

NDTFFR Board Meeting AGENDA

Thursday, July 25, 2019 - 1:00 pm NDRIO Conference Room 3442 E. Century Avenue, Bismarck, ND

- 1. Call to Order and Approval of Agenda Pres. Lech (Board Action)
- 2. Approval of Minutes of April 25, 2019 Board Meeting Pres. Lech (Board Action) 5 min.
- 3. **Trustee Appointment** Fay Kopp (Information) 5 min.
- 4. Election of 2019-20 Officers Pres. Lech (Board Action) 10 min.
- 5. **TFFR Plan Management Policy** Kim Nicholl and Matt Strom, Segal (Information) 60 min.
- 6. **Qtrly Investment Update** Dave Hunter (Information) 15 min.
- 7. Annual SIB Customer Satisfaction Survey Pres. Lech (Information) 10 min.
- 8. Legislative Update Fay Kopp (Information) 10 min.
- 9. **Annual Technology Report** Rich Nagel (Board Action) 15 min.
- 10. **TFFR Governance & Policy Review (GPR) Committee Update –** Cody Mickelson, Com. Chair (Information) 10 min.
- 11. Annual TFFR Program Review- Pres. Lech and Fay Kopp (Board Action) 30 min.
 - TFFR Board Accomplishments
 - TFFR Program Monitoring Summary
 - TFFR Customer Satisfaction Reports
 - TFFR Code of Conduct Policy Affirmations
- 12. **TFFR Mission Statement Development** Pres. Lech (Information) 45 min.
- Consent Agenda QDRO application to follow (Board action) 5 min.
 *Executive Session possible if Board discusses confidential information pursuant to NDCC 15-39.1-30.
- 14. Other Business
- 15. Adjournment

Special TFFR Board Meeting - SIB Retreat: July 26, 2019

Next Regular TFFR Board Meeting: September 26, 2019

Any individual requiring an auxiliary aid or service should contact the Retirement and Investment Office (RIO) at 701-328-9885 at least three (3) days prior to the scheduled meeting.

NORTH DAKOTA TEACHERS' FUND FOR RETIREMENT

MINUTES OF THE

APRIL 25, 2019, BOARD MEETING

BOARD MEMBERS PRESENT: Rob Lech, President

Mike Burton, Vice President Toni Gumeringer, Trustee Cody Mickelson, Trustee

Mel Olson, Trustee

Kelly Schmidt, State Treasurer

BOARD MEMBER ABSENT: Kirsten Baesler, State Supt. DPI

STAFF PRESENT: David Hunter, ED/CIO

Fay Kopp, Deputy ED/CRO

Missy Kopp, Retirement Assistant Sara Sauter, Audit Services Supvr

Shelly Schumacher, Retirement Program Mgr

Dottie Thorsen, Internal Auditor

OTHERS PRESENT: Sandra DePountis, Attorney General's Office

Scott Miller, NDPERS

Kim Nicholl, Segal Consultants

Anders Odegaard, Attorney General's Office

Matt Strom, Segal Consultants

CALL TO ORDER:

Dr. Rob Lech, President of the Teachers' Fund for Retirement (TFFR) Board of Trustees, called the meeting to order at 1:00 p.m. on Thursday, April 25, 2019, at the Retirement and Investment Office (RIO), Bismarck, ND.

THE FOLLOWING MEMBERS WERE PRESENT REPRESENTING A QUORUM: MR. BURTON, MRS. GUMERINGER, PRES. LECH, MR. MICKELSON, MR. OLSON, AND TREASURER SCHMIDT.

ACCEPTANCE OF AGENDA:

The Board considered the agenda for the April 25, 2019, meeting.

IT WAS MOVED BY MRS. GUMERINGER AND SECONDED BY MR. OLSON AND CARRIED BY A VOICE VOTE TO ACCEPT THE AGENDA AS DISTRIBUTED.

AYES: MR. BURTON, MR. MICKELSON, MRS. GUMERINGER, MR. OLSON, AND PRES.

LECH

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER AND TREASURER SCHMIDT

MINUTES:

The Board considered the minutes of the March 21, 2019, meeting.

IT WAS MOVED BY MRS. GUMERINGER AND SECONDED BY MR. MICKELSON AND CARRIED BY A VOICE VOTE TO ACCEPT THE MARCH 21, 2019, MINUTES AS DISTRIBUTED.

AYES: MR. MICKELSON, MR. OLSON, MR. BURTON, MRS. GUMERINGER, AND PRES.

LECH

NAYS: NONE MOTION CARRIED.

ABSENT: SUPT. BAESLER AND TREASURER SCHMIDT

Treasurer Schmidt arrived after the vote on the minutes.

TFFR RISK ASSESSMENT AND STOCHASTIC MODELING RESULTS:

Ms. Kim Nicholl and Mr. Matt Strom, Segal Consulting, presented the results of the risk assessment and stochastic modeling project, phase 1. This includes the baseline liabilities, normal costs, and benefit payments projection, using an open group forecast and a combination of stochastic and deterministic projections to evaluate the financial health of TFFR.

Segal evaluated risks related to investment return, inflation, mortality, payroll/population growth, retirement, disability and termination rates. External risks include governance, regulatory, litigation, and political risks. Workforce demographic risk and plan maturity measures were also reviewed. Investment return risk has the largest potential impact to TFFR. The current 7.75% return assumption is below the 50th percentile return; a decrease in this assumption to 7.50% or 7.25% materially changes the landscape of the TFFR funded percentage projections.

Segal performed and presented deterministic and stochastic projections providing expected probabilities related to portfolio investment return, funded percentage, effective amortization period, unfunded actuarial accrued liability, and employer contribution rate. Scenarios modeled include baseline assuming 7.75% rate of return; one year of poor investment performance of 0% in 2019; lower assumed rate of return of both 7.50% and 7.25%; active population increase of 1% growth in active members for 10 years; accelerated retirement rate of 10%; increase of life expectancy by 1 year; and decrease of total contribution rate by 2%.

Mr. Scott Miller, Executive Director, ND Public Employees Retirement System (NDPERS), commented on recent changes made to the investment return assumption by the NDPERS Board. He also explained NDPERS funding and legislative issues.

Board discussion of Phase 1 project results followed. These results will be used in development of the plan management policy.

The Board recessed at 2:30 p.m. and reconvened at 2:38 p.m.

BOARD EDUCATION - OPEN RECORDS AND OPEN MEETINGS:

Ms. Sandra DePountis, ND Attorney General's Office, presented an overview of ND open meeting and record laws. Information covered included the definitions of public records and public business, examples of what items are exempt or confidential, and the basic rules of records requests. Also included was the definition of an open meeting, exceptions, how to properly post notice, executive sessions, and violations. Board discussion followed.

LEGISLATIVE UPDATE:

Ms. Kopp provided an update on the legislative bills currently being monitored by RIO staff that impact TFFR. HB 1044, which updates TFFR plan language to maintain IRS compliance, has been signed by the Governor. SB 2022, which contains the 2019-21 RIO budget and TFFR pension administration system upgrade project, passed both chambers and is awaiting the Governor's signature. Board discussion followed.

INVESTMENT UPDATE:

Mr. Hunter provided an interim investment update with preliminary return estimates as of March 31, 2019. TFFR fiscal year to date earnings were 5.13% for the six months ended December 31, 2018. Based on actual result through February 2019, plus index returns for March 31, 2019, TFFR fiscal year to date earnings are estimated at +2% for the 9 months ended March 31, 2019. Board discussion followed.

AUDIT UPDATE:

Ms. Sauter provided an update of audit activities for the third quarter, January 1, 2019 - March 31, 2019. As of March 31, 2019 there are three employer audits which have been completed and three are in progress. Audit services conducted the annual TFFR Refund and Purchase Audit. The fieldwork has been completed and a report will be issued in April 2019. The annual Salary Verification Audit is also in process.

Ms. Thorsen provided an update on the TFFR Benefit Payment Cost Efficiency Review. Audit Services found that benefits are being paid in a cost effective and timely basis. Audit Services made two recommendations to improve the presumptive retirement process.

BOARD POLICY AMMENDMENTS - 2ND READING:

Ms. Kopp reviewed TFFR Policies C-6, Disclosure to Membership; B-6, Membership Data and Contributions; and B-8, Account Claims, for the Board's second reading and final adoption.

IT WAS MOVED BY MR. OLSON AND SECONDED BY MR. BURTON AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE SECOND READING OF AMENDMENTS TO BOARD POLICIES C-6, DISCLOSURE TO MEMBERSHIP; B-6, MEMBERSHIP DATA AND CONTRIBUTIONS; AND B-8, ACCOUNT CLAIMS.

AYES: TREASURER SCHMIDT, MRS. GUMERINGER, MR. OLSON, MR. BURTON, MR.

MICKELSON AND PRES. LECH

NAYS: NONE MOTION CARRIED.

ABSENT: SUPT. BAESLER

BOARD GOVERNANCE POLICY:

Pres. Lech reviewed the recommendation for the Board to consider a full governance and policy review due to the unique governance structure of TFFR as part of RIO, staff succession planning, board membership changes, and the importance of effective governance policy on pension fund performance. Some areas that could be more clearly defined or revised in TFFR policies include the mission statement and strategic objectives; board member responsibilities, authorities, orientation, self-assessment and standards of conduct; TFFR expectations related to SIB/RIO responsibilities; and roles and responsibilities of TFFR staff. Pres. Lech suggested the establishment of a subcommittee to work with Ms. Kopp on the TFFR Board Governance Policies project. The Committee could conduct an initial assessment, review policies from other pension systems, establish expectations and a timeline.

Board discussion followed.

IT WAS MOVED BY TREASURER SCHMIDT AND SECONDED BY MR. OLSON AND CARRIED BY A ROLL CALL VOTE TO ESTABLISH A BOARD POLICY REVIEW SUBCOMMITTEE.

AYES: MRS. GUMERINGER, MR. BURTON, MR. MICKELSON, MR. OLSON, TREASURER

SCHMIDT AND PRES. LECH

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

Pres. Lech appointed the following members to the Policy Review Committee: Mr. Mickelson, Committee Chair; Mr. Burton, Board Vice President; and Mr. Lech, Board President.

BOARD EDUCATION PLAN:

Ms. Kopp presented a draft 2019-20 Board Calendar and Education plan. It includes annual and quarterly monitoring reports required by Board policies and requested by the Board. Also included are topics of interest including board governance, actuarial, investment, legal, and plan provisions. Additional agenda items may need to be added throughout the year.

Board discussion followed.

IT WAS MOVED BY TREASURER SCHMIDT AND SECONDED BY MR. MICKELSON AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE 2019-20 BOARD EDUCATION PLAN AS PRESENTED.

AYES: MR. OLSON, MR. MICKELSON, MRS. GUMERINGER, TREASURER SCHMIDT, MR.

BURTON, AND PRES. LECH.

NAYS: NONE MOTION CARRIED

ABSENT: SUPT. BAESLER

TRUSTEE EDUCATION:

Ms. Kopp provided the Board with dates and links to upcoming pension trustee educational opportunities. Board discussion followed.

TRUSTEE APPOINTMENT UPDATE:

Ms. Kopp updated the Board on the trustee appointment process. Mrs. Gumeringer's current term on the TFFR Board ends June 30, 2019. ND United has submitted three names to the Governor's office for appointment or reappointment to the TFFR Board. The Governor's office is reviewing candidates.

ADJOURNMENT:

With no further business to come before the Board, President Lech adjourned the meeting at 3:57 p.m.

Respectfully Submitted:

Dr Roh Lech President

Dr. Rob Lech, President
Teachers' Fund for Retirement Board

Missy Kopp

Reporting Secretary



MEMORANDUM

TO: TFFR Board

FROM: Fay Kopp

DATE: July 18, 2019

SUBJ: Trustee Appointment

I am very happy to inform the Board that Governor Burgum has reappointed Toni Gumeringer to the TFFR Board of Trustees representing active members for a 5-year term effective July 1, 2019 through June 30, 2024.

Toni has been a very dedicated, knowledgeable and respected trustee who has served on the TFFR Board since 2016, and the State Investment Board since 2018. We greatly appreciate her commitment and service to ND public school educators.

BOARD INFORMATION ONLY. No board action requested.



MEMORANDUM

TO: TFFR Board FROM: Fay Kopp DATE: July 18, 2019

SUBJ: Election of 2019-20 Officers and SIB members

The TFFR Board is required by state law to elect officers at the first meeting of each fiscal year. For the 2019-20 year, the Board will need to select:

- TFFR Board President (Currently Rob Lech)
- TFFR Board Vice President (Currently Mike Burton)
- Three TFFR trustees to represent TFFR on the State Investment Board to include one active administrator, one active teacher, one retired member (Currently Rob Lech, Mel Olson, and Toni Gumeringer)
- One TFFR trustee from SIB to represent TFFR on SIB Audit Committee (Currently Rob Lech)
- One TFFR trustee to serve as SIB alternate/designee (Currently Mike Burton)

The State Treasurer is required by virtue of her position to serve on the State Investment Board, so that is not subject to Board assignment.

Statutory references are included on the following page for your information.

BOARD ACTION: Board election and selection process.

Teachers' Fund for Retirement (TFFR) 15-39.1-05.1. Board composition - Terms - Voting.

- 1. The authority to set policy for the fund rests in a board of trustees composed as follows:
- a. The governor shall appoint, from a list of three nominees submitted to the governor by North Dakota united, two board members who are actively employed as elementary or secondary teachers in full-time positions not classified as school administrators. A board member appointed under this subdivision who terminates employment may not continue to serve as a member of the board.
- b. The governor shall appoint, from a list of three nominees submitted to the governor by the North Dakota council of educational leaders, one board member who is actively employed as a full-time school administrator. A board member appointed under this subdivision who terminates employment may not continue to serve as a member of the board.
- c. The governor shall appoint, from a list of three nominees submitted to the governor by the North Dakota retired teachers association, two board members who are retired members of the fund.
- d. The state treasurer and the superintendent of public instruction.
- 2. All current appointees of the board shall serve the remainder of their terms as members of the board until their terms expire and their successors are appointed. The first newly appointed board member under subdivision a of subsection 1 must be appointed to serve an initial term of four years. The first newly appointed board member under subdivision c of subsection 1 must be elected to serve an initial term of five years. Newly appointed board members shall serve a term of five years. Each newly appointed term begins on July first.
- 3. Each board member is entitled to one vote, and four members constitute a quorum. Four votes are required for resolution or action by the board.

15-39.1-06. Organization of board.

The board may hold meetings as necessary for the transaction of business and a meeting may be called by the president or any two members of the board upon reasonable notice to the other members of the board. The president for the ensuing year must be elected at the first meeting following July first of each year.

15-39.1-07. Vacancies - Rulemaking power.

Vacancies which may occur among the appointed members of the board must be filled by the governor and the appointee shall complete the term for which the original member was selected. The board may adopt such rules as may be necessary to fulfill the responsibilities of the board.

15-39.1-08. Compensation of members.

Members of the board, excluding ex officio members, are entitled to receive one hundred forty-eight dollars as compensation per day and necessary mileage and travel expenses as provided in sections 44-08-04 and 54-06-09 for attending meetings of the board. No member of the board may lose regular salary, vacation pay, vacation or any personal leave, or be denied right of attendance by the state or political subdivision thereof while serving on official business of the fund.

State Investment Board 21-10-01. State investment board - Membership - Term - Compensation

1. The North Dakota state investment board consists of the governor, the state treasurer, the commissioner of university and school lands, the director of workforce safety and insurance, the insurance commissioner, three members of the teachers' fund for retirement board or the board's designees who need not be members of the fund as selected by that board, two of the elected members of the public employees retirement system board as selected by that board, and one member of the public employees retirement system board as selected by that board. The director of workforce safety and insurance may appoint a designee, subject to approval by the workforce safety and insurance board of directors, to attend the meetings, participate, and vote when the director is unable to attend. The teachers' fund for retirement board may appoint an alternate designee with full voting privileges to attend meetings of the state investment board when a selected member is unable to attend. The public employees retirement system board may appoint an alternate designee with full voting privileges from the public employees retirement system board to attend meetings of the state investment board when a selected member is unable to attend. The members of the state investment board, except elected and appointed officials and the director of workforce safety and insurance or the director's designee, are entitled to receive as compensation one hundred forty-eight dollars per day and necessary mileage and travel expenses as provided in sections 44-08-04 and 54-06-09 for attending meetings of the state investment board.



