds are closed-ended limited partnerships that are not eligible for redemptions. Those five funds have a combined unfunded commitment of \$263.3 million and \$85.1 million as of June 30, 2021 and 2020, respectively.

Timberland — includes investments in limited liability companies that have an ownership interest in properties where the value of the property is derived mainly from income-producing timber but also from the "higher and better use" value of the underlying land. The SIB includes these assets within its global real assets allocations. There are three funds in the portfolio and they have no unfunded commitments. The funds are not eligible for redemption other than distributions of income and/or proceeds as determined by the investment manager. The funds have remaining lives of 1-5 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, 2021 and 2020, 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 \$167.1 million and \$116.3 million at June 30, 2021 and 2020, respectively, and are not eligible for redemptions.

Securities Lending

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

Non-cash collateral cannot be pledged or sold unless the borrower defaults. All securities loans can be terminated on demand by either the lender or the borrower, although the average term of SIB loans was approximately 130 and 232 days as of June 30, 2021 and 2020, respectively. Cash open collateral is invested in a short term investment pool, which had an interest sensitivity of 1 day as of both June 30, 2021 and 2020. This pool is valued based on amortized cost. There were no violations of legal or contractual provisions, no borrower or lending agent default losses known to the securities lending agent. There are no dividends or coupon payments owing on the securities

lent. Securities lending earnings are credited to participating clients on approximately the fifteenth day of the following month.

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

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

The following represents the balances relating to the securities lending transactions at June 30, 2021 and 2020 (expressed in thousands).

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

North Dakota Retirement and Investment Office Notes to Financial Statements

June 30, 2021 and 2020

2020	Se	curities Lent	Co	on-Cash llateral Value	Co Inv	Cash llateral estment Value
Lent for cash collateral:						
US agency securities	\$	634	\$	-	\$	646
US government securities		1,471		-		1,487
US corporate fixed income securities		16,468		-		16,744
Global government securities		827		-		875
Global corporate fixed income securities		205		-		214
US equities		7,717		-		7,815
Global equities		29,051		-		31,010
Lent for non-cash collateral:						
US government securities		1,316		1,343		-
US corporate fixed income securities		17,204		17,555		-
US equities		87,966		89,262		-
Global equities		12,630		13,519		-
Total	\$	175,489	\$	121,679	\$	58,791

Note 4 - Capital Assets

	June 30, 2019	Additions	Retirements	June 30, 2020	Additions	Retirements	June 30, 2021
Office equipment Less accumulated	\$16,879	\$ -	\$ -	\$16,879	\$ -	\$-	\$16,879
depreciation on office equipment	(11,930)	(1,800)	-	(13,730)	(1,800)	-	(15,530)
Software	1,213,500	-	-	1,213,500	\$0	-	1,213,500
Less accumulated depreciation on software	(1,213,500)	-	-	(1,213,500)	-	-	(1,213,500)
	\$ 4,949	\$ (1,800)	\$ -	\$ 3,149	\$ (1,800)	\$ -	\$ 1,349

Note 5 - State Agency Transactions

Due To/From Other State Agencies and Other State Funds

Amounts due from/to other state agencies and other state funds are as follows as of June 30, 2021 and 2020:

	 2021	 2020
Due To Other State Agencies		
Information Technology Department	\$ 10,976	\$ 7,831
Office of Attorney General	3,884	3,011
Office of Management and Budget	31	337
Total due to other state agencies	\$ 14,891	\$ 11,179
Due To Other State Funds		
General Fund	\$ 871,687,384	\$ -

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

Note 6 - 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 \$88,365 and \$89,924 for fiscal years 2021 and 2020, respectively. Minimum payments under the lease for fiscal 2022 are \$90,872.

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, 2021 and 2020 are summarized as follows:

	Beginning Balance 7/1/2020	Additions	Reductions	Ending Balance 6/30/2021	Amounts Due Within One Year
Accrued Leave	\$205,830	\$160,655	(\$155,082)	\$211,403	\$141,891
	Beginning Balance 7/1/2019	Additions	Reductions	Ending Balance 6/30/2020	Amounts Due Within One Year
Accrued Leave	\$194,227	\$149,970	(\$138,367)	\$205,830	\$135,440

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, 2021 and 2020, the number of participating employer units was 212 and 213, respectively, consisting of the following:

	June 30, 2021	June 30, 2020
	172	174
Public School Districts	173	174
County Superintendents	6	6
Special Education Units	20	20
Vocational Education Units	4	4
Other	9	9
Total	212	213

TFFR's membership consisted of the following:

	2021	2020
Retirees and beneficiaries currently receiving benefits	9,262	9,036
Terminated employees - vested	1,754	1,715
Terminated employees - nonvested	1,213	1,132
Total	12,229	11,883
Current employees		
Vested	8,306	8,216
Nonvested	3,321	3,131
Total	11,627	11,347

Member and Employer Contributions

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

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

Pension Benefits

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

Tier 1 Grandfathered

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

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

Tier 1 Non-grandfathered

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

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

Tier 2

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

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

Death and Disability Benefits

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

An active member is eligible to receive disability benefits when: (a) a total disability lasting 12 months or more does not allow the continuation of teaching, (b) the member has accumulated five years of credited service in North Dakota, and (c) the Board of Trustees of TFFR has determined eligibility based upon medical evidence. The amount of the disability benefit is computed by the retirement formula in NDCC Section 15-39.1-10 without consideration of age and uses the member's actual years of credited service. There is no actuarial reduction for reason of disability retirement.

