

Friday, July 22, 2022, 8:30 a.m.
WSI Board Room (In-Person)
1600 E Century Ave, Bismarck, ND
[Click here to join the meeting](#)

AGENDA

I. CALL TO ORDER AND ACCEPTANCE OF AGENDA

- A. Executive Summary
- B. Welcome new PERS Trustee
- C. Welcome new DED/CRO, Accounting Manager and Legal Intern

II. ACCEPTANCE OF MINUTES (May 20, 2022)

III. ELECTION OF OFFICERS AND COMMITTEE APPOINTMENTS FOR 2022-23 (30 minutes)

- A. Chair – Board Action
- B. Vice Chair – Board Action
- C. Parliamentarian – Appointed by Chair
- D. Audit Committee – Board Action
- E. Securities Litigation Committee – Appointed by Chair
- F. Executive Review Committee – Appointed by Chair
- G. Governance & Policy Review Committee – Board Action

IV. BOARD EDUCATION (20 minutes)

- A. Portfolio Construction – Mr. Anderson

V. INVESTMENTS (30 minutes)

- A. Investment Program Initiatives Update – Mr. Chin

VI. GOVERNANCE (45 minutes)

- A. 2nd Reading - Governance & Policy Review Recommendations – Treasurer Beadle, Mr. Anderson, Ms. Murtha
- B. Legacy & Budget Stabilization Fund Advisory Board Update – Mr. Anderson
- C. SIB Calendar & Program Plan – Ms. Murtha

VII. Quarterly Monitoring Reports (15 minutes)

- A. Investment Ends – Mr. Chin, Dr. White
 - 1. Code of Conduct Affirmation
- B. Investment Manager Catalog – Mr. Posch
- C. TFFR Ends – Ms. Murtha
- D. Executive Limitations/Staff Relations – Ms. Murtha

VIII. OTHER (5 minutes)

Next Meetings:

SIB GPR Committee – July 27, 2022
State Investment Board – August 26, 2022
Audit Committee – August 9, 2022

IX. ADJOURNMENT

EXECUTIVE SUMMARY

SIB Regular Meeting
July 22 2022 – 8:30am CT

- I. **Agenda:** The July 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. The board member video link is included in the email with the Board materials.
- We will begin the meeting by welcoming the new PERS representative, our new Deputy Executive Director – Chief Retirement Officer, our new Accounting Manager, and Legal Intern.
- II. **Minutes (Board Action):** The April 22, 2022, Board meeting minutes are included for review and approval.
- III. **Election of 2022-2023 Officers and Appointment of Committees (Board Action):** Election of Board Chair and Vice Chair. Appointment of Parliamentarian. Election of members of Audit and Governance and Policy Review Committees by SIB; and appointment of members of Securities Litigation, and Executive Review Committees by Chair.
- IV. **A. Board Education – Portfolio Construction (Information Only):** Mr. Anderson will provide the Board with education on portfolio construction. Portfolio construction is the combination of sub-asset allocation, manager selection and manager allocation in a portfolio. Good portfolio construction enables an optimal amount of active return for a required active risk at a reasonable cost.
- V. **A. Investment Program Initiatives Update (Board Action):** Mr. Chin will share with the Board information on some investment program initiatives, including possible changes to the timber portfolio.
- VI. **A. 2nd Reading - Governance & Policy Review Recommendations (Board Action):** 2nd reading of proposed Governance Manual amendments resulting from recommendations of the GPR committee.
- B. Legacy & Budget Stabilization Fund Advisory Board Update (Information Only):** Mr. Anderson will share comments regarding the status of the asset allocation project overseen by RVK, and the presentations made at the most recent Advisory Board meeting.
- C. Board Education and Planning Calendar (Board Action):** Proposed 2022/23 SIB board education and planning calendar for board approval.
- VII. **A-D. Reports (Board Action):** Staff will provide quarterly monitoring reports for Investment Ends, the Investment Manager Catalog, TFFR Ends and executive limitations/ staff relations.

Adjournment.

**NORTH DAKOTA STATE INVESTMENT BOARD
MINUTES OF THE
MAY 20, 2022, BOARD MEETING (IN PERSON)**

MEMBERS PRESENT: Brent Sanford, Lt. Governor, Chair
Dr. Rob Lech, TFFR Board, Vice Chair
Thomas Beadle, State Treasurer
Glenn Bosch, Legacy/Budget Stab. Adv. Board Rep
Jon Godfread, Insurance Commissioner
Joseph Herringer, Commissioner of Univ & School Lands
Bryan Klipfel, Director of WSI
Cody Mickelson, TFFR Board
Adam Miller, PERS Board
Mel Olson, TFFR Board
Yvonne Smith, PERS Board

STAFF PRESENT: Scott Anderson, CIO
Eric Chin, Deputy CIO
Connie Flanagan, CFO/COO
Missy Kopp, Exec Assistant
Jan Murtha, Exec Dir
Ann Nagel, Investment Accountant
Matt Posch, Sr. Investment Officer
Emmalee Riegler, Contracts/Records Admin
Sara Sauter, Internal Audit Supvr
Rachelle Smith, Retirement Assistant
Dottie Thorsen, Internal Auditor
Susan Walcker, Senior Financial Accountant
Denise Weeks, Retirement Prog Mgr
Dr. Paul White, Chief Risk Officer

GUESTS: Alex Browning, Callan
Dean DePountis, Attorney General's Office
Paul Erlendson, Callan
Rebecca Fricke, PERS
Derrick Hohbein, PERS
Perry Hopper, Callan
Keith Kempenich, Legacy/Budget Stab. Adv. Board
Jerry Klein, Legacy/Budget Stab. Adv. Board
Brian Kroshus, Tax Commissioner
Adam Montgomery, Securities Commission
Colton Schulz, Insurance Department
Teleconference Guests - 6

CALL TO ORDER:

Lt. Gov. Sanford Chair, called the State Investment Board (SIB) regular meeting to order at 8:35 a.m. on Friday, May 20, 2022. The meeting was held in the Workforce Safety and Insurance Board Room, 1600 E Century Ave., Bismarck, ND.

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

ACCEPTANCE OF AGENDA:

The Board considered the agenda for the May 20, 2022, meeting.

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

AYES: COMMISSIONER HERINGER, TREASURER BEADLE, MR MILLER, COMMISSIONER GODFREAD, MR. OLSON, MR KLIPFEL, MR. MICKELSON, DR. LECH, MS. SMITH, AND LT. GOV. SANFORD

NAYS: NONE

MOTION CARRIED

MINUTES:

The Board considered the minutes of the April 22, 2022, SIB meeting.

IT WAS MOVED BY COMMISSIONER GODFREAD AND SECONDED BY MS. SMITH AND CARRIED BY A VOICE VOTE TO APPROVE THE APRIL 22, 2022, MINUTES AS DISTRIBUTED.

AYES: MR. MICKELSON, COMMISSIONER HERINGER, MS. SMITH, MR. KLIPFEL, TREASURER BEADLE, DR. LECH, COMMISSIONER GODFREAD, MR. OLSON, MR. MILLER, AND LT. GOV. SANFORD

NAYS: NONE

MOTION CARRIED

BOARD EDUCATION:

Inflation, Interest Rates, Bond Returns:

Mr. Anderson provided education on inflation, interest rates, and bond returns and how these factors affect the investment portfolio.

Risk Management:

Dr. White provided education on risk management practices that support management of the investment portfolio.

INVESTMENTS:

Callen Quarterly Performance Review:

Mr. Erlendson and Mr. Browning, Callen, provided the quarterly performance review. Each of the Trust's asset allocations were within policy ranges and cash flows were managed to rebalance towards strategic targets as of March 31, 2022. Total Fund returns for PERS, TFFR, WSI, Budget Stabilization, and Legacy Funds have each exceeded their respective benchmarks on a net-of-fee basis for the trailing five-year period ended March 31, 2022. Within the Total Fund structures, the small cap equity allocations underperformed the benchmark over most cumulative periods ended March 31, 2022. Two small cap managers were terminated due to performance concerns and were replaced by new firms one year ago. Since the manager changes were implemented, small cap results have exceeded the benchmark. Total Fund net-of-fee results exceed the benchmark.

Manager & Investment Portfolio Changes:

IT WAS MOVED BY DR. LECH AND SECONDED BY TREASURER BEADLE AND CARRIED BY A ROLL CALL VOTE TO ENTER EXECUTIVE SESSION PURSUANT TO NDCC 44-04-18.4(1), 44-04-19.1(9), AND 44-04-19.2 TO DISCUSS CONFIDENTIAL COMMERCIAL INFORMATION AND CONTRACT NEGOTIATING STRATEGY.

AYES: TREASURER BEADLE, MR. MICKELSON, COMMISSIONER GODFREAD, COMMISSIONER HERINGER, MS. SMITH, DR. LECH, MR. MILLER, MR. OLSON, AND LT. GOV. SANFORD

NAYS: NONE
MOTION CARRIED

The executive session began at 10:48 a.m. and ended at 11:31 a.m. In attendance were Board members, RIO staff, Mr. DePountis, Sen. Klein, Sen. Bosch, and Mr. Schulz.

IT WAS MOVED BY DR. LECH AND SECONDED BY TREASURER BEADLE AND CARRIED BY A ROLL CALL VOTE TO TERMINATE EPOCH, LSV, AND VANGUARD AND UTILIZE NORTHERN TRUST, STATE STREET, AND EXCHANGE TRADED FUNDS TO MANAGE PASSIVE INDEX EXPOSURE AND TO REALLOCATE EQUITY PORTFOLIOS AND WORK WITH EXISTING MANAGERS AS DIRECTED.

AYES: MS. SMITH, MR. MILLER, MR. OLSON, MR. MICKELSON, DR. LECH, MR. KLIPFEL, COMMISSIONER GODFREAD, COMMISSIONER HERINGER, TREASURER BEADLE, AND LT. GOV. SANFORD

NAYS: NONE
MOTION CARRIED

Lewis & Clark Interpretive Center Endowment Fund Revised IPS:

Ms. Flanagan provided information on the revised Investment Policy Statement (IPS) for the Lewis & Clark Interpretive Center Endowment Fund (LCICEF). This fund was previously under the ND Parks and Recreation Department, but the Legislature moved the responsibility for the maintenance of the LCICEF to the State Historical Society of ND (SHSND). The contract with the SIB must be modified to reflect that the relationship is now with SHSND and not ND Parks & Recreation. The Industrial Commission approved the SIB to enter into the contract with SHSND on April 29, 2022. There is no change in the asset allocation at this time.

IT WAS MOVED BY MR. OLSON AND SECONDED BY COMMISSIONER GODFREAD AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE REVISED INVESTMENT POLICY STATEMENT FOR THE LEWIS & CLARK INTERPRETIVE CENTER ENDOWMENT FUND UNDER THE NEW CLIENT, STATE HISTORICAL SOCIETY OF ND.

AYES: TREASURER BEADLE, MR. OLSON, COMMISSIONER HERINGER, DR. LECH, MR. MILLER, COMMISSIONER GODFREAD, MR. MICKELSON, MS. SMITH, MR. KLIPFEL, AND LT. GOV. SANFORD

NAYS: NONE
MOTION CARRIED

The Board recessed at 10:00 a.m. and reconvened at 10:14 a.m.

GOVERNANCE:

Governance & Policy Review (GPR) Committee Update:

Dr. Lech shared an update from the GPR Committee. The Committee provided two archetype board composition options to consider. The Committee spent a great deal of time discussing the number of investment professionals and the process for nominating and selecting those members. The second archetype does not include the Land Commissioner and would be recommended if the SIB is not going to oversee land assets. The Committee suggested that the Commerce Commissioner could replace the Insurance Commissioner on the Board to provide some expertise for the Board to explore, especially for the in-state investment program. The Board will further discuss Board composition options and proposed legislation at the July 22, 2022, meeting.

Ms. Murtha shared information on the first reading of amended Policy B-6, amended Policy E-10, and the draft Investment Committee Charter.

IT WAS MOVED BY COMMISSIONER HERINGER AND SECONDED BY MR. OLSON AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE FIRST READING OF AMMENDED POLICY B-6 AND THE DRAFT INVESTMENT COMMITTEE CHARTER.

AYES: MR. KLIPFEL, MR. OLSON, COMMISSIONER GODFREAD, TREASURER BEADLE, COMMISSIONER HERINGER, DR. LECH, MR. MILLER, MS. SMITH, MR. MICKELSON, AND LT. GOV. SANFORD

NAYS: NONE

MOTION CARRIED

IT WAS MOVED BY COMMISSIONER HERRINGER AND SECONDED BY DR. LECH AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE FIRST READING OF THE AMMENDED POLICY E-10.

AYES: MR. KLIPFEL, COMMISSIONER GODFREAD, MR. OLSON, MR. MILLER, TREASURER BEADLE, MR. MICKELSON, MS. SMITH, COMMISIONER HERINGER, AND LT. GOV. SANFORD

NAYS: NONE

MOTION CARRIED

Executive Review Committee (ERC) Update:

Mr. Olson provided an update from the ERC. The ERC met to discuss a plan for Executive Director (ED) compensation. The ERC reviewed data and analysis to support a recommendation for a salary increase and compensation plan for the ED. The ERC recommends the SIB adopt a goal statement to address a longer-term plan for ED compensation. Board discussion followed.

The ERC also completed the executive review of the ED which was provided to the Board.

IT WAS MOVED BY MR. OLSON AND SECONDED BY MR. MICKELSON AND FAILED BY A ROLL CALL VOTE TO ADOPT THE FOLLOWING GOAL STATEMENT “IT IS THE GOAL OF THE SIB, ASSUMING THE EXECUTIVE DIRECTOR (ED) IS MEETING THE EXPECTATIONS OF THE BOARD, TO COMPENSATE THE ED AT OR ABOVE THE 50TH PERCENTILE OF PEER PUBLIC FUNDS OF SIMILAR SIZE AND COMPOSITION. AVAILABLE PUBLIC FUND SURVEYS WILL BE UTILIZED TO DETERMINE THOSE PARAMETERS AND COMPARISONS. THE SIB HAS SET A TARGET DATE OF 7/1/2024 TO REACH THE TARGETED SALARY LEVEL.”, APPROVE THE 2% LEGISLATIVE INCREASE, AND 10% ADDITIONAL SALARY INCREASE FOR THE ED AS OF JULY 1, 2022.

AYES: MR. OLSON, MR. MILLER, MR. MICKELSON, AND MS. SMITH

NAYS: DR. LECH, TREASURER BEADLE, COMMISSIONER HERINGER, COMMISIONER GODFREAD, MR. KLIPFEL, AND LT. GOV. SANFORD

MOTION FAILED

IT WAS MOVED BY MR. OLSON TO ADOPT THE GOAL STATEMENT, APPROVE THE 2% LEGISLATIVE INCREASE, AND 5% ADDITIONAL SALARY INCREASE FOR THE ED AS OF JULY 1, 2022. THE MOTION FAILED WITHOUT A SECOND.

IT WAS MOVED BY DR. LECH AND SECONDED BY TREASURER BEADLE AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE 2% LEGISLATIVE INCREASE FOR THE ED AS OF JULY 1, 2022.

AYES: COMMISSIONER GODFREAD, MR. KLIPFEL, COMMISSIONER HERINGER, MR. MICKELSON, MS. SMITH, MR. MILLER, DR. LECH, MR. OLSON, TREASURER BEADLE, AND LT. GOV. SANFORD

NAYS: NONE

MOTION CARRIED

IT WAS MOVED BY MR. OLSON AND SECONDED BY MS. SMITH AND FAILED BY A ROLL CALL VOTE TO GIVE AN ADDITIONAL 5% INCREASE TO THE ED EFFECTIVE JULY 1, 2022.

**AYES: MR. MICKELSON, COMMISSIONER HEINGER, MS. SMITH, MR. OLSON, AND MR. MILLER
NAYS: TREASURER BEADLE, DR. LECH, COMMISSIONER GODFREAD, MR. KLIPFEL, AND LT. GOV. SANFORD
MOTION FAILED**

IT WAS MOVED BY COMMISSIONER GODFREAD AND SECONDED BY TREASURER BEADLE AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE EXECUTIVE REVIEW OF THE ED.

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

Board & Committee Calendar:

The Board considered the proposed SIB Board & Committee Calendar for 2022-23.

IT WAS MOVED BY COMMISSIONER HERINGER AND SECONDED BY MS. SMITH AND CARRIED BY A VOICE VOTE TO APPROVE THE SIB BOARD AND COMMITTEE CALENDAR FOR 2022-23.

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

QUARTERLY MONITORING REPORTS:

IT WAS MOVED BY MR. OLSON AND SECONDED BY COMMISSIONER GODFREAD AND CARRIED BY A VOICE VOTE TO ACCEPT THE AUDIT COMMITTEE, AND EXECUTIVE LIMITATIONS/STAFF RELATIONS REPORTS.

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

OTHER:

Resolution in Recognition of Connie Flanagan:

ND State Investment Board Resolution
In Recognition of
Connie Flanagan

WHEREAS, Connie Flanagan has served as valued and dedicated member of the Retirement & Investment Office for more than 30 years; and

WHEREAS, Connie Flanagan has diligently carried out her duties and responsibilities as Chief Fiscal Officer and Chief Operating Officer in support of both the TFFR and SIB Programs; and

WHEREAS, Connie Flanagan has diligently helped to maintain the fiscal operations, integrity and stability of the TFFR and SIB Programs.

NOW THEREFORE, BE IT RESOLVED that Connie Flanagan be duly recognized by this Board for her years of unselfish dedication to the State of North Dakota through her service to the Retirement & Investment Office.

DATED this 20th day of May 2022

IT WAS MOVED BY MR. OLSON AND SECONDED BY COMMISSIONER GODFREAD AND CARRIED BY A VOICE VOTE TO APPROVE THE RESOLUTION.

AYES: COMMISSIONER HERINGER, TREASURER BEADLE, MR. MILLER, COMMISSIONER GODFREAD, MR. OLSON, MR. KLIPFEL, MR. MICKELSON, DR. LECH, AND MS. SMITH

NAYS: NONE

MOTION CARRIED

ABSENT: LT. GOV. SANFORD

ADJOURNMENT:

With no further business to come before the SIB, Dr. Lech adjourned the meeting at 12:46 p.m.

Prepared by:

Missy Kopp, Assistant to the Board

MEMORANDUM

TO: SIB
FROM: Jan Murtha, Executive Director
DATE: July 15, 2022
RE: Elections & Appointments of Officers

Pursuant the Governance Manual By-Laws Chapter 3, the SIB must elect a Chair and Vice Chair at the first meeting of each fiscal year. The newly elected Chair must appoint a Parliamentarian. For the 2022-23 year, the Board will need to select:

- **SIB Chair**
(Currently Lt. Governor Sanford)
- **SIB Vice Chair**
(Currently Dr. Lech – TFFR Trustee)

Either the Chair or Vice-Chair must be a member of the TFFR or PERS Board per Section 3.1 of the SIB By-Laws.

- **Parliamentarian – Appointed by SIB Chair**

The relevant By-Laws and Governance Policy of the SIB are highlighted immediately below:

By-Laws Chapter 3:

Section 3-1. The officers of the SIB are a Chair and Vice Chair, one of which must be an appointed or elected member of the TFFR or PERS Board. The officers will be elected by the SIB to a one-year term at the first regularly scheduled meeting following July 1 of each year. Vacancies will be filled by the SIB at the first scheduled meeting following the vacancy.

Section 3-2. Chair. The Chair will preside at all meetings of the SIB.

Section 3-3. Vice Chair. In the absence of the Chair, the Vice Chair will perform the duties of the Chair.

Policy B-4(1)(D): The chairperson shall appoint a Parliamentarian.

**BOARD ACTION. Nominate and approve Chair and Vice-Chair.
Chair to appoint Parliamentarian.**

MEMORANDUM

TO: SIB
FROM: Jan Murtha, Executive Director
DATE: July 15, 2022
RE: Audit Committee

SIB Governance Manual B-6 on Standing Committees states:

An Audit Committee has been established as a standing committee of the State Investment Board (SIB). The Audit Committee will assist the SIB in carrying out its oversight responsibilities as they relate to the Retirement and Investment Office (RIO) internal and external audit programs, including financial and other reporting practices, internal controls, and compliance with laws, regulations, and ethics.

The committee charter states:

The Committee will consist of five members, selected by and approved by the SIB. Three members of the Committee will represent the three groups on the SIB: Teachers' Fund for Retirement (TFFR) Board, Public Employees Retirement System (PERS) Board, and elected and appointed officials, and two members selected from outside of the SIB and the RIO. The SIB should select committee members who are both independent and financially literate. Membership on the Committee will be for one year or termination of term on the SIB. Vacancies will be filled by the SIB at the first scheduled meeting following the vacancy. There will be no limit to the number of terms served on the Committee.

Current Committee members are:

Ms. Yonne Smith (PERS Trustee) Chair;
Thomas Beadle (State Treasurer);
Cody Mickelson (TFFR Trustee);
Julie Dahle (External); and
Jon Griffin (External).

As stated in the Audit Committee Charter, Committee membership will be for one year or termination of term on the SIB. Vacancies will be filled by the SIB at the first scheduled meeting following the vacancy. There will be no limit to the number of terms served on the Committee.

BOARD ACTION. Board to Elect.

MEMORANDUM

TO: SIB
FROM: Jan Murtha, Executive Director
DATE: July 15, 2022
RE: Securities Litigation Committee

SIB Governance Manual B-6 on Standing Committees states:

A Securities Litigation Committee (SLC) has been established as a standing committee of the State Investment Board (SIB). The SLC will assist the SIB in fulfilling its fiduciary oversight responsibilities of monitoring the investment assets entrusted to it by the various statutory and contracted funds, and to serve as a communications link for the SIB, RIO's management and staff, third party securities litigation firms, and others.

The committee charter states:

The Committee will consist of the Executive Director of RIO, one member of RIO fiscal or investment staff, RIO general counsel, and two members of the SIB appointed by the Chair. Membership on the Committee will be for one year or termination of term on the SIB. Vacancies will be filled by the SIB Chair at the first scheduled meeting following the vacancy. There will be no limit to the number of terms served on the Committee.

Current Committee members are:

Land Commissioner Joe Heringer;
WSI Director Bryan Klipfel;
Assistant Attorney General Dean DePountis;
RIO Chief Investment Officer Scott Anderson; and
RIO Executive Director: Jan Murtha.

As stated in the Securities Litigation Committee Charter, Committee membership will be for one year or termination of term on the SIB. Vacancies will be filled by the SIB Chair at the first scheduled meeting following the vacancy. There will be no limit to the number of terms served on the Committee.

BOARD ACTION. Chair to appoint.

MEMORANDUM

TO: SIB
FROM: Jan Murtha, Executive Director
DATE: July 15, 2022
RE: Executive Review Committee

SIB Governance Manual B-6 on Standing Committee states:

An Executive Review Committee (ERC) has been established as a standing committee of the SIB. The ERC will assist the SIB in fulfilling its fiduciary oversight responsibilities of “monitoring executive performance (which) is synonymous with monitoring organizational performance against board policies on Ends and Executive Limitations”. Internal audit will be responsible for preparing an annual summary of the required reports submitted to the SIB by the Executive Director in connection with its review of policy adherence to Ends and Executive Limitations. Internal audit will also assist the ERC in completing annual surveys of the Executive Director with the SIB, SIB clients, and RIO team members. The ERC will conduct a formal evaluation of the Executive Director during the first half of every calendar year. This formal evaluation by the ERC will serve as the basis for an annual compensation recommendation to be reviewed and approved by the SIB on or before June 30th each year. Internal audit will also assist the SIB and ERC in administering the annual board self-assessment process.

The ERC is authorized to:

- Conduct a formal evaluation of the Executive Director annually;
- Obtain SIB approval of the annual performance evaluation of the Executive Director;
- Make a compensation recommendation to the SIB on or before June 30th of each year; and
- Administer a formal self-assessment of the SIB periodically (unless instructed otherwise).

The ERC and/or RIO will seek SIB approval prior to formally engaging any third-party assistance in conducting the annual executive review process or board self-assessment.

Current board members assigned are:

- Mr. Mel Olson (as Chair – TFFR Trustee)
- Ms. Yvonne Smith (PERS Trustee)
- Mr. Adam Miller (PERS Trustee)

In 2020, the ERC included Ms. Yvonne Smith, Mr. Mel Olson, Mr. Adam Miller.

In 2019, the ERC included Dr. Rob Lech, Ms. Yvonne Smith, and Mel Olson

In 2018, the ERC included Dr. Rob Lech, Ms. Yvonne Smith, and Land Commissioner Jodi Smith.

In 2017, the ERC included Ms. Yvonne Smith, Ms. Cindy Ternes, and Mr. Mike Sandal.

BOARD ACTION. Chair to appoint.

MEMORANDUM

TO: SIB
FROM: Jan Murtha, Executive Director
DATE: July 15, 2022
RE: Governance & Policy Review Committee

SIB Governance Manual B-6 on Standing Committees states:

A Governance and Policy Review Committee has been established as a standing committee of the SIB. The Governance and Policy Review Committee will assist the SIB in fulfilling its fiduciary oversight responsibilities to fulfill its responsibilities regarding matters that relate to governing the SIB, policies, and identifying and making recommendations to the SIB.

The committee charter states:

The Governance Committee shall be composed of at least three members. They will be nominated and approved by a majority vote of the SIB. This is a standing committee with no term limits. The Executive Director will be responsible for meeting preparation.

Current Committee members are:

Dr. Lech (TFFR Trustee) Chair;
Thomas Beadle (State Treasurer);
Jon Godfreed (Insurance Commissioner).

BOARD ACTION. Board to Elect.