MEMORANDUM

TO: TFFR Board

FROM: Fay Kopp

DATE: July 18, 2019

SUBJ: TFFR Plan Management Policy (Phase 2)

As part of the Segal project to develop a TFFR Plan Management Policy, at the April 2019 board meeting, Segal presented the results of the Phase 1 initial risk assessment and stochastic modeling used to evaluate the financial health of TFFR.

Phase 2 of the project includes identifying policy metrics and establishing both "ideal" and "problematic" conditions. Fay and Shelly have been working with the Segal team on potential monitoring parameters and scoring criteria. Segal will be at the July 2019 Board meeting to present a proposed scoring system and to discuss and fine-tune the policy and scoring system elements (July 2019 Segal presentation attached).

BOARD INFORMATION AND DISCUSSION ONLY. No Board action requested.





North Dakota Teachers' Fund for Retirement

Risk Assessment/Plan Management Policy - Phase 2

July 25, 2019

Presented By:

Kim Nicholl, FSA, MAAA, EA Senior Vice President and Actuary

Matt Strom, FSA, MAAA, EA Senior Vice President and Actuary

This document has been prepared by Segal Consulting for the benefit of the Board of Trustees of the North Dakota Teachers' Fund for Retirement and is not complete without the presentation provided at the July 25, 2019 meeting of the Board of Trustees.

Project Phases

- Project consists of two phases:
- Phase 1 initial risk assessment and stochastic modeling
 - Baseline liabilities, normal costs, and benefit payments projected using an open group forecast
 - Combination of stochastic and deterministic projections to evaluate the financial health of TFFR
- ▶ Phase 2 develop Plan Management Policy
 - Identify Policy metrics and establish "ideal" and "problematic" conditions
 - Construct a scoring system with the idea of meeting TFFR's long-term funding goals
 - Discuss and fine-tune Policy and scoring system

Plan Funding Policy vs. Plan Management Policy

A funding policy sets actuarially sound contribution rates

- A funding policy serves as a benchmark, which can be compared to the fixed employer contribution rates
- Actuarially determined contribution is equal to Normal Cost plus 25 year amortization of Unfunded Accrued Liability (as of 7/1/2018)
 - Amortization targets 100% funding in 25 years
 - TFFR's amortization method is 30 year closed period that began on July 1, 2013

A plan management policy monitors ongoing plan health

- Identify and establish objective criteria to evaluate health of TFFR
- Illustrates market volatility and contribution inadequacy risks through stochastic modeling
- Allows Board to evaluate future funded ratio based on probabilities
- Serves as advance warning tool

A plan management policy is a more robust way to evaluate the ongoing health and sustainability of TFFR

Using the Plan Management Policy

- > Recalculate Policy Score as part of the annual valuation or other frequency
- Policy Score provides context for likelihood of future positive or negative events
 - For example, if funded ratio is projected to be at an unacceptable level with a high likelihood, the Board can explore ways to address this
- ➤ Policy Score can be part of the actuarial analysis of proposed legislation
 - Does the Policy Score improve, stay the same, or worsen?
 - Should the Policy Score be a factor when analyzing the effect of a benefit improvement?

Stochastic Results - Output Modeled

Output

- Portfolio investment return
- Funded percentage
- Effective amortization period
- Unfunded actuarial accrued liability
- Employer contribution rate

Liabilities

- Assumed rate of return of 7.75%
 - Liabilities are discounted at 7.75%

Stochastic Modeling of Investment Return

- ➤ Modeling of future simulated return trials is based on:
 - The Horizon Survey of Capital Market Assumptions (2018 Edition)
 - This survey compiles and averages the capital market assumptions of 35 investment consultants
 - TFFR's target asset allocation, shown below:

	Asset Class	Target Allocation
ative	US Core	17%
	Real Estate	10%
ern	High Yield	7%
Alt	Commodities/Timber	2%
Fixed/Alternative	Infrastructure	5%
	Cash	1%
Equity	US Large Cap	25%
	US Small Cap	7%
	International Developed	16%
	Emerging Markets	4%
	Private Equity	6%

Capital Market Assumptions

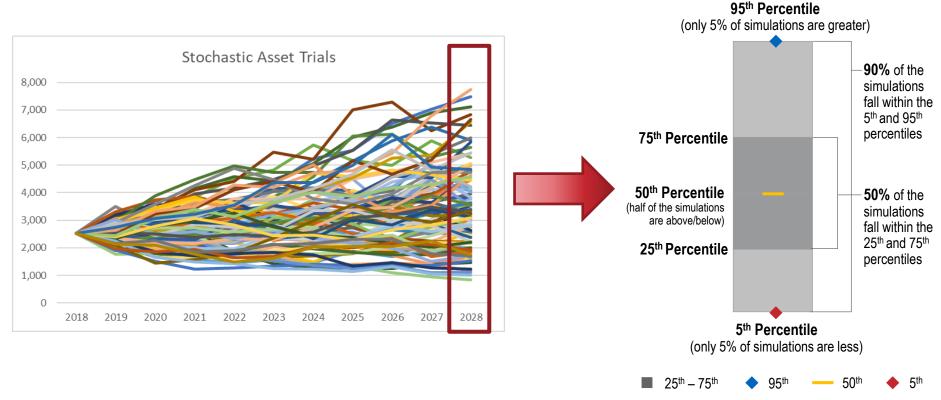
Fixed/Alternative

Asset Class	and the second s	l Return*/ Deviation	Target Allocation	Weighted Return
US Core	4.6%	5.7%	17%	0.79%
Real Estate	7.7%	13.9%	10%	0.77%
High Yield	6.4%	10.2%	7%	0.45%
Commodities/Timber	6.5%	17.6%	2%	0.13%
Infrastructure	8.2%	14.7%	5%	0.41%
Cash	3.1%	2.7%	1%	0.03%
US Large Cap	8.7%	16.4%	25%	2.18%
US Small Cap	10.1%	20.2%	7%	0.71%
International Developed	9.5%	18.7%	16%	1.51%
Emerging Markets	11.9%	24.9%	4%	0.48%
Private Equity	12.2%	22.2%	6%	0.73%
Total			100%	8.19%
Adjustment to Geometric				(0.64%)
Total Long-term Return				7.55%

^{*} Based on 20-year arithmetic assumptions and reflects long-term inflation of 2.48%

Summarizing Stochastic Results

The individual trials are grouped into percentiles and summarized as a range



- The median is represented by the yellow line at the center of the distribution
- The dark gray shaded rectangle represents 50% of all outcomes around the median
- ➤ The large, light gray rectangle (inclusive of the dark gray area) represents 90% of all outcomes around the median
- Other percentile results/probabilities are calculated as well

Investment Return Projected Cumulative Investment Return for Plan Years Ending June 30 30% 25% 20% 15% 10% 5% 0% -5% Investment simulation based on CMAs shows long-term -10% geometric return slightly lower than current assumption -15% 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 27.0% 21.8% 18.9% 17.3% 16.4% 15.6% 15.0% 14.5% 14.1% 13.7% 13.5% 13.2% 13.0% 12.9% 12.7% 12.5% 12.4% 12.3% 12.1% 12.0% 16.1% 13.7% 12.3% 11.6% 11.1% 10.9% 10.6% 10.4% 10.2% 10.1% 10.0% 9.9% 9.8% 9.8% 9.7% 9.7% 9.6% 9.5% 9.5% 9.4% 7.6% 7.6% 7.5% 7.5% 7.5% 7.6% 7.6% 7.6% 7.6% 7.6% 7.6% 7.6% 7.6% 7.6% 7.6% ■ 50th 7.8% 8.0% 7.7% 7.6% 7.6% 0.5% 2.4% 3.0% 3.7% 4.0% 4.3% 4.6% 4.7% 4.9% 5.0% 5.1% 5.2% 5.3% 5.4% 5.5% 5.5% 5.5% 5.6% 5.7% 5.7% -0.3% ♦ 5th -11.0% -5.9% -3.4% -2.0% -1.0% 0.3% 0.6% 1.1% 1.4% 1.7% 1.9% 2.1% 2.3% 2.4% 2.6% 2.7% 2.8% 3.0% 3.0% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75% 7.75%

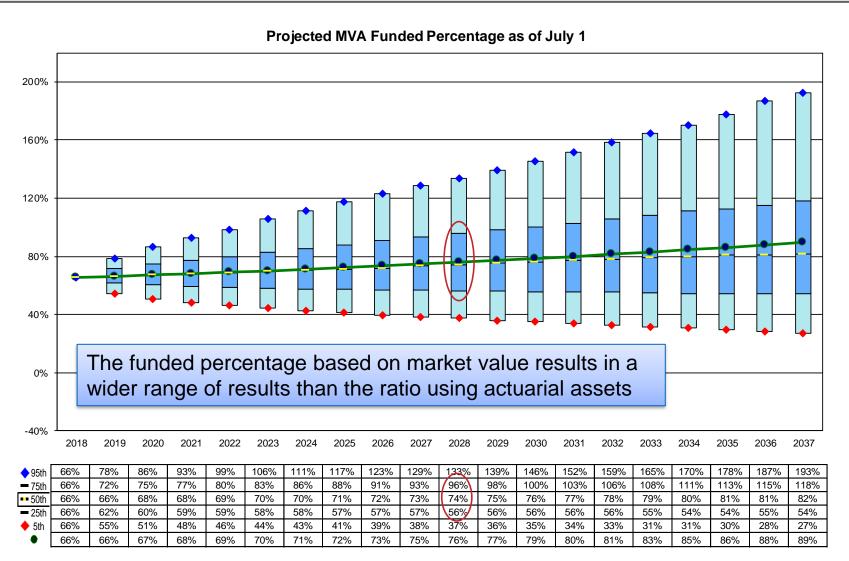
Current investment return assumption

AVA Funded Percentage – Baseline

Projected AVA Funded Percentage as of July 1 200% 160% 120% 80% 40% In ten years, 50% of outcomes have a funded percentage between the range of 58% and 93% -40% 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 65% 68% 73% 79% 86% 94% 101% 107% 112% 118% 123% 130% 135% 142% 148% 155% 162% 169% 176% 185% 95th 93% **7**5th 65% 67% 69% 73% 76% 79% 82% 85% 88% 91% 96% 99% 101% 103% 106% 108% 110% 113% 115% -- 50th 65% 66% 67% 68% 69% 70% 71% 72% 72% 73% 74% 76% 76% 78% 79% 80% 81% 82% 82% 83% 65% 65% 64% 64% 63% 61% 60% 60% 59% 58% 58% 58% 57% 57% 57% 57% 56% 56% 56% 55% 65% 63% 60% 57% 54% 50% 47% 45% 43% 42% 40% 38% 38% 37% 35% 34% 32% 31% 29% 28% 65% 66% 66% 68% 69% 70% 71% 72% 73% 75% 76% 79% 80% 81% 83% 85% 86% 88% 89%

Baseline deterministic projection using current 7.75% investment return assumption

MVA Funded Percentage – Baseline



Baseline deterministic projection using current 7.75% investment return assumption

Metrics for Management Policy Scoring System

Current funded ratio

- The Fund's current funded ratio is one of the most visible metrics.
- A high current funded ratio should be recognized in the scoring

Downside funded ratio in 10 years (2030)

 In the short-term, the Fund should avoid an "undesirable" funded ratio with relatively high. probability

Target funded ratio in 20 years (2040)

 Over a longer term, the Fund should be on the path to achieving its goals with reasonable probability

Improvement in funded ratio over a 10-year period

 Regardless of where the Fund sits "today", it should seek an increasing funded ratio over time

Ability to recover from/withstand a market downturn

 In situations where the financial markets experience a downturn, the scoring should recognize when the funded ratio improves relative to the impact after the downturn

> For purposes of the Policy scoring, we believe the funded ratio using the market value of assets is the appropriate measure.

Using the Plan Management Policy

- > As currently constructed, the Policy Score will range from 0-14
 - A higher score equates to better overall Fund health
- Recalculate Policy Score as part of the annual valuation or other frequency
- Policy Score provides context for likelihood of future positive or negative events
 - For example, if funded ratio is projected to be at an unacceptable level with a high likelihood, the Board can explore ways to address this
- Policy Score can be part of the actuarial analysis of proposed legislation
 - Does the Policy Score improve, stay the same, or worsen?
 - Allow a benefit improvement as long as Policy Score does not decrease?

Policy Scoring System – Draft

Based on current year funded ratio • If current ratio is 90% or higher: +3 Criteria 1 If current ratio is between 80% to 90%: +2 If current ratio is between 70% to 80%: +1 If current ratio is less than 70%: +0 Downside funded ratio in 2030 (about 10 years from now) Under 65% funded ratio with less than 20% probability: +3 Criteria 2 Under 65% funded ratio with less than 30% probability: +2 Under 65% funded ratio with less than 40% probability: +1 Under 65% funded ratio with more than 40% probability: +0 Target funded ratio in 2040 (about 20 years from now) 85% or higher with more than 50% probability: +4 Between 80% and 85% with more than 50% probability: +3 Criteria 3 Between 75% and 80% with more than 50% probability: +2 Between 70% and 75% with more than 50% probability: +1 Not more than 70% with more than 50% probability: +0 Improvement over 10 years Funded ratio improves by +5% over 10 years with 66% probability: +2 Criteria 4 Funded ratio improves by +5% over 10 years with 50% probability: +1 Ratio does not improve by +5% over 10 years with 50% probability: +0 Ability to recover from market downturn* • Funded ratio after downturn improves by +5% over 10 years with 50% probability: +2 Criteria 5 Funded ratio after downturn improves by +5% over 10 years with 33% probability: +1 • Ratio after downturn does not improve by +5% over 10 years with 33% probability: +0

^{* &}quot;Market downturn" defined as a two-year compound average return of -10% or worse

Policy Scoring System – Draft (continued)

- Total summary score can range from 0 to 14
 - Metrics focus on funded ratio measures.
 - Effective amortization period considered, but likely redundant
 - Outside metrics such as economic cycle considered, but held out
- ➤ Summary "health" can be summed up as follows:
 - Green (score of 11 to 14) to indicate "objectives being met or likely to be met"
 - Yellow (score of 7 to 10) to indicate "objectives may be met over longer period"
 - Orange (score of 4 to 6) to indicate "closely monitor"
 - Red (score of 0 to 3) to indicate "changes should be considered"



Policy Scoring System – Draft (continued)

Criteria 1	Current year funded ratio is 66% • If current ratio is 90% or higher: +3 • If current ratio is between 80% to 90%: +2 • If current ratio is between 70% to 80%: +1 • If current ratio is less than 70%: +0	+0
Criteria 2	 37% probability of funded ratio <65% in 2030 Under 65% funded ratio with less than 20% probability: +3 Under 65% funded ratio with less than 30% probability: +2 Under 65% funded ratio with less than 40% probability: +1 Under 65% funded ratio with more than 40% probability: +0 	+1
Criteria 3	 53% probability of funded ratio >80% in 2040 85% or higher with more than 50% probability: +4 (49% probability) Between 80% and 85% with more than 50% probability: +3 (53% probability) Between 75% and 80% with more than 50% probability: +2 (57% probability) Between 70% and 75% with more than 50% probability: +1 (61% probability) Not more than 70% with more than 50% probability: +0 	+3
Criteria 4	 55% probability of improvement over 10 years Funded ratio improves by +5% over 10 years with 66% probability: +2 Funded ratio improves by +5% over 10 years with 50% probability: +1 Ratio does not improve by +5% over 10 years with 50% probability: +0 	+1
Criteria 5	 40% probability of recovering from market downturn* Funded ratio after downturn improves by +5% over 10 years with 50% probability: +2 Funded ratio after downturn improves by +5% over 10 years with 33% probability: +1 Ratio after downturn does not improve by +5% over 10 years with 33% probability: +0 	+1

^{* 845} scenarios contain -10% average over 2 years (in the first 10 years), 339 of which "recover"

Policy Scoring System – Draft (continued)

- >To address the "all or nothing" aspect of scoring, the point system could be set up such that partial points are awarded
 - Half points for partially meeting criteria
 - For example, Criteria 1 would change from this:
 - If current ratio is 90% or higher: +3
 - If current ratio is between 80% and 90%: +2
 - If current ratio is between 70% and 80%: +1
 - If current ratio is less than 70%: +0
 - To, effectively, this:
 - If current ratio is 90% or higher: +3
 - If current ratio is between 85% and 90%: +2.5
 - If current ratio is between 80% and 85%: +2
 - If current ratio is between 75% and 80%: +1.5
 - If current ratio is between 70% and 75%: +1
 - If current ratio is between 65% and 70%: +0.5
 - If current ratio is less than 65%: +0