Investment Rate of Return

The annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 26.36% and 3.37% for the years ended June 30, 2021 and 2020, 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, 2021 and 2020, TFFR had net realized gains of \$236,376,522 and \$50,611,877, respectively.

Net Pension Liability

The components of the net pension liability of TFFR at June 30, 2021 and 2020 (expressed in thousands), were as follows:

Notes to Financial Statements June 30, 2021 and 2020 June 30, 2021 June 30, 2020 Total pension liability \$ 4,336,060 \$ 4,181,036 Plan fiduciary net position (3,282,405) (2,650,532)Net pension liability (NPL) \$ 1,053,655 \$ 1,530,504 Plan fiduciary net position as a percentage of the total pension liability 75.7% 63.4%

North Dakota Retirement and Investment Office

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of July 1, 2021 and 2020, using the following actuarial assumptions:

Valuation date	July 1, 2021	July 1, 2020
Inflation	2.30%	2.30%
Salary increases	3.80% to 14.80%; varying by service,	3.80% to 14.80%; varying by service,
	including inflation and productivity	including inflation and productivity
Cost of living adjustments	None	None
Investment rate of return	7.25% net of investment expenses, including	7.25% net of investment expenses, including
	inflation	inflation

For the July 1, 2021 and 2020, valuations, the post-retirement healthy mortality table was updated to 104% of the PubT-2010 Retiree table for retirees and to 95% of the PubT-2010 Contingent Survivor table for beneficiaries, both projected with generational improvement using Scale MP-2019. The disabled mortality was updated to the PubNS-2010 Non-Safety Disabled Mortality table projected with generational improvement using Scale MP-2019.

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

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

The long-term expected rate of return on TFFR investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by

2021		Long-Term
		Expected
	Target	Real Rate of
	Allocation	Return
Global Equity	55.0%	6.9%
Global Fixed Income	26.0%	0.7%
Global Real Assets	18.0%	4.8%
Cash Equivalents	1.0%	-1.0%
2020		Long-Term
2020		Long-Term Expected
2020	Target	e
2020	Target Allocation	Expected
2020	e	Expected Real Rate of
2020 Global Equity	e	Expected Real Rate of
	Allocation	Expected Real Rate of Return
Global Equity	Allocation 58.0%	Expected Real Rate of Return 6.9%

adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the TFFR target asset allocation as of July 1, 2021 and 2020 are summarized in the following tables:

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 2.0% for expected inflation.

Discount Rate

The discount rate used to measure the total pension liability was 7.25% as of June 30, 2021 and 2020. 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, 2021 and 2020 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, 2021 and 2020. 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, 2021 and 2020.

Sensitivity of Net Pension Liability

The following presents the net pension liability of the TFFR employers calculated using the discount rate of 7.25% as of June 30, 2021 and 2020, 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:

2021			
	1% Decrease	Current Discount	1% Increase
	(6.25%)	Rate (7.25%)	(8.25%)
Employers' net pension liability	\$ 1,582,102,595	\$ 1,053,655,311	\$ 614,833,478
2020			
	1% Decrease	Current Discount	1% Increase
	(6.25%)	Rate (7.25%)	(8.25%)
Employers' net pension liability	\$ 2,038,548,355	\$ 1,530,503,462	\$ 1,108,292,065

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. Effective August 1, 2019, the credit is expanded to also include any dental, vision, and long-term care 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 postretirement 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 contributions are set by statute. During the 1983-1985 biennium the State of North Dakota implemented the employer pickup provision of the IRS code whereby a portion or all of the required member contributions are made by the employer. RIO, as the employer, is paying 4% of the member contribution. Employer contributions are set by statute.

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

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

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

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

OPEB Benefits

The employer contribution is set by statute at 1.14% of covered compensation. Employees participating in the retirement plan as part-time/temporary members are required to contribute 1.14% of their covered compensation to the Retiree Health Insurance Credit Fund. Employees purchasing previous service credit are also required to make an employee contribution to the Fund. The benefit amount applied each year is shown as "prefunded credit applied" on the Statement of Changes in Plan Net Position for the OPEB trust funds.

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

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

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

At June 30, 2021 and 2020, RIO reported a liability of \$4,531,009 and \$1,889,405, respectively, for its proportionate share of the net pension and OPEB liability. These amounts are included in the accrued liabilities in the statements of net position. The net pension and OPEB liability was measured as of June 30, 2020 and 2019, 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, 2020, RIO's pension plan proportion was 0.140747 percent and as of June 30, 2019, was 0.151523 percent. RIO's OPEB plan proportion was 0.122537 percent as of June 30, 2020 and was 0.141245 percent as of June 30, 2019.

RIO recognized pension and OPEB expense of \$652,402 and \$234,757 for the years ended June 30, 2021 and 2020, respectively. At June 30, 2021 and 2020, RIO reported deferred outflows of resources and deferred inflows of resources related to pensions and OPEB from the following sources:

	 Deferred C Resou	 ws of	Deferred Inflows of Resources				
	 2021	 2020		2021		2020	
Differences between expected and actual							
experience	\$ 19,519	\$ 3,853	\$	226,838	\$	325,848	
Changes in assumptions	2,387,471	677,150		392,423		569,784	
Net differences between projected and actual							
earnings on plan investments	146,456	31,068		-		-	
Changes in proportion and differences							
between employer contributions and							
proportionate share of contributions	14,114	55,138		149,812		44,740	
Employer contributions subsequent to the							
measurement date	 152,268	 134,714		-		-	
Total	\$ 2,719,828	\$ 901,923	\$	769,073	\$	940,372	

Deferred outflows of resources related to pensions and OPEB resulting from employer contributions subsequent to the measurement date in the amount of \$152,268 will be recognized as a reduction of the net pension liability in the year ended June 30, 2022.