PORTFOLIO CONSTRUCTION

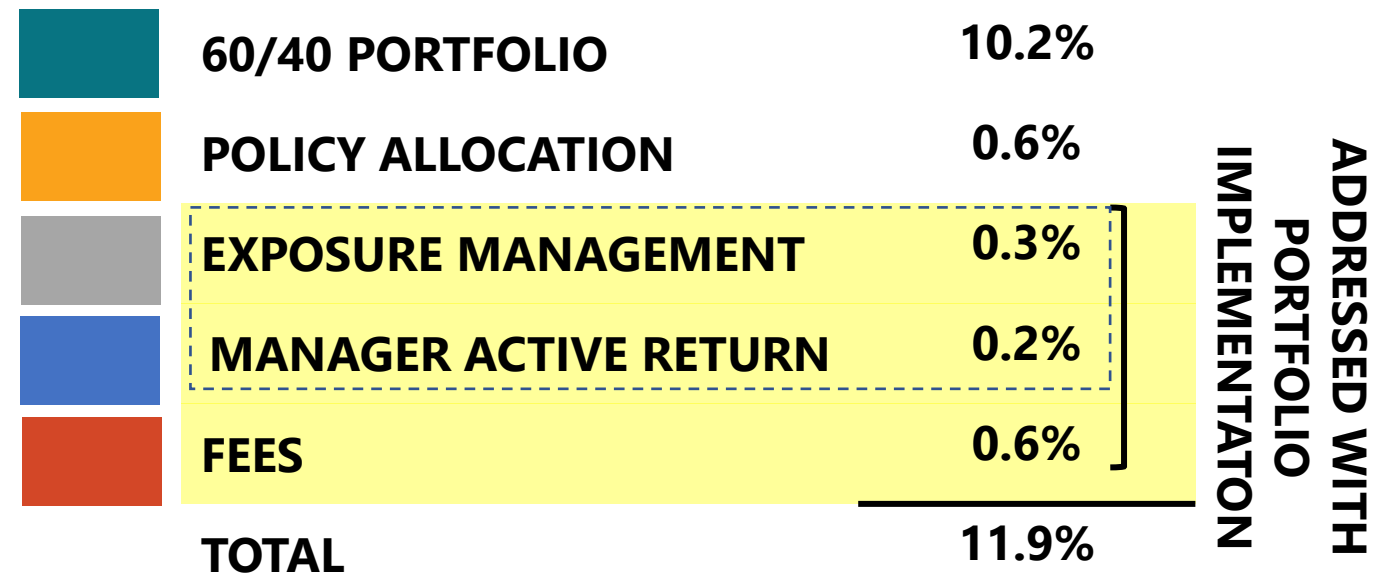
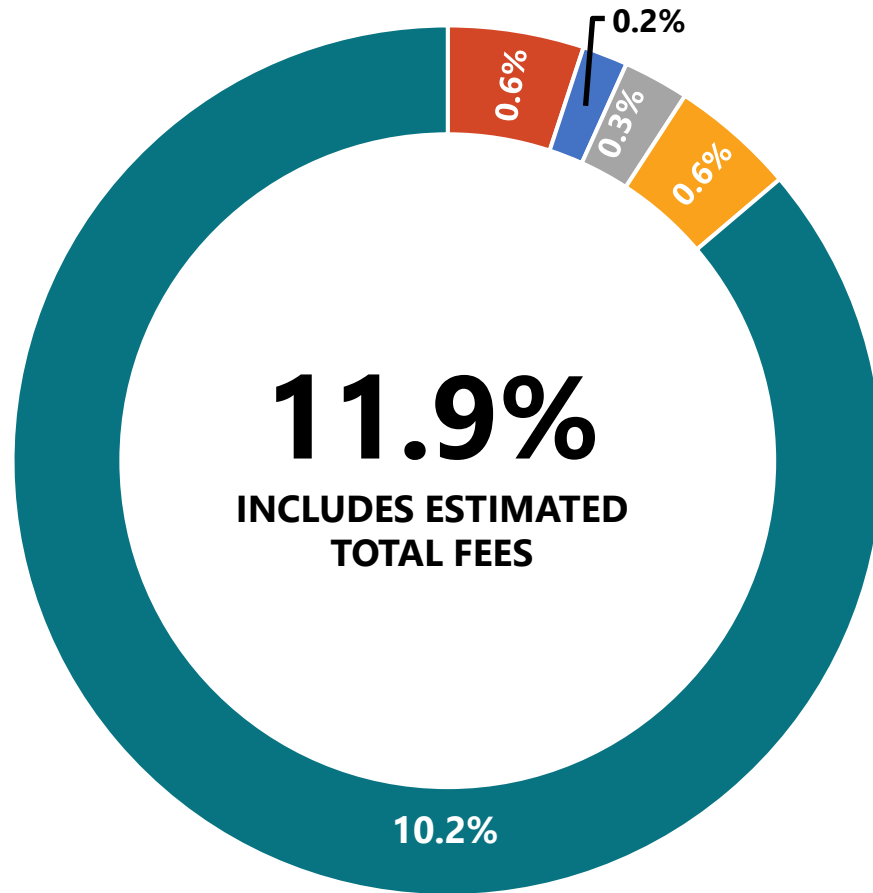
Scott M Anderson, CFA
July 22, 2022

NORTH
Dakota
Be Legendary.

Retirement & Investment

COMPOSITION OF RETURNS

Five Years Ending June 2021



A MANAGER'S RETURN CONTRIBUTION

ILLUSTRATION

A MANAGER'S RETURN CONTRIBUTION

TODAY'S FOCUS	MANAGER RETURN	10.5%	FROM MANAGER PORTFOLIO
	<u>Less</u> MANAGER ASSET CLASS RETURN	<u>10.0%</u>	(I.E. EQUITY BENCHMARK)
	MANAGER TOTAL ACTIVE RETURN	0.5%	MANAGER EFFECTIVENESS
	<u>X</u> MANAGER POLICY WEIGHT	5.0%	MANAGER ALLOCATION WEIGHT
	MANAGER ACTIVE RETURN CONTRIBUTION	0.025%	MANAGER ALLOCATION CONTRIBUTION
	ACTUAL MANAGER WEIGHT	15.0%	
	<u>LESS</u> MANAGER POLICY WEIGHT	<u>5.0%</u>	
	EXCESS EXPOSURE	10.0%	EXCESS ALLOCATION WEIGHT
	<u>X</u> MANAGER TOTAL ACTIVE RETURN	0.5%	
	EXCESS EXPOSURE CONTRIBUTION	0.05%	
	MANAGER EXCESS RETURN CONTRIBUTION	.075%	ABOVE ASSET CLASS BENCHMARK

FOCUS OF PORTFOLIO CONSTRUCTION

A MANAGER'S ACTIVE RETURN CONTRIBUTION DETAIL

MANAGER SUB-ASSET BENCHMARK	10.1%
<u>LESS</u> ASSET CLASS BENCHMARK	10.0%
SUB-ASSET ALLOCATION RETURN	0.1%
<u>PLUS</u> MANAGER ACTIVE RETURN	0.4%
MANAGER TOTAL ACTIVE RETURN	0.5%
<u>X</u> MANAGER POLICY WEIGHT	5.0%
MANAGER ACTIVE RETURN CONTRIBUTION	0.025%

SUB-ASSET ALLOCATION DECISION
(I.E. EUQITY BENCHMARK)

MANAGER SELECTION

MANAGER ALLOCATION
FROM PREVIOUS PAGE

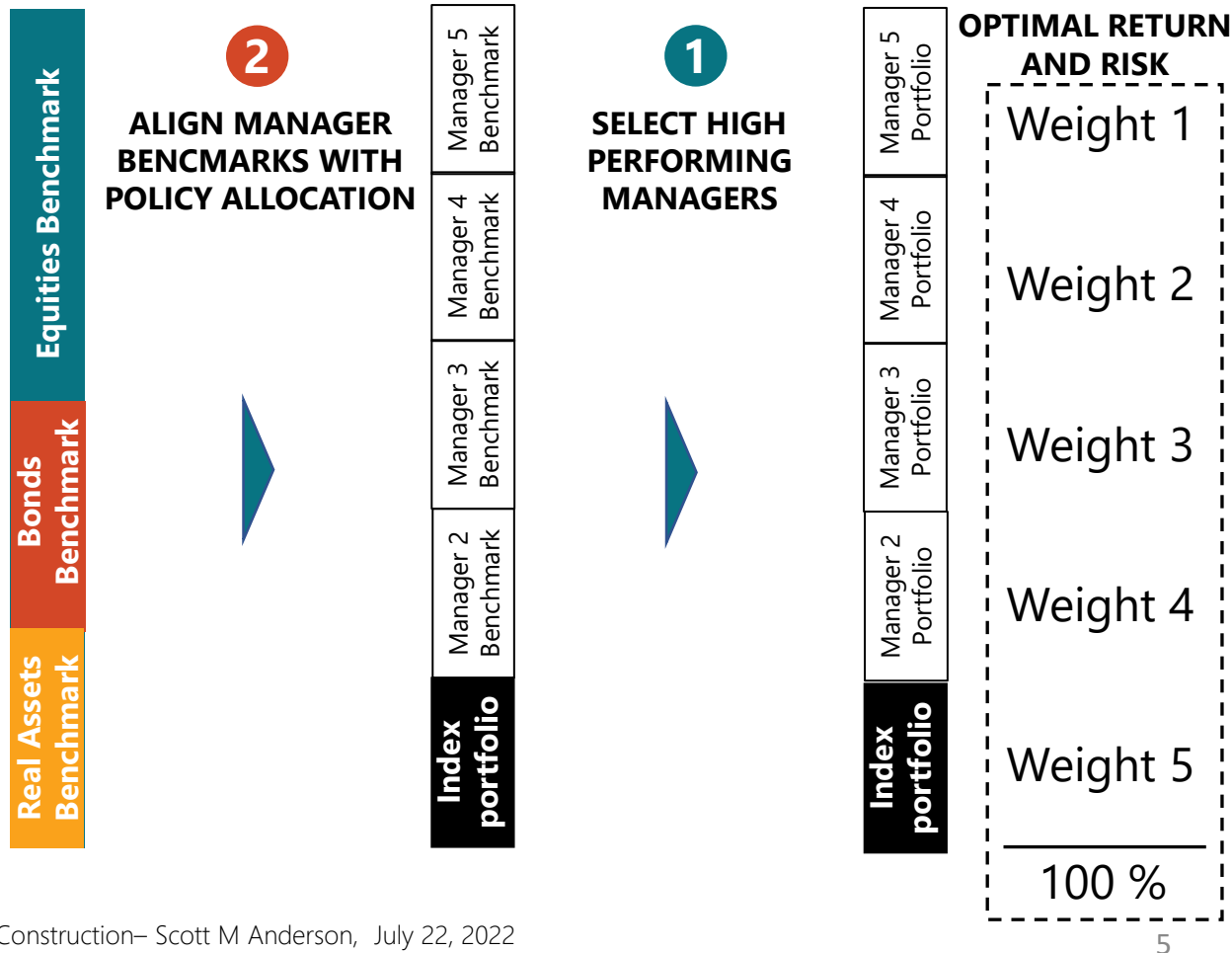
ILLUSTRATION

**TODAY'S
CONVERSATION**

**FOCUS OF
PORTFOLIO
CONSTRUCTION**

PORTFOLIO CONSTRUCTION GOALS

ILLUSTRATION



1 SELECT HIGH PERFORMING MANAGERS:

TRACKING ERROR (TE) GOAL	2.0%
X RETURN EFFICIENCY (IR) GOAL	0.50
ACTIVE RETURN (RTRN) GOAL	1.0%
FUND SHARE OF RETURN GOAL	0.67%
MANAGER FEE GOAL	0.33%

2 ALIGN MANAGER BENCHMARKS TO POLICY BENCHMARK SERIES

3 WEIGHT MANAGERS FOR OPTIMAL RETURN AND RISK:

	WEIGHT	RTRN	TE	IR
MGR1	33.0%	1.0%	2.5%	0.40
MGR2	33.0%	1.5%	3.5%	0.43
MGR3	33.0%	0.5%	1.3%	0.39
TOTAL	100.0%	1.0%	1.8%	0.54

1

SELECT HIGH PERFORMING MANAGERS

MANAGER CAPABILITIES

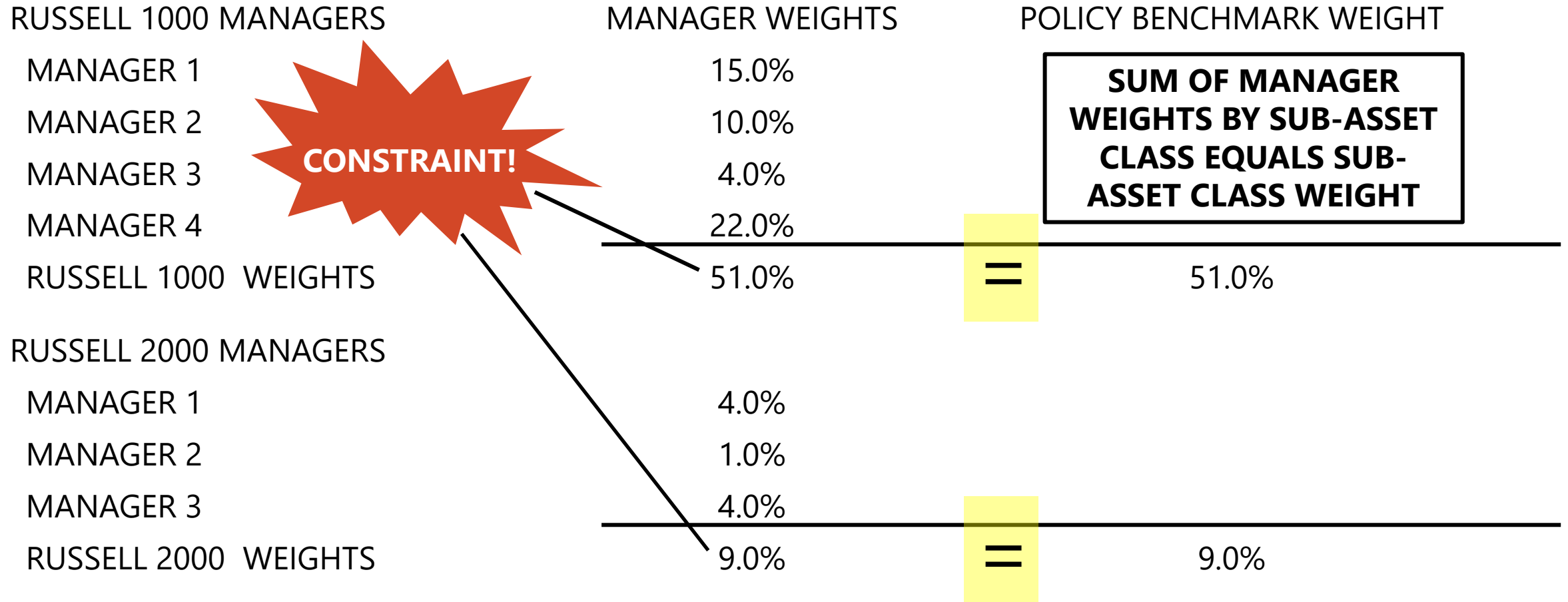
Talent
Ownership & Compensation
Locations
Firm Size (Mandate Dependent)
Assets Under Management
Investment Strategy/Philosophy
Source Of Risk And Return
Organization Structure
Max Mandate Size
Operations
Headline risks
Intellectual property/knowledge transfer

IMPACT TO FUND

Absolute risk and return
Active return and risk
Incremental impact to active return and risk
Risk factor exposure and risk
Non-linear exposure and risk (Greeks)
Benchmark and fit
Upside and downside returns
Liquidity impact
Private market metrics (TVPI, IRR, etc.)
Portfolio passive and active correlations
Pacing and commitment
Cost


2 ALIGN MANAGER BENCHMARKS

ILLUSTRATION



2 INVESTMENT OPPORTUNITY: SEPARATE ACTIVE EXPOSURE AND POLICY EXPOSURE

ILLUSTRATION

RUSSELL 1000 MANAGERS		MANAGER WEIGHTS	POLICY BENCHMARK WEIGHT
RUSSELL 1000 INDEX EXPOSURE		27.0%	
MANAGER 1		5.0%	<div>ALLOCATE TO THE BEST MANAGERS WITH THE BEST WEIGHTING REGARDLESS OF MANAGER BENCHMARK/ASSET CLASS UNIVERSE</div>
MANAGER 2		5.0%	
MANAGER 3		4.0%	
MANAGER 4		10.0%	
RUSSELL 1000 WEIGHTS		51.0%	51.0%
<hr/>			
RUSSELL 2000 MANAGERS			
RUSSELL 2000 INDEX EXPOSURE		-27.0%	
MANAGER 1		15.0%	
MANAGER 2		10.0%	
MANAGER 3		11.0%	
RUSSELL 2000 WEIGHTS		9.0%	9.0%

3 WEIGHT MANAGERS FOR OPTIMAL RETURN AND RISK

	WEIGHT	RTRN	TE ¹	IR
MGR1	33.0%	1.0%	2.5%	0.40
MGR2	33.0%	1.5%	3.5%	0.43
MGR3	33.0%	0.5%	1.3%	0.39
TOTAL	100.0%	1.0%	1.8%	0.54

>

	WEIGHT	RTRN	TE ¹	IR
MGR1	70.0%	1.0%	2.5%	0.40
MGR2	15.0%	1.5%	3.5%	0.43
MGR3	15.0%	0.5%	1.3%	0.39
TOTAL	100.0%	1.0%	2.0%	0.48

Correlation is the measurement of the change of one manager's returns when another manager's returns change.

Low Correlation of Active Returns

	MGR1	MGR2	MGR3
MGR1	1	.2	.3
MGR2	.2	1	.1
MGR3	.3	.1	1

Diversification enables a lower variation of active returns

1. Variation of active returns

- SPECIFIC EQUITY, FIXED INCOME AND PRIVATE MARKETS TOPICS
- OPTIMIZING COST, LIQUIDITY AND POLICY ALLOCATION EXPOSURES
- ALPHA BETA SEPARATION
- MANAGER DIVERSIFICATION AND DILUTION OF ACTIVE RETURN VERSUS MANAGER CONCENTRATION RISK
- PORTFOLIO SECURITY LEVEL CHARACTERISTICS
- FACTOR RISK VERSUS IDEOSYNCRATIC RISK
- MANAGER TRADING BEHAVIOR AND IMPACT TO RISK MEASUREMENT
- PREDICTIVE MANAGER PERFORMANCE MEASURES



INVESTMENT INITIATIVES UPDATE

July 22, 2022
Investment Team



Retirement & Investment

Equity Implementation Update:

- Selected Northern Trust to manage U.S. passive equity strategies
- Selected SSGA to manage international passive equity strategies
- Amending existing contracts to facilitate onboarding of new passive products
- Reducing large style tilts in the equity portfolio. Reallocating assets from U.S. large cap growth strategies to U.S. large cap core strategies

Next Steps:

- Work with a transition manager to facilitate reallocation and minimize costs
- Begin "Phase Two": Build a portfolio of equity managers that optimizes active return and risk targeting 200 bps of tracking error and 100 bps of excess return.

Engaging Callan to Evaluate Existing Timber Holdings:

- Springbank \$78 Million: 76% owned by SIB, 24% by Houston Firefighters (Total \$114 Million)
 1. Seven-year extension signed in 2015 is maturing
 2. Callan to assist staff with structuring and renegotiating a new extension
 3. Callan will conduct an independent valuation of the timber property
 4. Callan will evaluate the growth projections of the timber property
- ETO \$34 Million: SIB is the largest investor in the commingled fund (~\$67 Million)
 1. Callan will conduct an independent valuation of the timber property
 2. Callan will evaluate the growth projections of the timber property
- Teredo \$20 Million: Wholly owned by the SIB
 1. Callan will conduct an independent valuation of the timber property
 2. Callan will evaluate the growth projections of the timber property

Project details:

- Project is key to determining next steps for timber: Sell and reallocate or hold
- One of two non-billable projects for fiscal 2023
- Will identify a third-party timberland valuation firm
- The retention of a third-party timberland valuation firm will be an additional cost

Motion:

Approve staff to engage the services of a third-party timberland valuation firm.

Pacing Analysis Across Private Market Assets Project:

- Conducting this pacing analysis is Step 1 as staff looks to optimize the private market portfolio
- Analysis will provide a forward-looking view of the deployment of existing private market commitments and help to ensure the SIB has the necessary liquidity to fund these commitments
- Evaluate pacing and liquidity across private equity, private credit, real estate, infrastructure and timber over the next ten years
- Provides a framework staff will use to plan changes to the private market portfolio
- One of two non-billable projects for fiscal 2023

MEMORANDUM

TO: SIB
FROM: Jan Murtha, Executive Director
DATE: July 20, 2022
RE: 2nd Reading - Governance & Policy Review Recommendations

I. Background

At its May 20, 2022, meeting the Board approved for Introduction and First Reading an amendment to Policy B-6 to create a new standing committee and a draft charter for the new committee, as well as an amendment to Policy E-10 relating to due diligence procedure.

Pursuant to Policy B-10 of the SIB Governance Manual amendments may be adopted over the course of two meetings. The first meeting required an Introduction and First Reading. The second meeting requires a Second Reading and Final adoption.

II. 2nd Reading

Policy B-10 states:

Upon request of the Executive Director or a Board member a new policy or amendment shall be placed on the Board's agenda for action as follows:

1. Introduction and first reading. A brief explanation or summary of the new policy or amendment shall be presented to the Board. Upon approval of introduction and first reading, the measure shall be placed on the agenda of the next scheduled meeting of the Board for second reading and adoption. When appropriate, the measure shall be distributed to interested parties.

2. Second reading and adoption. Interested parties and the public shall be allowed an opportunity to comment on the policy or amendment before final action by the Board. The measure shall take effect immediately following second reading and adoption by the Board, unless a different effective date is stated.

3. Amendments. Amendments may be proposed at any time before final adoption of the measure. Upon determination by the Board that adoption of an amendment constitutes a substantive change that significantly changes the meaning or effect of the measure, the Board shall continue consideration of second reading and adoption to the next meeting to permit further review and comment.

A draft of the proposed policy changes and draft charter are enclosed for your consideration and review for 2nd reading and final adoption.

III. Committee Appointments

The proposed Investment Committee Charter contains the following language:

“The Governance & Policy Review Committee shall be composed of two members of the SIB board, two external investment professionals and two RIO staff appointed by the SIB Chair. The SIB Chair will also appoint a Chair and a Vice Chair of the Committee. The two external investment professionals may be either currently active or retired and have substantial institutional investment experience.”

If approved the Board Chair could proceed with Committee appointments. At the preference of the Chair:

- 1) the Chair could immediately appointment all committee members including two external investment professionals; or
- 2) the Chair could immediately appoint the staff and Board member committee members and defer recommendations for the two external investment professionals until either RIO staff or the SIB GPR committee developed a list of candidates eligible for appointment at the preference of and for consideration by the Board Chair; or
- 3) investment committee appointments could be deferred until a later SIB meeting date.

BOARD ACTIONS REQUESTED:

- 1) Motion to approve Amendment to Policy B-6 and Draft Investment Committee Charter for 2nd Reading & Final Adoption.**
- 2) Motion to approve Amendment to Policy E-10 for 2nd Reading & Final Adoption.**
- 3) Board Chair preference regarding committee appointments.**

POLICY TITLE: *STANDING COMMITTEES*

The board's standing committees are set forth in this policy as follows:

1. Audit Committee
2. Securities Litigation Committee
3. Executive Review Committee
4. Governance and Policy Review Committee
- 4.5. Investment Committee

- A. The Audit Committee, Securities Litigation Committee, Executive Review Committee, ~~and~~ the Governance and Policy Review Committee, and the Investment Committee shall operate under the terms of a charter approved by the board.

INTRODUCTION – Audit Committee

An Audit Committee has been established as a standing committee of the State Investment Board (SIB). The Audit Committee will assist the SIB in carrying out its oversight responsibilities as they relate to the Retirement and Investment Office (RIO) internal and external audit programs, including financial and other reporting practices, internal controls, and compliance with laws, regulations, and ethics.

The primary objective of the internal audit function is to assist the SIB and management in the effective discharge of their responsibilities. To this end, internal auditing will furnish them with analyses, appraisals, recommendations, and pertinent information concerning the activities reviewed.

Functions and units within RIO will be reviewed at appropriate intervals to determine whether they are effectively carrying out their responsibilities of planning, organizing, directing, and controlling in accordance with SIB and management instructions, applicable laws, policies, and procedures, and in a manner consistent with both the RIO objectives and high standards of administrative practice.

POLICY OF THE STATE INVESTMENT BOARD – Audit Committee

The audit staff shall have full, free, and unrestricted access to all RIO activities, records, property, and personnel relative to the subject under review. The audit function will be conducted in a manner consistent with acceptable professional standards and coordinated with others to best achieve the audit objectives and the RIO objectives.

The Internal Audit Services Unit is responsible for developing and directing a broad, comprehensive program of internal auditing within RIO. The Internal Audit Services Unit will report administratively to management and functionally to the Audit Committee of the SIB.

The RIO unit supervisors are responsible for seeing that corrective action on reported weaknesses is either planned or taken within 30 days from the receipt of a report disclosing those weaknesses if known or applicable. The unit supervisors are also responsible for seeing that a written report of action planned or completed is sent to the executive director. If a plan for action is reported, a second report shall be made promptly upon completion of the plan.

INTRODUCTION – Securities Litigation Committee

A Securities Litigation Committee (SLC) has been established as a standing committee of the State Investment Board (SIB). The SLC will assist the SIB in fulfilling its fiduciary oversight responsibilities of monitoring the investment assets entrusted to it by the various statutory and contracted funds, and to serve as a communications link for the SIB, RIO's management and staff, third party securities litigation firms, and others.

POLICY TITLE: *STANDING COMMITTEES*

The SLC will determine when an active role should be pursued in regards to securities litigation affecting investments within the SIB's portfolios based on the SIB approved Securities Litigation Policy and approved SIB Securities Litigation Committee Charter.

POLICY OF THE STATE INVESTMENT BOARD – Securities Litigation Committee

The SLC is authorized to:

- Draft policy (to be formally approved by SIB) regarding dollar and/or risk thresholds for determining when to opt-out of class actions and/or seek direct litigation or lead plaintiff status;
- Based on SIB approved policy make decisions on the level of participation the SIB will take in direct litigation, opt-in or group litigation, anti-trust and other class actions; and
- Approve the selection of special assistant attorneys (in conjunction with the approval of the Office of the Attorney General) in cases of direct litigation.

RIO's management is responsible for ongoing monitoring of securities litigation and claims filing. RIO management and staff will enable the SLC to provide a periodic update to the SIB on the SLC's activities and related recommendations.

The SLC has the responsibility to provide oversight in the areas of:

- policy development;
- determination on direct litigation and/or lead plaintiff status; and
- approval of special assistant attorneys (outside counsel) with concurrence of the Attorney General.

INTRODUCTION – Executive Review Committee

An Executive Review Committee (ERC) has been established as a standing committee of the SIB. The ERC will assist the SIB in fulfilling its fiduciary oversight responsibilities of “monitoring executive performance (which) is synonymous with monitoring organizational performance against board policies on *Ends* and *Executive Limitations*”. Internal audit will be responsible for preparing an annual summary of the required reports submitted to the SIB by the Executive Director in connection with its review of policy adherence to *Ends* and *Executive Limitations*. Internal audit will also assist the ERC in completing annual surveys of the Executive Director with the SIB, SIB clients, and RIO team members.

The ERC will conduct a formal evaluation of the Executive Director during the first half of every calendar year. This formal evaluation by the ERC will serve as the basis for an annual compensation recommendation to be reviewed and approved by the SIB on or before June 30th each year. Internal audit will also assist the SIB and ERC in administering the annual board self-assessment process.

POLICY TITLE: *STANDING COMMITTEES*

POLICY OF THE STATE INVESTMENT BOARD – Executive Review Committee

The ERC is authorized to:

- Conduct a formal evaluation of the Executive Director annually;
- Obtain SIB approval of the annual performance evaluation of the Executive Director;
- Make a compensation recommendation to the SIB on or before June 30th of each year; and
- Administer a formal self-assessment of the SIB periodically (unless instructed otherwise).

The ERC and/or RIO will seek SIB approval prior to formally engaging any third party assistance in conducting the annual executive review process or board self-assessment.