Calculating the Summary Score

Criteria 1	Current year funded ratio is 66% If current ratio is 90% or higher: +3 If current ratio is between 80% to 90%: +2 If current ratio is between 70% to 80%: +1 If current ratio is less than 70%: +0	+0.5
Criteria 2	 37% probability of funded ratio <65% in 2030 Under 65% funded ratio with less than 20% probability: +3 Under 65% funded ratio with less than 30% probability: +2 Under 65% funded ratio with less than 40% probability: +1 Under 65% funded ratio with more than 40% probability: +0 	+1
Criteria 3	 53% probability of funded ratio >80% in 2040 85% or higher with more than 50% probability: +4 (49% probability) Between 80% and 85% with more than 50% probability: +3 (53% probability) Between 75% and 80% with more than 50% probability: +2 (57% probability) Between 70% and 75% with more than 50% probability: +1 (61% probability) Not more than 70% with more than 50% probability: +0 	+3
Criteria 4	 55% probability of improvement over 10 years Funded ratio improves by +5% over 10 years with 66% probability: +2 Funded ratio improves by +5% over 10 years with 50% probability: +1 Ratio does not improve by +5% over 10 years with 50% probability: +0 	+1
Criteria 5	 40% probability of recovering from market downturn* Funded ratio after downturn improves by +5% over 10 years with 50% probability: +2 Funded ratio after downturn improves by +5% over 10 years with 33% probability: +1 Ratio after downturn does not improve by +5% over 10 years with 33% probability: +0 	+1

^{+6.5}

^{* 845} scenarios contain -10% average over 2 years (in the first 10 years), 339 of which "recover"

Calculating the Summary Score (continued)

Composite summary score equal to 6 (or 6.5 with partial points)

Assessment:

Summary score of 11 to 14:

Summary score of 7 or 10:

Summary score of 4 to 6:

Summary score of 0 to 3:

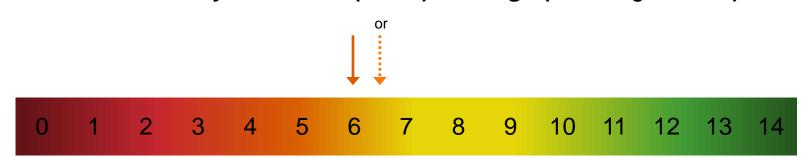
Objectives being met or likely to be met

Objectives may be met over longer period

Closely monitor

Changes should be considered

Based on a summary score of 6 (or 6.5): Orange (or Orange/Yellow)



or

Summary Score at Alternative Discount Rates

Criteria 1	Current year funded ratio is 64%/62% • If current ratio is 90% or higher: +3 • If current ratio is between 80% to 90%: +2 • If current ratio is between 70% to 80%: +1 • If current ratio is less than 70%: +0	+0/+0
Criteria 2	 39%/41% probability of funded ratio <65% in 2030 Under 65% funded ratio with less than 20% probability: +3 Under 65% funded ratio with less than 30% probability: +2 Under 65% funded ratio with less than 40% probability: +1 Under 65% funded ratio with more than 40% probability: +0 	+1/+0.5
Criteria 3	 52%/51% probability of funded ratio >80% in 2040 85% or higher with more than 50% probability: +4 (48%/47% probability) Between 80% and 85% with more than 50% probability: +3 (52%/51% probability) Between 75% and 80% with more than 50% probability: +2 (56%/55% probability) Between 70% and 75% with more than 50% probability: +1 (60%/59% probability) Not more than 70% with more than 50% probability: +0 	+3/+3
Criteria 4	 52%/50% probability of improvement over 10 years Funded ratio improves by +5% over 10 years with 66% probability: +2 Funded ratio improves by +5% over 10 years with 50% probability: +1 Ratio does not improve by +5% over 10 years with 50% probability: +0 	+1/+1
Criteria 5	 42%/41% probability of recovering from market downturn* Funded ratio after downturn improves by +5% over 10 years with 50% probability: +2 Funded ratio after downturn improves by +5% over 10 years with 33% probability: +1 Ratio after downturn does not improve by +5% over 10 years with 33% probability: +0 	+1/+1

+6/+5.5

^{* 845} scenarios contain -10% average over 2 years (in the first 10 years), 354 (348) of which "recover"

TFFR Investment Update

For the Periods Ended March 31 and May 31, 2019

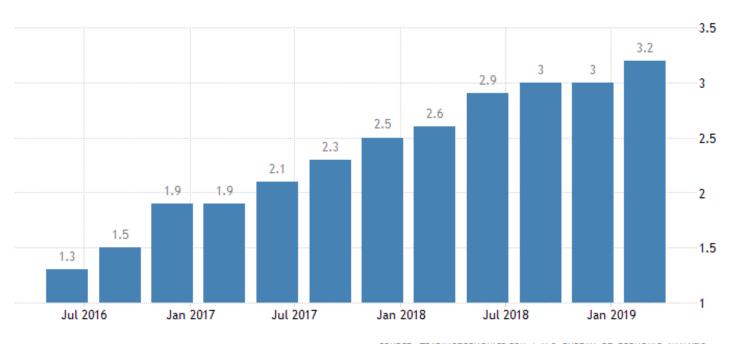
July 16, 2019

Note: This document contains unaudited data which is deemed to be

materially accurate, but is unaudited and subject to change.

Dave Hunter, Executive Director/CIO
Darren Schulz, Deputy Chief Investment Officer
Connie Flanagan, Fiscal and Investment Operations Manager
Eric Chin, Senior Investment Officer
ND Retirement & Investment Office (RIO)
State Investment Board (SIB)

U.S. Economy – Annual GDP Growth Rates



SOURCE: TRADINGECONOMICS.COM | U.S. BUREAU OF ECONOMIC ANALYSIS

US GDP Growth Rates:

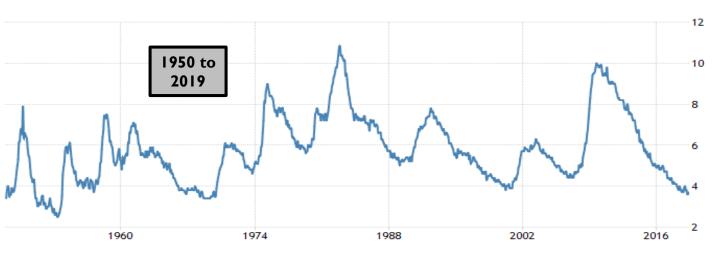
The US economy expanded at an annual growth rate of 3.2% in the 1st quarter of 2019 following consecutive 3% annual growth rates in the last half of 2018.

The United States is the world's largest economy. Yet, like in the case of many other developed nations, U.S. growth rates have generally been declining in the last two decades. GDP annual growth rates in the U.S. averaged 3.2% from 1948 until 2018, reaching an all-time high of 13.4% in the 4th quarter of 1950 and a record low of -3.9% in the 2nd quarter of 2009.

U.S. Unemployment Rates



SOURCE: TRADINGECONOMICS.COM | U.S. BUREAU OF LABOR STATISTICS



SOURCE: TRADINGECONOMICS.COM | U.S. BUREAU OF LABOR STATISTICS

The US unemployment rate rose to **3.7%** in June of 2019 from a 49year low of 3.6% in May slightly above expectations. The number of unemployed increased by 87,000 to 6 million while employment rose by 247,000 to 157 million in June.

Unemployment Rates in the United States averaged 5.75% from 1948 until 2019, reaching an all time high of 10.8% in November of 1982 and a record low of 2.5% in May of 1953.

10-Year U.S. Government Bond Rates

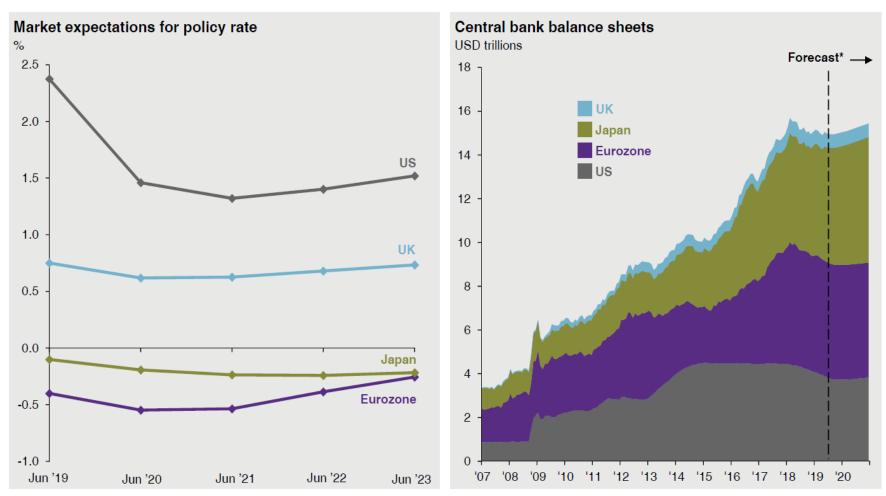


U.S. Gov't.
10-Yr.Yields
fell from
3.2% in
October of
2018 to
2.09% on July
15, 2019 and
dipped
below 2%
late in June.



U.S. Gov't. 10-Yr.Yields reached an all time high of 15.82% in September of 1981 and a record low of 1.36% in July of 2016.

U.S. Government Policy Rates Declining, yet Higher than Other Countries



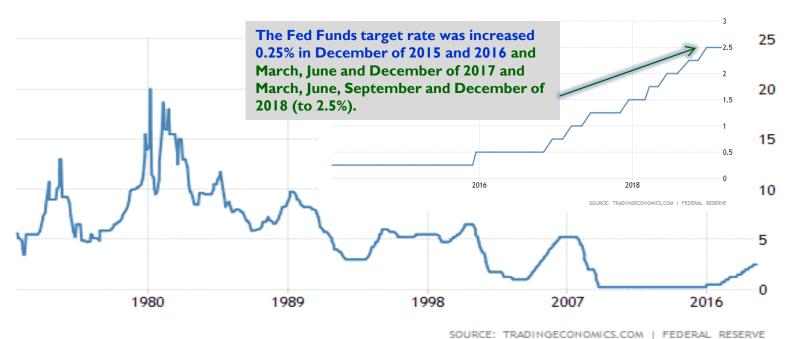
Source: (Left) Bloomberg, J.P. Morgan Asset Management. Expectations are calculated using OIS forwards. (Right) Bank of England (BoE), Bank of Japan (BoJ), European Central Bank (ECB), Refinitiv Datastream, US Federal Reserve (Fed), J.P. Morgan Asset Management. *Balance sheet forecast assumptions: BoE to have zero net asset purchases until the end of 2020; BoJ to have an annualised net asset purchase pace of 35 trillion yen until the end of 2020; ECB to have zero net asset purchases until the end of 2020; Fed to reduce its balance sheet until the end of September 2019, in line with its announced plans. Assets then remain constant until reserves reach USD 1.2 trillion, at which point net asset purchases increase. Past performance is not a reliable indicator of current and future results. Guide to the Markets - UK. Data as of 30 June 2019.





U.S. Fed Funds Rate (1971 to 2019)

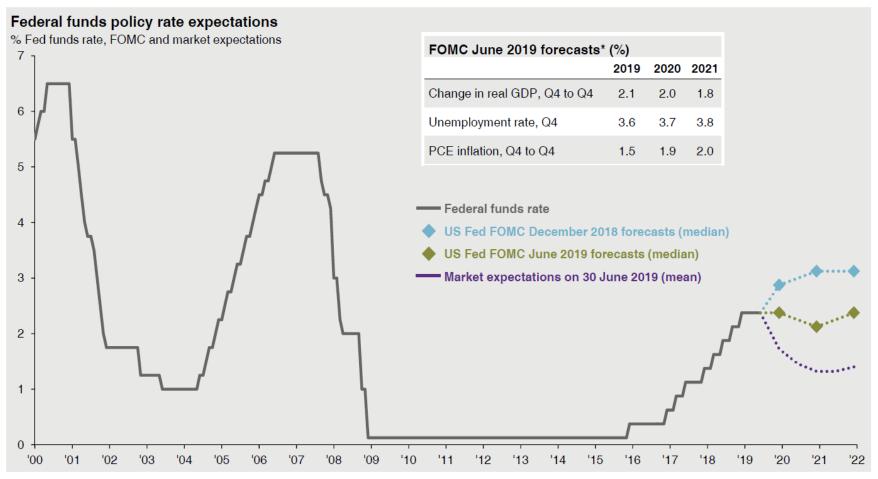
<u>Background</u>: The federal funds rate is the interest rate at which banks lend reserve balances to other banks overnight (on an uncollateralized basis). Banks with surplus balances lend to those in need of larger balances. Reserve balances are held at the Federal Reserve to maintain the banks' reserve requirements. **Changes in the federal funds rate trigger a chain of events that affect other short-term interest rates,** foreign exchange rates, long-term interest rates, the amount of money and credit, and, ultimately, a range of economic variables, including employment, output, and prices of goods and services. The Federal Reserve uses "monetary policy" to influence the availability and cost of money and credit to help promote national economic goals.



SOUNCE. TRADITIOECONOMICS.COM | TEDERAL RESERVE

The Federal Reserve raised the target range for fed funds four (4) times in 2018, three (3) times in 2017 and once each in December of 2016 and 2015. Interest Rates in the U.S. averaged 5.8% from 1971 until 2017, reaching an all time high of 20% percent in March of 1980 and a record low of 0.25% in December 2008. The Fed will likely lower rates by 0.25% or 0.50% on July 30-31 (see next slide).

US Federal Reserve policy rate



Source: Bloomberg, US Federal Reserve, J.P. Morgan Asset Management. *Forecasts are median estimates of Federal Open Market Committee (FOMC) participants. PCE is personal consumption expenditure. Market expectations are calculated using OIS forwards. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - UK*. Data as of 30 June 2019.





Asset Class Performance

Periodic Table of Investment Returns for Periods Ended March 31, 2019

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Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
Russell:2000 Index	S&P:500	S&P:500	S&P:500	S&P:500	MSCI:EM Gross
14.6%	9.5%	13.5%	10.9%	15.9%	8.7%
S&P:500	NCREIF:NFI-ODCE Val Wt Nt	Russell:2000 Index	NCREIF:NFI-ODCE Val Wt Nt	Russell:2000 Index	Russell:2000 Index
13.6%	6.5%	12.9%	9.2%	15.4%	8.4%
MSCI:EAFE	Blmbg:Aggregate	MSCI:EM Gross	Russell:2000 Index	MSCI:EM Gross	NCREIF:NFI-ODCE Val Wt Nt
10.0%	4.5%	11.1%	7.1%	9.3%	7.5%
MSCI:EM Gross	3 Month T-Bill	MSCI:EAFE	MSCI:EM Gross	MSCI:EAFE	S&P:500
10.0%	2.1%	7.3%	4.1%	9.0%	6.0%
Blmbg:Commodity Price Idx	Russell:2000 Index	NCREIF:NFI-ODCE Val Wt Nt	Blmbg:Aggregate	NCREIF:NFI-ODCE Val Wt Nt	Blmbg:Aggregate
5.7%	2.0%	7.0%	2.7%	7.7%	4.7%
Blmbg:Aggregate	MSCI:EAFE	Blmbg:Aggregate	MSCI:EAFE	Blmbg:Aggregate	MSCI:EAFE
2.9%	(3.7%)	2.0%	2.3%	3.8%	3.9%
NCREIF:NFI-ODCE Val Wt Nt	MSCI:EM Gross	3 Month T-Bill	3 Month T-Bill	3 Month T-Bill	3 Month T-Bill
1.2%	(7.1%)	1.2%	0.7%	0.4%	1.9%
3 Month T-Bill	Blmbg:Commodity Price Idx				
0.6%	(7.3%)	0.9%	(9.6%)	(3.0%)	0.0%

Worst

U.S. Equity Market

March 31, 2019

The S&P 500 Index surged 13.6% in the first quarter

- Each month in the quarter registered gains with the strongest performance in January
- Technology was the strongest performing sector at +19.9%, while Health Care was the weakest despite gaining 6.6%
- Growth (R10000 Growth: +16.10%) outperformed Value (R1000 Value: 11.9%)

Mid caps were the bet performers, followed by small caps and lastly, large caps

 The R1000 was up 14.0% vs. the R2000 which rose 14.6%

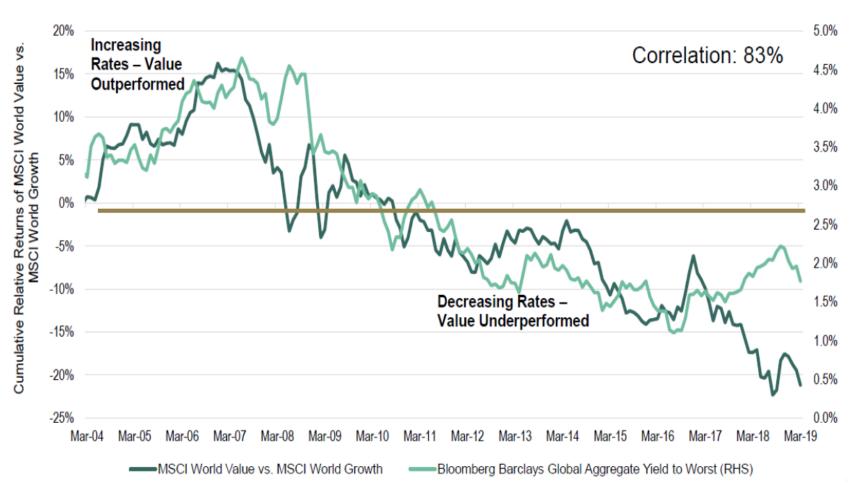
Growth has outperformed Value in the Last Year:

- Russell 1000 Growth > Value by 7.08%
- Russell Midcap Growth > Value by 8.62%
- Russell 2000 Growth > Value by 3.68%

		7 7	·		
	Last	List	Last 3	Last 5	Last 10
Large Cap Equity	Quarter	Year	Years	Years	Years
Russell 1000 Index	14.00	9.30	13.52	10.63	16.05
Russell 1000 Growth	16.10	12.75	16.53	13.50	17.52
Russell 1000 Value	11.93	5.67	10.45	7.72	14.52
Mid Cap Equity					
Russell Midcap Index	16.54	6.47	11.82	8.81	16.88
Russell Midcap Growth	19.62	11.51	15.06	10.89	17.60
Russell Midcap Value	14.37	2.89	9.50	7.22	16.39
Small Cap Equity					
Russell 2000 Index	14.58	2.05	12.92	7.05	15.36
Russell 2000 Growth	17.14	3.85	14.87	8.41	16.52
Russell 2000 Value	11.93	0.17	10.86	5.59	14.12



Correlation of Global Interest Rates and Value's Relative Performance



Global Value Valuations

Cheapest Decile of Stocks by P/B Relative to Market Average



U.S. Equity Performance: Solid Recovery

First quarter snapback

- Dovish Fed comments, solid corporate fundamentals and low employment propelled equity markets in first quarter.
- Risk-on market highlighted by low quality outperforming high quality by 440 basis points.
- Surprisingly, utilities and REITs produced solid returns as investors sought yield in face of flattening yield curve and end to rate hikes.