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	
2022	545,435
2023	459,175
2024	367,933
2025	426,276
2026	(394)
2027	62
	\$ 1,798,487

Actuarial assumptions

The total pension and OPEB liabilities in the July 1, 2020 and 2019 actuarial valuation were determined using the following actuarial assumptions, applied to all periods included in the measurement:

2020 – Pension Plan

Inflation	2.25%
Salary Increase (Payroll Growth)	3.5% to 17.75%, including inflation
Investment Rate of Return	7.00%, net of investment expense, including inflation
Cost-of-living Adjustments	None
Mortality Rates	Sex-distinct Pub-2010 tables for General Employees, with scaling based on actual experience. Respective corresponding tables were used for healthy retirees, disabled retirees, and active members. Mortality rates are projected from 2010 using the MP-2019 scale.
2019 – Pension Plan	
Inflation	2.50%
Salary Increase (Payroll Growth)	4.00% to 20%, including inflation
Investment Rate of Return	7.50%, net of investment expense, including inflation
Cost-of-living Adjustments	None
Mortality Rates	Mortality rates for active members, inactive members and healthy retirees 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, 2020 and 2019, 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.

2020 – OPEB Plan	
Inflation	2.25%
Salary Increase (Payroll Growth)	Not applicable.
Investment Rate of Return	6.50%, net of investment expense, including inflation
Mortality Rates	Pub-2010 Healthy Retiree Mortality table (for General Employees), sex- distinct, with rates multiplied by 103% for males and 101% for females. Pub-2010 Disabled Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 117% for males and 112% for females. Pub-2010 Employee Mortality table (for General Employees), sex-distinct, with rates multiplied by 92% for both males and females. Mortality rates are projected from 2010 using the MP-2019 scale.
2019 – OPEB Plan	
Inflation	2.50%
Salary Increase (Payroll Growth)	Not applicable.
Investment Rate of Return	7.25%, net of investment expense, including inflation
Mortality Rates	Mortality rates for active members, inactive members and healthy retirees 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%.

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

The long-term expected rate of return on pension and OPEB plan investments was determined using a buildingblock 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:

2020 - Pension Plan		
		Long-Term
		Expected
	Target	Real Rate of
Asset Class	Allocation	Return
Global Equity	57%	6.9%
Global Fixed Income	23%	1.3%
Global Real Assets	20%	5.0%

2019 - Pension Plan

	Target	Long-Term Expected Real Rate of
Asset Class	Allocation	Return
Global Equity Global Fixed Income Global Real Assets	57% 23% 20%	7.0% 2.1% 5.4%

2020 - OPEB Plan

		Long-Term Expected
	Target	Real Rate of
Asset Class	Allocation	Return
Large Cap Domestic Equity	37%	6.1%
Small Cap Domestic Equity	9%	7.0%
International Equity	14%	6.5%
Core-Plus Fixed Income	40%	1.2%

2019 - OPEB Plan

		Long-Term Expected
	Target	Real Rate of
Asset Class	Allocation	Return
Large Cap Domestic Equity	37%	6.0%
Small Cap Domestic Equity	9%	7.3%
International Equity	14%	7.0%
Core-Plus Fixed Income	40%	2.1%

Discount rate

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

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

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

For 2019, the expected return on pension plan investments is 7.50%; the municipal bond rate is 3.13% (based on the most recent date available on or before the measurement date of the "20-year Municipal Go Index" from Fidelity); and the resulting Single Discount Rate is 7.50%.

The discount rate used to measure the total OPEB liability for 2020 was 6.50% and for 2019 was 7.25%. 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, 2020 and 2019 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 benefits of fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the OPEB fiduciary net position was projected to be sufficient to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB investments was applied to all periods of projected benefit payments to determine the total OPEB liability for both years.

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

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

2021			
	1% Decrease	Current Discount	1% Increase
	(3.64%)	Rate (4.64%)	(5.64%)
RIO's net pension liability	\$ 5,744,908	\$ 4,427,931	\$ 3,350,323
	1% Decrease	Current Discount	1% Increase
	(5.50%)	Rate (6.50%)	(7.50%)
RIO's net OPEB liability	135,189	103,078	75,924
2020			
	1% Decrease	Current Discount	1% Increase
	(6.5%)	Rate (7.5%)	(8.5%)
RIO's net pension liability	\$ 2,546,343	\$ 1,775,959	\$ 1,128,702
	1% Decrease	Current Discount	1% Increase
	(6.25%)	Rate (7.25%)	(8.25%)
RIO's net OPEB liability	144,799	113,446	86,608

Sensitivity for Healthcare Cost Trend Rates

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

Pension and OPEB plan fiduciary net position

Detailed information about the pension and OPEB plans' fiduciary net position is available in the separately issued NDPERS 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 a case arising out of the Tribune bankruptcy proceedings, relating to securities that were purchased by external investment managers in one or more portfolios held by the SIB on behalf of its investment client funds. Outside counsel has been retained, in addition to assistance received from the ND Office of Attorney General. On July 15, 2019, the Litigation Trustee filed a Notice of Appeal to the Second Circuit, appealing the various judgments of the US District Court that dismissed his claims against defendants in the Action and denying leave to amend his complaint to add a constructive fraudulent transfer claim. The Second Circuit held oral argument on August 24, 2020, and on August 20, 2021, upheld the dismissal. The Litigation Trustee has now filed a petition for an *en banc* rehearing by the full Second Circuit of the Court's August 20, 2021, decision. No liability has been recorded for this case.