INTRODUCTION – Governance & Policy Review

A Governance and Policy Review Committee has been established as a standing committee of the SIB. The Governance and Policy Review Committee will assist the SIB in fulfilling its fiduciary oversight responsibilities to fulfill its responsibilities regarding matters that relate to governing the SIB, policies, and identifying and making recommendations to the SIB.

The Governance and Policy Review Committee will be responsible for reviewing the governance manual, recommending policy changes, and when directed by the board review governance specific concerns, and make recommendations for improvement.

POLICY OF THE STATE INVESTMENT BOARD – Governance & Policy Review Committee

The Governance & Policy Review Committee is authorized to:

- Review and recommend policies for the governance manual.
- Ensure the governance manual reflects best practices and good governance.
- As directed by the board, review specific governance concerns, and make recommendations for improvement.
- Request RIO staff for specific topic training or education

INTRODUCTION – Investment Committee

The Investment Committee (the “Committee”) is created to provide oversight of SIB investments within the parameters established by the SIB. Oversight will include an analysis of risk and return at the portfolio, asset class, and client fund levels. Additionally, the Committee will provide input to the Board on asset allocation and benchmark recommendations.

In general, the Committee will focus on various policies and procedures of the agency to ensure they are consistent with industry standards and that they continue to keep pace with prudent investment theory and practice.

The Committee will review decisions made about deviations from established benchmarks and allocation of investments among internal management (if approved) and external management, including decisions about passive, active and quantitative styles.

POLICY OF THE STATE INVESTMENT BOARD – Investment Committee

The Investment Committee is authorized to:

- propose to the SIB changes to its Investment Policy including delegation of investment authority to RIO investment staff;
- approve the SIB Investment Committee Investment Guidelines (IC Guidelines);
- approve the general strategies for each investment division; and
- approve new investment instruments.

North Dakota State Investment Board Committee Charter

The North Dakota State Investment Board Investment Committee (SIB Investment Committee), in conjunction with North Dakota Retirement and Investment Office management (RIO) and North Dakota State Investment Board (SIB), has developed the following policies and procedures relating to the prudent management of SIB assets.

COMMITTEE PURPOSE AND CHARTER

The Investment Committee (the "Committee") is created to provide oversight of SIB investments within the parameters established by the SIB. Oversight will include an analysis of risk and return at the portfolio, asset class, and client fund levels. Additionally, the Committee will provide input to the Board on asset allocation and benchmark recommendations.

In general, the Committee will focus on various policies and procedures of the agency to ensure they are consistent with industry standards and that they continue to keep pace with prudent investment theory and practice.

The Committee will review decisions made about deviations from established benchmarks and allocation of investments among internal management (if approved) and external management, including decisions about passive, active and quantitative styles.

The Committee is responsible for (i) proposing to the SIB changes to its Investment Policy including delegation of investment authority to RIO investment staff; (ii) approving the SIB Investment Committee Investment Guidelines (IC Guidelines); (iii) approving the general strategies for each investment division; and (iv) approving new investment instruments. All investment guidelines must be consistent with the investment authority provided in North Dakota Century Code Chapter 21-10.

GOVERNANCE & POLICY REVIEW COMMITTEE COMPOSITION AND TERM LIMITS

The Governance & Policy Review Committee shall be composed of two members of the SIB board, two external investment professionals and two RIO staff appointed by the SIB Chair. The SIB Chair will also appoint a Chair and a Vice Chair of the Committee. The two external investment professionals may be either currently active or retired and have substantial institutional investment experience.

Membership on the Committee will be for one year or termination of term on the SIB. Vacancies will be filled by the SIB at the first scheduled meeting following the vacancy. There will be no limit to the number of terms served on the Committee.

The Chief Investment Officer will be responsible for meeting preparation.

DUTIES AND RESPONSIBILITIES

- A. The Committee will suggest and recommend changes to the SIB Investment Policy, as necessary including any delegation of authority to RIO investment staff.
- B. The Committee will review periodically and approve changes and additions to the IC Guidelines and will report any revisions to the SIB.
- C. The Committee may examine internally (if approved) and externally managed portfolios, individual investments, correlation among portfolios, and such other matters as the Committee deems appropriate for the purpose of understanding, measuring, controlling, monitoring, and reporting SIB investment exposure.
- D. The Committee will review and approve the use of new investment instruments prior to their implementation in internal (if approved) and external SIB portfolios.
- E. The Committee will oversee the review and implementation of any other new investment programs or initiatives in all SIB portfolios and will coordinate any necessary related SIB approvals.
- F. For purposes of fulfilling its risk management and oversight responsibilities, the Committee will act as liaison between the RIO investment Staff and the SIB on issues concerning investment risk management.
- G. The Committee will review a subset of asset class strategies at least quarterly to assess established risk limits and evaluate strategy and will approve such strategies annually. The relevant Investment Staff shall be responsible for the specific investment decisions and implementations including internally (if approved) and externally managed mandates that are used to execute the approved strategies.
- H. The Committee will review all compliance-related issues including compliance with statutes, administrative rules, internal and external manager investment guidelines or as otherwise requested.

- I. The Committee will review asset allocation plans and strategies and will review and approve any proposed changes to SIB's strategic asset allocations and fund-level active risk objectives before they are presented to the Board for approval. The Committee will provide consultation and assistance to the SIB, ED and staff concerning total fund allocation changes or rebalance decisions, as needed.
- J. The Committee will review and act on all requests from investment managers, both internal (if approved) and external for waivers to provisions in their investment guidelines. On an emergency basis when it is impractical to timely convene a meeting of the Investment Committee, either the Chair or Vice Chair of the committee with the concurrence of the Chief Investment Officer of the Committee or the Executive Director, may approve a waiver. That waiver will be brought to the Committee for ratification at its next regularly scheduled meeting.
- K. The Committee may review and analyze other compliance-, risk- or derivative-related (if approved) matters that are directed to the attention of the Committee by the SIB, external auditors, the Internal Audit group, and RIO investment and accounting staff.
- L. The Committee will receive quarterly reports regarding transitions (if any) and shall review with the applicable Investment Staff the costs and impacts associated with the transitions. It will also from time-to-time review reports on the trading effectiveness of investment execution of internal investment strategies (if approved).
- M. The Committee will review annual benchmark recommendations from a Board-appointed benchmark consultant and will provide its evaluation and recommendation to the Board.
- N. The Committee will review and revise portfolio guidelines as necessary.
- O. The Committee will establish procedures for the methodology and frequency of review of (i) fund, asset class and portfolio performance, (ii) performance attribution, (iii) allocation within asset classes and (iv) risk levels. Procedures will be shared with the Board of Trustees.
- P. The Committee will conduct periodic round table discussions of the economic and investment environment.

GENERAL COMMITTEE PROCEDURES

- Q.** A majority of the voting members of the Committee constitute a quorum. A majority of a quorum is required to take any Committee action or approve any motion. If an approved motion lacked the support by the Committee Chair, the results of the vote shall be reported in a separate report to the Board of Trustees at its next regularly scheduled meeting. Any member proposing or responsible for oversight of an investment being brought to the Committee for approval will be recused from the vote.
- R.** The Committee shall establish a regular monthly meeting schedule. Non-routine meetings may be called by any Committee member with sufficient lead time to provide appropriate notice of the meeting under ...
- S.** The Committee Charter shall be approved by the SIB.
- T.** Minutes of Committee meetings shall be kept and be provided to SIB. Regular Board meetings shall include an agenda item for discussion of Committee actions and proceedings.
- U.** The Committee may establish standing subcommittees or temporary working groups to carry on assigned activities. Such subcommittees or working groups will report on their activities to the Committee as requested by the Committee.

DERIVATIVE INVESTMENTS

- V.** Procedures for review, processing, and monitoring of derivative investments (if approved) will be established by the Committee.
- W.** Specific investment policies regarding the use of derivative instruments (if approved) are determined for each portfolio by the IC Guidelines. Such policies, as amended from time to time, are officially contained in the IC Guidelines or external manager contracts.
- X.** The Chief Financial Officer or designee will review with the Committee any changes in the accounting treatment and required note disclosures for external reporting purposes used for derivative instruments, based on the applicable fund, the characteristics of the instrument and any underlying assets or liabilities.

POLICY TYPE: INVESTMENTS

POLICY TITLE: *EVALUATION*

The SIB will follow an annual evaluation cycle for the investment program to ensure systematic review of investment policies and performance results and the development and implementation of corrective action plans. Evaluation of the program seeks to answer such questions as:

- Are all investment goals being met?
- What has worked and what has not?
- Have changes occurred in the capital markets, plan design, or board philosophy to warrant changes in investment policy?
- Are money managers meeting our expectations?
- Is continued confidence in the money managers warranted?
- Are accounting practices sound and fair to participating funds?
- Is service delivered in the most cost-effective manner?

The SIB's consultants play a key role in helping to answer some of these questions. The external auditor's report provides insight on accounting practices and cost effectiveness.

Evaluation of Money Managers

Achievement of the SIB's performance goals hinges on the success of the investment strategies and money managers it employs. Evaluation of each money manager must consider the following:

- Has the manager achieved the SIB's performance objectives?
- Has the firm adhered to the investment philosophy for which it was hired?
- Have there been any organizational or personnel changes that may negatively affect future performance?
- Are areas of concern being adequately addressed?
- Can the manager perform well in the future, regardless of whether extraordinary events, long-term performance, and/or short-term performance argue for termination?

These criteria are assessed by quantitative and qualitative means:

- Analyses provided by the investment consultant.
- Annual meetings with each manager in Bismarck, onsite at the managers' offices or virtually to discuss performance, investment philosophy, organizational changes, economic outlook, and areas of concern.

Longer periods of time are better than shorter time periods when assessing a manager's performance. Ideally, performance should be assessed over a market cycle. Market cycles have varying lengths but have historically averaged 5-7 years. The SIB will use a minimum five-year period to evaluate manager performance against long-term performance standards. Long-term performance standards will be a market index that the manager has previously agreed to be measured against.

Shorter-term performance standards will also be established for each money manager. These standards will incorporate a minimum three-year measurement period and measure the manager against a previously agreed-upon peer group or style market index.

Long-term performance standards, short-term performance standards, extraordinary events, and termination factors will be incorporated in the written asset class investment policies.

Evaluation of Program Costs

Costs will be broken out by internal administration, investment consultants, master custodian, and external manager fees. Reports will detail this information by investment pool, managers, and by fund.

These costs will be compared to other funds on an annual basis and generally include a fee study conducted by an experienced investment consultant every two years. Staff is encouraged to identify other cost-comparison sources which may include the engagement of specialized fee consultants to conduct in-depth fee reviews on a periodic basis, subject to board review and approval.

Policy Implemented: September 20, 1995.

Amended: May 19, 2022~~October 26, 2018~~

MEMORANDUM

TO: SIB
FROM: Scott Anderson, Chief Investment Officer
DATE: July 14, 2022
RE: Legacy Fund and Budget Stabilization Fund Advisory Board Update

The Legacy and Budget Stabilization Fund Advisory Board (hereinafter “Advisory Board”) met Thursday June 30, 2022. The link to the meeting and presentation materials is attached for your reference.

<https://ndlegis.gov/assembly/67-2021/interim/23-5173-02000-meeting-agenda.pdf>

During this meeting representatives from RVK provided a committee discussion regarding the asset allocation study of the Legacy Fund as well as the development of policies and guidelines for an in-state equity investment program under the Legacy Fund. A representative of 50 South Capital provided an update of the 50 South Capital in-state investment program, including a brief overview of the process used to evaluate and select qualified investments. Staff provided a presentation regarding the asset allocation, basis points charged by investment advisors, fund balances, and investment returns of the Budget Stabilization Fund and the Legacy Fund. Lastly, the committee had a discussion regarding the bills and the provisions related to the asset allocation plan for the Legacy Fund.

BOARD ACTION REQUESTED: Information Only.

SIB Calendar & Program Plan 2022-23

JULY 22, 2022

Election of Officers
Committee Appointments
Code of Conduct Affirmation
Qtrly Investment Ends Report (6/30)
Qtrly TFFR Ends Report (3/31)
Annual Investment Manager Catalog
Executive Limitations Report

August 26, 2022

Consultant Performance Review (6/30)
Qtrly Budget/Financial Report (6/30)
Executive Limitations Report

SEPTEMBER 23, 2022

Staff Performance Review (6/30)
Annual Investment Report (6/30)
Annual Internal Audit Report (6/30)
Annual Technology Report (6/30)
Annual Budget/Finance Report (6/30)
Qtrly TFFR Ends Report (6/30)
Executive Limitations Report

October 28, 2022

SIB Customer Satisfaction Survey
Qtrly Investment Ends Report (9/30)
Qtrly Budget/Financial Report (9/30)
Executive Limitations Report

November 18, 2022

Consultant Performance Review (9/30)
2023 Legislative Update
Qtrly Internal Audit Report (9/30)
Qtrly TFFR Ends Report (9/30)
Executive Limitations Report

JANUARY 27, 2023

Staff Performance Review (9/30)
2023 Legislative Update
Annual Retirement Ends Report (6/30)
Strategic Communication Presentation
Qtrly Investment Ends Report (12/31)
Qtrly Budget/Financial Report (12/31)
Executive Limitations Report

February 17, 2023

Consultant Performance Review (12/31)
2023 Legislative Update
Qtrly Internal Audit Report (12/31)
Executive Limitations Report

MARCH 24, 2023

Staff Performance Review (12/31)
2023 Legislative Update
Qtrly TFFR Ends Report (12/31)
Strategic Plan Presentation
Executive Limitations Report

APRIL 28, 2023

2023 Legislative Update
Qtrly Investment Ends Report (3/31)
Qtrly Budget/Financial Report (3/31)
Executive Limitations Report

May 19, 2023

Consultant Performance Review (3/31)
Staff Performance Review (3/31)
2023 Legislative Update
Qtrly Internal Audit Report (3/31)
Board & Committee Calendar FY 23-24

JUNE 16, 2023

Board Retreat?

Quarterly Report on Ends

Quarter ending June 30, 2022

Investment Program

Quarter Highlights

During the quarter, staff began a portfolio review project to determine the ideal structure of the SIB portfolios moving forward. Staff presented to the board the idea of harmonization of strategies across pools and clients within the public equity sleeve. A review of the fixed income allocation has also begun and will be presented to the board at a future meeting.

As part of the new public equity implementation, staff received approval to use passive indexes as a tool for rebalancing and adjusting tracking error to the policy benchmark. An evaluation of index providers took place including a review of fees, performance, tracking error, and other capabilities. Staff selected Northern Trust indexes for the domestic components and State Street indexes for the international components.

In addition to the ongoing work in the public markets portfolio, staff began two projects relating to the private markets portfolio. The first is a review of the timber allocation and the second is a private markets pacing model analysis to help staff plan for future commitments.

Finally, the job postings for additional investment team positions were posted and interviews are currently underway.

Portfolio Changes & Investment Consultant

There were no portfolio changes during the quarter.

Other

- Staff continues to conduct preliminary due diligence on prospect managers/products for future consideration.
- Staff continues to monitor each client's asset allocation monthly and makes rebalancing decisions based on rebalancing policy and cash flow requirements.
- Staff attended meetings with many SIB client boards, sub-committees and/or legislative committees or representatives including TFFR, PERS, and WSI.
- The Board has approved the termination of the LSV, Epoch, and Vanguard mandates which will remain on the watch list until they are defunded

Current Watch List

LSV

LSV was placed on the Watchlist in May 2019 for performance reasons. As of May 31, 2022, LSV managed over \$1.5 billion for the SIB across global, domestic and international equity strategies. LSV is a deep value equity manager employing a proprietary, disciplined quantitative process to rank stocks and construct portfolios. Their systematic investment approach is designed with an understanding of the fundamental causes of security mispricing. Unlike other deep value managers, they do not invest in distressed companies that require major turnarounds. Rather, they look for generally healthy companies that have gone through extended periods of underperformance, but more recently exhibit positive signs of change.

Epoch

Epoch was placed on the Watchlist in September 2020 for performance reasons. As of May 31, 2022, Epoch managed over \$300 million for the SIB in their Global Choice strategy. This strategy seeks long-term capital appreciation by investing in a concentrated portfolio of global businesses they believe have superior risk-reward profiles. Ideas are sourced across firm strategies to create a concentrated portfolio of best ideas. Companies are selected for the portfolio based on their ability to generate free cash flow rather than traditional accounting-based metrics such as price-to-book and price-to-earnings. Investment analysis takes into consideration factors that can lead to growing free cash flow and management's ability to maximize return on cash flow allocation.

TOTAL EPOCH EQUITIES	>>>>>>>	\$	300,677,324	1-year	3-year	5-years	10-years
Epoch World Equities	Pension	\$	300,677,324	-8.0%	8.1%	7.3%	9.6%
<i>Benchmark</i>			<i>MSCI World</i>	-4.8%	12.6%	9.7%	11.1%
	<i>Pension</i>		<i>Relative performance</i>	-3.2%	-4.5%	-2.4%	-1.5%

TOTAL LSV EQUITIES	>>>>>>>	\$	1,542,500,654	1-year	3-year	5-years	10-years
LSV World Equities	Pension	\$	436,773,885	-3.2%	12.4%	7.7%	-
<i>Benchmark</i>			<i>MSCI ACWI IMI</i>	-7.5%	11.5%	8.8%	-
	<i>Pension</i>		<i>Relative performance</i>	4.4%	0.9%	-1.1%	-
LSV U.S. Large Cap Value	Insurance	\$	68,393,628	-0.3%	14.1%	9.3%	12.9%
LSV U.S. Large Cap Value	Legacy	\$	536,411,967	-0.5%	14.2%	9.6%	-
<i>Benchmark</i>			<i>Russell 1000 Value</i>	0.9%	12.8%	9.5%	12.1%
	<i>Insurance</i>		<i>Relative performance</i>	-1.3%	1.3%	-0.2%	0.8%
	<i>Legacy</i>		<i>Relative performance</i>	-1.4%	1.4%	0.1%	-
LSV International Value	Insurance	\$	51,785,424	-6.8%	6.5%	2.7%	7.1%
LSV International Value	Legacy	\$	449,135,750	-6.1%	6.7%	2.8%	-
<i>Benchmark</i>			<i>MSCI EAFE</i>	-10.4%	6.4%	4.2%	7.2%
	<i>Insurance</i>		<i>Relative performance</i>	3.6%	0.0%	-1.5%	-0.1%
	<i>Legacy</i>		<i>Relative performance</i>	4.3%	0.3%	-1.4%	-

As of May 31, 2022

NDRIO Investment Due Diligence Quarterly Monitoring Report

Apr-01-2022 to Jun-30-2022

Date	Firm	Reason For Call	Key Takeaways	Location	RIO Attendees
4/5/2022	Arrowstreet	SMA Discussion	<i>Will send docs for SMA</i>	Call	Eric Chin Eric Chin,Matt Posch,Scott Anderson,Paul White
4/18/2022	RVK	Update call	<i>Stakeholder interviews are being conducted</i>	Call	Eric Chin,Matt Posch,Scott Anderson
4/18/2022	Timberland Investment Resources	Portfolio Review	<i>Timber may have positive outlook</i>	Call	Eric Chin,Matt Posch,Scott Anderson
4/20/2022	Cerberus			Bismarck	Eric Chin
4/27/2022	Cerberus			Meeting	Eric Chin
4/27/2022	Ares	Catch-up		Meeting	Eric Chin
5/2/2022	State Street	Index solutions	<i>Index prospect</i>	Call	Eric Chin Eric Chin,Matt Posch,Scott Anderson,Paul White
5/3/2022	Cerberus	Chat with Dan Quayle & John Snow	<i>Uncertainty in economic outlook</i>	Call	Eric Chin
5/4/2022	First Western	Index solutions		Call	Eric Chin
5/5/2022	Allspring	Intro		Call	Eric Chin
5/6/2022	Northern Trust	Index solutions	<i>Index prospect</i>	Call	Eric Chin
5/6/2022	State Street	Index solutions	<i>Index prospect</i>	Call	Eric Chin
5/9/2022	Bell Bank	Index solutions		Call	Eric Chin
5/9/2022	Bravera	Index solutions		Call	Eric Chin Eric Chin,Matt Posch,Scott Anderson,Paul White
5/18/2022	LSV	Annual Investment Meeting		Bismarck	Eric Chin,Matt Posch,Scott Anderson,Paul White
5/19/2022	Epoch	Portfolio review	<i>Portfolio has underperformed</i>	Bismarck	Eric Chin,Matt Posch,Scott Anderson,Paul White
5/19/2022	Northern Trust Custodian	Review of other available custodial services		Bismarck	Eric Chin,Matt Posch,Scott Anderson,Paul White
6/8/2022	IWC Timber	Timber discussions	<i>May be interested in timber</i>	Call	Eric Chin,Matt Posch,Scott Anderson,Paul White
6/9/2022	Epoch	Catchup		Meeting	Eric Chin Eric Chin,Matt Posch,Scott Anderson,Paul White
6/14/2022	LA Capital	Portfolio Review	<i>Portfolio has had good performance</i>	Bismarck	Eric Chin,Matt Posch,Scott Anderson,Paul White
6/15/2022	Amundi	Update Call		Call	Matt Posch
6/17/2022	Stafford Capital Partners	Timber discussions	<i>May be interested in timber</i>	Call	Eric Chin,Matt Posch Eric Chin,Matt Posch,Scott Anderson,Paul White
6/21/2022	William Blair	Portfolio Review	<i>Portfolio underperformance this year</i>	Bismarck	Eric Chin,Matt Posch,Scott Anderson,Paul White
6/21/2022	PIMCO	FX Exposure		Call	Eric Chin,Paul White
6/22/2022	Sixth Street Partners	Catchup, portfolio update	<i>Portfolio is performing well</i>	Bismarck	Matt Posch Eric Chin,Matt Posch,Scott Anderson,Paul White
6/22/2022	Atlanta Capital	Portfolio Review	<i>Quality focused</i>	Bismarck	Eric Chin,Matt Posch,Scott Anderson,Paul White
6/27/2022	Western Asset Management	Portfolio Review		Call	Eric Chin,Matt Posch,Scott Anderson,Paul White
6/28/2022	PIMCO	Annual LPAC meeting		Call	Eric Chin
6/29/2022	Parametric	Benchmark discussion	<i>Can change benchmark from SP500 to RS1000</i>	Call	Eric Chin,Matt Posch

MEMORANDUM

To: State investment Board

From: Paul White

Date: 14 July 2022

RE: Annual Affirmation of Code of Conduct Policy

Governance Process Policy B-8, *Board Members' Code of Conduct*, which is attached to this memorandum, details the Code of Ethical Responsibility for the SIB. Item #10 of this policy indicates that each Board Member is required to reaffirm their understanding of this policy annually and disclose any conflicts of interest. Therefore, please read and sign the statement below to comply with this requirement.

"I have read and understand SIB Governance Process Policy B-8 *Board Members' Code of Conduct*. I have disclosed any conflicts of interest as required by this policy."

Name (printed) _____

Signature _____

Date _____

Detail of any conflicts of interest (if any):

POLICY TYPE: GOVERNANCE PROCESS

POLICY TITLE: BOARD MEMBERS ' CODE O F CONDUCT

The following will be the Code of Ethical Responsibility for the SIB:

1. SIB members owe a duty to conduct themselves so as to inspire the confidence, respect, and trust of the SIB members and to strive to avoid not only professional impropriety but also the appearance of impropriety.
2. SIB members should perform the duties of their offices impartially and diligently. SIB members are expected to fulfill their responsibilities in accord with the intent of all applicable laws and regulations and to refrain from any form of dishonest or unethical conduct. Board members should be unswayed by partisan interest, public sentiment, or fear of criticism.
3. Conflicts of interest and the appearance of impropriety shall be avoided by SIB members. Board members must not allow their family, social, professional, or other relationships to influence their judgment in discharging their responsibilities. Board members must refrain from financial and business dealings that tend to reflect adversely on their duties. If a conflict of interest unavoidably arises, the board member shall immediately disclose the conflict to the SIB. A board member must abstain in those situations where the board member is faced with taking some official action regarding property or a contract in which the board member has a personal interest. Conflicts of interest to be avoided include, but are not limited to: receiving consideration for advice over which the board member has any direct or indirect control, acting as an agent or attorney for a person in a transaction involving the board, and participation in any transaction involving for which the board member has acquired information unavailable to the general public, through participation on the board.

“Conflict of Interest” means a situation in which a board member or staff member has a direct and substantial personal or financial interest in a matter with also involves the member’s fiduciary responsibility.

4. The board should not unnecessarily retain consultants. The hiring of consultants shall be based on merit, avoiding nepotism and preference based upon considerations other than merit that may occur for any reason, including prior working relationships. The compensation of such consultants shall not exceed the fair value of services rendered.
5. Board members must abide by North Dakota Century code 21-10-09, which reads: “No member, officer, agent, or employee of the state investment board shall profit in any manner from transactions on behalf of the funds. Any person violating any of the provisions of this section shall be guilty of a Class A misdemeanor.”
6. Board members shall perform their respective duties in a manner that satisfies their fiduciary responsibilities.
7. All activities and transactions performed on behalf of public pension funds must be for the exclusive purpose of providing benefits to plan participants and defraying reasonable expenses of administering the plan.

POLICY TYPE: GOVERNANCE PROCESS

POLICY TITLE: *BOARD MEMBERS' CODE OF CONDUCT*

8. Prohibited transactions. Prohibited transactions are those involving self-dealing. Self-dealing refers to the fiduciary's use of plan assets or material, non-public information for personal gain; engaging in transactions on behalf of parties whose interests are adverse to the plan; or receiving personal consideration in connection with any planned transaction.
9. Violation of these rules may result in an official reprimand from the SIB. No reprimand may be issued until the board member or employee has had the opportunity to be heard by the board.
10. Board Members are required to affirm their understanding of this policy annually, in writing, and must disclose any conflicts of interest that may arise (See Exhibit B-I).

Policy Implemented: June 23, 1995.