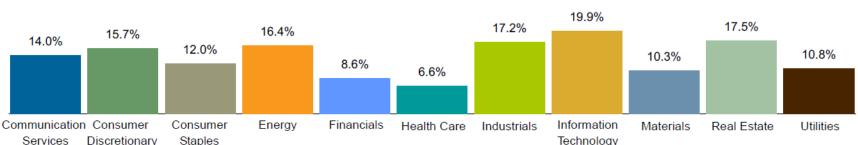
Growth outpaced value

- Sharp change in Fed rhetoric influenced stronger growth performance.
- Investors favored companies with stronger earnings prospects to counter softer economic environment

Small cap over large cap

Risk-on appetite fed small cap.

Economic Sector Quarterly Performance (S&P 500)



Sources: FTSF Russell, Standard & Poor's

U.S. Equity: Quarterly Returns



8.8%

5.7%

6.5%

9.3%

9.5%

12.7%

U.S. Equity: One-Year Returns

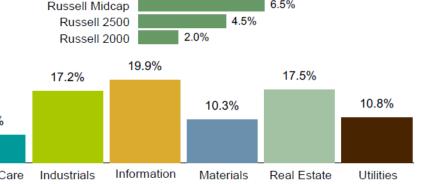
Russell 3000

Russell 1000

S&P 500

Russell 1000 Growth

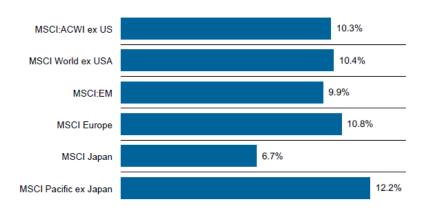
Russell 1000 Value



International Equity Returns

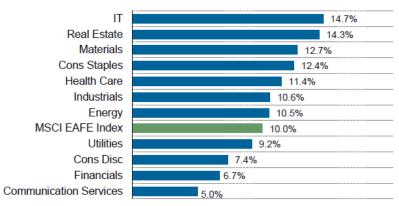
March 31, 2019

Regional Quarterly Performance (U.S. Dollar)



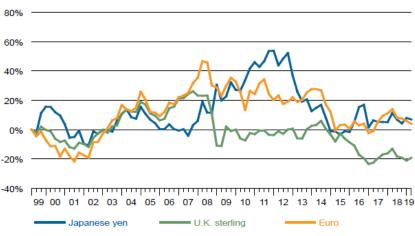
Source: MSCI

MSCI EAFE Sector Returns



Source: MSCI

Major Currencies' Cumulative Returns (vs. U.S. Dollar)

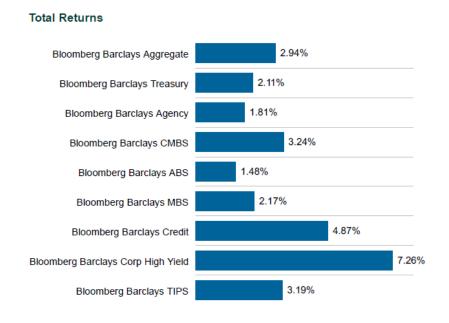


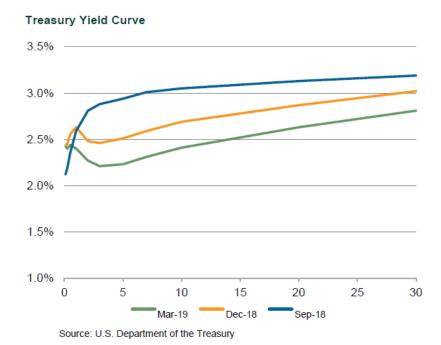
Source: MSCI

- International equity markets performed well in the first quarter.
 Most regions experienced double-digit gains, while Japan lagged with a return of +6.7%.
- IT and Real Estate led performance from a sector perspective, while Communication Services lagged.
- Both the euro (-1.8%) and the yen (-0.9%) fell against the dollar in the first quarter, the British pound gained 2.3%.

Fixed Income

March 31, 2019





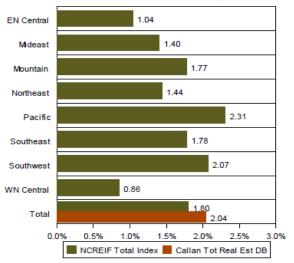
Source: Bloomberg

- U.S. Treasuries +2.1% as yield curve shifted lower across maturities on lower growth/inflation expectations
- The spread between the 3-month and 10-year briefly inverted towards the end of March but ended the month at a positive one basis point spread.
- High yield bonds outperformed other sectors as risk assets came back into favor. The Bloomberg Corporate High Yield index surged 7.3%.
- Investment grade and high yield spreads narrowed 34 and 135 basis points, respectively.

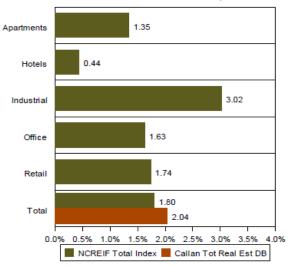
Real Estate Overview

March 31, 2019

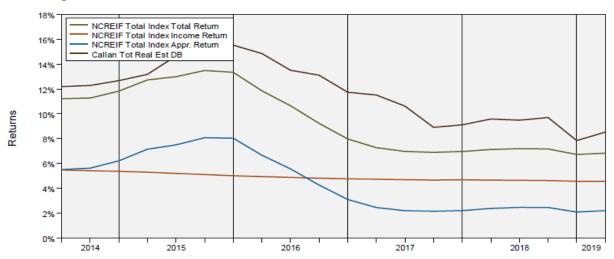
NCREIF Total Index Returns by Geographic Are Quarter Ended March 31, 2019



NCREIF Total Index Returns by Property Typ Quarter Ended March 31, 2019



Rolling 1 Year Returns



TFFR Investment Ends – March 31, 2019

SIB clients should receive investment returns consistent with their written investment policies and market variables. This "End" is evaluated based on comparison of each client's (a) actual net investment return, (b) standard deviation and (c) risk adjusted excess return, to the client's policy benchmark over <u>5 years</u>.

					Risk Adj
				Risk	Excess
				5 Yrs	Return
	1 Yr Ended	3 Yrs Ended	5 Yrs Ended	Ended	5 Yrs Ended
	3/31/2019	3/31/2019	3/31/2019	3/31/2019	3/31/2019
Total Fund Return - Net	3.01%	8.40%	6.21%	6.6%	0.30%
Policy Benchmark Return	4.12%	8.02%	5.64%	6.3%	
Excess Return	-1.11%	0.39%	0.57%	105.2%	

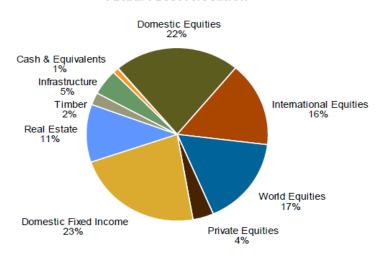
Key Point: TFFR investments have averaged over \$2 billion during the last 5-years and Excess Return has averaged over 0.50% per annum. Based on these values, TFFR's use of active management has enhanced Net Investment Returns by \$50 million for the 5-years ended March 31, 2018 (or \$2 billion x 0.50% = \$10 million x 5 years = \$50 million). This Excess Return has been achieved while adhering to prescribed Risk limits (e.g. 105% versus a policy limit of 115%).

TFFR Allocation

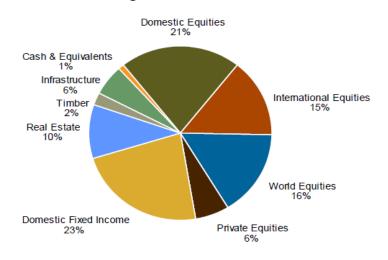
As of March 31, 2019

TFFR's Actual Asset Allocations are within 3% of Target noting the Private Equity Underweight of 2.3% is offset by an Overweight allocation to Domestic Equities of 0.9%, International Equities of 1.2% and World Equities of 0.6%

Actual Asset Allocation



Target Asset Allocation

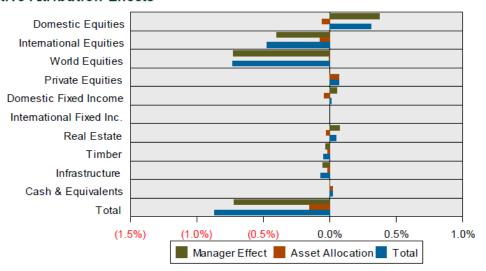


	\$000s	Weight		Percent	\$000s
Asset Class	Actual	Actŭal	Target	Difference	Difference
Domestic Equities	554,792	22.3%	21.4%	0.9%	21,931
International Equities	393,296	15.8%	14.6%	1.2%	29,755
World Equities '	414,248	16.6%	16.0%	0.6%	15,847
Private Équities	92,961	3.7%	6.0%	(2.3%)	(56, 439)
Domestic Fixed Income	561,778	22.6%	23.0%	(0.4%)	(10,922)
Real Estate	268,056	10.8%	10.0%	0.8%	19,055
Timber	58,129	2.3%	2.3%	0.0%	859
Infrastructure	120,599	4.8%	5.7%	(0.9%)	(21,331)
Cash & Equivalents	26,144	1.0%	1.0%	0.0%	1,244
Total	2 490 004	100.0%	100.0%		

TFFR Performance and Attribution

As of March 31, 2019

One Year Relative Attribution Effects



Returns for 1 Year Ended 03/31/2019

Return Type	Return (%)
Gross	3.25%
Net of fees	3.01%
Target	4.12%
Net added	-1.11%



(0.87%)

One Year Relative Attribution Effects

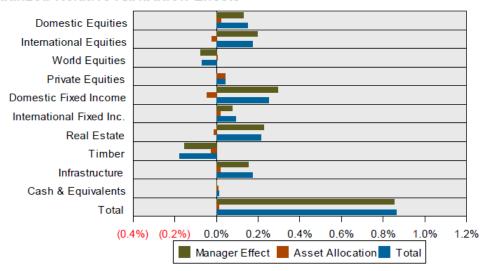
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Retum	Target Retum	Manager Effect	Asset Allocation	Total Relative Retum
Domestic Equities	23%	21%	9.36%	7.70%	0.37%	(0.06%)	0.31%
International Equities	16%	15%	(6.40%)	(3.93%)	(0.40%)	(0.07%)	(0.47%)
World Equities	16%	16%	(0.36%)	4.01%	(0.73%)	(0.01%)	(0.73%)
Private Equities	4%	6%	0.43%	0.43%	0.00%	0.07%	0.07%
Domestic Fixed Income	23%	23%	5.15%	4.96%	0.05%	(0.04%)	0.01%
International Fixed Inc.	0%	0%	-	-	0.00%	0.00%	0.00%
Real Estate	10%	10%	7.56%	6.83%	0.07%	(0.03%)	0.05%
Timber	2%	2%	1.30%	2.61%	(0.03%)	(0.02%)	(0.05%)
Infrastructure	5%	6%	2.72%	3.88%	(0.06%)	(0.01%)	(0.07%)
Cash & Equivalents	1%	1%	2.22%	2.12%	0.00%	0.02%	0.02%

Total 3.25% = 4.12% + (0.72%) + (0.15%)

TFFR Performance and Attribution

As of March 31, 2019

Five Year Annualized Relative Attribution Effects



Returns for 5 Year Ended 03/31/2019

Return Type	Return (%)
Gross	6.50%
Net of fees	6.21%
Target	5.64%
Net added	0.57%

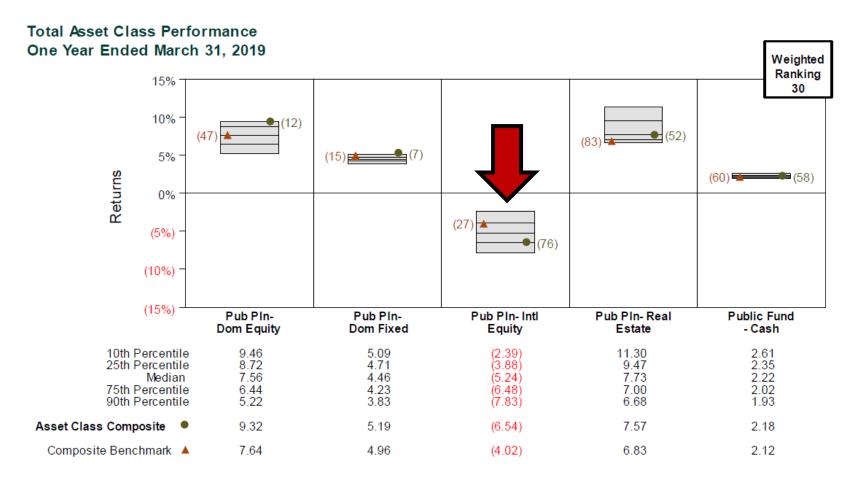


Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Retum	Target Retum	Manager Effect	Asset Allocation	Total Relative Retum
Domestic Equities	23%	21%	10.51%	9.90%	0.13%	0.02%	0.15%
International Equities	15%	15%	3.80%	2.59%	0.20%	(0.02%)	0.17%
World Equities	16%	16%	6.29%	6.78%	(0.08%)	0.01%	(0.07%)
Private Equities	4%	6%	0.82%	0.82%	0.00%	0.04%	0.04%
Domestic Fixed Income	19%	18%	4.77%	3.17%	0.30%	(0.05%)	0.25%
International Fixed Inc.	4%	4%	-	-	0.07%	0.02%	0.09%
Real Estate	10%	10%	11.49%	9.13%	0.23%	(0.01%)	0.21%
Timber	3%	4%	(0.04%)	4.67%	(0.15%)	(0.02%)	(0.18%)
Infrastructure	5%	5%	5.14%	1.69%	0.15%	0.02%	0.17%
Cash & Equivalents	1%	1%	0.86%	0.74%	0.00%	0.01%	0.01%
Total			6.50% =	5.64% +	0.85% +	0.01%	0.86%

Asset Class Composite Results

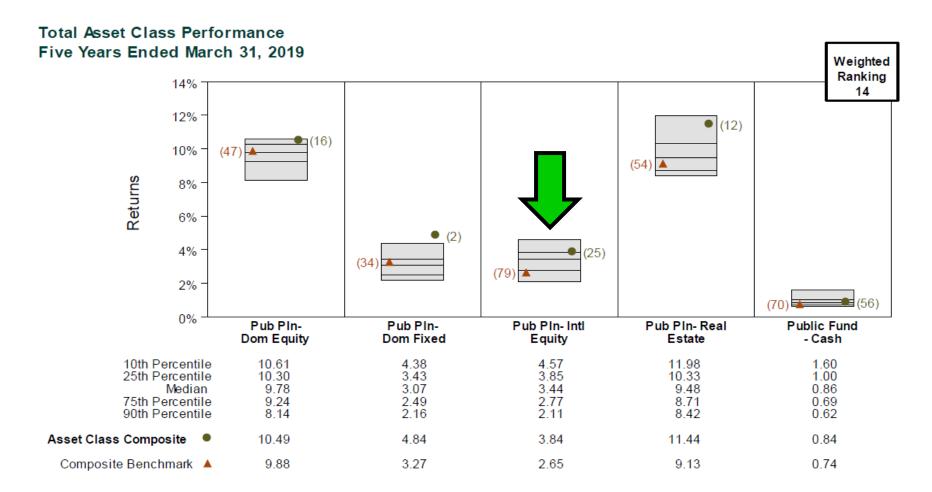
Consolidated Pension Trust Asset Class Results vs. Other Public Pension Funds



- Despite outperforming in the first quarter, international equity remains the only strategy to trail its benchmark the trailing year.
- Domestic fixed income ranked in the top decile, while domestic equity ranked in the top quartile.