REQUIRED SUPPLEMENTARY INFORMATION

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

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

Notes to Schedule:

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

** Restated in 2015 due to GASB 68 implementation.

Changes of assumptions:

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

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

Fiscal Year	de	tuarially termined tribution	Contributions in relation to the actuarially determined contribution		de	tribution ficiency excess)	-	Covered bayroll	Contributions as a percentage of covered payroll		
2012 2013 2014 2015	\$	69,374 52,396 59,513 71,168	\$	46,126 59,301 62,355 78,422	\$	23,248 (6,905) (2,842) (7,254)	\$	527,156 551,656 580,053 615,105	8.75% 10.75% 10.75% 12.75%		
2016 2017 2018 2019 2020 2021		84,724 89,231 88,307 90,778 93,688 101,655		82,840 86,059 86,676 89,445 93,032 98,264		1,884 3,172 1,631 1,333 656 3,391		649,725 674,971 679,809 701,528 729,661 770,700	12.75% 12.75% 12.75% 12.75% 12.75% 12.75%		

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

Notes to Schedule

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

Methods and assumptions used to determine contribution rates:

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

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

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

2021	2020	2019	2018	2017	2016	2015	2014	2013
26.36%	3.37%	5.46%	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)

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

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

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

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

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

_	Pension Pool Partici	ipants				Insurance Pool Partie	cipants						
-	Public	Bismarck	Bismarck	City of					Petroleum	Insurance			Risk
	Employees	City	City	Grand Forks	City of	Workforce	State		Tank	Regulatory	Cultural		Mgmt
	Retirement	Employee	Police	Employee	Grand Forks	Safety &	Fire &	State	Release	Trust	Endowment	Risk	Workers'
-	System	Pension Plan	Pension Plan	Pension Plan	Park District	Insurance	Tornado	Bonding	Comp. Fund	Fund	Fund	Mgmt	Comp
Assets:													
Investments													
Global equities	\$2,424,172,969	\$58,861,823	\$26,401,619	\$48,915,617	\$5,096,810	\$505,201,987	\$7,912,132	\$0	\$0	\$2,132,232	\$334,423	\$1,305,529	\$1,582,034
Global fixed income	942,697,964	43,235,697	14,891,626	19,500,252	2,340,869	1,382,432,323	12,488,610	2,095,802	3,083,841	2,497,096	227,656	2,817,289	2,594,679
Global real assets Cash equivalents	625,531,022 24,697,250	25,626,804 457,590	10,380,626 154,976	12,483,780 769,713	1,855,228 64,966	394,427,942 19,387,668	- 2,283,236	- 1,731,443	3,130,695	- 2,500,660	31,764 18,428	- 218,479	- 129,437
Cashequivalents	24,097,230	457,590	154,970	709,713	04,900	19,367,000	2,203,230	1,731,443	3,130,095	2,300,000	10,420	210,479	129,437
Total investments	4,017,099,205	128,181,914	51,828,847	81,669,362	9,357,873	2,301,449,920	22,683,978	3,827,245	6,214,536	7,129,988	612,271	4,341,297	4,306,150
Invested sec lending collateral	16,290,433	481,137	189,188	350,781	49,530	6,288,417	74,012	5,979	8,723	17,872	2,263	13,898	14,512
Investment income receivable	8,413,419	266,659	103,286	113,353	17,262	9,867,720	135,086	23,097	51,254	6,444	237	48,006	4,140
Operating Cash	93,147	-	-	-	-	57,502	1,306	1,192	1,333	866	204	1,224	1,169
Miscellaneous receivable	5,995	-	-	-	-	3,551	36	6	10	4	1	7	7
Due from other state agencies	-	-	-	-	-	-	-	-	-	-	-	-	-
Total assets	4,041,902,199	128,929,710	52,121,321	82,133,496	9,424,665	2,317,667,110	22,894,418	3,857,519	6,275,856	7,155,174	614,976	4,404,432	4,325,978
Deferred outflows of resources													
Related to pensions	310,503					191,178	2,113	328	591	214	48	456	441
Liabilities:													
Investment expenses payable	3,322,281	97,928	40,252 189.188	65,771	8,419	1,411,107 6.288.417		1,116 5.979	1,637 8.723	4,061 17.872	590 2.263	3,463 13.898	3,768
Securities lending collateral Accounts payable	16,290,433 66,918	481,137	109,100	350,781	49,530	38,337	74,012 393	5,979 65	8,723 106	45	2,203	73	14,512 71
Accounts payable Accrued expenses	573,944	-	-	-	-	363,621	4,502	640	1.220	389	89	970	907
Miscellaneous payable	-	5.563	2.247	3.416	404	-	-,002		1,220	-	-		-
Due to other state funds	-	-		-	-	-	-	-	-	-	-	-	-
Due to other state agencies	971	-	-	-	-	575	6	1	2	1	-	1	1
Total liabilities	20,254,547	584,628	231,687	419,968	58,353	8,102,057	96,073	7,801	11,688	22,368	2,952	18,405	19,259
- Deferred inflows of resources													
Related to pensions	\$83,069	\$0	\$0	\$0	\$0	\$58,806	\$657	\$111	\$192	\$40	\$12	\$143	\$153
· ·								· · · ·					
Fiduciary net position held in trust for													
external investment pool participants	\$ 4,021,875,086	\$ 128,345,082	\$ 51,889,634	\$ 81,713,528	\$ 9,366,312	\$ 2,309,697,425	\$22,799,801	\$3,849,935	\$ 6,264,567	\$ 7,132,980	\$ 612,060	\$ 4,386,340	\$ 4,307,007
Each participant unit is valued at \$1.00													
Participant units outstanding	4,021,875,086	128,345,082	51,889,634	81,713,528	9,366,312	2,309,697,425	22,799,801	3,849,935	6,264,567	7,132,980	612,060	4,386,340	4,307,007