Amended: January 22, 1999, February 25, 2011, January 27, 2012, February 27, 2015.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
50 South Capital	Legacy	Private Equity	Jun-21	50 South Capital is an alternatives asset management firm designed to meet the core strategic needs of investors seeking access to private equity, private credit, and hedge funds. The North Dakota 1889 Growth Fund seeks to further advance innovation and private markets investments in North Dakota by seeking investments that provide strong risk-adjusted returns and support the growing entrepreneurial ecosystem in the state.
Adams Street Partners Miguel Gonzalo	Pension	Private Equity	various commitments since 1991	The Adams Street Partnership Fund Program ("ASP Fund Program") invests in private equity partnerships and portfolio companies, creating a portfolio diversified by time, manager and subclass. Investment commitments will typically be made over a three- to four-year period in venture capital, buyout and other partnerships, which include mezzanine/subordinated debt, restructuring/distressed debt and special situations. A portion of a participant's subscription to the ASP Fund Program may be used to opportunistically invest in secondary interests in private equity partnerships and/or their portfolio companies. All of the Adams Street Partner funds which North Dakota State Investment Board has invested in are based in U.S. dollars.
Ares - ND Credit Strategies Molly Shulmann	Pension Legacy	Below Inv Grade FI Fixed Income	Sep-17 Sep-17	The investment objective of the Ares ND Credit Strategies Fund LLC (the "Fund") is to invest in directly originated, primarily senior secured loans in high quality middle market companies in North America. The Fund seeks to generate current income with some long-term capital appreciation.
Arrowstreet Capital Tony Troilo	Pension Legacy Insurance	International Equity International Equity International Equity	Jan-22 Jan-22 Jan-22	Arrowstreet's investment approach utilizes quantitative methods that focus on identifying and incorporating investment signals into proprietary return, risk, and transaction cost models. This strategy targets outperformance of 3% per year over a market cycle relative to the MSCI ACWI ex US index. Arrowstreet employs a core investment style that can outperform during a broad range of market environments.
Atlanta Capital Emma Hutchinson	Pension Insurance Legacy	Small Cap Equity Small Cap Equity Small Cap Equity	April-16 December-19 December-19	The High Quality Small Cap strategy is a fundamental core approach that invests in small cap companies in strong financial condition and whose equities are priced below the team's estimate of fair value. The investment team seeks to own innovative businesses that dominate a niche, maintain high barriers to entry, and have consistent demand over an economic cycle. They conduct bottom-up proprietary research, and meet with the management teams as well as visit the facilities of each of their companies. Stock purchases are analyzed as if they were a potential acquirer of the entire business. Atlanta Capital's Core Equity team is comprised of three portfolio managers and one investment specialist. Each portfolio manager serves as a generalist and conducts his own analytical research while investment decisions are made on a consensus basis. Chip Reed, CFA, Bill Bell, CFA and Matt Hereford, CFA are responsible for all purchase and sell decisions.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
Axiom International Lindsay Chamberlain	Pension	Emerging Markets Equity	August-14	The Emerging Markets strategy seeks to invest in emerging market securities issued by companies whose key business drivers are both improving and exceeding expectations, as determined by Axiom's stock selection techniques focused on fundamental company analysis. The strategy considers emerging markets securities to include securities of companies either (i) located in countries that are not included in the MSCI Developed Markets Index series or (ii) that derive a majority of their revenues or assets from a country or countries not included in the MSCI Developed Markets Index series, in each case at the time of investment. Although the Manager generally expects the strategy's investment portfolio to be geographically diverse, there are no prescribed limits on geographic distribution of the strategy's investments and the strategy has the authority to invest in securities traded in securities markets of any country in the world.
Barings Jeff Stammen	Insurance	Short Term Fixed Inc	Aug-19	<p>The investment objective of the Babson Capital's Active Short Duration Strategy is to outperform the total return of the Barclays Capital 1-3 year US Government Index while minimizing fluctuations in capital value and providing sufficient liquidity to fund withdrawals driven by client activity. The portfolio seeks to achieve a high total rate of return primarily from current income while minimizing fluctuations in capital values by investing in a well-diversified portfolio of US Government, mortgage-backed, asset backed securities and corporate bonds.</p> <p>The investment team uses proprietary research to conduct value-driven sector rotation and intensive credit and structure analysis, while utilizing a dynamic yield curve management process, to construct effective portfolios. In addition to income, primary goals for the Active Short Duration strategy are stability and liquidity. In meeting these goals, risk is measured by perceived or actual changes in credit worthiness, adequate diversification and exposure to potential changes in interest rates. Babson Capital explicitly manages the portfolio to minimize these risks and endeavors to add value through security selection and portfolio duration structure designed to maximize the risk-return characteristics of the yield curve.</p>
Blackrock Private Equity Partners (PEP) Private Opportunities Fund Simon Dwyer	Pension	Private Equity	January-17	<p>PEP seeks to build a diversified private equity program diversified across investment type, strategy, stage, industry sector, geography and vintage year. PEP offers comprehensive access to premier investments across Primaries, Secondaries, and Co-investments, as well as the technical expertise and investment know-how necessary to build and manage a successful customized fund of funds program. The PEP customized program allows the NDSIB to tailor exposures around its existing private equity investments.</p> <p>PEP sits within BlackRock, Inc. ("BlackRock"), a global Investment firm with \$4.6 trillion assets under management. BlackRock is a publicly traded corporation that employs 135+ investment teams, and operates in 30 countries and 70 cities across the Americas, Europe, Asia-Pacific, the Middle East, and Africa.</p>
Capital Int'l V & VI Jim McGuigan	Pension	Private Equity	Aug-07	Capital International Private Equity Fund (CIPEF) has a geographic focus in global emerging markets. CIPEF's investment focus, by stage, primarily includes buy-outs, expansion capital, and replacement capital.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
Cerberus - ND Private Credit Andrew Solomon	Pension Legacy	Below Inv Grade FI Fixed Income	Aug-17 Aug-17	The Partnership's objective is to achieve superior risk-adjusted returns mainly through origination of, and investment in, secured debt assets. The Partnership expects to generate both current income and capital appreciation. The Partnership intends to fund the origination of secured debt of U.S. middle-market companies directly or through the use of one or more SPVs. Such debt may be senior or junior and may be collateralized by a variety of assets. The Partnership may also originate or invest in revolving credit facilities and may make investments in other debt assets, including secured or unsecured debt assets originated by other parties and/or trading on the secondary market. In addition, the Partnership may make other investments on an opportunistic basis.
Clifton Group (Parametric Portfolio Associates) Ben Lazarus	Pension Insurance Legacy Fund	Dom Lg Cap Equity Dom Lg Cap Equity Dom Lg Cap Equity	Nov-09 Apr-11 Nov-09 Nov-09 March-15 May-15	<p>The Clifton Group believes that the U.S. equity universe is highly efficient. As such, we utilize a method of constructing the portfolio that we believe provides us with the greatest likelihood of outperforming the index. Specifically equity futures are used to gain the benchmark exposure. The underlying cash portfolio is then invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.</p> <p>Each Enhanced Equity portfolio is carefully constructed and managed within strict quality and diversification guidelines. The Portfolio Management Team oversees all aspects of the construction and management process. Individual Portfolio Managers oversee different parts of the portfolio, but all are required to stay within pre-determined guidelines as provided by NDSIB. The account is monitored daily to verify that performance is maintained within expectation bands. Furthermore, accounts are reconciled monthly and audited semi-annually to confirm compliance with all existing guidelines.</p>
Corsair (Fund III) James Kirk	Pension	Private Equity	Feb-07	<p>Corsair seeks to earn strong risk-adjusted returns by leveraging the investment team's knowledge and contacts to identify and execute attractive investments in companies in the financial services industry around the world. Corsair takes control and minority positions, either individually or as a lead member of an investor consortium. Target investments include both privately-held and public companies, generally via private transactions when the target company loses access to, or has difficulty accessing, the public capital markets. In certain circumstances, the Fund may acquire pools of financial assets or securities, or provide financing to a secured pool of assets.</p> <p>Corsair endeavors to develop a strong relationship and high degree of influence with investee company senior executives and key shareholders. In many instances, Corsair obtains Board representation, observer seats, or other types of management rights. Given the complexities of investing in a regulated industry, Corsair's ability to receive more traditional generalist buyout governance rights is often limited, and its ability to influence managerial decisions requires a degree of experience which Corsair believes can only be achieved through a long and consistent history of investing in the financial services sector. Corsair expects the Fund to make 10 to 15 investments over its investment period, although there can be no assurances with respect to the number of investments that will be made. Corsair anticipates holding its investments for between three and six years. In those instances where Corsair is part of an investor consortium, Corsair generally endeavors to act as a lead or co-lead investor, as was the case in all Corsair III investments. On select occasions Corsair expects to co-invest with strategic partners that are capable of bringing added value to an investment and where the Fund's exit considerations can be addressed. Above all, Corsair's value-driven investment style focuses on those investment opportunities in which the Investment Advisor believes that a positive discrepancy exists between an asset's price and its intrinsic value.</p>

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
DFA - Dimensional Fund Advisors Joe Young	Pension	Developed Int'l Equity	Nov-07	The International Small Cap Value Portfolio invests in the stocks of small, non-US developed markets companies that Dimensional believes to be value stocks at the time of purchase. Size is defined as the smallest 8-10% of each country's market capitalization. Securities are considered value stocks primarily because a company's shares have a high book value in relation to their market value (BtM). This BtM sort excludes firms with negative or zero book values. In assessing value, additional factors such as price-to-earnings ratios may be considered, as well as economic conditions and developments in the issuer's industry. The criteria for assessing value are subject to change from time to time. The Portfolio currently invests in companies in Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom. It does not invest in emerging markets.
	Insurance	Int'l Equity	Nov-07	
	Legacy	Int'l Equity	Feb-02	
DFA - Dimensional Fund Advisors Joe Young	Pension	Emerging Markets Equity	Oct-05	The Emerging Markets Small Cap Portfolio invests in small cap emerging markets companies. Presently, this means investment in companies whose market capitalization is less than \$2.3 billion at the time of purchase. Dimensional will consider, among other things, information disseminated by the International Finance Corporation in determining and approving emerging market countries. The Portfolio currently invests in companies in Brazil, Chile, China, Hungary, India, Indonesia, Israel, Malaysia, Mexico, the Philippines, Poland, South Africa, South Korea, Taiwan, Thailand, and Turkey. Due to repatriation restrictions, the Portfolio currently holds but does not purchase securities in Argentina.
DMR (Declaration Total Return Bond Fund) Amy McPike	Pension	Dom Inv Grade FI	Apr-12	The Fund's investment objective is to achieve net returns in the range of 6% to 10% annualized over rolling 3-year periods. The Investment Advisor attempts to achieve this objective using fundamental analysis to evaluate the pricing and volatility of a wide range of MBS and other structured finance securities while also making a relatively small allocation to corporate bonds. The Fund invests primarily in residential ("RMBS") and commercial ("CMBS") mortgage-backed securities. The Investment Advisor expects the Fund's returns to be achieved — if the Fund is successful — through both cash flow yield and trading gains. The Fund's portfolio holdings consist primarily of RMBS issued by private sector companies ("Non-Agency RMBS") and government agencies ("Agency MBS") and CMBS issued by private sector companies. Agency MBS includes securities issued by the Federal National Mortgage Association ("Fannie Mae"), the Federal Home Loan Mortgage Corporation ("Freddie Mac") and the Government National Mortgage Association ("Ginnie Mae"). Portfolio holdings may range from short tenor senior classes to stressed issues or subordinated securities with substantial risk of non-payment and correspondingly higher yields. The tactical weighting of the Fund's portfolio across the different sub-sectors of the securitization market varies according to the Investment Advisor's perception of sub-sector as well as overall market volatility and liquidity. Smaller portfolio allocations may include consumer asset-backed securities ("ABS"), other structured credit securities and corporate bonds. As a diversification strategy and a potential hedge to credit risk, the Fund may invest in securities which tend to benefit from slow mortgage prepayments and economic growth, such as interest only ("IO") MBS. Other Fund investments may include U.S. government securities ("U.S. Treasuries"), unsecured debt securities issued by U.S. government agencies and entities ("Agency Debt") and derivatives related to any of the above.
	Insurance	Dom Inv Grade FI	Dec-13	
	Legacy	Dom Inv Grade FI	Apr-15	

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
EIG Energy (formerly TCW) Renee Davidovits	Pension	Private Equity	Jul-07	TCW Energy Fund XIV-A, L.P. (the "Fund") is a Delaware limited partnership, formed on October 27, 2006 for the purpose of establishing a diversified portfolio of investments in energy and energy-related infrastructure projects and companies on a global basis. The investments will include loans, production payments, net profits interests, royalty interests and other forms of debt and equity securities issued by companies globally with emphasis on operations in the United States, Canada, Western Europe and Australia. The Fund, TCW Energy Fund XIV, L.P., TCW Energy Fund XIV-B, L.P., and TCW Energy Fund XIV (Cayman) L.P., (collectively, "Fund XIV") shall not invest more than 15% of total commitments ("Commitments") in any one issuer and shall not invest more than 25% of Commitments in issuers operated principally outside Organization for Economic Cooperation and Development ("OECD") countries. The Fund shall not invest more than 35% of Commitments in equity securities other than equity securities received in connection with the purchase of mezzanine debt.
Epoch Investment Partners Jeff Ulness	Pension	Global Equity	July-07 Moved from Lg Cap Jan-12	The Epoch Global Choice strategy seeks to produce superior risk adjusted returns by building portfolios of businesses with outstanding risk/reward profiles. The concentrated active, global equity portfolio typically consists of approximately 20-35 securities (generally equities) representing the firm's highest conviction names. The expected annual turnover is generally between 90-130%. The equity portion of the portfolio will invest no more than 10% of the portfolio, at the time of purchase, in any one equity security.
Goldman Sachs (2006 Fund, Fund V) Patrick Byrne	Pension	Below Inv Grade FI	Apr-06	The GS Mezzanine Partners family of funds is the largest mezzanine fund family in the world, with over \$20 billion invested in 100+ companies since 1996. In 2007, Goldman Sachs established its fifth mezzanine fund, GS Mezzanine Partners V, with \$13 billion of leveraged capital. GS Mezzanine Partners seeks large-sized mezzanine investments comprised generally of fixed income securities and an associated equity component. Our focus is on providing "private high yield" capital for mid- to large-sized leveraged and management buyout transactions, recapitalizations, financings, re-financings, acquisitions and restructurings for private equity firms, private family companies and corporate issuers. We target high-quality companies with \$500 million to \$10+ billion of enterprise value; leading market positions; high barriers to entry; well-regarded management teams; and stable, cash generative businesses.
Grosvenor Customized Infrastructure Strategies, LP (formerly Credit Suisse) Andrew Johnson Paul Burraston	Pension Insurance	Infrastructure Real Assets	Dec-11 Dec-11	Established on October 21, 2009, the Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%).

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
Grosvenor Customized Infrastructure Strategies II Andrew Johnson	Pension Legacy	Infrastructure Real Assets	Mar-15 Mar-15	Following the same strategy as our initial commingled multi-manager infrastructure fund, Customized Infrastructure Strategies, L.P. ("CIS I"), the Fund will seek to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified, global portfolio of primarily core and core-plus infrastructure investments. CIS II will target primary fund investments, secondary purchases of investments in funds ("secondaries"), and equity and debt co-investments. Consistent with CIS I's target returns, CIS II will target a net return to its limited partners in excess of 10% ¹ , with a low single-digit cash yield upon full investment of the Fund.
Hearthstone (MSII, MSIII) Mark Porath	Pension	Private Equity	Oct-99	In the Hearthstone-MSII Homebuilding Investors (MS2) and Hearthstone Multi-State Value-Added Fund III ("MS3") funds, Hearthstone, on behalf of the Fund, is authorized to invest exclusively in residential development projects. Residential development projects include residential land development and single-family homebuilding, including the acquisition and conversion of rental properties into condominiums and other forms of single-family housing. MS3 was authorized to invest in the construction and sale of apartment buildings, but no such investments were made. Land development projects typically involve the acquisition, entitlement and development of anywhere from 100 to 1,000 finished residential lots for sale to merchant builders, but may involve the acquisition, permitting and development of other residential land. Single-family homebuilding projects generally involve the construction and sale of approximately 25 to 500 single-family attached or detached homes.
I Squared Capital Andreas Moon	Pension Legacy	Infrastructure Real Assets	June-18 June-18	<p>The Master Funds, the Feeder Funds (through their investment in the Master Funds), and UST Fund II will seek to achieve returns by making equity and equity-related investments in infrastructure and infrastructure-related assets globally, with a focus on North America, Europe, and selected growth economies in Asia and Latin America. The Master Funds and UST Fund II may also invest in debt securities that have equity-like returns or an equity component, or are related to its equity investments, including, without limitation, convertible debt, mezzanine debt, bank loans and participations and other similar instruments.</p> <p>The ISQ Global Infrastructure Funds II expect to use leverage through both investment level financing and by borrowing money with recourse to its assets.</p> <p>The Master Funds and UST Fund II generally intend to invest no more than 20% of aggregate capital commitments (measured at the time of investment) in any single asset. The Master Funds and UST Fund II may exceed the 20% limit up to 25% in the case of a bridged investment if, at the time of such investment, the bridged investment is intended to be repaid, refinanced or sold, within 18 months so as to return sufficient capital to the Master Funds and UST Fund II to bring the investment back within the 20% limit.</p>
Invesco Asia Fund III Max Swango	Pension	Real Estate	Nov-15	<p>This investment strategy will focus on value added investments with an initial focus on China and Japan, with a secondary focus on Singapore and Hong Kong, in residential, industrial, retail and office properties. Where IRE identifies best value, it will execute the following value added strategies for the Fund:</p> <ul style="list-style-type: none"> -Provide equity for the development of new real estate product that generates high cash returns and demonstrates mid-term growth opportunities. -Reposition assets or change the use of an asset to maximize its value by identifying highest/best use, curing deferred maintenance, improving overall asset quality and developing additional revenue-generating amenities. -Participating in high growth markets -Adopting higher leverage strategies and exploiting market inefficiencies.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
Invesco Core USA LLC Max Swango	Pension Insurance Legacy	Real Estate	Aug-97 Oct-12 April-15	The Fund invests in properties located in the United States, typically requiring an investment of \$10 million or greater. The Fund focuses on quality core real estate opportunities and, in addition, the Fund may invest up to 15% of its assets in "value-added" type real estate investment opportunities. The Fund seeks to provide Investors with returns equal to or greater than the NPI on a 3- and 5-year rolling basis.
Invesco IREF III Value-Add IV Value-Add V Max Swango	Pension Pension Pension	Real Estate	May-12 April-15 Jan-19	The Fund will invest in value-added real estate opportunities. Investments will be made solely in the United States in four specific product types- multifamily, industrial, retail and office properties. Where IRE identifies best values, it will execute the following strategies for the Fund: <ul style="list-style-type: none"> • Re-capitalization: Invest in properties or portfolios at a favorable basis by acquiring an equity interest and/or debt. • Lease-up: Acquire properties with vacant space or near-term lease rollover exposure, with the opportunity to reposition rent roll and tenancy. • High Yield Debt: Acquire unrated pieces of CMBS debt • Renovation/Retenanting/Repositioning: Reposition assets (an example would be to upgrade an asset from Class B to Class A) or change the use of an asset to maximize its value by curing deferred maintenance, improving overall asset quality and developing additional revenue-generating amenities. • Development: Provide equity commitments/investments for the development of new real estate products that allows for access to new, state-of-the-art products at wholesale pricing.
InvestAmerica Lewis & Clark L&C II David Schroder	Pension	Private Equity	Feb-02 Jun-09	The investment strategy for Lewis and Clark Private Equities, LP and L&C Private Equities II, LP (the Funds) is to assemble a portfolio of investments in private growth and later-stage companies that have a strong probability of providing high returns without undue volatility and risk to investors. The Funds target for investment middle market growth and later stage companies throughout the United States with existing sales from \$5,000,000 to \$100,000,000. Typically, these small to medium sized companies are seeking to raise \$1,000,000 to \$10,000,000. The Principals of the Funds have demonstrated through the successful investment of previous venture funds, that this market niche has historically delivered high returns with more limited competition for financing. The Funds seek to achieve a minimum of a 25% and in many cases in excess of a 30% internal rate of return on each of its company investments. The Funds diversify their investments by investing in portfolio companies across many industries and geographic locations. Investments will be made across a range of manufacturing, service, distribution and technology companies. Most investments are expected to be in later stage companies with established sales and profitability. Some investments may be opportunistically made in growth stage companies. The investment team has historically invested throughout the United States with offices strategically located in the Midwest and Northwest.
JP Morgan Short Term Bond Fund Jim Sakelarlis	Insurance	Short Term FI	Sep-11	The investment objective of the Short Term Bond Fund is to outperform (based on the portfolio's total return, gross of fees) the Barclays Capital 1-3 Year Government/Credit Index (the benchmark) while maintaining total return risk similar to that of the Benchmark as measured over a market cycle.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Income & Growth Fund	Insurance	Real Estate	Nov-05	<p>J.P. Morgan U.S. Real Estate Income and Growth Fund - The J.P. Morgan U.S. Real Estate Income and Growth Fund seeks to construct and opportunistically manage a portfolio of core direct real estate investments, complemented by other real estate and real estate-related assets. The Fund pursues a broadly diversified absolute-return strategy targeting an 8-10% total annualized IRR (including a current income return of 5-7% per annum and the balance from capital appreciation) net of management fees and expenses, the payment of any Infrastructure Development Fee, if applicable, and the effect of taxes payable by certain of the Fund's Entities.</p> <p>The Fund pursues all property investments on an opportunistic basis. The majority (>50%) of the Fund's investments will be in direct core properties in the office, industrial, retail and residential sectors. In addition to direct real estate, the Fund has the ability to invest in other access points - mezzanine debt, CMBS and REITs - when they provide core real estate cash flows at a better price than owning the property. This helps diversify the portfolio and offer a superior risk reward equation. This dynamic investment approach focuses on relative value and is not constrained by fixed allocation targets or benchmark composition allowing the Investment Advisor the ability to change the Fund's portfolio composition in response to changing market conditions and opportunities.</p>
Jim Sakelaris	Legacy	Real Estate	April-15	

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Infrastructure Investments Fund Jim Sakelaris	Pension	Infrastructure	May-07	<p>Infrastructure Investments Fund - Launched October 31, 2006, JPMorgan Infrastructure Investments Fund is the only open-ended private commingled infrastructure fund in the U.S. It invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including toll roads, bridges and tunnels; oil and gas pipelines; electricity transmission and distribution facilities; contracted power generation assets; water distribution; waste-water collection and processing; railway lines and rapid rail links; and, seaports and airports.</p> <p>Our open-ended strategy supports a long-term investment horizon as we seek to achieve steady returns over time that are largely cash yield with modest capital appreciation. Our open-end format also aids in our acquisition and disposition process as a long-term outlook is attractive to governments, regulators and operating partners.</p> <p>The Fund seeks to achieve a leveraged portfolio target IRR of 10–12%, net of Fund Expenses. Leverage is targeted at 75% at the fund level. Its diverse client base, includes U.S., European, Asian and Canadian government, union and corporate pension plans, insurance companies, and high net worth individuals.</p> <p>The interaction of multiple currencies is viewed by many investors as another form of diversification. With respect to the JPMorgan Infrastructure Investments Fund ('IIF' or the 'Fund'), the Investment Adviser has the right, but not the obligation, to hedge currency risk at its discretion. Due to clients' differing perspectives on currency, and the complexities/costs of hedging an illiquid portfolio, there currently is no intent to engage in active hedging except as follows: (i) in exceptional cases where we believe the underlying risk is excessive and (ii) where there are known future equity commitments subject to currency risk, including with respect to the acquisition of new assets; this is a strategy that we have utilized for several investments in the existing portfolio. Generally speaking, we believe clients are more concerned with active management of infrastructure assets and strategies than with currency hedging. We understand that many clients prefer to hedge their currency exposures on an individual total portfolio basis. Further, many clients are interested in actively managing their currency exposure to generate alpha. J.P. Morgan has the capability to provide currency hedging (as a separate service outside of the Fund) for those clients that are interested in hedging currency risk and for clients wishing to generate additional alpha (whether the risk is associated with the Fund's portfolio or with other client investments).</p>
	Insurance	Real Assets	Nov-08	
	Legacy	Real Assets	Feb-15	

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Greater Europe Opportunistic Property Fund Jim Sakelaris	Pension	Real Estate	Sep-20	<p>The JPMorgan Greater Europe Opportunistic Property Fund is a closed-end opportunity fund that offers investors an opportunity to participate in an actively managed portfolio of property investments throughout Europe both in direct assets and select investments in existing property companies. The Fund has the flexibility to invest in a variety of different types of real estate, including, without limitation, office, retail, industrial/warehouse, multi-family, hotel/leisure, parking and self-storage. The Fund aims to provide Investors with a targeted annualized IRR of at least 15% over the life of the fund net of all fees and expenses. The Fund intends to achieve its Target Return by using JPMorgan Asset Management's expertise and market contacts to successfully make use of the following risks: leasing risk; development risk; restructuring risk; liquidity/transparency risk and leverage.</p> <p>J.P. Morgan Asset Management - Global Real Assets believes that opportunities exist in the Target Markets for investors to create value through the development, rehabilitation, repositioning and recapitalization of undervalued real estate and real estate-related assets through the purchase of high quality assets or portfolios of assets from distressed sellers. After a period of rapid capital appreciation and falling risk premium for European real estate assets, partially a result of excess liquidity, the dislocation in capital markets experienced since the end of July 2007 has resulted in a substantial re-pricing of risk, particularly at the higher risk end of the spectrum. More uncertain prospects for occupier markets in some, though not all, countries are likely to continue to impact risk and therefore pricing. In Europe, JPMAM-GRA believes this creates two very distinct but compelling opportunities for the foreseeable future. The first is to capitalize on the opportunity to purchase high quality assets in core Western European markets which will be sold at favorable prices due to the lack of liquidity in the market or where the underlying risk is mispriced. Property owners overleveraged with short duration leverage, developers overexposed to construction and leasing risk, and corporate owners whose balance sheets have come under pressure are all expected to be excellent sources of these buying opportunities.</p> <p>We consider hedging on a deal-by-deal basis when we think it makes sense and is cost-effective. We consult with our foreign exchange desk at J.P. Morgan on a regular basis. At the present time, we believe the British Pound is underpriced relative to the Euro on a long-term historical basis and, therefore, we are currently not hedging the Pound position (at least with respect with the net equity, leverage acts as a natural hedge against 65% of the GAV since the debt on UK transactions is also denominated in Pounds). The Greater Europe Opportunistic Property Fund is Euro-denominated and thus reflects periodic currency movements in addition to property valuation changes.</p>

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Strategic and Special Situations Property Funds Jim Sakelaris	Pension	Real Estate	Oct-90	<p>Strategic Property Fund is an actively managed diversified, core, open-end commingled pension trust fund. It seeks an income-driven rate of return of 100 basis points over the NCREIF Property Index over a full market cycle (three-to-five-year horizon) through asset, geographic and sector selection and active asset management. The Fund invests in high-quality stabilized assets with dominant competitive characteristics in markets with attractive demographics throughout the United States.</p> <p>Following a core strategy, Strategic Property Fund focuses primarily on existing high-quality, well-leased assets in the four major property types: office, industrial, multi-family and retail. Strategic Property Fund focuses on the larger primary economic markets.</p> <p>Each sector is well leased with modest lease expiration exposure of approximately 10% per annum over the next five years. Due to the broad diversification in the Fund's investments, no individual properties or tenancies have the capacity to materially affect the Fund's performance.</p> <p>Special Situation Property Fund is an actively managed, value-added, open-ended commingled trust fund. It seeks an increased total return with a moderate-to-high risk level, as reflected in the potential volatility of both income and property values. Our investment philosophy for Special Situation Property Fund is based on our belief that consistently excellent investment results can be achieved by focusing on value-added investment opportunities while maintaining an optimum leverage ratio. The investment process is designed to continuously add value throughout the acquisition, ownership and disposition of an asset.</p> <p>Following a value-added strategy, Special Situation Property Fund focuses primarily on value-added real estate opportunities in the following major property types: office, industrial, hotel, retail and multi-family. The Fund does not attempt to match the geographic and property type diversification of the benchmark, but does maintain guidelines in order to limit over-or underweighting in regards to the NCREIF's property type and geographic guidelines. Our assets are generally located in major markets across the country (i.e., Washington D.C. and surrounding areas, Los Angeles, San Francisco, Atlanta, Chicago, Denver and Northern New Jersey).</p> <p>The Fund invests in a wide variety of value-added real estate opportunities, including but not limited to, improved properties that have significant appreciation potential through lease up, new development, redevelopment, repositioning and re-merchandising situations. The Fund may also acquire vacant land to be held for future development or appreciation. Development, renovation and property repositioning are important aspects of our value-added strategy.</p>