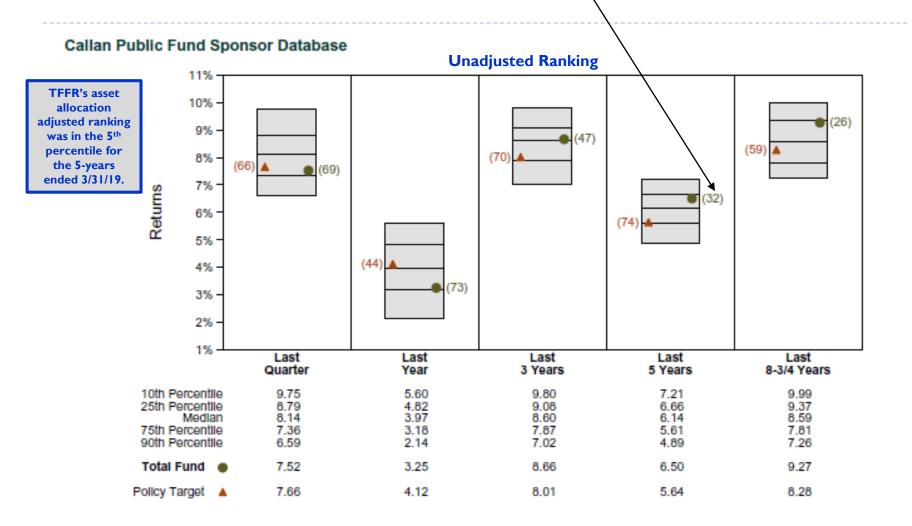
Asset Class Composite Results

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



- All asset classes outperformed their respective benchmarks over the trailing five years.
- All asset classes, with the exception of cash, ranked in the top quartile over the trailing five years.

TFFR's "gross" returns were ranked in the 32nd percentile for the 5-years ended March 31, 2019, based on Callan's "Public Fund Sponsor Database".



^{*} Current Quarter Target = 16.6% Russell 1000 Index, 16.0% Blmbg Aggregate, 16.0% MSCI World, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 7.0% Blmbg HY 2% Iss Cap, 6.0% NDSIB TFFR - Private Equity, 4.8% Russell 2000 Index, 2.8% MSCI EM, 2.8% NCREIF NFI-ODCE Eq Wt Net, 2.8% CPI All Urban Cons lagged 3 months, 2.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

Global Equity, Fixed Income and Real Asset Valuations

Asset	t Class	Alloca	tion
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	March 31,	2019			December 3	1, 2018
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Global Equities	\$1,455,296,591	58.45%	\$(16,617,927)	\$150,864,216	\$1,321,050,302	56.74%
Public Equities	\$1,362,335,714	54.71%	\$(20,449,582)	\$151,114,699	\$1,231,670,597	52.90%
World Equities	\$414,247,973	16.64%	\$9,285,414	\$41,364,193	\$363,598,366	15.62%
Domestic Equities	\$554,792,201	22.28%	\$(29,773,974)	\$69,635,405	\$514,930,770	22.12%
Large Cap	429,414,217	17.25%	(20,463,953)	53,970,209	395,907,960	17.00%
Small Cap	125,377,984	5.04%	(9,310,021)	15,665,195	119,022,809	5.11%
International Equities	\$393,295,541	15.79%	\$38,978	\$40,115,101	\$353,141,462	15.17%
Developed	311,174,712	12.50%	7,083,978	31,822,787	272,267,947	11.69%
Emerging Markets	82,120,829	3.30%	(7,045,000)	8,292,314	80,873,515	3.47%
Private Equities	\$92,960,877	3.73%	\$3,831,655	\$(250,483)	\$89,379,705	3.84%
Global Fixed Income	\$561,778,478	22.56%	\$(13,625,152)	\$18,600,649	\$556,802,981	23.91%
Domestic Fixed Income	\$561,778,478	22.56%	\$(13,625,152)	\$18,600,649	\$556,802,981	23.91%
Investment Grade	394,514,018	15.84%	(8,140,937)	12,499,300	390,155,655	16.76%
Below Investment Grade	167,264,460	6.72%	(5,484,215)	6,101,349	166,647,326	7.16%
Global Real Assets	\$446,784,425	17.94%	\$2,628,374	\$5,638,413	\$438,517,637	18.83%
Real Estate	\$268,055,858	10.77%	\$(1,415,570)	\$3,932,755	\$265,538,673	11.40%
Other Real Assets	\$178,728,567	7.18%	\$4,043,944	\$1,705,658	\$172,978,965	7.43%
Infrastructure	120,599,450	4.84%	4,730,063	1,347,994	114,521,393	4.92%
Timber	58,129,117	2.33%	(686,119)	357,664	58,457,572	2.51%
Cash	\$26,144,302	1.05%	\$13,997,045	\$161,311	\$11,985,946	0.51%
Securities Lending Income	\$0	0.00%	\$(38,093)	\$38,093	-	
Total Fund	\$2,490,003,796	100.0%	\$(13,655,753)	\$175,302,682	\$2,328,356,867	100.0%

TFFR Net Returns for Periods Ended May 31, 2019

TFFR earned a Net Return of 0.98% for the 11 months ended May 31, 2019, missing the Policy Target Benchmark Return of 1.94% by 0.96%.

Equity returns were mixed with:

- 1) "LSV Global Value Equity" driving "World Equity" returns to fall by -3.95% versus -0.24% for the MSCI World Index;
- 2) U.S. Large Cap net returns of 2.81% effectively matched the Russell 1000 Index at 2.80%;
- 3) U.S. Small Cap Equity results beat the Russell 2000 Index by 5.8% (-3.89% vs -9.69%); and
- 4) International Equity returns declined by -6.53% vs -4.40% decline for the MSCI World ex-U.S. Equity Index.

			Current	Prior Yr.	5 Years	
	May			FYTD	FY18	Ended
		Alloc	ation_			6/30/2018
	Market Value	Actual		Net	Net	Net
TOTAL FUND	2,459,303,884	100.0%	100.0%	0.98%	9.11%	8.31%
POLICY TARGET BENCHMARK				1.94%	7.89%	7.45%
TOTAL RELATIVE RETURN				-0.96%	1.21%	0.85%
		·				
GLOBAL EQUITIES	1,397,703,435	56.8%	58.0%	-2.29%	12.37%	10.05%
Benchmark			52.0%	-0.95%	11.13%	9.46%
Epoch Global Choice (1)	177,744,062	7.2%	7.0%	-0.49%	14.02%	9.56%
LSV Global Value Equity	215,800,277		9.0%	-0.49% -6.61%	7.78%	9.56%
Total Global Equities	393,544,339		16.0%	-0.01% -3.95%	10.53%	9.49%
MSCI World	393,344,339	10.0%	10.0%	-3.95% -0.24%	11.09%	9.49%
		,				
Domestic - broad	530,760,409	21.6%	21.5%	1.19%	16.41%	13.47%
Benchmark				-0.09%	15.27%	13.23%
Laura Can Damastia						
Large Cap Domestic	164 740 400	C C0/	C C0/	4.400/	40.070/	15 500/
LA Capital Large Cap Growth Russell 1000 Growth	161,749,489	6.6%	6.6%	4.18% 4.39%	19.87% 22.51%	15.50% 16.36%
LA Capital 60% Large Cap/40% Large Cap	82,970,185	3.4%	3.3%	4.39% 3.51%	12.49%	13.07%
Russell 1000	62,970,165	3.4 /0	3.370	2.80%	14.54%	13.37%
NTAM - Quant Enhanced S&P 500	82,151,741	3.3%	3.3%	-0.89%	14.66%	12.63%
Clifton Group Enhanced S&P 500	85,123,153	3.5%	3.3%	3.11%	13.24%	13.30%
S&P 500	05, 125, 155	3.376	3.376	3.11% 3.15%	14.38%	13.42%
Total Large Cap Domestic	411,994,568	16.8%	16.6%	2.81%	15.98%	13.98%
Russell 1000 (2)	,		101070	2.80%	14.54%	13.37%
Small Cap Domestic						
Atlanta Capital Small Cap Equity Fund	59,834,797	2.4%	2.4%	2.00%	18.02%	N/A
Clifton Group Enhanced Russell 2000	58,931,044	2.4%	2.4%	-9.62%	17.03%	12.80%
Total Small Cap Domestic	118,765,842	4.8%	4.8%	-3.89%	17.69%	11.52%
Russell 2000				-9.69%	17.57%	12.46%
International - broad	379,668,835	15.4%	14.5%	-6.33%	10.12%	8.04%
Benchmark				-4.43%	7.30%	6.16%
NTAM - MSCI World ex-US Index	146 604 007	6.0%	5.9%	-4.07%	7.46%	N/A
MSCI World Ex US	146,681,237	6.0%	5.9%	-4.07% -4.40%	7.46% 7.04 %	IN/A
William Blair International Leaders	92,341,041	3.8%	3.5%	-4.40% -2.24%	7.04% 15.43%	N/A
MSCI ACWI ex-US IMI (Net)	32,341,041	3.0%	3.5%	-2.24% - 5.24%	7.75%	1 1 1 1 1 1
DFA Intl. Small Cap Value Portfolio (5)	32,371,127	1.3%	1.2%	-15.88%	5.40%	10.09%
Wellington International Small Cap Opportu		1.3%	1.2%	-16.31%	15.57%	12.29%
S&P/Citigroup BMI EPAC < \$2BN	02,000,012	1.070	1.2/0	-10.31%	10.47%	10.53%
				. 5.5570		.5.30/0
Total Developed International	303,426,717	12.3%	11.8%	-6.53%	10.30%	8.39%
MSCI World Ex US (3)				-4.40%	7.04%	6.34%

TFFR Net Returns for Periods Ended May 31, 2019

Emerging Market and Private Equity returns were disappointing with:

- 1) Both E.M. managers underperforming the index by over 1% in fiscal 2019; and
- 2) Private Equity returns posted a 0.80% return on a fiscal year to date basis in 2019 noting that private market results are lagged one quarter (thereby ot including the more favorable market conditions of 1Q/19 versus 4Q/19), although more recent vintages of Adams Street and BlackRock are trending up.