North Dakota Retirement and Investment Office Combining Statement of Net Position – Investment Trust Funds – Fiduciary Funds June 30, 2021 (with Summarized Comparative Totals for 2020)

terans'	ND			City of	City of		Lewis & Clark	Attorney		Job		PERS		
etery	Ass'n. of	PERS	Budget	Bismarck	Fargo	State	Interpretive	General		Service	Tobacco	Retiree		
ıst	Counties	Group	Stabilization	Deferred	FargoDome	Board of	Center	Settlement	Legacy	of North	Prevention and	Health	Tot	als
nd	Fund	Insurance	Fund	Sick Leave	Fund	Medicine	Endowment	Fund	Fund	Dakota	Control Fund	Credit Fund	2021	2020
88,850	\$2,693,298	\$0	\$0	\$251,307	\$24,723,747	\$744,347	\$318,354	\$0	\$4,675,750,227	\$19,108,158	\$0	\$118,281,574	\$ 7,923,977,037	\$ 6,047,922,6
133,121	4,818,947	32,716,340	740,906,543	550,570	19,498,111	1,856,854	587,859	915,009	2,916,006,936	77,129,210	-	61,279,787	6,287,302,991	5,437,603,8
57,633	-	-	-	-	4,986,475	172,485	-	-	1,185,549,801	-	-	-	2,261,103,560	1,989,786,2
1,264	232,454	1,719,117	5,479,123	42,134	499,547	7,294	9,249	9,400	188,441,320	435,556	1,000	681,897	253,103,896	145,396,
80,868	7,744,699	34,435,457	746,385,666	844,011	49,707,880	2,780,980	915,462	924,409	8,965,748,284	96,672,924	1,000	180,243,258	16,725,487,484	13,620,709,5
(850)	25,756	447,692	10,138,395	2,788	199,292	9,142	3,247	12,475	40,777,415	-	-	-	75,402,097	51,197,2
183	2,156	123,140	3,251,861	1,518	47,825	575	47	661	27,536,721	6	-	37	50,014,693	51,681,
	-	-	36,463	-	-	-	-	-	268,932	-	-	-	463,338	353,0
	-	-	1,193	-	-	-	-	-	13,371	-	-	-	24,181	24,
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
80,201	7,772,611	35,006,289	759,813,578	848,317	49,954,997	2,790,697	918,756	937,545	9,034,344,723	96,672,930	1,000	180,243,295	16,851,391,793	13,723,966
-			41,228			-			625,682	-			1,172,782	352,
318	6,150	10,153	231,086	613	44,139	1,909	723	284	5,949,800	77,308	592	127,597	11,428,225	8,513
(850)	25,756	447,692	10,138,395	2,788	199,292	9,142	3,247	12,475	40,777,415	77,300	592	127,597	75,402,097	51,197
(000)	- 23,730		12,862	2,700	- 135,252	5,142	5,247	12,475	150,890	-	-	-	269,770	261,
-	-	-	77,846		-		-	-	1,037,094	-	-	-	2,061,222	843,
136	332	1,487	-	250	2,200	250	250	250	-	4,348	250	7,616	28,999	29,
-	-	-	-	-	-	-	-	-	871,687,384	-	-	-	871,687,384	
-		-	193			-			2,166	-			3,917	3
(396)	32,238	459,332	10,460,382	3,651	245,631	11,301	4,220	13,009	919,604,749	81,656	842	135,213	960,881,614	60,848,
\$0	\$0	\$0	\$19,676	\$0	\$0	\$0	\$0	\$0	\$163,475	\$0	\$0	\$0	326,334	403,

380,597 7,740,373 34,546,957 749,374,748 844,666 49,709,366 2,779,396 914,536 924,536 8,115,202,181 96,591,274 158 180,108,082 15,891,356,627 13,663,067,186