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
LA Capital Enhanced Tom Stevens	Pension	Dom Lg Cap Equity	Aug-00	<p>A large core portfolio benchmarked to the Russell 1000 Index. This we would characterize as more of an enhanced index assignment where the objective is to track the benchmark with lower variability. This mandate is targeting a 1% annual alpha with a risk budget of 3%. The pension portfolio began in July of 2000 and the insurance portfolio was initiated in April of 2004. In October of 2006 we received approval from you to allocate a portion of each of these core accounts into the Large Cap Alpha Fund which we were launching at that time. A small portion of the portfolio has as a result been allocated to that product. The benchmark for this fund is the S&P500 which is very similar to the Russell 1000 Index. The objective here has been to outperform the benchmark by 5% while allowing for a risk budget as high as 7%. The intent here was to add incremental alpha to the assignment given that the information ratio was expected to be higher. The overall objectives have been met since this was initiated.</p> <p>Investment Philosophy All of our applications are driven by our Dynamic Alpha Model which is a quantitative process based upon understanding how specific factors are behaving in the market. We believe that investment results are driven by Investor Preferences which simply put, highlight which factors investors like or dislike at any point in time. We have developed sophisticated attribution tools which allow us to measure how the different factors are performing. While there is a significant amount of persistence, i.e. factors will move in one direction for sometimes an extended period of time, they will change at some point. Investors are not static in the views and one needs to recognize that when preferences shift a different posture related to that factor is warranted.</p> <p>Consequently we are not static and we are dynamic. In turbulent markets it is important to be able to understand how investor preferences change. In the last year there have been dramatic shifts in investor attitudes about risk factors and we feel our ability to perform during this period has been directly related to our ability to adapt.</p>
	Insurance	Dom Lg Cap Equity	Apr-04	
	Legacy	Dom Lg Cap Equity	May-15	
LA Capital Structured (Russell 1000 Growth) Tom Stevens	Pension	Dom Lg Cap Equity	Jun-98	<p>A large growth portfolio benchmarked to the Russell 1000 Growth Index. It is an active assignment meaning that we are targeting a 2% alpha and constraining our risk budget (tracking error) to 4% relative to the benchmark.</p> <p>Investment Philosophy All of our applications are driven by our Dynamic Alpha Model which is a quantitative process based upon understanding how specific factors are behaving in the market. We believe that investment results are driven by Investor Preferences which simply put, highlight which factors investors like or dislike at any point in time. We have developed sophisticated attribution tools which allow us to measure how the different factors are performing. While there is a significant amount of persistence, i.e. factors will move in one direction for sometimes an extended period of time, they will change at some point. Investors are not static in the views and one needs to recognize that when preferences shift a different posture related to that factor is warranted.</p> <p>Consequently we are not static and we are dynamic. In turbulent markets it is important to be able to understand how investor preferences change. In the last year there have been dramatic shifts in investor attitudes about risk factors and we feel our ability to perform during this period has been directly related to our ability to adapt.</p>
	Insurance	Dom Lg Cap Equity	Aug-03	
	Legacy	Dom Lg Cap Equity	May-15	

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
Loomis Sayles Stephanie Lord	Pension	Below Inv Grade FI	Apr-04	The High Yield Full Discretion Strategy seeks to exploit the collaborative efforts of our economics group and Sector Teams in conjunction with the fundamental credit analysis from our Fixed Income Research Department. Our economics group and yield curve teams provide a global economic and interest rate framework for identifying sectors that we think are attractive. Our research department, along with the Sector Teams, seeks to identify specific investment opportunities primarily within the global fixed income market. Asset class and sector allocations reflect the macroeconomic view, while security selection based on fundamental and relative value analysis within sectors provides our primary source of excess return. Portfolio guidelines are broad and offer the portfolio management team significant investment flexibility. Experienced portfolio managers collaborate with our in-house credit analysts to identify attractive total rate of return investment opportunities in the global fixed income market. Portfolio managers incorporate the long-term macroeconomic view along with a stringent bottom-up investment evaluation process that drives security selection and resulting sector allocations. Opportunistic investments in non-benchmark sectors including investment grade corporate, emerging market, and non-US dollar debt and convertible bonds help to manage overall portfolio risk and enhance total return potential. The product's portfolio managers are responsible for strategy implementation, portfolio construction, and adherence to guidelines. This rigorous investment process results in portfolios that, we believe, are well diversified and expected to generate superior long-term investment performance when compared to the Barclays Capital High Yield Index.
LSV Int'l Equity James Owens, Jr.	Insurance Legacy	Int'l Equity Int'l Equity	Nov-04 Feb-15	The objective of our International Large Cap Value strategy is to outperform the MSCI EAFE Index (50% Hedged) by at least 250 basis points (gross of fees) per annum over an annualized 3-5 year period with a tracking error of approximately 5-6%. The process used to select stocks is a quantitative approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 150 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be broadly diversified across industry groups and fully invested (cash balances are typically less than 1% of the portfolio). LSV weights countries at a neutral weight relative to the benchmark country weights. Initial positions must be in stocks with a market capitalization above \$500 million. 50% of the portfolio is US dollar hedged.
LSV Large Cap James Owens, Jr.	Insurance Legacy	Dom Lg Cap Equity Dom Lg Cap Equity	Jun-98 May-15	The objective of our Large Cap Value Equity (U.S.) strategy is to outperform the Russell 1000 Value by at least 200 basis points (gross of fees) per annum over a 3-5 year period with a tracking error of approximately 4%. The process used to select stocks is a quantitative approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 100 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be broadly diversified across industry groups and fully invested (cash balances are typically less than 1% of the portfolio). Initial positions must be in stocks with a market capitalization above \$500 million.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
LSV Global Equity James Owens, Jr.	Pension	Global Equity	Feb-13	The objective of the Global ACWI strategy is to outperform the unhedged total rate of return, net of dividend withholding taxes of the benchmark by at least 200 basis points (gross of fees) per annum. The process used to select stocks is a quantitative approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 125 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be broadly diversified across countries and industry groups. Initial positions must be in stocks with a market capitalization above \$400 million.
Macquarie Infrastructure Partners IV Andrew Killian	Pension Legacy	Infrastructure Real Assets	Dec-18	MIP IV's target net IRR is 10-12% with an average annual target gross yield of 4-6%. Diversified Portfolio: Investing predominantly in US and Canada; expected portfolio of 7-10 infrastructure assets diversified by sub-sector and revenue model; investing predominantly via equity and equity-like securities. Target Sectors: Utilities & Energy; Transportation; Communications Infrastructure; Waste Management Growth & Value Focus: focus on execution of business plans, capital projects and operational efficiencies; mitigate key risks over holding period; identify relative value in capital structure. Appropriate Leverage: Produce stable and predictable return profile; reduce project risk and enhance downside protection; opportunity for greater portfolio yield.
Matlin Patterson (Fund II & III)	Pension	Private Equity	Sep-04	Invest globally in the severely discounted securities and obligations of financially distressed companies with the objective of obtaining corporate control. Through the Investment Adviser's active management of the Fund's investments, the Fund is seeking superior risk adjusted returns and is operating globally in a segment of the distressed sector in which it has few significant competitors. Invest globally in the severely discounted securities and obligations of financially distressed companies with the objective of obtaining corporate control. Through the Investment Adviser's active management of the Fund's investments, the Fund is seeking superior risk adjusted returns and is operating globally in a segment of the distressed sector in which it has few significant competitors.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
NTAM (Northern Trust Asset Management) Enhanced S&P 500 Tamara Doi Beck	Pension	Dom Lg Cap Equity	Aug-00	<p>The Investment Manager will use an investment approach primarily based on quantitative investment techniques. The principal source of value added is the stock selection process. Relative attractiveness is assessed using a proprietary multiple factor model. Attractive securities are over weighted relative to the Index while unattractive securities are under weighted, or excluded entirely. The account will invest primarily in a broadly diversified portfolio of equity securities. Equity securities include securities convertible into equity securities (including common stock), warrants, rights and units or shares in trusts, exchange traded funds and investment companies. The account may invest and reinvest in long or short positions in any of the instruments.</p> <p>The Investment Manager may purchase or sell futures and exchange traded and over-the-counter options on the Index or on a similarly broad index. The Investment Manager intends to use futures and options to manage market risk associated with the account's investments by selling futures on a stock index which correlates in price movement with a portion of the account to hedge against a potential decline in the prices of the securities comprising that portion of the account and, conversely, by purchasing futures on a stock index which correlates in price movement to a group of stocks which the account anticipates purchasing, to hedge against an increase in the value of such stocks. A portion of the cash in the account may be deposited with a broker as margin on futures or options transactions, to be invested on behalf of the account in obligations issued or guaranteed by the US Government or other appropriate short-term investments.</p> <p>To meet liquidity needs, the Investment Manager may also invest in short term cash investments, including shares of money market portfolios, which may be registered investment companies for which the Investment Manager or an affiliate serves as custodian or investment advisor.</p>
NTAM (Northern Trust Asset Management) World Ex-US Tamara Doi Beck	Pension	International Equity	Dec-13	<p>The Fund will be maintained by the Trustee with the objective of providing investment results that replicate the overall performance of the MSCI® Emerging Markets Equity Index (the "Index"). The Trustee will attempt to meet the Fund's investment objective by including the common stocks of one or more companies included in the Index, on the sole basis of computer-generated statistical data, deems representative of the industry diversification of the entire Index.</p> <p>The Fund will be invested primarily in equity securities of business enterprises organized and domiciled outside of the United States ("U.S.") or for which the principal trading market is outside the U.S. In the Fund, and where applicable with respect to the Fund, the Trustee will employ statistical methods to select securities which comprise or will comprise the Index without necessarily buying all the relevant Index equities. Such securities will be selected, acquired, held and liquidated solely on the basis of such methods and not on the basis of any economic, financial, market timing, or other analysis. Securities purchased for the Fund will generally, but not necessarily, be traded on a foreign securities exchange. The Trustee may, in its discretion, purchase or sell depositary receipts. The Fund will be rebalanced from time to time in order to minimize the expected or predicted deviation between the performance of the Fund and the performance of the relevant Index or to reflect changes in the composition of the Index.</p>

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
PIMCO Bravo II Ed Sasinowski	Pension Insurance	Residential & Commercial Debt	Oct-13 Oct-13	To seek to capitalize on the perceived market opportunity and achieve its Target Return, the Fund will have broad discretion to invest principally in (or otherwise gain exposure to) U.S. and non-U.S.: (i) performing, underperforming or non-performing loans and other assets that have historically been securitized and/or otherwise traditionally held by financial institutions (as well as participations and other interests therein), including commercial and residential mortgage loans (each of which may convert to real estate holdings), consumer loans (such as credit card receivables, automobile loans and student loans) and/or servicing or similar rights relating to such loans and other assets; (ii) structured products, securitizations and other asset backed securities ("ABS") backed by assets of any type (whether U.S. or non-U.S. based collateral), including non-agency residential mortgage-backed securities ("RMBS") and commercial mortgage-backed securities ("CMBS" and, together with RMBS, "MBS"), collateralized debt obligations ("CDOs"), collateralized loan obligations ("CLOs") and repackaged securities (collectively, "Structured Investments"), including Structured Investments managed by PIMCO or an affiliate thereof; (iii) residential and commercial real estate; and/or (iv) investments in equity securities, equity-linked securities and/or debt instruments (including loans) of operating companies and other entities (whether stressed, distressed or otherwise on an opportunistic basis), including banks and other financial institutions, specialty finance entities, and other opportunities.
PIMCO Distressed Senior Credit Opportunities (DiSCO) Fund II Ed Sasinowski	Pension Insurance	Dom Inv Grade FI Fixed Income	Oct-11 Oct-11	The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors.
PIMCO Core Plus Constrained Ed Sasinowski	Pension Insurance	Dom Inv Grade FI Fixed Income	Feb-18 May-19	The Core Plus Constrained investment is a diversified portfolio of high quality bonds that is actively managed to maximize returns in a risk-controlled framework. The portfolio emphasizes higher-quality, intermediate-term bonds and aims to avoid concentration risk by being more globally diversified than many core bond funds. It also has considerable flexibility to respond to changing economic conditions, helping to manage risk and increase total return potential. : The portfolio aims to provide investors with a combination of income and capital appreciation potential. It is guided by a forward-looking, risk focused philosophy that aims to identify risk early while also being positioned to capture attractive returns.
Prudential Core Plus Peter Taggart Steve Ahrens	Insurance Legacy	Fixed Income Fixed Income	Aug-06 April-15	The core plus fixed income account is a multi-sector strategy with alpha objective of +150 basis points versus the Barclays Aggregate Index over a full market cycle. The strategy is diversified across a broad range of fixed income sectors, including Treasuries, agencies, mortgage-backed securities, structured product (asset-backed securities, commercial mortgage-backed securities), investment grade corporate bonds, high yield bonds, bank loans and international debt. The primary sources of excess return are sector allocation and security selection, with duration and yield curve less of a focus.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
Prudential Core Peter Taggart Steve Ahrens	Pension	Fixed Income	Feb-18	PGIM Fixed Income's Core Fixed Income Strategy is an actively managed, multi-sector, investment grade fixed income strategy that typically seeks +60 bps annualized gross excess return over the Bloomberg Barclays U.S. Aggregate Bond Index or similar broad market benchmark over a full market cycle (three to five years). The Strategy emphasizes relative-value based sector allocation, research-based security selection, and modest duration and yield curve positioning.
Quantum Energy Partners Michael Dalton	Pension	Private Equity	Oct-06	Founded in 1998, Quantum Energy Partners is a leading provider of private equity to the global energy industry. With more than \$5.7 billion in assets under management, Quantum targets investment opportunities between \$100 and \$400 million with proven management teams that possess a clear vision and whose companies have sustainable competitive advantages within well-defined segments of or strategies in the energy industry. Quantum primarily focuses on the oil and gas upstream, midstream and power sectors, but will consider opportunities across the entire energy industry.
Riverbridge Partners Tim Wilkinson	Pension Legacy Insurance	Small Cap Equity Small Cap Equity Small Cap Equity	10/1/2020 10/1/2020 10/1/2020	Riverbridge invests in high-quality growth companies that possess the ability to build their earnings power at above-average rates for long periods of time. They define earnings power as companies achieving high returns on invested capital while possessing an enduring strategic advantage in their marketplace. They build portfolios by identifying and buying well-managed companies we believe can maintain consistent unit growth and strong free cash flow, allowing them to finance their growth using internally generated sources of capital. Riverbridge's investment strategy bridges human insight with data analysis to identify companies that demonstrate the building blocks of our philosophy.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
<p>Rohatyn Group - JP Morgan Asian Infrastructure & Related Resources Opportunity Fund</p> <p>Michael DeAngelo</p>	Pension	Infrastructure	<p>JPM Aug-08 to May-18</p> <p>Transferred Mgmt to Rohatyn May-18</p>	<p>The JPMorgan Asian Infrastructure & Related Resources Opportunity ("AIRRO") Fund seeks to invest in infrastructure and related resources opportunities across the greater Asia Pacific region. The Fund seeks to invest in a broad range of assets, including (but not exhaustive): core infrastructure such as transportation, power both from conventional and renewable sources, communications, water and waste-water, public works, urban development and other "social" infrastructure assets (i.e. hospitals, schools, government centers) and related resources such as energy, raw materials, natural resources, construction and construction-related materials and real estate (that are part of or associated with any of the installation and operation of infrastructure).</p> <p>The Fund will seek an internal rate of return in excess of 19% (net of Incentive Allocation and Fund Expenses and any Taxation that is payable by the Fund, but exclusive of any Taxation payable by Investors with respect to distributions), assuming a constant exchange rate during the term of the Fund between the USD and the currencies in the countries where the Fund's Investments are located. The Investment Adviser will have the right, but not the obligation, to hedge currency risk at its discretion, however there currently is no intent to engage in active hedging except as follows: (i) in exceptional cases where we believe the underlying risk is excessive and (ii) where there are known future equity commitments subject to currency risk, including with respect to the acquisition of new assets. The Fund team's view of infrastructure, in the Asian context, takes a holistic approach, encompassing not only core infrastructure but also the raw material and construction-related stages of infrastructure and those companies needed "to make infrastructure happen". By focusing on both infrastructure and related resources, the Investment Adviser has developed a strategy which seeks to capitalize on the entire opportunity presented by the large forecasted growth and required investment in Asian infrastructure.</p> <p>The Fund monitors its currency exposure on a regular basis taking account of the outlook for any currencies in which AIRRO is invested. At this time, AIRRO does not anticipate hedging its currency exposure in the near-term. Based on consensus forecasts prepared by Bloomberg, analysts expect Asian currencies to strengthen versus the USD over the medium-term. AIRRO's entry cost (based on average weighted rates) for its investments are 47.68 INR/USD for SevenHills and 7.76 HKD/USD for Scitus (6.93 RMB/USD for Scitus' corresponding investments onshore). We anticipate these positions to strengthen in the favor of AIRRO by exit (estimated to be 2013 for each investment). AIRRO will continue to monitor movements in Asian currencies and review its hedging strategy accordingly.</p>

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
SEI Investments Mark Morgan	PERS Retiree Health	Multiple	Jul-09	<p>Fixed Income Strategy - A diversified set of lowly correlated alpha sources increase confidence in consistent excess return -Combination of managers with a broad opportunity sets inclusive of government, credit and structured securities</p> <p>-Derivatives provide an efficient means of strategy implementation</p> <p>-Managers have the ability to utilize derivatives to manage duration, yield curve, sector and security strategies to enhance return or reduce risk</p> <p>Emerging Markets Debt Strategy - Specialist Emerging Market Debt Managers and seasoned investment teams with complementary investment philosophies that invest broad opportunity sets inclusive of tactical allocations to external debt, local debt, local currency, and corporate debt.</p> <p>High Yield Strategy - Diversified group of managers with deep and experienced credit resources whose outperformance will be generated from both Sector/Industry and Selection decisions. The differentiation between managers is not on the alpha source they are seeking to exploit, but rather on the credit philosophy and process. Broad opportunity sets primarily in fixed income securities rated below investment grade, including corporate bonds. May also invest in bank loans, convertible and preferred securities, zero coupon obligations and credit derivatives. Given the illiquidity of the high yield market, managers also have the ability to utilize the credit default swap market for enhancing return or reducing risk.</p> <p>Small Cap Strategy - Utilizing multiple SEI Portfolio sub-advisors, the SEI Portfolio invests in common stocks and other equity securities with the goal of providing capital appreciation.</p> <p>World Equity ex-US Strategy - Utilizing multiple SEI portfolio sub-advisors, the SEI portfolio invests in equity securities of foreign companies, including those in emerging market countries with the goal of capital appreciation. These securities may include common stocks, preferred stocks, warrants, exchange-traded funds based on an international equity index and derivative instruments whose value is based on an underlying equity security or basket of equity securities. The SEI portfolio is diversified as to issuers, market capitalization, industry and country. Certain SEI portfolio sub-advisors use strategies that are designed to correlate with a portfolio of international equity securities, but which are composed of derivative instruments backed by other types of securities.</p> <p>Large Cap Equity Strategy - A Russell 1000 index fund.</p>
SEI Investments Mark Morgan	Job Service	Multiple	Dec-16	The Fund uses a multi-manager approach to portfolio construction that seeks to generate excess returns (i.e., returns in excess of benchmark) and at the same time provide diversification by avoiding over- concentration in a single investment style, sector or market trend. SEI analysis seeks to identify each manager's competitive advantage and characteristics of that advantage that can be monitored on an ongoing basis. Asset allocation to a given manager is based on the manager's skill set, the current macro economic environment, and the risks inherent in each manager's strategy.
Sixth Street Partners	Pension Legacy	Private Credit Private Credit	Sept-20 Sept-20	Sixth Street Partners is a multi-asset class platform dedicated to pursuing special situations, middle market lending, and credit oriented adjacent opportunities on a global basis. The TSSP Adjacent Opportunities fund is designed to flexibly allocate across multiple sub strategies within credit and special situations and generate attractive risk adjusted returns at each point in the credit cycle. The portfolio is weighed towards defensive yield investments which generate cash yield and are generally uncorrelated to financial markets.

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State Street Global Advisors Joe Cadigan	Pension	Dom Inv Grade FI	Jun-13	This is a commingled index fund that seeks to replicate the risk and return characteristics of the Barclays Long Treasury Bond Index.
State Street Global Advisors Joe Cadigan	Insurance Legacy	Fixed Income Fixed Income	June-13 April-15	This is a commingled index fund that seeks to replicate the risk and return characteristics of the Barclays Government/Credit Bond Index.
State Street Global Advisors Joe Cadigan	Tobacco	Short Term Fixed Income	Oct-15	<p>The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to replicate, before expenses, the performance of the Index. The Strategy will not necessarily own all of the securities included in the Index.</p> <p>The Strategy may attempt to invest in the securities comprising the Index, in the same proportions as they are represented in the Index. However, due to the diverse composition of securities in the Index and the fact that many of the securities comprising the Index may be unavailable for purchase, it may not be possible for the Strategy to purchase some of the securities comprising the Index. In such a case, SSgA will select securities for the Strategy comprising a portfolio that SSgA expects will provide a return comparable to that of the Index.</p> <p>SSgA expects that it will typically seek to replicate index returns for the Portfolio through investments in the "cash" markets - actual holdings of debt securities and other instruments - rather than through "notional" or "synthetic" positions achieved through the use of derivatives, such as futures contracts or swap transactions (except in the unusual case where SSgA believes that use of derivatives is necessary to achieve an exposure that is not readily available through the cash markets).</p> <p>Benchmark Barclays U.S. 1-3 Year Treasury Bond Index</p>
TIR-Timberland Investment Resources Tom Johnson	Pension	Timber	Jun-01 Sept-04	<p>Teredo Timber LLC - The investment objective of Teredo is to provide competitive investment returns from increasing saw timber production through the 20 year term of the partnership. TIR's management strategy is to maximize saw timber volume by applying intensive forest management techniques which accelerate growth through the diameter class distribution (from pulpwood to saw timber). Periodic cash flows are produced from thinning and final harvests of the individual timber stands.</p> <p>Springbank LLC - The investment objective of Springbank is to maximize long-term investment potential. TIR will implement four key strategies to attain the objective:</p> <ul style="list-style-type: none"> • Formation of a dedicated land management group; • Intensive timber management to increase timber production; • Coordination of timber harvesting with land management activities; • Direct marketing and selective real estate partnerships.

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Investment Manager	Trust	Asset Class	Opened	Description
TIR-Timberland Investment Resources Tom Johnson	Insurance	Real Assets	Oct-08	Eastern Timberland Opportunities Fund - The investment objective of the Eastern Timberland Opportunities fund is to provide competitive timberland investment returns from Eastern US timberland investments by pursuing management strategies to increase timber production and land values through the investment term. TIR will maximize timber values within the portfolio with the application of intensive forest management techniques to accelerate the growth in timber volume and movement into higher value product categories. Additional value will be captured by realizing higher and better use opportunities for select timberland properties throughout the portfolio.
Vanguard Group Mark Miller	Insurance Legacy	Int'l Equity Int'l Equity	June-03 Feb-15	Vanguard International Explorer Fund seeks to provide long-term capital appreciation. The fund invests primarily in the equity securities of small-capitalization companies located outside the United States that the advisor believes offer the potential for capital appreciation. In doing so, the advisor considers, among other things, whether a company is likely to have above-average earnings growth, whether the company's securities are attractively valued, and whether the company has any proprietary advantages.
Victory Capital Management Daniel Dy	Insurance Legacy Pension	Small Cap Equity Small Cap Equity Small Cap Equity	Oct-20 Oct-20 Oct-20	VCM's Sycamore Small Cap Value strategy was inceptioned in 1983. The team consists of 12 investment professionals including CIO and lead portfolio manager Gary Miller, who has been with the firm for 32 years. Gary has been lead portfolio manager on the strategy since 2004. The strategy focuses on identifying high quality small cap companies at an attractive value through bottom up research.
Wellington Trust Company Mike Marino	Pension	Developed Int'l Equity	Mar-02	Securities lending is the temporary loan of a security from an institutional investor's portfolio to a broker/dealer or dealer bank to support that firm's trading activities. These trading activities include short selling, selling on margin or the satisfaction of some other type of transaction. Loaned securities are generally collateralized, reducing the lender's credit exposure to the borrower. Except for the right to vote proxies, the lender retains entitlement to all the benefits of owning the original securities, including the receipt of dividends and interest. Additionally, the lender receives a fee for the use of the securities and can reinvest the collateral. The lender, however, bears the market risk of the loaned securities. This is due to the borrower being obligated to ultimately return the securities, not the original market value of the securities, at the time the loan was made. Lendable securities include U.S. government and agency bonds, U.S. and foreign equities, U.S. corporate and Eurobonds, foreign government bonds, asset backed and mortgage backed securities. The International Small Cap Opportunities investment approach is bottom-up focused, and leverages the global research resources at Wellington Management. In implementing purchase decisions, consideration is given to the size, liquidity, and volatility of these prospects. Sell decisions are based on changing fundamentals or valuations, or on finding better opportunities elsewhere. The assets are not hedged.
Wells Capital Management Tom O'Malley	Insurance Legacy	Fixed Income Fixed Income	Apr-02 April-15	The Medium Quality Credit fixed income strategy is designed to maximize total return from the high-grade corporate bond market while maintaining a strategic allocation to the BBB portion of the high yield market. Credit research is a primary driver of our results; however, our process starts with a "top-down" strategy to guide decision-making. Security selection is determined by in-depth credit research. We believe in-depth knowledge of industries, companies, and their management teams enable us to identify credit trends that can lead to investment opportunities. In conjunction with performing rigorous fundamental research, we also apply a disciplined relative value framework which helps us determine the optimal position to invest within an industry and within an individual issuer's capital structure.