May-ty- Additional FyTtb					Current	Prior Yr.	5 Years
Market Value		May-19			FYTD	FY18	Ended
Emerging Markets Axiom Emerging Markets Equity Fund (5) 56,451,155 2,3% 2,1% 5,82% 10,83% N/A DFA Emerging Markets Small Cap Portfolio 19,790,963 0,8% 0,7% 6,04% 5,47% 6,26% Total Emerging Markets 76,242,118 3,1% 2,8% 5,76% 9,46% 6,06% MSCI Emerging Markets 76,242,118 3,1% 2,8% 5,76% 9,46% 6,06% MSCI Emerging Markets 76,242,118 3,1% 2,8% 5,76% 9,46% 6,06% MSCI Emerging Markets 76,242,118 3,1% 2,8% 5,01% Private Equity 7,20% 7,39% 0,45% 1,12% Adams Street-Brinson 1999 Partnership Fur 6,184 0,0% 1,53% 0,12% 1,53% Adams Street-Brinson 2000 Partnership Fur 151,282 0,0% 7,24% 7,82% 1,05% Adams Street-Brinson 2001 Partnership Fur 60,576 0,0% -1,61% 6,04% 4,09% Adams Street-Brinson 2003 Partnership Fur 60,576 0,0% -1,61% 0,04% 4,60% Adams Street-Brinson Partnership Fur 595,549 0,0% -9,30% 30,43% 8,19% Adams Street-Brinson 1999 Non-US Partne 33,081 0,0% 0,63% 2,53% 1,60% Adams Street-Brinson 2000 Non-US Partne 42,633 0,0% 12,90% 6,80% 14,30% Adams Street-Brinson 2001 Non-US Partne 42,110 0,0% -1,527% 5,41% 12,83% Adams Street-Brinson 2003 Non-US Partne 42,110 0,0% -1,527% 5,41% 12,83% Adams Street-Brinson 2004 Non-US Partne 42,110 0,0% -1,62% 1,60% 1,30% Adams Street-Brinson 2004 Non-US Partne 42,110 0,0% -1,60% 1,60%			Alloca	ation_			6/30/2018
Axiom Emerging Markets Equity Fund (6) 56,451,155 2.3% 2.1% 5.82% 10.83% N/A		Market Value	Actual	Policy	Net	Net	Net
DFA Emerging Markets Small Cap Portfolio 19,790,963 0.8% 0.7% 6.04% 5.47% 6.26% 6.06% 76,242,118 3.1% 2.8% 5.76% 8.20% 5.01% 6.04% 4.09% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.60% 4.20% 6.6	Emerging Markets						
Total Emerging Markets 76,242,118 3.1% 2.8% -5.76% 4.75% 8.20% 5.01%	Axiom Emerging Markets Equity Fund (5)	56,451,155	2.3%	2.1%	-5.82%	10.83%	N/A
MSCI Emerging Markets	DFA Emerging Markets Small Cap Portfolio	19,790,963	0.8%	0.7%	-6.04%	5.47%	6.26%
Private Equity Adams Street-Brinson 1998 Partnership Fur	Total Emerging Markets	76,242,118	3.1%	2.8%	-5.76%	9.46%	6.06%
Adams Street-Brinson 1998 Partnership Fur Adams Street-Brinson 1999 Partnership Fur 159,297 (0.0%) (1.59%) (1.25%) (1.53%) (1.53%) (1.59%) (1.25%) (1.55%) (1.	MSCI Emerging Markets				-4.75%	8.20%	5.01%
Adams Street-Brinson 1998 Partnership Fur Adams Street-Brinson 1999 Partnership Fur 159,297 (0.0%) (1.59%) (1.25%) (1.53%) (1.53%) (1.59%) (1.25%) (1.55%) (1.							
Adams Street-Brinson 1999 Partnership Ful 151,282 0.0% 1.59% 7.24% 7.82% 1.05% Adams Street-Brinson 2000 Partnership Ful 151,282 0.0% 7.24% 7.82% 1.05% Adams Street-Brinson 2001 Partnership Ful 60,576 0.0% -1.61% 6.04% 4.09% Adams Street-Brinson 2002 Partnership Ful 60,576 0.0% -12.61% -0.30% 4.60% Adams Street-Brinson 2003 Partnership Ful 70,844 0.0% -0.66% 41,74% 13.20% 1.051 Adams Street-Brinson Partnership Ful 70,844 0.0% -0.66% 41,74% 13.20% 1.051 Adams Street-Brinson Partnership Ful 70,844 0.0% -0.66% 41,74% 13.20% 1.051 Adams Street-Brinson 1999 Non-US Partne 33,081 0.0% -0.66% 12.93% 1.60% 1	Private Equity						
Adams Street-Brinson 2000 Partnership Fur Adams Street-Brinson 2001 Partnership Fur 247,366	Adams Street-Brinson 1998 Partnership Fur	6,184	0.0%		7.39%	0.45%	1.12%
Adams Street-Brinson 2001 Partnership Fur Adams Street-Brinson 2002 Partnership Fur Adams Street-Brinson 2003 Partnership Fur 70,844 0.0% -1.61% 6.04% 4.09% Adams Street-Brinson 2002 Partnership Fur Adams Street-Brinson 2003 Partnership Fur 70,844 0.0% -0.66% 1.474% 13.20% Adams Street-Brinson 1999 Non-US Partne Adams Street-Brinson 1999 Non-US Partne Adams Street-Brinson 2000 Non-US Partne Adams Street-Brinson 2001 Non-US Partne 42,633 0.0% -7.39% 10.80% 2.95% Adams Street-Brinson 2001 Non-US Partne Adams Street-Brinson 2002 Non-US Partne Adams Street-Brinson 2003 Non-US Partne Adams Street-Brinson 2004 Non-US Partne 81,666 0.0% -0.95% 5.99% 4.93% Adams Street-Brinson 2004 Non-US Partne Adams Street-Brinson Non-US Partne Adams Street-Brinson Non-US Partne 99,405 0.0% -15.27% 5.41% 12.83% Adams Street-Brinson Non-US Partne Adams Street 2008 Non-US Partnership Fd Adams Street 2008 Non-US Partnership Fd Adams Street 2008 Non-US Partnership Fd Adams Street 2010 - Direct Fund Adams Street 2010 - Direct Fund Adams Street 2010 - Direct Fund Adams Street 2010 - Non-US Developed Mk Adams Street 2016 Global Fund 9,851,897 0.0% 1.08% 1.57% 15.26% Adams Street 2015 Global Fund Adams Street 2016 Global Fund Adams Street 2016 Global	Adams Street-Brinson 1999 Partnership Fur	59,297	0.0%		1.59%	0.12%	1.53%
Adams Street-Brinson 2002 Partnership Fur Adams Street-Brinson 2003 Partnership Fur Total Adams Street-Brinson Partnership Fur Total Adams Street-Brinson 1999 Non-US Partne Adams Street-Brinson 1999 Non-US Partne Adams Street-Brinson 2000 Non-US Partne Adams Street-Brinson 2001 Non-US Partne Adams Street-Brinson 2001 Non-US Partne Adams Street-Brinson 2002 Non-US Partne Adams Street-Brinson 2003 Non-US Partne Adams Street-Brinson 2003 Non-US Partne Adams Street-Brinson 2004 Non-US Partne Brinson 2004 Non-US Partne Adams Street-Brinson 2004 Non-US Partne Adams Street-Brinson Non-US Partne Adams Street-Brinson Non-US Partne Potal Adams Street-Brinson Non-US Partne Adams Street-Brinson Non-US Partne Adams Street-Brinson Non-US Partne Potal Adams Street 2008 Non-US Partnership Fd Adams Street Direct Co-investment Fund Adams Street Direct Co-investment Fund Adams Street Direct Co-investment Fund Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Partnership Fund Total Adams Street 2010 - Partnership Fund Adams Street 2010 - Partnership Fund Nams Street 2010 - Partnership Fund Street 2010 - Global Fund Adams Street 2016 Global Fund Ryadams Ryadam	Adams Street-Brinson 2000 Partnership Fur	151,282	0.0%		7.24%	7.82%	1.05%
Adams Street-Brinson 2003 Partnership Fu T0,844 0.0% -0.66% 14.74% 13.20% Total Adams Street-Brinson Partnership Fur 595,549 0.0% -9.30% 30.43% 8.19% Adams Street-Brinson 1999 Non-US Partne Adams Street-Brinson 2000 Non-US Partne Adams Street-Brinson 2001 Non-US Partne Adams Street-Brinson 2001 Non-US Partne 42,633 0.0% 12.90% 6.80% 14.30% Adams Street-Brinson 2002 Non-US Partne 42,633 0.0% -0.95% 5.99% 4.93% Adams Street-Brinson 2003 Non-US Partne 81,686 0.0% -15.27% 5.41% 12.83% Adams Street-Brinson 2004 Non-US Partne 99,405 0.0% -2.62% 10.08% 7.36% 7.36% Adams Street-Brinson Non-US Partne 440,443 0.0% -7.42% 44.28% 13.19% Adams Street-Brinson Non-US Partne 440,443 0.0% -7.42% 44.28% 13.19% Adams Street 2010 Non-US Partnership Fd Adams Street Direct Co-investment Fund Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Partnership Fund 1,352,399 0.1% 14.04% 18.95% 17.71% 14.78% Adams Street 2016 Global Fund 9,851,897 0.4% 11.17% 17.58% N/A Adams Street 2016 Global Fund 8,890,605 0.4% 2.53% N/A N/A Adams Street 2016 Global Fund 8,890,605 0.4% 2.53% N/A N/A Adams Street 2016 Global Fund 8,890,605 0.4% 2.53% N/A N/A N/A Adams Street 2016 Global Fund 4,557,594 0.2% -12.28% 8.51% 2.20% 1.996,551 0.1% 3,996,551 0.1% 3,996,551 0.1% 3,996,551 0.1% 3,26% 3.36% 3.26% 3.45% -2.96% 3.26% 3	Adams Street-Brinson 2001 Partnership Fur	247,366	0.0%		-1.61%	6.04%	4.09%
Total Adams Street-Brinson Partnership Fu Adams Street-Brinson 1999 Non-US Partne Adams Street-Brinson 2000 Non-US Partne Adams Street-Brinson 2000 Non-US Partne Adams Street-Brinson 2001 Non-US Partne Adams Street-Brinson 2001 Non-US Partne Adams Street-Brinson 2002 Non-US Partne Adams Street-Brinson 2002 Non-US Partne Adams Street-Brinson 2003 Non-US Partne Adams Street-Brinson 2004 Non-US Partne Adams Street-Brinson Non-US Partne Adams Street-Brinson Non-US Partne Adams Street-Brinson Non-US Partne Adams Street-Brinson Non-US Partne Adams Street 2018 Non-US Partnership Fd Adams Street 2010 Non-US Partnership Fd Adams Street Direct Co-investment Fund 372,134 0.0% -7.42% 44.28% 13.19% Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Non-US Developed Mk 1,352,399 0.1% 10.93% 18.57% 15.26% Adams Street 2010 Funds Adams Street 2010 Funds 5,435,387 0.2% 42.22% 93.27% 25.89% Adams Street 2016 Global Fund 9,851,897 0.4% 11.17% 17.58% N/A Adams Street 2016 Global Fund 8,890,605 0.4% 2.53% N/A N/A Adams Street 2016 Global Fund 8,890,605 0.4% 2.35% 5.59% -3.76% 3.36% -3.26%	Adams Street-Brinson 2002 Partnership Fur	60,576	0.0%		-12.61%	-0.30%	4.60%
Adams Street-Brinson 1999 Non-US Partne 33,081 0.0% 0.63% 2.53% 1.60% Adams Street-Brinson 2000 Non-US Partne 141,528 0.0% -7.39% 10.80% 2.95% Adams Street-Brinson 2001 Non-US Partne 42,633 0.0% 12.90% 6.80% 14.30% Adams Street-Brinson 2002 Non-US Partne 42,110 0.0% -0.95% 5.99% 4.93% Adams Street-Brinson 2004 Non-US Partne 81,686 0.0% -15.27% 5.41% 12.83% Adams Street-Brinson Non-US Partne 440,443 0.0% -7.42% 44.28% 13.19% Adams Street 2008 Non-US Partnership Fd 3,081,052 0.1% -1.08% -1.85% 11.83% Adams Street Direct Co-investment Fund 372,134 0.0% -26.82% -12.18% 5.58% Adams Street 2010 - Direct Fund 371,801 0.0% 10.93% 18.57% 15.26% Adams Street 2010 - Non-US Developed Mk 797,821 0.0% 4.19% 21.66% 13.38% Adams Street 2010 Funds 5,435,387 0.2% 42.22%	Adams Street-Brinson 2003 Partnership Fur	70,844	0.0%		-0.66%	14.74%	13.20%
Adams Street-Brinson 2000 Non-US Partne 141,528 0.0% -7.39% 10.80% 2.95% Adams Street-Brinson 2001 Non-US Partne 42,633 0.0% 12,90% 6.80% 14,30% Adams Street-Brinson 2002 Non-US Partne 42,110 0.0% -0.95% 5.99% 4.93% Adams Street-Brinson 2004 Non-US Partne 81,686 0.0% -15.27% 5.41% 12.83% Adams Street-Brinson Non-US Partne 99,405 0.0% -2.62% 10.08% 7.36% Total Adams Street Brinson Non-US Partne 440,443 0.0% -7.42% 44.28% 13.19% Adams Street 2008 Non-US Partnership Fd 3,081,052 0.1% 8.68% 16.98% 14.14% Adams Street Direct Co-investment Fund 3,081,052 0.1% 8.68% 16.98% 14.14% Adams Street 2010 - Direct Fund 372,134 0.0% -1.08% -1.85% 15.26% Adams Street 2010 - Non-US Developed Mk 797,821 0.0% 4.19% 21.66% 13.38% Adams Street 2010 Funds 5,435,387 0.2% 42.2	Total Adams Street-Brinson Partnership Fur	595,549	0.0%		-9.30%	30.43%	8.19%
Adams Street-Brinson 2001 Non-US Partne 42,633 0.0% 12.90% 6.80% 14.30% Adams Street-Brinson 2002 Non-US Partne 42,110 0.0% -0.95% 5.99% 4.93% Adams Street-Brinson 2003 Non-US Partne 81,686 0.0% -15.27% 5.41% 12.83% Adams Street-Brinson 2004 Non-US Partne 99,405 0.0% 2.62% 10.08% 7.36% Total Adams Street Brinson Non-US Partne 440,443 0.0% -7.42% 44.28% 13.19% Adams Street 2008 Non-US Partnership Ed 3,081,052 0.1% 8.68% 16.98% 14.14% Adams Street Direct Co-investment Fund 371,801 0.0% -26.82% -12.18% 5.58% Adams Street 2010 - Direct Fund 371,801 0.0% 10.93% 18.57% 15.26% Adams Street 2010 - Non-US Developed Mk 797,821 0.0% 4.19% 21.66% 13.38% Adams Street 2010 - Partnership Fund 10.93 14.04% 18.95% 11.94% Adams Street 2016 Global Fund 9,851,897 0.4% 11.17%	Adams Street-Brinson 1999 Non-US Partne	33,081	0.0%		0.63%	2.53%	1.60%
Adams Street-Brinson 2002 Non-US Partne 42,110 0.0% -0.95% 5.99% 4.93% Adams Street-Brinson 2003 Non-US Partne 81,686 0.0% -15.27% 5.41% 12.83% Adams Street-Brinson 2004 Non-US Partne 99,405 0.0% 2.62% 10.08% 7.36% Adams Street 2008 Non-US Partnership Fd 3,081,052 0.1% 8.68% 16,98% 14,14% Adams Street Direct Co-investment Fund 3,081,052 0.1% -1.08% -1.85% 11.83% Adams Street 2010 - Direct Fund 372,134 0.0% -26.82% -12.18% 5.58% Adams Street 2010 - Non-US Emerging Mk 797,821 0.0% 10.93% 18.57% 15.26% Adams Street 2010 - Non-US Developed Mk 1,352,399 0.1% 14.04% 18.95% 11.94% Adams Street 2010 - Partnership Fund 2,913,366 0.1% 9.38% 17.71% 14.78% Adams Street 2016 Global Fund 6,538,302 0.3% 5.42% 13.58% N/A Adams Street 2018 Global Fund 8,890,605 0.4% 1.	Adams Street-Brinson 2000 Non-US Partne	141,528	0.0%		-7.39%	10.80%	2.95%
Adams Street-Brinson 2003 Non-US Partne Adams Street-Brinson 2004 Non-US Partne Total Adams Street-Brinson Non-US Partne Adams Street 2008 Non-US Partnership Fd Adams Street-Brinson BVCF IV Adams Street Direct Co-investment Fund Adams Street 2010 - Direct Fund Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Partnership Fund Adams Street 2010 Funds Adams Street 2016 Global Fund Adams Street 2016 Global Fund Adams Street 2016 Global Fund Adams Street 2017 Global Fund Adams Street 2018 Global	Adams Street-Brinson 2001 Non-US Partne	42,633	0.0%		12.90%	6.80%	14.30%
Adams Street-Brinson 2004 Non-US Partne Total Adams Street-Brinson Non-US Partne Adams Street 2008 Non-US Partnership Fd Adams Street 2008 Non-US Partnership Fd Adams Street Brinson BVCF IV Adams Street Direct Co-investment Fund Adams Street 2010 - Direct Fund Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Partnership Fund Total Adams Street 2010 Funds Adams Street 2016 Global Fund Adams Street 2016 Global Fund Adams Street 2017 Global Fund Adams Street 2018 Global Fund Adam	Adams Street-Brinson 2002 Non-US Partne	42,110	0.0%		-0.95%	5.99%	4.93%
Total Adams Street-Brinson Non-US Partne Adams Street 2008 Non-US Partnership Fd Adams Street 2008 Non-US Partnership Fd Adams Street Direct Co-investment Fund Adams Street Direct Co-investment Fund Adams Street 2010 - Direct Fund Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Partnership Fund Adams Street 2010 - Partnership Fund Total Adams Street 2010 - Partnership Fund Adams Street 2010 - Partnership Fund Total Adams Street 2010 Funds Adams Street 2010 Fund Ad	Adams Street-Brinson 2003 Non-US Partne	81,686	0.0%		-15.27%	5.41%	12.83%
Adams Street 2008 Non-US Partnership Fd Adams Street Enrinson BVCF IV Adams Street Direct Co-investment Fund Adams Street Direct Co-investment Fund Adams Street 2010 - Direct Fund Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Partnership Fund Adams Street 2010 - Partnership Fund Total Adams Street 2010 Funds Adams Street 2010 Funds Adams Street 2010 Funds Adams Street 2016 Global Fund Adams Street 2016 Global Fund Adams Street 2017 Global Fund Adams Street 2018 Global Fund Adams Street 20	Adams Street-Brinson 2004 Non-US Partne	99,405	0.0%		2.62%	10.08%	7.36%
Adams Street Brinson BVCF IV Adams Street Direct Co-investment Fund Adams Street 2010 - Direct Fund Adams Street 2010 - Non-US Emerging Mkr Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Partnership Fund Adams Street 2010 - Partnership Fund Total Adams Street 2015 Global Fund Adams Street 2016 Global Fund Adams Street 2017 Global Fund Adams Street 2017 Global Fund Adams Street 2016 Global Fund Adams Street 201	Total Adams Street-Brinson Non-US Partne	440,443	0.0%		-7.42%	44.28%	13.19%
Adams Street Direct Co-investment Fund Adams Street 2010 - Direct Fund Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Partnership Fund Adams Street 2015 Global Fund Adams Street 2015 Global Fund Adams Street 2015 Global Fund Adams Street 2016 Global Fund Adams Street 2016 Global Fund Adams Street 2017 Global Fund Adams Street 2018 Glo	Adams Street 2008 Non-US Partnership Fd	3,081,052	0.1%		8.68%	16.98%	14.14%
Adams Street 2010 - Direct Fund Adams Street 2010 - Non-US Emerging Mk Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Non-US Developed Mk Adams Street 2010 - Partnership Fund Adams Street 2010 - Partnership Fund Total Adams Street 2010 Funds Adams Street 2010 Funds Adams Street 2010 Funds Adams Street 2015 Global Fund Adams Street 2016 Global Fund Adams Street 2016 Global Fund Adams Street 2017 Global Fund Adams Street 2017 Global Fund Adams Street 2018 Global Fund Blackrock PEP 25,004,256 1.0% At 1771% 11.78% N/A	Adams Street-Brinson BVCF IV	1,547,169	0.1%		-1.08%	-1.85%	11.83%
Adams Street 2010 - Non-US Emerging Mkr Adams Street 2010 - Non-US Developed Mr Adams Street 2010 - Partnership Fund Adams Street 2010 - Partnership Fund Total Adams Street 2010 Funds Adams Street 2015 Global Fund Adams Street 2016 Global Fund Adams Street 2016 Global Fund Adams Street 2017 Global Fund Adams Street 2017 Global Fund Adams Street 2018 Global Fund Anal Mallin Patterson - Global Opportunities II Apportunities	Adams Street Direct Co-investment Fund	372,134	0.0%		-26.82%	-12.18%	5.58%
Adams Street 2010 - Non-US Developed Mk 1,352,399 0.1% 14.04% 18.95% 11.94% Adams Street 2010 - Partnership Fund 2,913,366 0.1% 9.38% 17.71% 14.78% Total Adams Street 2010 Funds 5,435,387 0.2% 42.22% 93.27% 25.89% Adams Street 2015 Global Fund 9,851,897 0.4% 11.17% 17.58% N/A Adams Street 2017 Global Fund 8,890,605 0.4% 2.53% N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Matlin Patterson - Global Opportunities II 549,364 0.0% -2.35% 5.59% -3.76% Matlin Patterson - Global Opportunities III 4,557,594 0.2% -12.28% 8.51% -2.20% InvestAmerica - L&C II 1,996,551 0.1% 8.75%	Adams Street 2010 - Direct Fund	371,801	0.0%		10.93%	18.57%	15.26%
Adams Street 2010 - Partnership Fund 2,913,366 0.1% 9.38% 17.71% 14.78% Total Adams Street 2010 Funds 5,435,387 0.2% 42.22% 93.27% 25.89% Adams Street 2015 Global Fund 9,851,897 0.4% 11.17% 17.58% N/A Adams Street 2017 Global Fund 8,890,605 0.4% 2.53% N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Matlin Patterson - Global Opportunities III 549,364 0.0% -2.35% 5.59% -3.76% Matlin Patterson - Global Opportunities III 4,557,594 0.2% -12.28% 8.51% 2.20% InvestAmerica - L&C II 1,996,551 0.1% 8.75% 0.90%	Adams Street 2010 - Non-US Emerging Mk	797,821	0.0%		4.19%	21.66%	13.38%
Total Adams Street 2010 Funds 5,435,387 0.2% 42.22% 93.27% 25.89% Adams Street 2015 Global Fund 9,851,897 0.4% 11.17% 17.58% N/A Adams Street 2016 Global Fund 6,538,302 0.3% 5.42% 13.58% N/A Adams Street 2017 Global Fund 8,890,605 0.4% 2.53% N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Blackrock PEP 25,004,256 1.0% 4.17% 1.53% N/A Matlin Patterson - Global Opportunities III 549,364 0.0% -2.35% 5.59% -3.76% InvestAmerica - Lewis and Clark Fund 475,337 0.0% -33.26% 51.46% -13.13% InvestAmerica - L&C II 1,996,551 0.1% 8.75% 0.90% -1.95% Corsair III 3,001,057 0.1% -13.55% -34.35% -2.96% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly	Adams Street 2010 - Non-US Developed Mk	1,352,399	0.1%		14.04%	18.95%	11.94%
Adams Street 2015 Global Fund 9,851,897 0.4% 11.17% 17.58% N/A Adams Street 2016 Global Fund 6,538,302 0.3% 5.42% 13.58% N/A Adams Street 2017 Global Fund 8,890,605 0.4% 2.53% N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Blackrock PEP 25,004,256 1.0% 4.17% 1.53% N/A Matlin Patterson - Global Opportunities III 549,364 0.0% -2.35% 5.59% -3.76% Matlin Patterson - Global Opportunities III 4,557,594 0.2% -12.28% 8.51% 2.20% InvestAmerica - Lewis and Clark Fund 475,337 0.0% -33.26% 51.46% -13.13% InvestAmerica - L&C II 1,996,551 0.1% 8.75% 0.90% -1.95% Corsair III 3,001,057 0.1% -13.55% -34.35% -2.96% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -	Adams Street 2010 - Partnership Fund	2,913,366	0.1%		9.38%	17.71%	14.78%
Adams Street 2016 Global Fund 6,538,302 0.3% 5.42% 13.58% N/A Adams Street 2017 Global Fund 8,890,605 0.4% 2.53% N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A Blackrock PEP 25,004,256 1.0% 4.17% 1.53% N/A Matlin Patterson - Global Opportunities III 549,364 0.0% -2.35% 5.59% -3.76% InvestAmerica - Lewis and Clark Fund 475,337 0.0% -33.26% 51.46% -13.13% InvestAmerica - L&C II 1,996,551 0.1% 8.75% 0.90% -1.95% Corsair III 3,001,057 0.1% -13.55% -34.35% -2.96% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	Total Adams Street 2010 Funds	5,435,387	0.2%		42.22%	93.27%	25.89%
Adams Street 2017 Global Fund 8,890,605 0.4% 2.53% N/A N/A Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A N/A Blackrock PEP 25,004,256 1.0% 4.17% 1.53% N/A Matlin Patterson - Global Opportunities III 549,364 0.0% -2.35% 5.59% -3.76% Matlin Patterson - Global Opportunities III 4,557,594 0.2% -12.28% 8.51% 2.20% InvestAmerica - Lewis and Clark Fund 475,337 0.0% -33.26% 51.46% -13.13% InvestAmerica - L&C II 1,996,551 0.1% 8.75% 0.90% -1.95% Corsair III 3,001,057 0.1% -13.55% -34.35% -2.96% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37% <td>Adams Street 2015 Global Fund</td> <td>9,851,897</td> <td>0.4%</td> <td></td> <td>11.17%</td> <td>17.58%</td> <td>N/A</td>	Adams Street 2015 Global Fund	9,851,897	0.4%		11.17%	17.58%	N/A
Adams Street 2018 Global Fund 3,594,632 0.1% N/A N/A N/A N/A Blackrock PEP 25,004,256 1.0% 4.17% 1.53% N/A Matlin Patterson - Global Opportunities III 549,364 0.0% -2.35% 5.59% -3.76% Matlin Patterson - Global Opportunities III 4,557,594 0.2% -12.28% 8.51% 2.20% InvestAmerica - Lewis and Clark Fund 475,337 0.0% -33.26% 51.46% -13.13% InvestAmerica - L&C II 1,996,551 0.1% 8.75% 0.90% -1.95% Corsair III 3,001,057 0.1% -13.55% -34.35% -2.96% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	Adams Street 2016 Global Fund	6,538,302	0.3%		5.42%	13.58%	N/A
Blackrock PEP 25,004,256 1.0% 4.17% 1.53% N/A Matlin Patterson - Global Opportunities II 549,364 0.0% -2.35% 5.59% -3.76% Matlin Patterson - Global Opportunities III 4,557,594 0.2% -12.28% 8.51% 2.20% InvestAmerica - Lewis and Clark Fund 475,337 0.0% -33.26% 51.46% -13.13% InvestAmerica - L&C II 1,996,551 0.1% 8.75% 0.90% -1.95% Corsair III 3,001,057 0.1% -13.55% -34.35% -2.96% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	Adams Street 2017 Global Fund	8,890,605	0.4%		2.53%	N/A	N/A
Blackrock PEP 25,004,256 1.0% 4.17% 1.53% N/A Matlin Patterson - Global Opportunities II Matlin Patterson - Global Opportunities III InvestAmerica - Lewis and Clark Fund 4,557,594 0.2% -12.28% 8.51% 2.20% InvestAmerica - Lewis and Clark Fund 475,337 0.0% -33.26% 51.46% -13.13% InvestAmerica - L&C II 1,996,551 0.1% 8.75% 0.90% -1.95% Corsair III 3,001,057 0.1% -13.55% -34.35% -2.96% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	Adams Street 2018 Global Fund	3,594,632	0.1%	N/A	N/A	N/A	N/A
Matlin Patterson - Global Opportunities III 4,557,594 0.2% -12.28% 8.51% 2.20% InvestAmerica - Lewis and Clark Fund 475,337 0.0% -33.26% 51.46% -13.13% InvestAmerica - L&C II 1,996,551 0.1% 8.75% 0.90% -1.95% Corsair III 3,001,057 0.1% -13.55% -34.35% -2.96% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	Blackrock PEP	25,004,256	1.0%		4.17%	1.53%	N/A
InvestAmerica - Lewis and Clark Fund 475,337 0.0% -33.26% 51.46% -13.13% InvestAmerica - L&C II 1,996,551 0.1% 8.75% 0.90% -1.95% -1.95% Corsair III 3,001,057 0.1% -13.55% -34.35% -2.96% -2.86% Capital International - Fund V 346,441 0.0% -42.30% -48.22% -28.50% -2.84% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% -20.74% -20.74% -3.33% -50.52% -7.37% -7	Matlin Patterson - Global Opportunities II	549,364	0.0%		-2.35%	5.59%	-3.76%
InvestAmerica - L&C I	Matlin Patterson - Global Opportunities III	4,557,594	0.2%		-12.28%	8.51%	2.20%
Corsair III 3,001,057 0.1% -13.55% -34.35% -2.96% Capital International - Fund V 346,441 0.0% -42.30% -48.22% -28.50% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	InvestAmerica - Lewis and Clark Fund	475,337	0.0%		-33.26%	51.46%	-13.13%
Capital International - Fund V 346,441 0.0% -42.30% -48.22% -28.50% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	InvestAmerica - L&C II	1,996,551	0.1%		8.75%	0.90%	-1.95%
Capital International - Fund V 346,441 0.0% -42.30% -48.22% -28.50% Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	Corsair III		0.1%		-13.55%	-34.35%	-2.96%
Capital International - Fund VI 14,467,313 0.6% 10.93% 5.98% -2.84% EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	Capital International - Fund V						
EIG (formerly TCW) 2,228,222 0.1% -18.36% 18.70% -20.74% Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	•	-	0.6%		10.93%	5.98%	-2.84%
Quantum - Energy Partners 745,366 0.0% -43.33% -50.52% -7.37%	•						-20.74%
97	` ,						
	<u>.,</u>			6.0%		5.27%	1.33%