	Pension Pool Part	icipants				Insurance Pool Pa	rticipants						
	Public	Bismarck	Bismarck	City of	City of				Petroleum	Insurance			Risk
	Employees	City	City	Grand Forks	Grand Forks	Workforce	State		Tank	Regulatory	Cultural		Mgmt
	Retirement	Employee	Police	Employee	Park District	Safety &	Fire &	State	Release	Trust	Endowment	Risk	Workers'
	System	Pension Plan	Pension Plan	Pension Plan	Pension Plan	Insurance	Tornado	Bonding	Comp. Fund	Fund	Fund	Mgmt	Comp
Additions:													
Investment income:													
Net change in fair value of investments	\$ 811,750,964	1 1- 1		\$ 16,531,382			\$ 3,090,719			\$ 332,380	\$ 111,108		\$ 626,878
Interest, dividends and other income	<u>64,016,475</u> 875,767,439	2,243,633 23,588,576	870,634 10,268,981	1,285,751 17,817,133	182,972 1,987,643	45,087,703 247,507,520	<u>396,853</u> 3,487,572	45,069 67,017	69,214 106,101	40,881 373,261	9,979 121,087	73,266 586,199	75,948 702,826
Less investment expenses	10.702.104	345.797	141.287	215.357	28,509	4.839.847	48.016	3.215	4,726	6.177	121,007	8.629	9,372
Net investment income	865,065,335	23,242,779	10,127,694	17,601,776	1,959,134	242,667,673	3,439,556	63,802	101,375	367,084	119,470	577,570	693,454
Securities lending activity:													
Securities lending income	277,552	8,398	3,352	5,534	630	88,961	1,209	32	48	139	37	161	192
Less Securities lending expenses	(55,502)	(1,679)	(670)	(1,106)	(126)	(17,785)	(241)	(6)	(12)	(27)	(7)	(33)	(37)
Net securities lending income	222,050	6,719	2,682	4,428	504	71,176	968	26	36	112	30	128	155
Net securities lending income	222,030	0,719	2,002	4,420	504	/1,170	908	20		112		120	100
				0.010.001	107.000		0 00 4 7 4 0			5 000 450			
Purchase of units (\$1 per unit)			-	3,812,824	467,262	-	3,994,740	-		5,886,156		-	
Total Additions	865,287,385	23,249,498	10,130,376	21,419,028	2,426,900	242,738,849	7,435,264	63,828	101,411	6,253,352	119,500	577,698	693,609
Deductions:													
Administrative Expenses	552,926	-	-	-	-	324,531	3,446	997	1,159	985	807	1,027	1,021
Redemption of units (\$1 per unit)	52.075.000	1,750,000	750.000	7,106,610	459.481	57,500,000	7.444.698		-	4,833,187	-	750,000	1,500,000
Redemption of units (\$1 per unit)	52,075,000	1,750,000	750,000	7,100,010	439,461	57,500,000	7,444,090			4,033,107		750,000	1,500,000
Total Deductions	52,627,926	1,750,000	750,000	7,106,610	459,481	57,824,531	7,448,144	997	1,159	4,834,172	807	751,027	1,501,021
		, ,											
Change in fiduciary net position	812,659,459	21,499,498	9,380,376	14,312,418	1,967,419	184,914,318	(12,880)	62,831	100,252	1,419,180	118,693	(173,329)	(807,412)
Fiduciary net position:													
Beginning of year	3,209,215,627	106,845,584	42,509,258	67,401,110	7,398,893	2,124,783,107	22,812,681	3,787,104	6,164,315	5,713,800	493,367	4,559,669	5,114,419
End of year	\$ 4,021,875,086	\$ 128,345,082	\$ 51,889,634	\$ 81,713,528	\$ 9,366,312	\$ 2,309,697,425	\$22,799,801	\$3,849,935	\$ 6,264,567	\$ 7,132,980	\$ 612,060	\$ 4,386,340	\$ 4,307,007
-													

North Dakota Retirement and Investment Office Combining Statement of Changes in Net Position – Investment Trust Funds – Fiduciary Funds Year Ended June 30, 2021 (with Summarized Comparative Totals for 2020)

Insu	rance Pool	Participants								Individual Investmer	nt Accounts				
ND	Veterans'	ND			City of	City of		Lewis & Clark	Attorney				PERS		
С	emetery	Ass'n of	PERS	Budget	Bismarck	Fargo	State	Interpretive	General		Job Service	Tobacco	Retiree		
	Trust	Counties	Group	Stabilization	Deferred	FargoDome	Board of	Center	Settlement	Legacy	of North	Prevention and	Health	Tota	als
_	Fund	Fund	Insurance	Fund	Sick Leave	Fund	Medicine	Endowment	Fund	Fund	Dakota	Control Fund	Credit Fund	2021	2020
\$	63,161	\$ 934,566	\$ 472,325	\$ 10.641.810	\$ 92,267	\$ 8,520,648	\$ 263,359	\$ 108,123	\$ 15.221	\$ 1,490,459,152	\$ 4,541,813	\$ 8.071	\$ 34,154,175	\$ 2,618,257,668	\$ 278,642,657
*	6.348	133.195	843.264	18,793,591	14.904	847.933	53.710	16.218	25.331	142,241,067	1.805.626	51	2.864.088	282.043.704	286.561.726
	69,509	1,067,761	1,315,589	29,435,401	107,171		317,069	124,341	40,552	1,632,700,219	6,347,439	8,122	37,018,263	2,900,301,372	565,204,383
	1,476	17,242	45,970	924,418	2,683	134,854	7,067	2,967	2,184	20,990,995	322,167	3,704	495,393	39,305,773	28,437,549
	68,033	1,050,519	1,269,619	28,510,983	104,488	9,233,727	310,002	121,374	38,368	1,611,709,224	6,025,272	4,418	36,522,870	2,860,995,599	536,766,834
	27 (5)	393 (80)	600 (119)	13,439 (2,686)	39 (9)	3,144 (628)	127 (25)	50 (12)	18 (2)	598,288 (119,629)	-	-		1,002,370 (200,426)	988,246 (197,478)
	22	313	481	10,753	30	2,516	102	38	16	478,659	-			801,944	790,768
	5		235,722,245		-		-			380,557,970	-		4,789,000	635,230,202	1,446,622,465
	68,060	1,050,832	236,992,345	28,521,736	104,518	9,236,243	310,104	121,412	38,384	1,992,745,853	6,025,272	4,418	41,311,870	3,497,027,745	1,984,180,067
	-	-	- 233,925,000	106,354	- 30,000	- 3,050,000		-	- 170,236	1,165,358 871,687,384	- 4,683,097	- 7,590,755	- 5,330,000	2,158,611 1,266,579,693	1,781,619 376,059,310
			233,925,000	6,050,599	30,000	3,050,000			170,230	872,852,742	4,683,097	7,590,755	5,330,000	1,268,738,304	377,840,929
	68,060	1,050,832	3,067,345	22,471,137	74,518	6,186,243	310,104	121,412	(131,852)	1,119,893,111	1,342,175	(7,586,337)	35,981,870	2,228,289,441	1,606,339,138
_	312,537	6,689,541	31,479,612	726,903,611	770,148	43,523,123	2,469,292	793,124	1,056,388	6,995,309,070	95,249,099	7,586,495	144,126,212	13,663,067,186	12,056,728,048
\$	380,597	\$7,740,373	\$ 34,546,957	\$ 749,374,748	\$ 844,666	\$49,709,366	\$ 2,779,396	\$ 914,536	\$ 924,536	\$ 8,115,202,181	\$ 96,591,274	\$ 158	\$180,108,082	\$ 15,891,356,627	\$ 13,663,067,186