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Investment Manager	Trust	Asset Class	Opened	Description
Western Asset Frances Coombes	Insurance Legacy	Fixed Income Fixed Income	Dec-93 April-15	A portfolio using all major fixed-income sectors with a bias towards non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. Value can be added through sector rotation, issue selection, duration and term structure weighting.
Western Asset Frances Coombes	Insurance Legacy	Real Assets Real Assets	Nov-18 Nov-18	Mandate changed from Global TIPS to US TIPS in November 2018. (minimum 90% in USD securities) The target performance objective of Western's US Treasury Inflation Note strategy is to generate 40 bps per year in excess return above the US Treasury Inflation Note index over a full market cycle. The ex-ante tracking error is 80 bps per year.
William Blair Steve Weeks	Pension Insurance Legacy	Developed Int'l Equity International Equity International Equity		William Blair invests in a growth-oriented, diversified portfolio that will typically hold between 40-70 securities. The firm's investment philosophy is to focus on companies with above-average growth prospects where growth can be sustained through leading or franchise positions in terms of proprietary products, marketing dominance, or cost/asset base advantage. Portfolio candidates typically have above-average prospective growth, evidence of sustainability of future growth, above-average profitability and reinvestment of internal capital, and conservative capital structure relative to sector norms. The portfolio will be diversified by region and country and may invest up to 2X the MSCI ACWI ex-US IMI Index weighting in Emerging Markets securities. In addition, the portfolio will be diversified by sector with no individual sector representing over 35.0% based upon market value. The maximum allocation to any one security is 5.0% of the portfolio (at market value) and notwithstanding this limitation, no immediate liquidation of investments shall be required solely due to changed in market value.

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
AllianceBernstein/ Clifton Liz Smith	Pension	Lg Cap Dom Equity	Jun-09 to Oct-10 Capital Returned	<p>The AllianceBernstein Term Asset-Backed Securities Loan Facility ("TALF") Opportunities Fund is a bottom-up research driven investment strategy structured to take advantage of the opportunity extended to investors through the TALF. The strategy will primarily draw its research from the AllianceBernstein Special Situations Group, which, among other asset classes, covers secured credit sensitive securities (e.g., ABS), as well as non-credit sensitive prime residential mortgage securities. For credit sensitive securities, credit research is overlaid on structural analyses to develop a complete picture of expected loss content, resiliency of cash flows, risk and return. All holdings are closely followed within our proprietary database which contains a time series of investment credit metrics, repayment rates, cohort, and originator statistics.</p> <p>The TALF Opportunities Fund will invest in a concentrated leveraged portfolio of structured asset securities that are eligible for non-recourse lending from the NY Fed TALF. The Fund's goal is to generate high risk-adjusted returns created by the dislocations in asset-backed and other securitization markets. The Fund will invest in AAA/Aaa-rated asset-backed securities as well as other TALF-eligible securities defined by the NY Fed. The TALF program limits the investment universe to US dollar-denominated securities whose underlying collateral is primarily based in the United States. Owing to the high credit quality of the underlying investments, we expect the majority of the Fund's return to be generated by the income in excess of the TALF loans' fees and interest.</p> <p>The Clifton Group is charged with applying the S&P 500 "beta" exposure for the AllianceBernstein "alpha" exposure. The overall goal of the account is to get the return of the S&P 500 index plus an additional alpha amount provided by the TALF fund.</p>
Babson Capital Management Chad Strean	Legacy	Short Term Fixed Inc	Sep-11 to Feb-15 Change of asset allocation	Babson was hired to manage the Bank Loans in the former Prudential account. Their direction is to manage and supervise the deliberate liquidation, over time of these holdings. As securities mature or are sold off the proceeds will be transferred to the Active Short Duration Strategy.
Babson Capital Management Chad Strean	Insurance	Short Term Fixed Inc	Sep-11 to Apr-17 Terminated	<p>The investment objective of the Babson Capital's Active Short Duration Strategy is to outperform the total return of the Barclays Capital 1-3 year US Government Index while minimizing fluctuations in capital value and providing sufficient liquidity to fund withdrawals driven by client activity. The portfolio seeks to achieve a high total rate of return primarily from current income while minimizing fluctuations in capital values by investing in a well-diversified portfolio of US Government, mortgage-backed, asset backed securities and corporate bonds.</p> <p>The investment team uses proprietary research to conduct value-driven sector rotation and intensive credit and structure analysis, while utilizing a dynamic yield curve management process, to construct effective portfolios. In addition to income, primary goals for the Active Short Duration strategy are stability and liquidity. In meeting these goals, risk is measured by perceived or actual changes in credit worthiness, adequate diversification and exposure to potential changes in interest rates. Babson Capital explicitly manages the portfolio to minimize these risks and endeavors to add value through security selection and portfolio duration structure designed to maximize the risk-return characteristics of the yield curve.</p>
Bank of North Dakota Tim Porter	Pension Insurance	Dom Inv Grade FI Fixed Income	Apr-91 to Apr-12 Changed mandate to long treasury Dec-93 to Apr-13 Terminated	The Bank of North Dakota (BND) manages this fixed income portfolio for the State Investment Board with a passive management style designed to replicate the Barclay's Government/Corporate Bond Index. In order to accomplish this objective, BND utilizes optimization software that allows us to monitor several portfolio and individual security constraints (duration, yield, convexity, credit quality and issue size). The portfolio is rebalanced monthly in order to achieve an annualized time-weighted rate of return that matches the Barclay's Gov/Corp Bond Index with a tracking error not more than (+ or -) 30 basis points.

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
Bank of North Dakota Tim Porter	Pension	Dom Inv Grade FI	Apr-12 to Apr-13 Terminated	The Bank of North Dakota (BND) manages this fixed income portfolio for the State Investment Board with a passive management style designed to replicate the Barclay's Long Treasury Index. In order to accomplish this objective, BND utilizes optimization software that allows us to monitor several portfolio and individual security constraints (duration, yield, convexity, credit quality and issue size). The portfolio is rebalanced monthly in order to achieve an annualized time-weighted rate of return that matches the Barclay's Gov/Corp Bond Index with a tracking error not more than (+ or -) 30 basis points.
Blackfriars Asset Management (WestAM) Hugh Hunter	Pension	Emerging Markets Equity	Mar-06 to Jun-12 Terminated	<p>Blackfriars Asset Management Limited has been appointed by North Dakota State Investment Board to manage a Global Emerging Market Equity portfolio. The fund is invested in the WestAM Group Trust.</p> <p>Blackfriars strategy is that of a core, active manager with the objective of outperforming the MSCI Emerging Markets index by 2% over rolling three year periods. Our investment approach is team-based and focuses on capturing alpha from our top-down and bottom-up decisions. Our country allocation process is primarily driven by a factor model encompassing fundamental market and economic factors, whilst stock selection is driven by fundamental research by our internal team of analysts.</p> <p>Blackfriars Asset Management, at the time of appointment, was called WestLB Asset Management which was owned by WestLB AG, a German bank. Following the creation of a 50:50 joint venture with BNY Mellon in 2006, the company became fully owned by BNY Mellon on 31 December 2008 and changed its name to Blackfriars Asset Management Limited. The investment process and investment personnel involved in the management of the portfolio have not changed as a result of the change in ownership.</p>
Brandywine Asset Management Lisa Welch	Pension	Int'l Fixed Income	May-03 to Feb-18 Terminated	<p>Brandywine's Global Fixed Income investment style is a disciplined, active, value-driven, strategic approach. Their investment strategy concentrates on top-down analysis of macro-economic conditions in order to determine where the most attractive valuations exist. Specifically, they invest in bonds with the highest real yields globally. They manage currency to protect principal and increase returns, patiently rotate among countries and attempt to control risk by purchasing undervalued securities.</p> <p>They believe their approach is ideally suited to the asset class, as each country, and sector exhibit unique valuation parameters. They believe that a client's portfolio should be invested in markets with, what they believe, demonstrate above-average value. Value is defined as a combination of above-average real interest rates and an under-valued currency. They typically concentrate investments where existing economic and market conditions may enable that value to be realized in an intermediate time frame. Their research has identified global fixed income as an opportunity class wherein active strategies have the most potential for reward and passive, index-replicating strategies are fundamentally insufficient and add an unnecessary level of risk to the portfolio management process. Country-by-country return dispersion (and, therefore, opportunity) across developed country bond markets is remarkable, and if capitalized upon as part of an actively managed process, can potentially provide significant excess return (alpha) above the benchmark. They seek to capture those excess returns through strategic investment in countries, currencies, sectors and securities, rather than by maintaining minimum, core commitments, reflective of the benchmark.</p>

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Investment Manager	Trust	Asset Class	Open to Close Date	Description
Brookfield Investment Management (Hyperion) Richard Torkian	Insurance	Fixed Income	Jan-07 to Mar-10 Terminated Acct taken over by Declaration	<p>The Enhanced MBS investment process begins with a macro-economic assessment of the market. Included in the macro-economic assessment is the analysis of: the interest rate environment, the phase of the real estate cycle, consumer credit trends, recently released or pending economic data, supply and demand relationships, housing prices, and the Mortgage Refinancing Index. The analysis and review that occurs at this stage provides the groundwork for establishing the asset allocation for our Enhanced MBS Investment Strategy. We then conduct a detailed review of the MBS sub-sectors. We evaluate developments in each sector; current offerings; recent transactions and market clearing levels; security types and yield spread levels to formulate a relative value outlook. Our research analysts provide fundamental analysis on prepayment speeds, borrower credit exposure, geographic diversification, refinancing trends, and the correlation of returns. We then further analyze the risks of the various MBS sectors—specifically, the outlook for delinquencies, housing affordability, consumer debt, collateral value appreciation, and loss severities. These factors build a larger picture for the appropriate asset allocation for this strategy. The asset mix for our Enhanced MBS Investment Strategy is a ratio that may change over time, as opportunities in the sectors and sub-sectors are identified. Once the initial allocation mix has been determined, the investment process moves to the security selection phase.</p> <p>The most important component of our Enhanced MBS Investment Strategy is security selection. In short, while the market for non-Agency MBS may seem generic, the credit performance from one issue to another varies. Our security selection process results from both quantitative and qualitative inputs, as well as the substantial experience of the portfolio managers. Members of the investment team, utilizing Hyperion Brookfield's proprietary analytics, determine the relative strengths of various securities based on applicable criteria such as issuer, issue, vintage, credit rating, structure, and geographic exposure.</p>
Calamos Investments Meredith French	Pension	Dom Inv Grade FI	Oct-06 to Mar-12 Terminated Mandate changed to Global Opportunities	<p>Calamos Advisors LLC manages a convertible mandate for the North Dakota State Investment Board through the Calamos Convertible Plus strategy. The primary objective of the strategy is to achieve high long-term total return through growth and income. The strategy is focused on primarily investing in convertible securities but in addition utilizes both equities and fixed income. This enhanced flexibility allows Calamos to better manage the overall risk/reward profile of a convertible mandate. To take advantage of international opportunities, the portfolio will utilize the Calamos International Convertible Group Trust, a commingled fund in which we purchase units on behalf of the North Dakota State Investment Board. This commingled fund is generally hedged between 70-100% from a currency perspective.</p>
Calamos Investments Meredith French	Pension	Global Equity	Mar-12 to Dec-13 Terminated	<p>The Global Opportunities objective is high long-term total return through capital appreciation and current income. The Trust invests primarily in a global portfolio of equity, convertible and fixed-income securities. In pursuing the Trust's investment objective, the Investment Manager attempts to utilize these different types of securities to strike, in its opinion, the appropriate balance between risk and reward in terms of growth and income.</p> <p>The Investment Manager attempts to keep a consistent balance between risk and reward over the course of different market cycles, through various combinations of stock, bonds and/or convertible securities, to achieve what the Investment Manager believes to be an appropriate blend for the then-current market. As the market environment changes, portfolio securities may change in an attempt to achieve a relatively consistent risk level over time. At some points in a market cycle, one type of security may make up a substantial portion of the portfolio, while at other times certain securities may have minimal or no representation, depending on market conditions.</p>

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Investment Manager	Trust	Asset Class	Open to Close Date	Description
Callan Associates Greg Allen	Pension	Small Cap Dom Equity	May-06 to March-16 Terminated	<p>The investment strategy for the Diversified Alpha Small Cap Equity Fund ("Fund") is based on two empirical studies. The first observed that the average portfolio for a comprehensive universe of active institutional small cap products out-performed the Russell 2000 Index in every three-year period since 1984, resulting cumulative out-performance in excess of five percent per year over the 20-year period with a tracking error of five percent annualized. The consistency and magnitude of this out-performance led to Callan's use of the average institutional small cap portfolio as the target in the Fund's portfolio construction methodology rather than one of the standard small cap indices. The second study observed that the illiquidity of the small cap market presents significant structural challenges to managers as they grow in assets under management ("AUM"). These challenges resulted in smaller products (in terms of AUM) out-performing their larger counterparts by in excess of three percent per year over the observed 20-year period. The consistency and magnitude of this out-performance provided the basis for favoring smaller, less capacity-constrained products in the Fund's manager selection methodology.</p> <p>The Fund's strategy is implemented through the use of a stratified sampling technique, and it begins with the decomposition of Callan's Total Institutional Small Cap ("TISC") universe (consisting of over 700 products) into 10 distinct sub-styles, with approximately 70-75 products in each sub-style. After extensive screening, four products from each sub-style are selected which, when held in combination, are expected to closely track the performance of each sub-style as a whole. This process results in a total portfolio made up of 40 equity sub-advisors, equally weighted in the Fund's portfolio, which very closely tracks the performance of the average actively managed institutional small cap product (historical tracking error since inception of approximately one percent annualized).</p>
Capital Guardian Michael Bowman	Pension Insurance Legacy	Developed Int'l Equity Int'l Equity Int'l Equity	Mar-92 to May-16 Terminated Apr-97 to May-16 Terminated Feb-15 to May-16 Terminated	<p>The Portfolio will invest primarily in equity or equity type securities of companies in developed countries excluding the U.S. These equity securities will be listed on a stock exchange or traded in another recognized market and include, but are not limited to, common and preferred stocks, securities convertible or exchangeable into common or preferred stock, warrants, rights and depository arrangements. The Portfolio may invest in fixed-income securities (including cash or cash equivalents) when market conditions warrant. The Portfolio's investments may be denominated in U.S. dollars or in non-U.S. currencies. The Portfolio may include securities eligible for resale pursuant to Rule 144A and securities in offerings that are not registered for sale in the U.S. but are listed or quoted in the securities' local markets. Instruments acquired as a result of corporate actions are permitted.</p>
Clifton Group/Parametric Ben Lazarus	Pension Insurance Legacy	Asset Alloc Overlay Lg Cap, Small Cap, Int'l Equity and Dom FI Lg Cap, Int'l Equity and Dom FI Lg Cap, Int'l Equity and Dom FI	Nov-08 to Jul-10 and Apr-20 to June-20 April-20 to June-20 April-20 to June-20 Overlay program discontinued	<p>By utilizing exchange traded futures contracts, Clifton synthetically maintains North Dakota State Investment Board's (NDSIB) desired exposure to a variety of asset classes. This synthetic exposure is most often utilized between monthly cash rebalancing moves. Clifton works with NDSIB Staff intermonth and at month end to make sure the economic exposure is between prescribed bands. Futures are purchased or sold to change the portfolio's effective asset class exposure without liquidating or purchasing securities in the cash market. Subsequent asset class exposure is adjusted by modifying the futures positions while the underlying portfolio remains unaffected.</p> <p>Using exchange traded futures contracts as opposed to physical securities provides NDSIB with:</p> <ul style="list-style-type: none"> • More flexibility and efficiency in moving between asset classes • Lower cost for establishing and removing positions • Detailed accounting on the performance of the rebalance move
Clifton Group Ben Lazarus	Pension	Developed Int'l Equity	Mar-10 to Dec 13 Terminated	This portfolio replicates the MSCI EAFE index utilizing futures contracts.

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Coral Partners Fund V Yuval Almog	Pension	Private Equity	Mar-98 to Dec-12 Capital Returned	Coral Partners V focuses its investments in the healthcare and technology sectors with companies in all stages of growth from seed to expansion. The General Partners believe that achieving strong venture capital returns depends on the ability to create enterprises capable of attaining a defensible market leadership position, often by developing new technologies which result in either a new market or the restructuring of an existing market; and that the most effective way of accomplishing this objective is to exploit industry trends and focus on businesses which are execution intensive and operate on a worldwide scale. Important components of this strategy are: active involvement, industry focus, and portfolio management.
Coral Partners Momentum Fund Yuval Almog	Pension	Private Equity	7/1/2002 to June-15 Capital Returned	<p>Coral's Momentum Fund focuses on opportunities in high growth markets undergoing imminent transitions driven by emerging technologies, new business modalities and customer preferences. Examples include: a) the transition to rich digital media as a mass market opportunity; b) the ascendance of ubiquitous telecommunications networks, allowing universal access to voice, data and rich content; and c) the transition to the delivery of software-driven applications as a service, creating new software based franchises with recurring revenue models.</p> <p>Coral's Momentum Fund invests in late stage, technology driven companies the General Partner believes has substantial intrinsic momentum. Companies with intrinsic momentum have early demand related indicators such as accelerating revenues, channel build-up, growing product utilization, and expanding customer bases. The General Partner believes that investing in companies at this stage of development mitigates product and technology risk as well as market acceptance risk.</p>
Coral Partners Supplemental Fund V	Pension	Private Equity	Aug-01 to Dec-12 Capital Returned	Coral Technology Supplemental Fund V invests in technology portfolio companies of Coral Partners V.
Corsair ND Investors Fund IV Michael Poe Cliff Brokaw	Pension	Private Equity	Mar-08 to Dec-16 (IPO) May-10 to Jul-19 (secondary sale)	<p>Corsair seeks to earn strong risk-adjusted returns by leveraging the investment team's knowledge and contacts to identify and execute attractive investments in companies in the financial services industry around the world. Corsair takes control and minority positions, either individually or as a lead member of an investor consortium. Target investments include both privately-held and public companies, generally via private transactions when the target company loses access to, or has difficulty accessing, the public capital markets. In certain circumstances, the Fund may acquire pools of financial assets or securities, or provide financing to a secured pool of assets.</p> <p>Corsair endeavors to develop a strong relationship and high degree of influence with investee company senior executives and key shareholders. In many instances, Corsair obtains Board representation, observer seats, or other types of management rights. Given the complexities of investing in a regulated industry, Corsair's ability to receive more traditional generalist buyout governance rights is often limited, and its ability to influence managerial decisions requires a degree of experience which Corsair believes can only be achieved through a long and consistent history of investing in the financial services sector. Corsair expects the Fund to make 10 to 15 investments over its investment period, although there can be no assurances with respect to the number of investments that will be made. Corsair anticipates holding its investments for between three and six years. In those instances where Corsair is part of an investor consortium, Corsair generally endeavors to act as a lead or co-lead investor, as was the case in all Corsair III investments. On select occasions Corsair expects to co-invest with strategic partners that are capable of bringing added value to an investment and where the Fund's exit considerations can be addressed. Above all, Corsair's value-driven investment style focuses on those investment opportunities in which the Investment Advisor believes that a positive discrepancy exists between an asset's price and its intrinsic value.</p>

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Investment Manager	Trust	Asset Class	Open to Close Date	Description
DMR (Declaration Mgmt & Research) Mortgage Opportunity Fund John Pluta	Pension	Below Inv Grade FI	May-08 to Dec-09 Fund matured/ capital returned	The Fund's investment strategy is to acquire stressed and distressed mortgage backed securities, primarily non-Agency Residential Mortgage Backed Securities ("RMBS"). The return objective of the Fund is to achieve a net IRR in the 12%-20% range within a target five year horizon from the acquisition of such securities. The goal is to extract a significant liquidity premium (apart from the compensation available for assuming credit risk) using bottom-up security analysis during a period when legacy holders of mortgage backed securities are in need of liquidity. Once fully invested, the Fund will be a long-biased investment in distressed securities within various sub-sectors of mortgage credit. The focus of the Fund is senior class RMBS backed by prime, Alt-A and subprime collateral. Higher allocations are expected to be in prime and Alt-A transactions. Security-specific risk will be analyzed at the loan level. The risk analysis links borrower attributes (loan-to-value, credit score, documentation status, age of loan, size of loan, etc.) to the borrower's default and prepayment propensities. Similar borrower attributes are examined to estimate recovery rates post default. Risk management at the security level also involves an examination of issue structure, waterfall priorities and other structural features which trap or divert cash flow, particularly as it relates to our target asset. It is anticipated that the Fund's returns will be earned primarily through cash yield on bonds it acquires at discounted prices and through repayment of principal, or partial principal from recoveries on defaulted mortgages, over the holding period of each asset in the Fund.
DMR (Declaration Mgmt & Research) TALF and ABS Fund/Clifton John Pluta	Pension	Lg Cap Dom Equity	Aug-09 to Dec-11 Fund matured/capital returned	<p>The investment objective of the DMR TALF and ABS Fund is to achieve attractive risk-adjusted returns in the low to mid-teens by investing opportunistically in senior classes of Consumer ABS and CMBS. The returns are expected to be achieved primarily through cash flow yield from assets acquired and financed using non recourse TALF leverage. The Fund term is expected to be relatively short with distributions beginning in July 2010 and most bonds naturally amortizing and maturing within 2-4 years from our purchase date.</p> <p>From a tactical standpoint, we believe the risk/return characteristics of short tenor ABS and CMBS compare favorably to other debt sectors. For TALF eligible assets, the low cost, non-recourse borrowing facility is an attractive feature which corporate credit, levered loans and high yield cannot access.</p> <p>The Fund's primary focus by sub-sector is on TALF-eligible legacy AAA senior CMBS. These assets are trading near par and tend to have a solid credit profile. The strategy does not involve stressed or "credit intensive" securities. Rather, we seek to execute risk efficient trades by employing non- recourse TALF leverage on lower volatility "par based" assets with high confidence in the receipt of coupon cash flow and full repayment of principal. TALF leverage is likely to range at 5x-15x capital depending upon the asset. In general, we expect to hold investments to their respective maturity dates, although we have the flexibility to sell holdings if spreads tighten. In acquiring assets, we employ a bottom-up analysis and model the structural characteristics of each transaction. DMR has a value orientation in security selection, seeking a margin of safety or cushion between base case performance expectations and extreme loss outcomes.</p> <p>The Clifton Group is charged with applying the S&P 500 "beta" exposure for the Declaration "alpha" exposure. The overall goal of the account is to get the return of the S&P 500 index plus an additional alpha amount provided by the TALF fund.</p>
DMR (Declaration Mgmt & Research) - formerly Hyperion Brookfield mortgage portfolio John Pluta	Insurance	Fixed Income	Feb-10 to May-14 Liquidated and moved to TRBF	<p>In this mandate, DMR will assume management of mortgage assets originally acquired by Brookfield (Hyperion) over the period 2006-2009. DMR will provide a fresh perspective on the holdings, some of which are credit impaired. The portfolio management services will include loan-level analysis on individual securities and portfolio level risk management of liquidity and volatility.</p> <p>DMR will seek to optimize the risk-return profile of the portfolio. The performance target of the portfolio is a gross total return of 1.25% above the return of the Benchmark over a full market cycle. The Benchmark is the Securitized Portion of Barclays U.S. Aggregate Index (ID #5582).</p> <p>In analyzing portfolio holdings, DMR may produce loss-adjusted cash flow projections on various bonds and/or stress test individual assets to identify break points (principal loss). DMR will evaluate the effect, if any, of government policy such as loan modification on portfolio holdings.</p>

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
ECM - European Credit Mgmt John (Rusty) Reese	Pension	Lg Cap Dom Equity	Nov-07 to May-11 Terminated	The investment consists of variable rate notes issued by European Credit (Luxembourg), S.A., and managed by European Credit Management Ltd. The notes represent undivided interests in the issuer, a predominately investment grade European credit commingled fund currently rated BBB by Fitch Ratings, and are akin to fund subscriptions. The return on the investment is a combination of the beta of the S&P 500, achieved by means of a total return swap, and the excess return over EURIBOR, net of swap costs (if any), generated by the performance of EC(L). Returns of the investment are substantially hedged back to U.S. dollars.
Epoch Investment Partners Thomas Pernice	Pension	Lg Cap Dom Equity	Jul-07 to Dec-11 Mandate changed to Global Choice	Epoch's Global Absolute Return strategy seeks to produce superior risk-adjusted returns by building portfolios of businesses with outstanding risk/reward profiles without assuming a high degree of capital risk. We adopt a globally-minded approach, seeking to capture the benefits of borderless investing and globalization. The businesses in which we invest effectively reflects the high conviction ideas of the entire range of U.S. and Non-U.S. strategies offered by the firm to be included in this concentrated portfolio. We manage portfolio risk exposure through quantitative and qualitative asset allocation inputs to reduce the likelihood of loss of capital. Our goal is to produce a portfolio of 20 – 30 positions that exhibits low volatility, strong risk-adjusted returns and real absolute returns. Global Absolute Return will use cash to mitigate downside capture.
Invesco Asia Fund I Paul Michaels	Pension	Real Estate	Nov-08 to Dec-19 Matured/Capital Returned	This investment strategy will focus on value added investments with an initial focus on China and Japan, with a secondary focus on Singapore and Hong Kong, in residential, industrial, retail and office properties. Where IRE identifies best value, it will execute the following value added strategies for the Fund: -Provide equity for the development of new real estate product that generates high cash returns and demonstrates mid-term growth opportunities. -Reposition assets or change the use of an asset to maximize its value by identifying highest/best use, curing deferred maintenance, improving overall asset quality and developing additional revenue-generating amenities. -Participating in high growth markets -Adopting higher leverage strategies and exploiting market inefficiencies.
Invesco IREF II Paul Michaels	Pension	Real Estate	Nov-07 to Sept-19 Matured/Capital Returned	The Fund will invest in value-added real estate opportunities. Investments will be made solely in the United States in four specific product types- multifamily, industrial, retail and office properties. Where IRE identifies best values, it will execute the following strategies for the Fund: • Re-capitalization: Invest in properties or portfolios at a favorable basis by acquiring an equity interest and/or debt. • Lease-up: Acquire properties with vacant space or near-term lease rollover exposure, with the opportunity to reposition rent roll and tenancy. • High Yield Debt: Acquire unrated pieces of CMBS debt • Renovation/Retenanting/Repositioning: Reposition assets (an example would be to upgrade an asset from Class B to Class A) or change the use of an asset to maximize its value by curing deferred maintenance, improving overall asset quality and developing additional revenue-generating amenities. • Development: Provide equity commitments/investments for the development of new real estate products that allows for access to new, state-of-the-art products at wholesale pricing.