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TFFR Net Returns for Periods Ended May 31, 2019:

Fixed Income was strong in fiscal 2019, up 6.19%, and benefitted from a sharp decline in long-term yields:

- 1. Prudential Core Fixed Income (\$143 million) earned 6.8%
- 2. PIMCO Core Plus (\$143 million) rose 6.8%
- 3. State Street Long UST (\$43 million) was our top performer at 10.8%
- 4. Cerberus was our 2nd best fixed income strategy gaining 7.2%
- 5. Declaration, Ares and PIMCO DISCO (\$125 million in aggregate) each earned over 5.4%
- 6. Loomis Sayles rose over 4%, but trailed the High Yield Index (which rose over 5%).

				Current	Prior Yr.	5 Years
	May-19			FYTD	FY18	Ended
	<u>Allocation</u>					6/30/2018
	Market Value	Actual	_	Net	Net	Net
GLOBAL FIXED INCOME	593,297,394	24.1%	23.0%	6.19%	3.58%	4.14%
Benchmark				6.14%	2.00%	2.79%
			22 22 (2 (22)	2 2 42 4	4 000/
Domestic Fixed Income	593,297,394	24.1%	23.0%	6.19%	2.64%	4.60%
Benchmark				6.14%	0.32%	3.07%
Investment Grade Fixed Income						
PIMCO Distressed Senior Credit Opportunit	40,287,426	1.6%	1.6%	5.40%	10.02%	9.45%
Prudential Core Fixed Income	143,732,272	5.8%	5.4%	6.81%	N/A	9.4376 N/A
Bloomberg Aggregate	140,102,212	0.070	0.470	6.53%	-0.40%	2.27%
2100111201g Aggrogate				0.0070	0.4070	2.2770
State Street Long U.S. Treasury Index NL F	43,066,785	1.8%	1.6%	10.81%	-0.15%	4.50%
Bloomberg Long Treasuries	-,,			10.82%	-0.12%	4.55%
5 5						
PIMCO Core Plus Constrained (formerly Un	143,748,995	5.8%	5.4%	6.86%	1.48%	N/A
Bloomberg Aggregate (4)				6.53%	1.75%	
Declaration Total Return Bond Fund (5)	48,398,145	2.0%	1.9%	5.54%	3.33%	4.24%
3m LIBOR				2.41%	1.75%	0.74%
Total Investment Grade Fixed Income	419,233,623	17.0%	16.0%	6.90%	1.60%	3.85%
Bloomberg Aggregate				6.53%	-0.40%	2.27%
Below Investment Grade Fixed Income						
Ares ND Credit Strategies	32,987,775	1.3%	1.3%	5.56%	N/A	N/A
Cerberus ND Private Credit Fund	36,733,113	1.5%	1.5%	7.22%	N/A	N/A
S&P LSTA Leveraged Loan B Index	50,755,115	1.570	1.570	4.05%	IN/A	I W/A
Car 2017. 2016. agoa 20an 2 maex						
Loomis Sayles High Yield	91,472,860	3.7%	3.6%	4.04%	2.66%	5.51%
PIMCO BRAVO II (5)	12,646,220	0.5%	0.5%	0.90%	6.00%	N/A
GS Mezzanine Partners 2006 Offshore, L.P	41,696	0.0%	0.0%	6.62%	13.17%	24.06%
GS Mezzanine Partners V Offshore, L.P. (5	182,108	0.0%	0.0%	36.09%	16.70%	3.87%
Bloomberg High Yield 2% Issuer Constrain	ined Index			5.08%	2.62%	5.52%
Total Below Investment Grade Fixed Ind		7.1%	7.0%	4.61%	5.24%	6.56%
Bloomberg High Yield 2% Issuer Constrained Index				5.08%	2.62%	5.52%

TFFR Net Returns for Periods Ended May 31, 2019:

Real Asset returns were mixed with:

- 1. Real Estate up 5.19% versus the NCREIF Total Index of 6.19% noting that Invesco's overall returns are generally in line with expectations, while JPMorgan results are trailing the market;
- 2. Timber earned 3.19% on a fiscal year to date basis surpassing the NCRIEF Timber Index of 2.19%;
- 3. Infrastructure returns are lagging due to early stage investments with ISQ and Macquarie and JPM's transfer of AIRRO to The Rohatyn Group;
- 4. Cash returns are in line with 90-day U.S. T-Bills.

				Current	Prior Yr.	5 Years
	May-19			FYTD	FY18	Ended
	Allocation					6/30/2018
	Market Value	Actual	Policy	Net	Net	Net
GLOBAL REAL ASSETS	452,577,553	18.4%	18.0%	4.29%	6.07%	7.94%
Benchmark				4.83%	5.42%	6.75%
Global Real Estate						
Invesco Core Real Estate - U.S.A., L.P.	132,496,049			5.68%	7.91%	10.58%
Invesco Real Estate Fund III, LP (5)	5,142,358			-14.30%	0.30%	12.42%
Invesco U.S. Value-Add Fund IV, L.P. (5)	20,698,994			11.41%	11.65%	N/A
Invesco Asia Real Estate Fund III, L.P. (5)	1,981,157			15.61%	83.23%	N/A
JP Morgan Strategic & Special Situation Pro	104,434,585			5.35%	7.81%	10.67%
JP Morgan European Opportunistic Property	1,711,549			-21.89%	-46.30%	5.30%
Total Global Real Estate	270,546,362	11.0%	10.0%	5.19%	7.70%	11.88%
NCREIF TOTAL INDEX				6.19%	7.19%	9.77%
OTHER REAL ASSETS	182,031,190	7.4%	8.0%	2.93%		
Benchmark				3.16%		
Timber						
TIR Teredo Timber, LLC	14,406,965	0.6%		5.70%	-3.98%	3.75%
TIR Springbank, LLC	41,871,545	1.7%		2.39%	-2.07%	-2.30%
Total Timber (5)	56,278,510	2.3%	2.3%	3.19%	-2.52%	-0.35%
NCREIF Timberland Index				2.19%	3.56%	6.00%
Infrastructure						
Rohatyn Group Asian Infrastructure & Relat		0.3%		-15.64%	-8.86%	2.42%
JP Morgan Infrastructure Investments Fund	81,249,835	3.3%		4.57%	9.89%	5.78%
ISQ Global Infrastructure Fund II	7,457,026	0.3%		0.25%	N/A	N/A
Macquarie Infrastructure Partners IV	10,699,839	0.4%				
Grosvenor Customized Infrastructure Strate		0.5%		1.79%	7.10%	8.47%
Grosvenor Customized Infrastructure Strate		0.3%		9.45%	7.98%	N/A
Total Infrastructure	125,752,681	5.1%	5.7%	2.76%	7.37%	5.75%
50% NCREIF ODCE/50% CPI-U (lagged on	e quarter)			3.55%	3.09%	1.37%
Cash Equivalents						
Northern Trust Collective STIF	10,085,391			2.04%	1.44%	0.52%
Bank of ND	5,640,110			2.07%	1.42%	N/A
Total Cash Equivalents	15,725,501	0.6%	1.0%	2.11%	1.47%	0.52%
_90 Day_T-Bill				2.09%	1.36%	0.42%

NOTE: Monthly returns and market values are preliminary and subject to change.