Pension and Inv	vestment Trust F		e of Administrat nded June 30, 2	
	Pensio	n Trust	Investme	ent Trust
	2021	2020	2021	2020
Salaries and wages:				
Salaries and wages	\$ 853,912	\$ 835,872	\$ 1,039,581	\$ 872,424
Fringe benefits	705,235	441,279	619,462	419,286
Total salaries and wages	1,559,147	1,277,151	1,659,043	1,291,710
Operating expenses:				
Travel	2,096	21,478	4,096	25,641
Supplies	1,542	2,799	1,146	1,465
Postage and Mailing Services	28,162	36,604	17,341	15,868
Printing	7,633	13,676	3,201	4,097
Small Office Equipment and Furniture	9,853	3,360	7,356	1,898
Insurance	523	546	371	373
Rent/Lease of Building Space	52,129	53,354	36,236	36,570
Repairs	167	1,266	118	898
Information Technology and Communications	96,712	73,166	23,356	22,959
IT Contractual Services	142,172	99,205	521,165	466,295
Professional Development	10,294	13,528	5,219	5,673
Operating Fees and Services	16,260	18,969	21,904	22,508
Professional Fees and Services	8,498	9,737	13,042	13,982
Consultant Services	500,192	253,576	86,212	86,872
Total operating expenses	876,233	601,264	740,763	705,099
Pension trust portion of investment program expenses	241,195	215,190	(241,195)	(215,190)
Depreciation	1,800	1,800		
Total administrative expenses	2,678,375	2,095,405	2,158,611	1,781,619
Less - nonappropriated items:				
Consultant Services	203,496	253,576	86,212	86,872

113,534

365,693

684,523

\$ 1,993,852

1,800

110,071

117,513

482,960

\$ 1,612,445

1,800

563,229

292,285

941,726

\$ 1,216,885

522,515

128,847

738,234

\$ 1,043,385

North Dakota Retirement and Investment Office

The accompanying notes are an integral part of these statements.

Total appropriated administrative expenses

Other operating fees paid under continuing appropriation

Accrual adjustments to employee benefits

Total nonappropriated items

Depreciation

North Dakota Retirement and Investment Office Pension and Investment Trust Funds – Schedule of Consultant Expenses Years Ended June 30, 2021 and 2020

	Pensio	n Trust	Investm	ent Trust
	2021	2020	2021	2020
Actuary fees: Segal Consulting	\$ 93,241	\$ 152,873	\$ -	\$ -
Auditing/Accounting fees: CliftonLarsonAllen LLP	77,659	71,986	13,855	49,494
Project management fees: Segal Consulting	292,258	-	-	-
Disability consulting fees: Sanford Health	-	150	-	-
Legal fees:				
Office of Administrative Hearings	-	2,100	-	-
K&L Gates LLP	13,246	10,363	18,013	13,841
Kasowitz, Benson, Torres & Friedman	-	125	-	163
Jackson Walker LLP	7,099	3,594	37,641	10,781
ND Attorney General	16,689	12,385	16,703	12,593
Total legal fees:	37,034	28,567	72,357	37,378
Total consultant expenses	\$ 500,192	\$ 253,576	\$ 86,212	\$ 86,872

North Dakota Retirement and Investment Office Pension and Investment Trust Funds – Schedule of Investment Expenses Years Ended June 30, 2021 and 2020