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
JP Morgan Alternative Property Fund Jim Sakelaris	Pension	Real Estate	Jan-06 to Mar-19 Matured/Capital Returned	<p>The JPMorgan Alternative Property Fund seeks current income and capital appreciation from a portfolio of investments consisting of alternative real estate (senior housing, medical office, hotels, single-family subdivision development, condos, storage, parking and other "non-core" cash-flow-generating property investments) and real estate-related assets in the U.S., as well as traditional and alternative real estate and real estate-related assets in Canada, Mexico and the Caribbean. The Fund pursues a broadly diversified absolute-return strategy targeting a 12-15% total annualized IRR (including a current income return of 5-7% and the balance from capital appreciation) gross of all Fund-level fees and expenses, assuming at least a 5-year holding period.</p> <p>The Fund is designed to benefit from less competitive flow of capital relative to core property. As an infinite-life structure, the Fund offers potential investors the opportunity for periodic liquidity at net asset values established on a quarterly basis. The Fund will also periodically rebalance sector, product and geographic diversification to dampen volatility and create a stable alternative real estate investment portfolio with a conservative level of leverage (60% on a portfolio basis).</p>
JP Morgan Emerging Markets Fund Jim Sakelaris	Pension	Emerging Markets Equity	11/1/2005 to 7/31/14 Terminated	<p>The emphasis of investments in the Emerging Markets Equity Focused Fund is in capital and common stocks, securities convertible into capital and common stocks, and other equity investments, all of which involve foreign companies and enterprises' located primarily in emerging markets. In this context, 'Emerging' refers generally to countries outside of the MSCI EAFE Universe.</p>
JP Morgan Greater China Property Fund Jim Sakelaris	Pension	Real Estate	Jan-08 to Nov-18 Matured/Capital Returned	<p>The JPMorgan Greater China Property Fund is a closed-end investment fund which seeks to invest in real estate development projects in Greater China (defined to include China, Hong Kong, Macau and Taiwan). Drawing on over 30 years of real estate investing experience and its position as one of the largest real estate investment managers globally, J.P. Morgan Investment Management Inc. seeks to develop and manage a portfolio of capital-appreciation oriented real estate assets in Greater China. The Fund will generally make its investments across the office, residential, industrial, retail and hospitality sectors by creating project-level joint venture arrangements with multiple operating partners in Greater China. In addition to direct real estate investments, the fund may invest in shorter-term, "structured capital" opportunities in the real estate sector (typically 6-18 months in nature). Such investments may involve publicly listed companies and private companies seeking funding for their operations. The fund will limit the structured capital investments to 20% of the fund's total allocation.</p> <p>The Fund seeks to capitalize on the rapid and sustained economic growth, rising income levels, as well as the recent developments in China that will present opportunities for experienced real estate investment firms like J.P. Morgan to partner with local developers for new investments. The investment objective of the Fund is to seek capital appreciation. Since most of the Fund's investments will be development stage properties, the Fund expects to generate little to no current income. The Fund expects that aggregate secured permanent indebtedness will not exceed, on average over a fiscal year, 75% of the greater of the fair market value or total cost of all of the Fund investments.</p> <p>Investment returns may be hedged on a case by case basis as some investments may be hedged while others may not. Whether to hedge will depend on a number of factors including the currency outlook, the cost/benefit of the hedge, the requirements of lenders, etc. In addition, in cases where debt borrowings are in local currency, there is effectively a built in hedge as well.</p>

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
JP Morgan Mortgage Backed Securities Jim Sakelaris	Pension	Domestic Fixed Income	Sep-14 to Feb-18 Terminated	JPM seeks to create portfolios that offer superior stability of cash-flows (over a wide range of interest rate scenarios) versus those of the Barclays Capital Mortgage Securities benchmark. Due to a focus on identifying undervalued securities our selection is not limited to securities within the index, we may also utilize agency and non-agency commercial mortgage obligations. Because the mortgage-backed sector, in particular, has been less efficient relative to other sectors in recent years, security selection skills can add particular value. The JPM investment approach seeks to add value through the following: •We take a longer-term view of investing versus adopting a trading mentality. • Sub-sector allocation decisions are based on broad sector outlook, using expected return and valuation analysis. • Undervalued securities are identified through diligent research. • Relative risk/reward relationships are evaluated along the yield curve. • Strategy emphasizes research and individual security analysis rather than large macro bets. • Duration is managed primarily as a risk control measure. • Portfolios are well diversified and of high credit quality. • Risk management is embedded throughout process and seeks to limit downside risk relative to the benchmark.
JP Morgan Short Term Bond Fund Jim Sakelaris	Legacy Fund	Short Term Fixed Inc	Sep-11 to Feb-15 Change of asset allocation	The investment objective of the Short Term Bond Fund is to outperform (based on the portfolio's total return, gross of fees) the Barclays Capital 1-3 Year Government/Credit Index (the benchmark) while maintaining total return risk similar to that of the Benchmark as measured over a market cycle.
LSV Int'l Equity James Owens, Jr.	Pension	Developed Int'l Equity	Nov-04 to Jan-13 Changed mandate to Global Equity	The objective of our International Large Cap Value strategy is to outperform the MSCI EAFE Index (50% Hedged) by at least 250 basis points (gross of fees) per annum over an annualized 3-5 year period with a tracking error of approximately 5-6%. The process used to select stocks is a quantitative approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 150 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be broadly diversified across industry groups and fully invested (cash balances are typically less than 1% of the portfolio). LSV weights countries at a neutral weight relative to the benchmark country weights. Initial positions must be in stocks with a market capitalization above \$500 million. 50% of the portfolio is US dollar hedged.
LSV Large Cap James Owens, Jr.	Pension	Dom Lg Cap Equity	Jun-98 to Jan-13 Changed mandate to Global Equity	The objective of our Large Cap Value Equity (U.S.) strategy is to outperform the Russell 1000 Value by at least 200 basis points (gross of fees) per annum over a 3-5 year period with a tracking error of approximately 4%. The process used to select stocks is a quantitative approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 100 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be broadly diversified across industry groups and fully invested (cash balances are typically less than 1% of the portfolio). Initial positions must be in stocks with a market capitalization above \$500 million.
Matlin Patterson (Fund I)	Pension	Private Equity	Jul-02 to Jun-16 Matured/Capital Returned	Invest globally in the severely discounted securities and obligations of financially distressed companies with the objective of obtaining corporate control. Through the Investment Adviser's active management of the Fund's investments, the Fund is seeking superior risk adjusted returns and is operating globally in a segment of the distressed sector in which it has few significant competitors. Invest globally in the severely discounted securities and obligations of financially distressed companies with the objective of obtaining corporate control. Through the Investment Adviser's active management of the Fund's investments, the Fund is seeking superior risk adjusted returns and is operating globally in a segment of the distressed sector in which it has few significant competitors.

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
Mellon (Franklin Portfolio Assoc.)	Pension	Lg Cap Dom Equity	Sep-06 to Aug-09 Terminated	To achieve superior long term equity market returns through an investment process consisting of two parts: a) a market neutral equity strategy with approximately equal dollars invested long and short having the objective of neutralizing the overall movements of the market. Furthermore, other systematic sources of risk, including industry/sector and capitalization effects, will be controlled so that the large portion of portfolio returns comes from individual stock selection. b) an equitization strategy using S&P 500 index futures contracts to overlay the performance of the S&P 500 index on the market neutral strategy.
NTGI (Northern Trust Global Investments) Common TIPS Fund Richard Clark Jim Aitcheson	Insurance	Inflation Protected	May-07 to July-10 Terminated	The Corporate Trustee may invest and reinvest in units of common funds maintained by the Corporate Trustee or any affiliate of the Corporate Trustee, including, but not limited to the NTGI-QM Common Daily Treasury Inflation Protected Securities (TIPS) Index Fund-Lending. To meet liquidity needs, the Corporate Trustee may also invest in short term cash investments, including shares of money market portfolios, other common funds, or registered investment companies for which the Corporate Trustee or an affiliate serves as trustee, custodian or investment advisor.
NTGI (Northern Trust Collective Emerging Markets Index Fund) Jason Pasquinelli	Pension	Emerging Markets Equity	July-12 to July-14 Terminated	The Northern Trust Collective Emerging Markets Index Fund will be invested primarily in equity securities of business enterprises organized and domiciled outside the US or for which the principal trading market is outside the US. In the Fund, and where applicable with respect to the Fund, the Trustee will employ statistical methods to select securities which comprise or will comprise the Index without necessarily buying all the relevant Index equities. Such securities will be selected, acquired, held and liquidated solely on the basis of such methods and not on the basis of any economic, financial, market timing, or other analysis. Securities purchased for the Fund will generally, but not necessarily be traded on a foreign securities exchange. The Trustee may, in its discretion, purchase or sell depository receipts. The Fund will be rebalanced from time to time in order to minimize the expected or predicted deviation between the performance of the Fund and the performance of the relevant Index or to reflect changes in the composition of the Index.
PanAgora Asset Mgmt Lisa Mahoney	Pension	Emerging Markets Equity	Feb-06 to Dec-13 Terminated	The Emerging Markets Fund seeks to exceed, in the aggregate, the return of the Morgan Stanley Capital International Emerging Markets Index before fees and expenses. The Emerging Markets fund may be invested in: <ul style="list-style-type: none"> • International equity securities including common, preferred and instruments convertible into common or preferred stock for those companies which comprise the Benchmark and the Morgan Stanley Capital International Frontier Markets Equity Index. • American Depository Receipts, Global Depository Receipts, European Depository Receipts • Exchange traded funds based on the underlying securities in the Benchmark • Spot and forward currency exchange contracts • US Treasury bills • Daily Liquidity Fund • The maximum investment in companies which comprise the Morgan Stanley Capital International Frontier Markets Equity Index will not exceed 10% measured at time of purchase.

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
PIMCO Distressed Senior Credit Opportunities (DiSCO) Fund I Julie Meggers Todd Staley Michael Chandra	Pension	Dom Inv Grade FI	Jul-08 to Oct-11 Moved to Fund II	The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors.
PIMCO Distressed Mortgage Fund Julie Meggers Todd Staley Michael Chandra	Pension	Below Inv Grade FI	Oct-07 to May-13 Capital Returned	The PIMCO Distressed Mortgage Fund is an opportunistic private-equity-style Fund which seeks to capitalize on the historic dislocation in the US and global mortgage markets. The Fund invests in mortgage-related securities and loans where PIMCO believes the long-term value of the investment is highly attractive relative to current market pricing. Within the universe of mortgage-related assets, the Fund will be otherwise unconstrained. The Fund will essentially look to capitalize on forced liquidations of mortgage risk from mark-to-market and ratings sensitive investors at historic high yields.
PIMCO MBS Stephanie King Michael Chandra	Pension	Dom Inv Grade FI	Mar-12 to Nov-17 Allocation Change to Core Plus	The PIMCO Mortgage-Backed Securities Strategy is an actively managed bond portfolio that invests in high quality, short to intermediate duration mortgage-backed securities. The fund invests primarily in securities that are highly rated, such as US Government guaranteed Ginnie Mae securities and Agency-guaranteed Fannie Mae and Freddie Mac mortgage-backed securities.
PIMCO Unconstrained Bond Fund Julie Meggers Todd Staley	Pension	Dom Inv Grade FI	Mar-12 to Mar-14 Converted to SMA Mar-14 to Nov-17 Allocation change to Core Plus	The PIMCO Unconstrained Bond Strategy is an absolute return-oriented, investment grade quality fixed income strategy that embodies PIMCO's secular thinking, global themes, and integrated investment process without the constraints of a benchmark or significant sector/instrument limitations. The strategy is designed to offer the traditional benefits of a core bond approach - capital preservation, liquidity, and diversification - but with higher alpha potential and the opportunity to mitigate downside risk to a greater degree than what is reasonably possible from traditional active fixed income management approaches.
PIMCO (formerly Research Affiliates) Ed Sasinowski	Insurance Legacy	Dom Small Cap Equity Dom Small Cap Equity	July-07 to May-20 March-15 to May-20 Terminated	Small company value equity portfolio utilizing the index strategy and philosophy described as the Enhanced RAFI® US Small strategy which in turn is based on our patent pending Fundamental Index® concept. The Enhanced RAFI® US Small strategy relies on portfolio weights derived from firm fundamentals (free cash flow, book equity value, total sales and gross dividend), instead of market capitalization. In addition, the enhanced portfolio strategy uses a quality of earnings screening and a financial distress screening to augment portfolio returns and reduce portfolio volatility.
Prudential Privest Peter Taggart	Pension	Dom Inv Grade FI	Jun-05 to Mar-12 Terminated	The Prudential Privest fixed income account is invested primarily in unsecured privately placed debt securities.

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
Prudential PruAlpha Peter Taggert	Pension Insurance (currently Budget Stabilization only)	Dom Lg Cap Equity Enhanced Cash	Mar-08 to May-12 Redeemed out/Terminated Jul-07 to May-12 Redeemed out/Terminated	<p>At launch, Pru Alpha was an absolute return strategy investing across multiple sectors of the global fixed income markets. There were significant redemptions from Pru Alpha in the wake of the high market volatility in late 2008. Pru Alpha is currently focused on investing in distressed securities in the fixed income markets.</p> <p>The Pension Trust invested in a feeder fund that allocated a substantial portion of its assets to the Pru Alpha Master Fund and invested substantially all of its remaining assets in a replication strategy based on the S&P 500 Total Return Index. On November 26, 2008, the S&P 500 beta overlay was discontinued. Effective June 1, 2009, the S&P 500 beta overlay was reapplied via a separate account that invests in S&P 500 futures in amounts intended to match the market value of the Pension Trust's Pru Alpha investment.</p> <p>The budget stabilization account is an "enhanced cash" portfolio to augment the other components of North Dakota's budget stabilization assets. This account was originally invested across three components: Dryden Core Short-Term Bond Fund (80%), bank loans (10%), and Pru Alpha (absolute return fund, 10%). Core Short-Term Bond Fund is an "enhanced cash" portfolio that seeks to capture incremental yield from various sectors in the short term portion of the market, with virtually no interest rate risk. Holding assets in the structured product and corporate sectors led to significant underperformance through the credit market downturn from 3Q07-1Q09, but the fund has recovered significantly year-to-date 2009. The bank loan component of the portfolio consists of approximately 20-25 individual bank loans managed by PFIM's high yield/bank loan team. The names held in the account are biased towards the higher quality and more liquid names in the bank loan arena. Pru Alpha is an absolute return strategy and is described with the Pension Trust investment above.</p> <p>On July 28, 2009, \$95mm was added to this account. As a result of discussions with our senior investment team at PFIM and Steve Cochrane, it was decided to invest the new assets in short-term corporate bonds (1-3 years). As of 8/31/09, the account is allocated as follows: Short-term corporates (47%), Dryden Core Short-Term Bond Fund (39%), bank loans (5%), and Pru Alpha (4%) and cash (5).</p>
Quantum (Resources) Brian Borque	Pension	Private Equity	Oct-06 to Jun-17	Quantum Resources' investment strategy is to acquire, develop, enhance and exploit mature oil and gas properties in order to provide investors with both a current income vehicle with capital appreciation potential and a hedge to other investments through long-term exposure to changes in commodity prices. The company will acquire cash flow producing oil and gas properties primarily located in North America through asset or corporate purchases. By acquiring properties in a diverse set of mature fields with long operating histories, long-lived production characteristics and additional development potential, the company is emphasizing a focus on capital preservation and the reinvestment of cash flow into property development or add-on acquisitions. Management expects to acquire income streams generated by the production of oil and gas reserves at attractive discount rates of future net cash flows.
SEI Investments	Pension Insurance	Dom Small Cap Equity Dom Small Cap Equity	Jul-01 to Nov-09 Terminated Jul-01 to Nov-09 Terminated	Utilizing multiple SEI Portfolio sub-advisors, the SEI Portfolio invests in common stocks and other equity securities with the goal of providing capital appreciation.

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
SEI Investments Bob Thomas	Pension (Job Service only)	Core Plus Fixed Income	Jul-09 to Mar-12 Terminated	A diversified set of lowly correlated alpha sources increase confidence in consistent excess return -Combination of managers with a broad opportunity sets inclusive of government, credit and structured securities -Derivatives provide an efficient means of strategy implementation -Managers have the ability to utilize derivatives to manage duration, yield curve, sector and security strategies to enhance return or reduce risk
State Street Global Advisors Kevin Sullivan	Pension	Developed Int'l Equity	July-92 to Dec-13 Terminated	SSgA attempts to identify stocks that it believes are undervalued, using detailed investment analysis. The strategy is normally broadly invested among countries and industries. The investable universe is equity securities of companies outside the United States within the market capitalization range of the index.
State Street Global Advisors	Pension Insurance	Dom Lg Cap Equity Dom Lg Cap Equity	Jul-92 to Jul-09 Terminated Oct-96 to July-09 Terminated	Originally hired as S&P 500 Index funds and later re-mandated to 130/30 strategies.
State Street Global Advisors	PERS Retiree Health		Mar-94 to Jul-09 Terminated	Balanced account consisting of index funds in fixed income, large and small cap and int'l equity.
State Street Global Advisors Joe Cadigan	Tobacco	Large Cap Equity Ex-Tobacco	Oct-15 to May-19 Liquidated - Reduction in Total Fund Size - Eliminated Asset Class	<p>The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to match, before expenses, the performance of the Index. SSgA will typically attempt to invest in the equity securities comprising the Index, in approximately the same proportions as they are represented in the Index. Equity securities may include common stocks, preferred stocks, depository receipts, or other securities convertible into common stock. The Strategy may purchase securities in their initial public offerings ("IPOs"). In some cases, it may not be possible or practicable to purchase all of the securities comprising the Index, or to hold them in the same weightings as they represent in the Index. In those circumstances, SSgA may employ a sampling or optimization technique to construct the portfolio in question.</p> <p>From time to time securities are added to or removed from the Index. SSgA may sell securities that are represented in the Index, or purchase securities that are not yet represented in the Index, prior to or after their removal or addition to the Index.</p> <p>The Strategy may at times purchase or sell index futures contracts, or options on those futures, or engage in other transactions involving the use of derivatives, in lieu of investment directly in the securities making up the Index or to enhance the Strategy's replication of the Index return. The Strategy's return may not match the return of the Index.</p> <p>Benchmark S&P 500® ex Tobacco is comprised of the S&P 500® minus tobacco companies. The S&P 500® is comprised of approximately 500 leading companies in leading industries of the U.S. market with approximately 75% coverage of the U.S. stock market capitalization.</p>
UBS Global Asset Management Betsy Sanders	Pension	Emerging Markets Equity	July 05 to Dec 13 Terminated	Emerging markets equity investments will be confined to the UBS Emerging Markets Equity collective Fund of the UBS Group Trust, which is maintained by UBS Global Asset Management Trust Company. The account's emerging markets equity assets will be fully-invested at all times, but such assets may be invested in the UBS US Cash Management Prime Collective Fund for operational and risk management purposes.

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
UBS Global Asset Management Betsy Sanders	Pension	Dev. Int'l Fixed Income	July-89 to Feb-18 Terminated	The non-US fixed income portfolio's assets may be invested in emerging markets debt on an opportunistic basis up to the stated maximum allocation of 5%. The account's non-US fixed income assets will be fully-invested at all times, but such assets may be invested in the UBS US Cash Management Prime Collective Fund for operational and risk management purposes.
Wachovia Global Securities Lending John Menard	Pension Insurance	All asset classes	Oct-07 to Jun-11 Terminated when acquired by Citi	Securities lending is the temporary loan of a security from an institutional investor's portfolio to a broker/dealer or dealer bank to support that firm's trading activities. These trading activities include short selling, selling on margin or the satisfaction of some other type of transaction. Loaned securities are generally collateralized, reducing the lender's credit exposure to the borrower. Except for the right to vote proxies, the lender retains entitlement to all the benefits of owning the original securities, including the receipt of dividends and interest. Additionally, the lender receives a fee for the use of the securities and can reinvest the collateral. The lender, however, bears the market risk of the loaned securities. This is due to the borrower being obligated to ultimately return the securities, not the original market value of the securities, at the time the loan was made. Lendable securities include U.S. government and agency bonds, U.S. and foreign equities, U.S. corporate and Eurobonds, foreign government bonds, asset backed and mortgage backed securities
Wells Capital Management Jeff Mellas Doug Beath	Pension	Dom Lg Cap Equity	Apr-06 to Mar-10 Terminated	The State of North Dakota's Alpha Capture Portfolio (ACP) is a quantitatively driven global long/short strategy designed to exploit mispricing of risk between and within asset classes and market sectors. Core models are utilized in conjunction with the management team to identify opportunities between global stock and bond markets. Markets that are designed to focus more directly on specialized markets such as commodities and individual market sectors supplement the core models. ACP is constructed using instruments such as futures contracts and exchange traded funds (ETFs). The ACP strategy does not currently hedge its non-U.S. dollar positions.
Wells/Sutter Niklas Nordenfelt	Pension	Below Inv Grade FI	Apr-04 to Mar-10 Terminated	The Sutter High Yield strategy applies a bottom-up fundamental based investment strategy focused on identifying the best risk adjusted opportunities in the high yield market. The investment objective is to deliver outperformance with less volatility over a market cycle. Documented rationale supports each initial investment in a credit. The team's philosophy and process is grounded on the principal of "underwriting the credit as though we are making a direct loan to that company" with a focus on U.S. based companies.
Wells Capital Management Stephen Scharre	Pension	Dom Inv Grade FI	Nov-98 to Mar-12 Terminated	The Medium Quality Credit fixed income strategy is designed to maximize total return from the high-grade corporate bond market while maintaining a strategic allocation to the BBB portion of the high yield market. Credit research is a primary driver of our results; however, our process starts with a "top-down" strategy to guide decision-making. Security selection is determined by in-depth credit research. We believe in-depth knowledge of industries, companies, and their management teams enable us to identify credit trends that can lead to investment opportunities. In conjunction with performing rigorous fundamental research, we also apply a disciplined relative value framework which helps us determine the optimal position to invest within an industry and within an individual issuer's capital structure.
Western Asset Derek Fan	Pension	Dom Inv Grade FI	Oct-09 to Mar-12 Mandate changed to MBS	A portfolio using all major fixed-income sectors with a bias towards non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. Value can be added through sector rotation, issue selection, duration and term structure weighting.
Western Asset Derek Fan	Pension	Dom Inv Grade FI	Mar-12 to Sep-14 Terminated	The investment objective for the Western Asset Mortgage-Backed Securities portfolio is to outperform the Barclays Capital US Mortgage Backed Securities Index over a three to five year market cycle. The portfolio is designed to hold high quality assets, with at least 90% of the portfolio rated AAA, or the rating of US Treasury or Agency securities, by at least one of the nationally recognized statistical rating organizations.

North Dakota State Investment Board Managers - Closed

Investment Manager	Trust	Asset Class	Open to Close Date	Description
Western Asset	Insurance	Inflation Protected	May-04 to Oct-09 Mandate changed to Global TIPS	Western Asset's US TIPS Full Discretion Composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. These portfolios use diversified strategies in seeking to add value while minimizing risk. The approach is to construct a well diversified, higher yielding inflation-protected portfolio with a bias towards Treasury Inflation Protected Securities. Exposure to the diversifying sectors (which include credit, global inflation-linked securities and mortgage-backed securities) may be derived through derivative and forward transactions. This strategy allows for opportunistic investments in high yield, emerging markets, non-dollar securities, commodities and bank loans.
Western Asset	Insurance Legacy	Real Assets Real Assets	Oct-09 to Nov-18 Mar-15 to Nov-18 Mandate changed to US TIPS	Western Asset's Global Inflation-Linked composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. These portfolios use diversified strategies in seeking to add value while minimizing risk. The approach is to construct a portfolio primarily of inflation-indexed securities. Value can be added through country selection, term structure, issue selection, duration management and currency management.
Westridge/WG Trading/Clifton	Pension Pension Insurance	Dom Lg Cap Equity Dom Inv Grade FI Dom Lg Cap Equity	Aug-00 to Apr-11 Jan-08 to Apr-11 Apr-04 to Apr-11 (Settlement proceeds rec'd Apr-11)	S&P 500 Index Arbitrage Portfolio. Pension Domestic Fixed Income beta portfolio was changed to S&P 500 in November 2008. WG Trading was shut down by Federal Regulators in February 2009 and assets are in receivership. An S&P beta exposure was put on the accounts in July, 2009 by Clifton Group to maintain proper exposure to markets while in litigation.

MEMORANDUM

TO: SIB
FROM: Jan Murtha, Executive Director
DATE: July 15, 2022
RE: Quarterly TFFR Ends Report

In accordance with the requirements of Policy D *Ends* in the SIB Governance Manual, please find following a link to reporting materials scheduled for presentation to the TFFR Board at its July 21, 2022, meeting.

The following items are referenced in relation to monitoring requirements for the TFFR Program:

III. GOVERNANCE

- A. Election of Officers – Mr. Burton
- B. SIB Customer Satisfaction Survey – Mr. Burton, Ms. Murtha
- C. Annual TFFR Program Review – Ms. Murtha, Ms. Weeks
 - i. Code of Conduct Affirmation
- D. Annual Governance Policy Review Report/Governance and Policy Review Committee Update – Mr. Mickelson, Ms. Murtha
- E. Actuarial Audit RFP Review & Approval – Ms. Murtha
- F. Member/Stakeholder Outreach Update – Ms. Weeks
- G. PAS Project Update – Ms. Murtha

IV. REPORTS (60 minutes) *Board Action*

- A. Quarterly Investment Report (3/31) – Mr. Posch
- B. Quarterly Internal Audit Report (3/31) – Ms. Sauter
- C. Quarterly TFFR Ends Report (3/31) – Ms. Weeks
- D. Executive Limitations/Staff Relations Report – Ms. Murtha

<https://www.rio.nd.gov/sites/www/files/documents/PDFs/TFFR/Materials/tffrmat20220722.pdf>

BOARD ACTION REQUESTED: Board Acceptance

MEMORANDUM

TO: State Investment Board
FROM: Jan Murtha, Executive Director
DATE: July 19, 2022
RE: Executive Limitations/Staff Relations

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

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

Additional updates regarding ongoing discussions with HRMS related to classification and reclassification requests will be provided at the meeting. A copy of the updated organization chart is included for your reference.

Employee Title	Status
Deputy ED – Chief Retirement Officer	Position Filled. Start date 7/11/22.
Chief Fiscal Officer/Chief Operating Officer	Offer Accepted. Start date 8/22/22. Reclassification appeal pending HRMS.
Legal Intern	Position filled. Start date June 6 through July 22.
Investment #1	Posted in June, closed 6/27/22. Interviews scheduled.
Investment #2	Posted in June, closed 6/27/22. Interviews scheduled.
Investment #3	Posted in June, closed 6/29/22. Interviews pending.
Investment #4	Posted in June, closed 7/5/22. Interviews pending.
Accounting #1	Position Filled. Start date 6/13/22.
Programs Coordinator	Anticipate posting first week of August.

2. Current Project Activities/Initiatives:

- **Legacy Fund Asset Allocation Study** – RVK continues its work on the Legacy Fund Asset Allocation Study and provided preliminary considerations/recommendations to the Advisory Board on June 30, 2022.
- **TFFR PAS Project** (hereinafter TFFR “Pioneer Project”)– The TFFR Pioneer Project continues with implementation consistent with the project plan. The amount of time spent on the project by various staff members currently varies from 5 to 25 hours or more per week.
- **Northern Trust Initiative** – In an effort to enhance the infrastructure for the investment program the Investment and Fiscal teams are leading an initiative to coordinate with Northern Trust for additional functionality/capabilities.
- **Board Member Email Accounts:** State email accounts have been created for all SIB, TFFR, and committee members that are non-state employees. During the month of August RIO administrative staff will reach out to schedule an introduction/transition to these accounts with affected Board members.