	Pension Trust		Investm	ent Trust	
-	2021	2020	2021	2020	
Investment managers' fees:					
Global equity managers	\$ 1,474,059	\$ 1,373,171	\$ 1,909,859	\$ 1,848,580	
Domestic large cap equity managers	1,485,841	717,445	8,783,440	4,078,287	
Domestic small cap equity managers	894,545	602,625	5,898,203	3,091,577	
International equity managers	944,488	865,295	8,403,141	6,910,433	
Emerging markets equity managers	883,349	769,333	1,453,717	1,290,364	
Domestic fixed income managers	1,981,147	1,091,995	17,676,932	10,733,934	
Below investment grade fixed income managers	4,089,829	2,064,617	5,641,515	2,999,775	
Diversified real assets managers	-	-	15,015,782	5,413,236	
Real estate managers	4,038,160	2,034,014	7,851,454	4,859,416	
Infrastructure managers	5,179,679	1,852,956	6,891,614	2,414,217	
Timber managers	334,301	358,278	406,296	435,437	
Private equity managers	7,231,329	2,585,827	8,838,471	3,011,436	
Short term fixed income managers	-	-	880,375	743,318	
Cash & equivalents managers	25,059	28,516	177,118	131,914	
Balanced account managers	-	-	1,129,687	1,022,362	
Total investment managers' fees	\$28,561,786	\$ 14,344,072	\$90,957,604	\$ 48,984,286	
Custodian fees	249,724	231,579	1,419,325	1,202,295	
Investment consultant fees	169,820	108,804	725,789	487,468	
SIB Service Fees	-		78,284	73,461	
Total investment expenses	\$28,981,330	\$ 14,684,455	\$93,181,002	\$ 50,747,510	
Reconciliation of investment expenses to financial state	ements				
reconcination of investment expenses to inflatent state	2021	2020	2021	2020	
Investment expenses as reflected in the financial statements		\$ 6,523,407	\$39,305,773	\$ 28,437,549	
Plus investment management fees included in investment inco	ome				
Domestic large cap equity managers	527,679	256,402	2,018,196	1,144,803	
Domestic small cap equity managers	-	-	-	-	
International equity managers	191,418	207,075	2,044,266	1,777,070	
Emerging markets equity managers	178,302	417,764	2,011,200	701,047	
Domestic fixed income managers	1,253,598	680,670	11,860,842	5,765,868	
Below investment grade fixed income managers	3,692,447	1,681,382	5,171,706	2,544,213	
Diversified real assets managers	-	-	12,818,627	3,813,479	
Real estate managers	2,622,180	594,427	3,834,000	866,687	
Infrastructure managers	4,561,475	1,379,223	6,071,866	1,798,221	
Timber managers	334,301	358,278	406,296	435,437	
Private equity managers	7,231,329	2,585,827	8,838,471	3,011,435	
Cash equivalents managers		-	152,877	119,383	
Balanced account managers	-	-	363,611	332,318	
Investment expenses per schedule	\$28,981,330	\$ 14,684,455	\$93,181,002	\$ 50,747,510	

North Dakota Retirement and Investment Office Schedule of Appropriations – Budget Basis – Fiduciary Funds July 1, 2019 to June 30, 2021 Biennium

	Approved 2019-2021 Appropriation	2019-2021 Appropriation Adjustment	Adjusted 2019-2021 Appropriation	Fiscal 2021 Expenses	Fiscal 2020 Expenses	Unexpended Appropriations
All Fund Types:						
Salaries and wages	\$ 4,978,230	\$ -	\$ 4,978,230	\$2,560,213	\$2,322,501	\$ 95,516
Operating expenses	3,538,934	-	3,538,934	650,524	333,329	2,555,081
Capital Assets	6,300,000	-	6,300,000	-	-	6,300,000
Contingency	52,000		52,000			52,000
Total	\$ 14,869,164	\$ -	\$ 14,869,164	\$3,210,737	\$2,655,830	\$ 9,002,597

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

Reconciliation of Administrative Expenses to Appropriated Expenditures

	2021	2020
Administrative expenses as reflected in the financial statements	\$4,836,986	\$3,877,024
Less expenses paid under continuing appropriation:		
Consulting Services*	(289,708)	(340,448)
Other operating fees paid under continuing appropriations*	(676,763)	(632,586)
Depreciation expense	(1,800)	(1,800)
Changes in benefit accrual amounts	(657,978)	(246,360)
Total appropriated expenses	\$3,210,737	\$2,655,830

* 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, 2021

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, 2021, no new accounting policies were adopted and the application of existing policies was not changed.

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

The valuation of alternative investments, including private equity and real asset investments, are a management estimate which is primarily based upon net asset values reported by the investment managers and comprise 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, 2021. Our audit procedures validated this approach through the use of confirmations sent directly to a sample of investment managers and the review of the most recent audited financial statements for these funds. Furthermore, we reviewed management's estimate and found it to be reasonable.

The actuarial valuation was based on the actuarial assumptions and methods adopted by the Board, including an actuarial expected investment rate of return of 7.25% per annum compounded annually. The valuation takes into account all of the promised benefits to which members are entitled as of July 1, 2021 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.

Clifton Larson Allen LLP

Baltimore, Maryland November 2, 2021

Quarterly Monitoring Report on TFFR Ends Quarter Ended September 30, 2021

Retirement Program

This report highlights **exceptions** to normal business operations.

- Trustee appointments Mr. Cody Mickelson was reappointment for another term and Mr. Jordan Willgohs was appointed to fill the vacancy due to Ms. Gumeringer's retirement.
- Election of Officers
 - o Dr. Lech President
 - Mr. Burton Vice President
 - President Lech, Mr. Mickelson, and Mr. Olson TFFR Representatives to the State Investment Board
 - President Lech SIB Audit Committee
 - Mr. Burton Alternate Representative to the State Investment Board
- RIO lost 3 longtime staff members due to retirements Bonnie Heit, Ruby Benning, and Estelle Kirchoffner leaving a void in the Retirement Services division until those positions can be filled. We have since then filled Ruby's position with part-time, temporary staff. Mensah Anyide-Ocloo joined RIO on October 18, 2021.
- The in-staff subbing policy as it relates to TFFR retirees was waived again effective July 2021 until further notice.
- Effective July 1, 2022, RIO joined NDIT unification. RIO's two IT staff members transitioned under NDIT but will continue to support RIO functions and have offices in the same location as RIO.
- The Governance and Policy Review Committee recommended moving the Investment Policy Statement and Plan Management Policy to the TFFR Board Program Manual. This change was approved.
- Staff continues to work on the Salary Verification Audit that was issued this spring by Internal Audit. Follow up with employers was needed on 19 out of 65 accounts that were looked at. Errors noted include:
 - Not reporting extra-curricular and other eligible salary
 - Reporting salary in the wrong fiscal year
 - Reporting of leave payouts
 - Model incompliance
- As of July 31, 2021, there were 6,651 members who have logged in to their TFFR online accounts; as of October 31, 2021, that number jumped to over 7,000.