3. RIO Board & Committee Presentations – June 1 through July 31, 2022

Staff provided or is scheduled to provide the following presentations to Boards and Committees during the above referenced time period.

- **Cultural Endowment Fund Meeting – 6/3/22**
- **Employee Benefits Programs Committee – 6/21/22**
- **Legacy Fund Earnings Committee – 6/22/22**
- **Advisory Board (Legacy) – 6/30/22**
- **TFFR GPR Committee – 7/7/22**
- **TFFR – 7/21/22 (scheduled)**
- **SIB – 7/22/22 (scheduled)**
- **SIB GPR Committee – 7/27/22 (scheduled)**

BOARD ACTION REQUESTED: Board Acceptance.

BOARD LEADERSHIP

May–June 2022 • No. 181

INNOVATIVE APPROACHES TO GOVERNANCE

EDITOR: NICHOLAS KING

Boards can accelerate business performance by fully engaging on organizational culture

By JEFFREY R. GREENE

Jeffrey Greene is a Senior Advisor at Fortuna Advisors, a management consulting firm focused on strategic decision making, resource allocation, and culture transformation. In this article, he discusses the importance of culture in driving positive business outcomes.

Despite all the focus on improving governance practices in recent years, directors still have a large opportunity to help management teams improve their ability to shape organizational culture. A meticulous survey of more than 1,300 executives in the United States and Canada found less than half believed the board contributes to their culture's effectiveness. The research also revealed an enormous gap between knowing and doing: while 92% of executives said improving their culture would increase firm value, only 16% felt their culture was "where it needs to be." And more than two-thirds agreed that "leadership needs to invest more time in the culture."ⁱ

Culture's central role in durable business outcomes

While definitions of organizational culture vary, most focus on the shared beliefs, values, and norms that affect

daily interactions and decision making. People learn their company's culture primarily by observing and experiencing the consequences of actual behaviors. Employees watch how leaders behave, which colleagues get promoted, who's listened to in meetings, and how managers assign choice projects. Statements of values, mission, and vision matter, but actions teach more powerful and longer-lasting lessons.

Directors and senior executives need to pay particular attention to aligning their words and actions. A recent survey asked more than 1,300 participants across 42 countries if "our leadership team walks the talk on purpose, values, and culture." There was a 27% percentage point deficit between how the board and C-Suite self-evaluated versus how subordinates saw their behavior.ⁱⁱ

Achieving superior business performance depends critically on how well culture aligns with the formally designed elements of an organization: strategy, structure, systems, and processes. Michael Porter wrote compellingly about the importance of combining mutually reinforcing activities into an "activity system" (what we now call a business model) to create differentiation and defensible competitive advantage.ⁱⁱⁱ It's clear that culture forms an integral part of successful business models. The same aspects that make culture difficult to observe clearly and to change—embedded beliefs and unwritten rules—mean competitors also have a hard time replicating an effective corporate culture. Empirical research finds

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Inside This Issue

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It's time for the Board to step up and step in

By NZINGA "ZING" SHAW

Nzinga "Zing" Shaw is president of TurnkeyZRG and Managing Director of Diversity, Equity & Inclusion at ZRG Partners. In this article, she discusses the role that boards have in guiding their organization's response to emerging social justice issues.

These are precarious times as every sector of the economy struggles to adjust to a new normal. Even if this new normal is ultimately fleeting, the disruption caused by the pandemic and racial/social justice issues has created a new perspective on a variety of challenges that leadership is called upon to address. More than ever, corporate operations are under a microscope, and the flexibility and sustainability of all kinds of organizations and industries have come into full view. Most organizations turn to their CEOs and other executives for guidance, and yet, one resource more than ever might provide the insights and diversity of perspectives required for high performance. I am speaking about the Board, and while I am acutely aware of the tremendous literature around the need for boards to stay in their lane, I would recommend that this new paradigm might call for board members to step up and step in.

Too often, Boards are reduced to a hiring and firing of the CEO. While many high-functioning board members might identify other opportunities to make a meaningful contribution, they are frequently encouraged to take the information they are given at face value. This formalistic approach in its exaggerated version is just a carte blanche for the head of the organization to provide the board just enough of the 'good' data to keep the meeting upbeat and out of the weeds.

Nevertheless, most boards are imbued with broad level of expertise from (ideally) a variety of sectors related to the organization or institution. In its ideality, these are thought leaders that can genuinely add value and improvement to any organization. This should indeed be the expectation, but that would require a degree of insight into the operations of the respective organization/institution. In other words,

When We Say...

Board Leadership's mission is "to discover, explain and discuss innovative approaches to board governance with the goal of helping organizations achieve effective, meaningful and successful leadership to fulfill their missions."

Board Leadership aims to fulfill this mission by engaging its readers in a lively and illuminating inquiry into how board governance can be made more effective. This inquiry is based on three key assumptions:

- Boards exist to lead organizations, not merely monitor them.
- Effective board governance is not about either systems, structures, processes, theories, practices, culture, or behaviors—it is about all of them.
- Significant improvements are likely to come only through challenging the status quo and trying out new ideas in theory and in practice.

Uniquely among regular publications on board governance, *Board Leadership* primarily focuses on the job of board leadership as a whole, rather than on individual elements of practice within the overall job.

Over time, *Board Leadership* will provide a repository of different approaches to governance created through its regular "One Way to Govern" feature.

Here's what a few of the key terms we use mean to us:

- **Innovative:** Creating significant positive change
- **Approaches:** Principles, theories, ideas, methodologies and practices.
- **Board governance:** The job of governing whole organizations.

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WILEY

rather than a birds-eye view, I am proposing a more hands-on approach that is not simply filtered through the 'good' data lens that is currently the norm. This is not to suggest that board members will ever know the organization or institution like the internal management or even that every leader simply provides 'good' data, but rather that involved board members with a genuine appreciation for the trials, tribulations, and opportunities might add a presently untapped degree of value.

In the summer of 2020, board directors of corporations were asked to weigh in on social justice issues facing their respective organizations, and in some instances, investors demanded to know where the board stood on this issue. Social justice is an intensely contested concept and yet, one that seems to press upon each of our lives—everywhere we turn. By a contested concept I mean that, while we all have a sense of justice, fairness, and equality, there are countless cultural and societal examples that challenge our respective worldviews. Social justice is often invoked to address the entire spectrum of moral and ethical issues from economic and health disparities to gender inequality and ethnic discrimination. There is an expectation that global businesses have a profound appreciation for the multitude of nuances that exist around these issues. With the magnitude of this topic in mind, I have chosen to focus primarily on what W.E.B. DuBois famously termed the American problem of the 20th century: the race problem.

Before sounding like I might have mistaken the century, let me offer up this suggestion. It remains the American problem of the 21st century. Though much time has passed since W.E.B. DuBois first postulated the importance of the talented tenth and the need for African Americans to excel at the highest levels, there is still so much to be done. The statistics are overwhelming or underwhelming whichever way you choose to look at it. Recent research from Mercer revealed that the median net worth of black families is nearly eight times lower than that of white families—and that the wealth gap has only grown in the past 50 years. From wealth gaps to health disparities, educational scores, incarceration, and literacy rates, and perhaps most discouragingly of all 'the American dream of socio-economic mobility', all seem to tell a story of two Americas.

According to the World Economic Forum, the American Dream is becoming harder to achieve. The overall decline in upward mobility and the waning of the middle class are deeply troubling trends in this...the land of opportunity. These trends are especially devastating to African Americans as Brookings recently outlined: "On every rung of the income ladder, Black children have worse prospects of the American Dream than White children..."

As Lynn Parramore details in her article from the Institute for New Economic Thinking: "More middle-class people

started the downward mobility slide, with Black people slipping down by far the fastest." The projected opportunity costs of low socio-economic mobility are simply staggering. According to a recent study, America ranks second only to China in terms of foregone GDP growth by 2030.

I highlight this to emphasize that this issue of social justice, and race, is not simply a human but also a business concern, and an issue that boards are expected to manage effectively. It is critical to keep in mind this intersection between the 'good for business' logic and the human good. As I mentioned earlier, the problem of race remains far from resolved, and the events of 2020 serve as a powerful reminder that we are called upon to do more. America has always relied upon private industry to step up in times of trouble (be those wars, fires, or depressions) and to help solve the most pressing of problems. Perhaps this is the time for corporate America and corporate boards to launch a new phase in its unparalleled history of innovation and ingenuity: The Social Justice Phase!

The effects of systemic racism are reflected not only by the divides in our cities and schools, but in our corporate workspaces. Companies have patted themselves on their backs for decades now about the steps they've taken to increase workforce diversity and provide the same opportunities for black and brown professionals as they do whites. But look at the composition of any boardroom or c-suite in America—and what do you see? Or rather, who do you not see?

Black people are still shut out of management and executive positions in technology, retail, healthcare, manufacturing, finance, real estate, engineering—you name it. Not a single industry proportionally reflects our population. There are only three black CEOs (less than 1 percent) leading *Fortune 500* firms, and fewer than 10 percent of the most senior leaders in the *Fortune 500* are black.

Systemic racism—or said differently, entrenched privilege—coupled with internships based on social connections and a higher education system that has traditionally left black students out—has fed directly into the shaping of corporate America as we know it today. Of course, none of these statements is new. None of this is anything a single black friend or colleague hasn't been acutely aware of since we were old enough to read.

What is new is that we're finally, and loudly, talking about it. Not in hushed voices in the church parking lot. Not on private message boards. As a country, we're acknowledging the ugly, deep-rooted racism that undeniably exists. It's a start.

The fact that most of America is suddenly "woke" is surprising but encouraging. But it isn't enough. America needs to do more. My white friends and colleagues need to do more. Corporations and their boards need to do more. Hiring chief diversity officers, hosting summits and town

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Study shows how board composition and other key factors help—or hinder—impact

Recent research from BoardSource shows that the vast majority of nonprofit leaders and their board chairs say that their boards have a positive impact on the organization's operations. But when digging deeper into the research, which was included in the organization's recent report, *Leading with Intent*, one finds that a handful of key factors are especially linked to an impactful board, including the board's composition, its understanding of the board's role in the organization, and knowledge of the group's programming.

For the report, BoardSource surveyed nonprofit executive directors and board chairs from across the country, getting their thoughts on current board composition, practices, and performance. Among other things, the survey asked whether the board had a positive impact on the organization across the following key categories:

- Clearly defining strategic priorities for the organization.
- The organization's reputation for doing good work, within networks that are important to your mission.
- The organization's overall performance.
- The financial resourcing of the organization's work?
- The organization's ability to act on calculated risks to advance its goals.

While board chairs tended to give slightly more favorable ratings than EDs, they generally agreed that their boards were having a positive impact in all of these areas, the survey found.

More interestingly, though, is the data showing which specific board practices or factors may be related to stronger or more positive board impact on organizational performance. According to the report, the following proved to be most significant:

• **Board composition.** According to the report, there is a clear relationship between board composition and the board's ability to have a positive impact on organizational performance. Nonprofit executives who report that they have the right people on the board for critical board functions—like influencing decisionmakers on policy, fundraising, establishing trust with the community they serve, and providing financial oversight—are more likely to also report that their boards are having a positive impact on the organization, the report found.

The relationship was especially strong when it comes to financial oversight—nonprofit leaders who don't have confidence in their boards in this area are more likely to say their boards have a negative impact on the organization more broadly.

• **Understanding roles.** The report identified a clear connection between the board's impact on the organization and

its understanding of its own roles and responsibilities. In fact, a strong understanding of the board's role also correlates with higher marks across all other areas of board performance, the report said. The relationship is most pronounced when it comes to setting the organization's strategic direction; providing adequate financial legal and ethical oversight; understanding the organization's mission; and projecting a positive public image for the organization.

• **Regular board self-assessments.** The research also found a strong correlation between board self-assessment practices and the ratings of board performance. According to BoardSource, nonprofit executives with boards that regularly assess themselves—defined as having done so within the past 2 years—rate their boards higher across all areas of board performance than those that assess themselves less frequently, and even more so compared with boards that have never assessed their own performance.

• **Strong understanding of programs.** As well, the research identified a strong relationship between the board's knowledge of the nonprofit's programs and the board's impact on organizational performance. Executives who rated their boards as having a strong knowledge of programs gave their boards higher grades on average across many other areas of board performance, especially in terms of strategy, engagement, and external leadership, the report said.

The survey also explored the board's impact on the nonprofit chief executive in two key areas:

• **Partnership and support.** The research shows this is an area with room for improvement, BoardSource said. Nonprofit executives gave their boards just average marks when it comes to providing guidance to the chief executive, setting strategic direction in partnership with the chief executive, and evaluating the chief executive's performance. However, the relationship between the chief executive and board chair fared better—70% of chief executives said that their board chair was one of their top two people to consult with when they need to discuss a tough decision—outranking the organization's senior staff, other current board members, an outside mentor, a spouse or partner, or a former board member.

• **Job satisfaction.** The survey showed that the vast majority of nonprofit chief executives are satisfied with their jobs and say that their boards have a positive impact on their level of satisfaction. In particular, the extent that a board adds value and perspective as a part of strategic conversations allows the CEO to lead the organization independently and autonomously, sees its responsibility for the success (or failures) of

the organization, and understands the distinct roles of the board and staff all had a significant impact on CEO job satisfaction, the report said. Conversely, the amount of money that board members gave personally or helped to raise for the organization also had a major, negative impact on CEO job satisfaction—in other words, the less satisfied the CEO was with board fundraising, the less satisfied they were with their jobs overall, the data show.

For more information, the report can be accessed in full at <https://bit.ly/3EpndUM>. ■

LEADERSHIP

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halls, creating advisory panels and tapping outside experts, issuing press releases, making donations, and sponsoring tables at charity events supporting black causes—when you're black these aren't things you necessarily think deserve accolades. They're table stakes.

Corporations have a responsibility to actively participate in the fight against injustice, even if it makes your leadership or customer uncomfortable. That support needs to be visible and the message crystal clear. It can no longer be shrouded in the sanitized corporate rhetoric that blunts the edges of the severity of the issue. And we can't put it all on institutions. The door has finally swung open, and the question is whether the collective will step through and create a new society that embraces the beauty of black, brown, and Indigenous people.

We should all ask ourselves—what is our role? To my white friends especially, what will you demand of your colleagues, your employer, the brands you support, and the boards that govern these institutions?

But the most pressing question is directed to the Board: What will the board do to hold their respective organizations accountable for sustaining social justice efforts and restore our faith in corporate America? Unfortunately, we cannot solely rely on CEOs and executive committees to ensure that our workplaces are equitable. It's time for the board to step up and step in, which includes taking a hard look at themselves to start. ■

Food for Thought

“The day the soldiers stop bringing you their problems is the day you stopped leading them. They have either lost confidence that you can help them or concluded that you do not care. Either case is a failure of leadership.”

Colin Powell

CULTURE

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cultural strength can persist for a decade or more, according to a recent study that used natural language processing (NLP) to analyze company reviews posted on Glassdoor by current and former employees.^{iv}

The well-worn saying “culture eats strategy for breakfast”—often incorrectly attributed to Peter Drucker—implies that strategy and culture are in competition, when they need to be complementary. James Heskett suggests we instead “think of an effective culture as one that provides a platform, in the high-tech sense of that word, one that is designed to foster the ability to learn, adapt, innovate, and change anything, including strategy.”^v From this perspective, a sustainable culture should support a succession of strategies over time.

While decisions about organizational structure often require trade-offs, effective cultures compensate for these compromises by encouraging people to do what's right for the business. In most companies, informal networks evolve to help employees get things done despite official reporting relationships. Conversely, processes like performance management, recruiting, and training should be crafted to “fit” with and reinforce the desired culture.

Consider these characterizations^{vi} from senior executives that bring home the centrality of culture:

Culture is like the tendons and ligaments that hold the body together and allow it to be healthy as a body and execute daily.

Culture is your sheet music to success. It is no different than an orchestra. You can hire the best trumpet players, oboist, violinist, and unless they are all playing from the same sheet of music at the right tempo, you will fail.

Like a body without tendons and ligaments or an orchestra without music, companies without an effective culture are doomed to underperform—or worse.

Culture deserves a seat at the top table

While culture's role in superior performance by companies such as Microsoft, Costco, and Netflix has been well chronicled—as have culture failures at Rio Tinto, Samsung, Volkswagen, and Wells Fargo—many boards have not elevated their oversight of culture to the same levels they devote to strategy, risk management, compensation, and succession planning. These case studies confirm a host of academic and practitioner research documenting the links between effective culture and business outcomes.^{vii} As directors survey a current landscape that includes the “great resignation,” geopolitical distress, inflation, and the pandemic's long tail, now is the right time to refresh board practices around culture.

One example of a necessary mindset shift where board directors can lend their expertise to reshape corporate culture

CULTURE

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by changing obsolete ways of thinking is around supply chain planning:

- Scenario planning should routinely incorporate “once-unimaginable tail risks.”
- To build resilience, apply a just-in-case approach to inventories, moving beyond hyper-efficient but brittle supply chains.
- Use “lateral, rather than tunnel, vision” instead of optimizing your supply chain in isolation. Take a broader view and consider shared nodes that could become bottlenecks, such as the port of Los Angeles.^{viii}

In addition to the market forces driving directors to get more involved, the big three institutional investors—BlackRock, State Street, and Vanguard Group—are holding boards accountable for overseeing culture and human capital management.^{ix} The UK Corporate Governance Code is explicit that boards should “establish the company’s purpose, values and strategy, and satisfy itself that these and its culture are aligned.”^x Given culture’s importance to strategy execution, innovation, diversity, acquisition integration, and risk management, if directors get a better handle on culture, all their other jobs will be a little easier.

Culture happens, with or without you

Without proactive leadership, cultures evolve from the bottom up in fragmented ways when individuals and teams interpret senior management’s intentions on their own as they try to resolve uncertainties in organizational structure, systems, and processes. For example:

- Incentive design often uses a menagerie of metrics like revenue growth, margin, cash flow, and return on capital. There’s rarely clear guidance on which to prioritize and when, so managers tend to be risk averse when it comes to making investments that promote long-term growth but may have short-term costs. This is particularly acute for intangible investments that are expensed through the P&L, such as R&D, brand building, and training.
- In matrixed organizations where individuals have multiple bosses—say, for geography and product line—which activities they prioritize may depend more on political clout than what’s best for customers.

Outlining the board’s culture oversight action plan

What are the right building blocks to guide the board’s engagement on culture? Specific tactics vary on the basis of the company’s current situation, directors’ backgrounds, and the board’s relationship with the CEO, but every plan needs to address these topics:

1. *Understand your current culture.* What are the firm’s stated

values and how do they translate into actual behavioral norms? Asking this fundamental question will highlight management’s approaches to monitoring employee engagement, the quality of information available, and the strength of alignment with strategy, structure, systems, and processes. The phrase “unwritten rules” is frequently used in culture discussions, but directors can help the CEO make unspoken assumptions explicit by exploring core beliefs and ingrained behaviors.

2. *Articulate the desired culture.* How does our culture need to change to deliver on our strategy aspirations, execute our operating model, and implement necessary transformations? For example, cutting-edge digital business models require a learning mindset to enable new skills. The desired culture will be an evolving target as markets shift, leadership priorities change, and people adapt.

3. *Stress-test management’s change plan.* The CEO and team should have a rigorous change management plan for migrating toward the target culture. This is also where any misalignments identified in Step 1 are remedied. The plan will also address material interactions with other major change initiatives.

4. *Establish protocols for ongoing oversight.* The board’s plenary agenda for each meeting should include a fulsome culture review. And each committee needs to regularly consider how culture interacts with their responsibilities, particularly the Compensation, Audit, and Governance standing committees. For example, culture must be weighed heavily in CEO selection; Spencer Stuart found that lack of cultural fit is responsible for up to 68% of new-hire failures of senior executives.^{xi}

5. *Align the board’s own culture.* How directors interact and the “tone at the top” directly affects board effectiveness and reinforces (or detracts from) the desired company culture.

Case study: Transforming an ownership culture

A disguised example illustrates how directors can assemble and implement a practical approach to overseeing culture. After TechCo’s share price had underperformed the market and its peers for several years, the board took stock of the current state:

- Management failed to deliver on its growth and margin promises for several years, and investors were skeptical of a turnaround.
- R&D productivity was key to long-term value creation but had chronically lagged competitors’ results.
- TechCo closed a large acquisition in its core business six months earlier. Reducing leverage taken on for the deal was a key priority.

Understand TechCo’s current culture

The board and CEO decided to begin by diagnosing TechCo’s culture using Fortuna Advisors’ ownership lens. We conducted one-on-one interviews of the executive team and

their direct reports, supplemented with online surveys. The table below summarizes our observations.

Ownership mindset attributes	Select observations from TechCo culture diagnostic
Spend money like it's your own	<ul style="list-style-type: none"> • Prevailing mindset of "If it's in your budget then spend it, or you might lose it" • No mechanism to secure additional funds intra-year for new opportunities
Extreme prioritization	<ul style="list-style-type: none"> • Difficult to stop unprofitable activities that generate revenue • Investment allocated on the basis of BU sales and stature of general manager
Willingness to experiment	<ul style="list-style-type: none"> • Generally willing to experiment and learn fast • R&D investment criteria a black box
Embrace agile	<ul style="list-style-type: none"> • Tendency to value process and motion versus outcomes • Preference for inclusion, with many people involved in decisions
Balance short and long term	<ul style="list-style-type: none"> • Pockets of long-term vision, but generally focused on quarterly targets • Longer-term innovation initiatives often abandoned to support EPS

Delving into the results, we discovered:

- While TechCo's clearly stated corporate values included an "owner's mentality," behavior across the organization did not live up to the official words. Similar to the results in Figure 2, our survey found a credibility deficit of more than 30% between how well the executive leadership team felt they "walked the talk" on values and the perspective of rank-and-file employees.

- The divergence of the acquired company's values and norms from TechCo's was insufficiently addressed during integration planning or implementation. For example, the newcomers preferred to fully analyze each decision before moving forward. This frequently caused tensions with legacy TechCo employees who were more comfortable acting with imperfect information.

- TechCo's incentive system for senior management included many metrics—revenue growth, margin, free cash flow, and ROIC—with little guidance on how to reconcile conflicts among them. The company was organized along functional lines, and each function prioritized different measures: margin for Manufacturing, revenue in Marketing, and cash flow in Finance. Moreover, this encouraged Marketing to make optimistic sales forecasts so as not to lose revenue, which regularly depressed Manufacturing's margins from writing off obsolete inventory.

- Most managers were evaluated using personal scorecards with 15–20 quantitative and qualitative goals, but they were inconsistently held accountable according to their supervisor's judgement. This behavior went all the way up to the CEO.

Articulate the desired culture

The board and CEO agreed to begin a multi-year journey toward an authentic ownership culture, where each of the five attributes would be encouraged through clear communications, executive role modeling, customized training, and aligned processes. Directors also examined the likely effects of the target culture on key stakeholders: employees (attracting talent, engagement), customers (brand equity), and investors (execution, competitive differentiation).

Importantly, the board replaced the multiple metrics in TechCo's Annual Incentive Plan with one measure: a streamlined, cash-based version of economic profit we call Residual Cash Earnings (RCE). In addition, annual RCE performance targets were set solely on the basis of improvement from prior year's actual results. The CEO and CFO embedded RCE in core planning and resource allocation processes, including annual budgeting, quarterly operating reviews, corporate development, and strategic planning.

Stress-test management's change plan

Directors considered the CEO's change management plan with the same thoroughness they would a major acquisition integration or crucial strategy shift. They fully vetted the plan before signing off, then reviewed progress with the full board at each meeting.

Establish protocols for ongoing culture oversight

The board encouraged management to establish a regular cadence for surveying alignment with the target ownership culture, as well as a broader set of behaviors that included trust, collaboration, and risk management—and senior management's ability to "walk the talk" of its stated cultural values. Directors reviewed this survey data and feedback from ongoing employee training sessions during their regular discussions of the change management progress. Committee chairs for Compensation, Audit, and Governance amended their respective charters to clearly reflect the importance of culture in their mission and responsibilities.

Align board culture

The lead director initiated a revision of TechCo's board by-laws to give oversight of company culture the same level of attention as strategy, risk management, budgeting, and financial reporting. Their self-assessment process also included evaluation of the board's effectiveness in shaping culture.

Proactive boards drive outperformance

Building an effective organizational culture that bolsters competitive advantage requires the board and executive team to be at the top of their games. Forward-thinking CEOs leverage their directors to fully deploy culture as a powerful

management tool. Culture oversight must take its place alongside the board's other essential responsibilities: CEO selection, compensation, strategy, and risk management. ■

Jeffrey Greene helps clients achieve superior long-term shareholder returns through better resource allocation decisions by improving performance management and shaping culture. He can be reached at jeff.greene@fortuna-advisors.com.

Footnotes

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- ^{xi} Groysberg, The Leader's Guide to Corporate Culture.

Calendar Of Events

June 16-18

2022 Govern for Impact Conference

The Worthington Renaissance Fort Worth Hotel, 200 Main Street, Fort Worth, TX 76102 USA

The 2022 annual conference for Govern for Impact—formerly known as the International Policy Governance Association—will be held in-person and virtually June 16–18 in Fort Worth, Texas.

According to conference organizers, this event brings together boards, CEOs and administrators using the Policy Governance System, as well as young governance professionals and others exploring good governance.

The 2022 conference includes a variety of workshops across two tracks:

- Track 1: Governing Fundamentals
- Track 2: Governing into the Future

Attendees will be able to choose one workshop from each track in each of the conference time slots. Attendees will not have to stay in the same track throughout the conference; all registrants will have access to all keynote and workshop PowerPoints and handouts, even for sessions they do not attend, organizers said. In addition, all registrants will have access to all keynote and workshop recordings.

In addition, two pre-conference courses—Introduction to Policy Governance and Effective Board Principles and Policy Development—are planned just prior to the formal conference and can be added to conference registration for an additional fee.

Registration fees for this event range up to \$699.

For more information, visit <https://bit.ly/3t28xHi>. ■

July 5–6

Chartered Governance Institute Annual Conference

ExCel London, Royal Victoria Dock, 1 Western Gateway, London E16 1XL

The Chartered Governance Institute will host its annual conference, Governance 2022, July 5–6 in London.

According to organizers, the challenges of the last two years have shined a light on the critical role played by governance professionals in all settings -- whether they're ensuring regulatory compliance, addressing social and stakeholder concerns, or enabling business continuity in the face of a truly chaotic operating environment.

This year's annual conference will look at some of the many ways in which governance professionals are making an impact. The conference will focus around three key themes – knowledge, values and practice – and explore the latest developments in such areas as ESG, diversity and inclusion, company law and audit, among others, and explore how the governance community can have an impact in these and other areas.

The event's speakers come from a variety of leading organizations across all sectors and from around the world, and they bring with them a diverse range of perspectives, the CGI said.

Registration fees for this event range up to 920 GBP.

For more information, visit <https://bit.ly/3wrr1Sq>. ■