TFFR Estimated Fiscal Year To Date Returns – June 30, 2019

Estimated YTD Through 6/30/2019

(Actual returns are net of fees; estimates are gross indices)

TFFR

Market Value	31-May	
Total Fund Actual through	31-May	0.98%
Total Fund Policy through	31-May	1.94%
	30-Jun	
MSCI World	6.59%	16.0%
Russell 1000	7.02%	16.6%
Russell 2000	7.07%	4.8%
MSCI World ex US	5.77%	11.8%
MSCI EAFE	5.93%	0.0%
MSCI Emerging Mkts	6.24%	2.8%
BC Aggregate	1.26%	16.0%
High Yield	2.28%	7.0%
Real Estate	0.60%	10.0%
Private Equity	0.00%	6.0%
TIPS	1.80%	0.0%
Timber	0.04%	2.3%
Infrastructure	0.09%	5.7%
ML 1-3Y Treasury	0.52%	0.0%
T-Bill	0.17%	1.0%
MSCI World 100% Hedged	6.00%	0.00%
Russell 3000	7.02%	0.00%
ML 3M LIBOR Con Mat	0.19%	0.00%
BC 9-12 M	0.17%	0.00%
Est. MTD through	6/30/2019	3.84%

30-Jun

Estimated FYTD Return 6/30/2019
Estimated FYTD Policy 6/30/2019

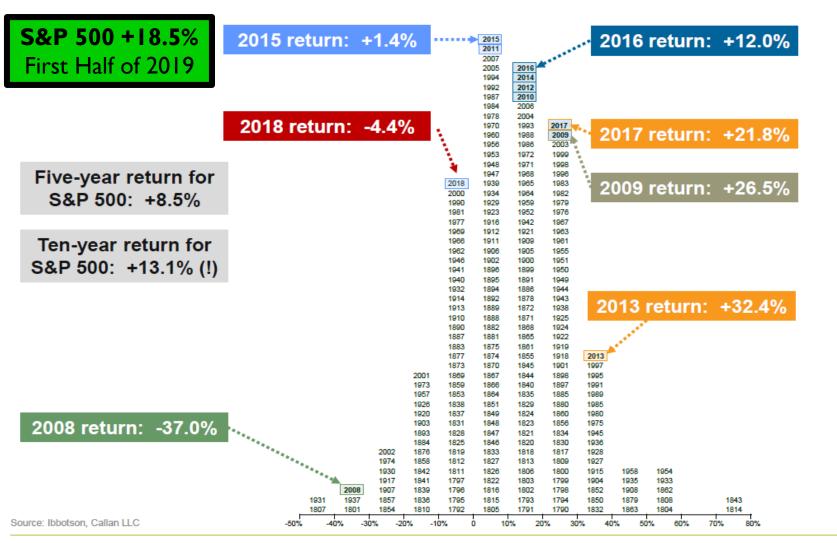
4.85% 5.86%

Comparison to 8% return assumption pro-rated FYTD Comparison to 7.75% return assumption pro-rated FYTD

7.75%

Stock Market Returns by Calendar Year

2018 Performance in Perspective: History of the U.S. Stock Market (230 Years of Returns)

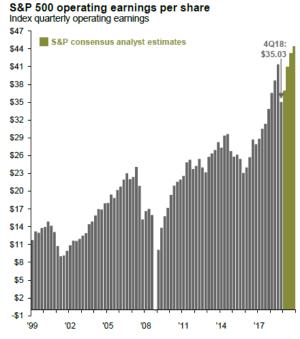




S&P 500 Earnings

March 31, 2019

Source: JP Morgan Guide to the Markets. As of March 31, 2019



Source: JP Morgan Guide to the Markets. As of March 31, 2019

- For Q1 2019 (with 15% of the companies in the S&P 500 reporting actual results for the quarter), 78% of S&P 500 companies have reported a positive EPS surprise and 53% have reported a positive sales surprise
- For Q1 2019, the blended earnings growth rate for the S&P 500 is -3.9%; if -3.9% is the actual growth rate for the quarter, it will mark the first year-over-year earnings decline for the index since 2016.
 - -Three sectors are reporting a double-digit decline in earnings, including Energy, Materials, and Information Technology



MEMORANDUM

TO: TFFR Board

FROM: Fay Kopp

DATE: July 18, 2019

SUBJ: Annual SIB Customer Satisfaction Survey

The **State Investment Board** wants to know from its customers (TFFR, PERS, WSI, Legacy Fund, etc.) if the SIB (through the RIO staff) is providing quality service.

Sara Sauter, Supervisor of Audit Services, will send the annual SIB Customer Satisfaction Survey (via Survey Monkey) to Rob Lech, TFFR Board President. A pdf version of the survey is also included here for informational purposes. In the past, the Board president has sent the survey individually to each board member and has compiled the results. The TFFR Board then reviews the compiled responses at the September board meeting and approves submission to the SIB.

BOARD INFORMATION ONLY. No Board action requested.

2019 NORTH DAKOTA STATE INVESTMENT BOARD CUSTOMER SATISFACTION SURVEY

Each year the State Investment Board (SIB) conducts a customer satisfaction survey. The purpose of this annual survey is to determine how well the SIB, through the staff of the Retirement and Investment Office (RIO), is meeting the expectations of its clients. This survey is a part of the SIB's ongoing effort to be responsive to the needs of their clients and to continually improve the services that are provided.

Please help us measure our performance and identify areas for improvement by rating the service you received during fiscal year 2019 (July 1, 2018 - June 30, 2019). Please check the response which best reflects your experience.

	Excellent	Above Average	Average	Poor	N/A
Availability/Responsiveness to Requests (via calls and/or emails)	0	0	0	0	0
Clarity and Effectiveness of Communications, Reports, and Presentations	\bigcirc	\circ	\bigcirc	\bigcirc	\bigcirc
Frequency of Communications/Reporting	0	0		\circ	0
Knowledge of Investments		\bigcirc	\bigcirc	\bigcirc	\bigcirc
Overall value of services provided	0	0	0	0	0
How can the State Investment expectations and improve the s			d Investment O	office (RIO) staff be	etter meet your

Thank you for helping us serve you better.



MEMORANDUM

TO: TFFR Board

FROM: Fay Kopp

DATE: July 18, 2019

SUBJ: TFFR Legislative Update

The <u>Legislative Employee Benefits Programs Committee</u> (LEBPC) is a 13-member legislative committee consisting of seven representatives and six senators. Duties include receipt of annual actuarial valuation reports and review of legislative proposals affecting TFFR and PERS retirement programs and health and retiree health insurance plans.

For the 2019-20 interim, Committee membership consists of:

- Representatives: Mike Lefor (Chairman), Jason Dockter, LaurieBeth Hager, Craig Johnson, Vernon Laning, Matthew Ruby, and Austen Schauer.
- Senators: Dick Dever (Vice Chairman), Howard Anderson, Jr., Brad Bekkedahl, Karen Krebsbach, Richard Marcellais, and Kristin Roers.

The Committee has tentatively scheduled its first meeting of the interim on:

 October 23, 2019 - Receive overview of TFFR retirement program from Fay Kopp, and 2019 TFFR actuarial valuation report from Segal.

BOARD INFORMATION ONLY. No Board action requested.



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

MEMORANDUM

TO: TFFR Board FROM: Richard Nagel DATE: July 16, 2019

SUBJ: Annual Technology Report

1. Member Online Portal

The Member Online Portal went live on January 31, 2018. As of July 16th, 3,600 members have successfully logged in (2,600 actives and 1,000 retirees). RIO continues to communicate with the members to assist with any issues or questions they may have. RIO staff continues to strategize and market the application to encourage members to sign in.

2. Pension Administration Software (PAS)

Over the past year, we have completed many updates and fixes to clean up some processes and procedures (i.e. 1099R extract file, Death file, EFT). We are also in the process of creating more documents to store/display on the Member Online Portal. We have had many requests for 1099R, Retiree Annual Statements and Benefit Change Notices to be available. We also received feedback from members wishing to make changes to their personal information as well as having more interactive functionality regarding retirement, refunds, purchases, benefit estimator and other functionality which will require an updated PAS.

3. IT Security

Security is always a main priority for RIO and ITD. We strive to ensure all the data is secured and protected by ensuring we have latest security updates. We also communicate with employees to stress the importance of security and what users can do to help protect the agency, as well as themselves, from malicious attacks.

4. Hardware/Software Upgrades

IT is in the process of testing the latest version of Windows 10 before full deployment. IT is preparing to upgrade other software that is set to be removed from support within the next year and we are also working with ITD and our vendor for the next Oracle upgrade to be completed.

5. RIO Website

IT has been working on replacing our website to utilize the new State Website Platform. This replacement will provide a more user-friendly experience along with more security, features and functionality.

Around the Office and Future IT Initiatives:

- 1. We have remodeled our pod section to make room for new fiscal/investment position and to allow for more functionality within the office.
- 2. Retirement Services and IT are preparing to close out fiscal year 2019 soon.
- 3. Records retention and purge (CPAS database and FileNet FileNet was completed in December 2018).
- 4. Wrap up data analytics for member/employer data reconciliation.
- 5. Legislation has approved funding to upgrade/replace our current Pension Administration System (PAS). We will begin working with ITD, and other entities, to kick-off this PAS project in the coming months.

MEMORANDUM

TO: TFFR Board

FROM: Cody Mickelson, Chair, TFFR Governance and Policy Review Committee

DATE: July 18, 2019

SUBJ: TFFR Governance and Policy Review Committee Update

At the April 25th, 2019 meeting of the Teacher's Fund for Retirement board, a sub-committee was created to review TFFR governance and policy. The Governance & Policy Review Committee members are Cody Mickelson (Committee Chair), Rob Lech (Board President), and Mike Burton (Board Vice President).

Process

The first meeting of the Committee was on May 30th, 2019. At this meeting, Ms. Kopp provided a review of the current TFFR program manual. The Committee then discussed areas such as board member roles and authorities, staff roles and responsibilities, and TFFR responsibilities related to SIB/RIO. A new board governance manual with necessary updates, clear expectation and standards, and citations is the desired outcome of this review.

Progress/Next Steps

Ms. Kopp had reached out to other state pensions with a request for their pension board governance manuals and/or board policies. Committee members were able to review these other manuals and policies and through a comparison of tables of contents, the Committee requested Ms. Kopp to draft an outline for a new board governance manual.

For the July 2nd, 2019 meeting, Ms. Kopp was also able to create a draft outline and begin incorporating current board policies and by-laws into the draft outline for the Committee to review. The Committee reviewed and discussed the structure of the outline.

The Committee was also able to review other states' pension mission, vision, and core value statements. After a discussion, the Committee felt it was best to include the entire TFFR Board in this part of the process. President Lech volunteered to lead a TFFR Mission Statement Development activity at a future board meeting.

Ms. Kopp noted that new language would be needed to clarify and combine some areas for the new board governance manual. New language will maintain the spirit and intent of the current policies and by-laws. Given the lengthy agenda and required preparations leading up to the regular July 25th TFFR board meeting, time in August will be dedicated to begin drafting new language and rewriting the governance manual.

A future meeting of the Committee will be scheduled once draft language has been written, prior to the regular TFFR board meeting in September.

BOARD INFORMATION ONLY. No Board action requested.



MEMORANDUM

TO: TFFR Board FROM: Fay Kopp DATE: July 18, 2019

SUBJ: Annual TFFR Program Review

Because the TFFR Board is responsible for administering the retirement program, periodic review of the Board's mission, goals, policies, and by-laws included in the TFFR Board Program Manual is important in order to fulfill your fiduciary responsibilities.

Board responsibilities include:

- 1. Establish and monitor policies for the administration of the TFFR program.
- 2. Establish and monitor investment policy, goals, objectives, and asset allocation.
- Hire and monitor actuarial and medical consultants; establish and monitor actuarial assumptions and methods; and ensure periodic actuarial valuations, experience studies, asset liability modeling studies, and actuarial audits are conducted.
- 4. Pay benefits and consultant fees.
- 5. Submit legislation and monitor the statutory responsibilities of the TFFR program.
- 6. Determine appropriate levels of service to members and employers.
- 7. Communicate and monitor TFFR program expectations to the SIB expected to be provided through RIO.
- 8. Promulgate administrative rules as needed.

As part of your annual TFFR Program Review this year, the following reports are included for your review:

- TFFR Board Accomplishments
- TFFR Program Monitoring Summary
- TFFR Customer Satisfaction Reports

A more comprehensive review will also be conducted throughout the 2019-20 year on Board governance policies (see agenda #10), as well as Board mission, vision, and values statements (see agenda #12).

Board members are also required to complete the TFFR Board Code of Conduct form and return to RIO by July 26, 2019. You may print and sign the one included here, or hard copies will be available for your completion at the meeting.

BOARD ACTION REQUESTED: Board motion to approve 2019 Annual Program Review and/or any other board directives to staff relating to the board's mission, goals, policies, and by-laws.



- ✓ Established and managed 2018-19 board calendar and education plan.
- ✓ Conducted annual election of officers and annual TFFR program review including mission, goals, ends and program policies, and by-laws.
- ✓ Accepted annual TFFR member and employer customer satisfaction reports, TFFR ends and statistics report, TFFR retirement trends and projections report, RIO budget and expense report, RIO technology report, and other program and statistical reports.
- Received quarterly updates and approved annual investment report on status of TFFR asset allocation, fund performance, investment expenses, investment guidelines, and goals and objectives.
- ✓ Received quarterly updates and approved annual audit services report on status of TFFR employer compliance audits, agency financial audit, and other retirement program internal audits and reviews.
- ✓ Received and analyzed results of 2018 actuarial valuation report, funding projections and 2018 GASB 67 and 68 report from Segal Company.
- ✓ Reviewed quality of actuarial services and associated costs. Approved extension of actuarial contract to Segal for 2 more years.
- ✓ Reviewed and approved proposal from Segal to develop TFFR Plan Management Policy. Phase 1 includes risk assessment and stochastic modeling. Phase 2 includes development of scoring system.
- ✓ Heard member benefit appeal and made initial eligible salary determination. Received administrative law judge recommendation and made final eligible salary determination.
- ✓ Reviewed information and discussed legislative issues relating to TFFR program during interim and 2019 legislative session.
- ✓ Discussed future technology enhancements and potential upgrade or replacement of current pension administration software, pending budget approval by 2019 legislature.

- ✓ Studied ESPB critical shortage area designation of teachers and administrators; received and approved annual Re-employed Retiree Report; and discussed statutory provisions and issues related to working after retirement.
- ✓ Reviewed and approved policy changes on 3 board policies: Disclosure to Membership; Membership Data and Contributions; and Account Claims.
- ✓ Received 2017 Public Fund Survey and various public plan surveys comparing NDTFFR to other statewide public pension plans.
- ✓ Received periodic updates on national pension issues and federal legislation relating to public pension plans.
- ✓ Received 2018 Public Pension Standards Award for Administration from PPCC.
- ✓ Received 2018 Certificate of Achievement for Excellence in Financial Reporting from GFOA.
- ✓ Approved 3 disability applications and 2 QDROs.
- ✓ Received board education on:
 - Investment performance Benchmarks (Callan)
 - Investment market Update (Epoch Investment Partners)
 - Fiduciary Duties/Ethics (AGO)
 - ND Education Demographics (DPI)
 - ND Educator Shortages (ESPB)
 - Actuarial Valuation Process (Segal)
 - New ASOPS and Mortality Tables (Segal)
 - DB/DC/Hybrid plans (Segal)
 - Pension Risk Analysis and Stress Testing (Segal)
 - TFFR Employer Reporting Eligible Salary (RIO)
 - Open Records/Open Meetings (AGO)
- ✓ Attended pension and investment educational conferences or meetings (external):

Mike Burton	Council of Institutional Investors	Sept 2018	Minneapolis, MN
Toni Gumeringer	Callan College	July 2018	San Francisco, CA
Cody Mickelson	NCTR Annual Conference	Oct 2018	Washington DC
Mel Olson	NCTR Annual Conference	Oct 2018	Washington DC
Dob Loob			•

Rob Lech -Treas. Schmidt -State Supt. Baesler -Fay Kopp --

TFFR Program Monitoring Summary

2018-19

Ends Policy	Responsibility	Action	Scheduled	Completed
Mission	TFFR Board	Annual Review	July	7-26-18
	TEED D	I A I D		7.00.40
Goals	TFFR Board	Annual Review	July	7-26-18
Plan Beneficiaries	TFFR Board	Annual Review	July	7-26-18
	TTTT Board	7 umaan tottou	July	1 20 10
Membership Data	TFFR Board	Annual Review	July	7-26-18
'	Internal Audit	Annual Report	July	7-26-18
	External Audit/Audit Com.	CliftonLarsonAllen	November	11-15-18
	Retirement Officer	* Staff Presentations	Ongoing	
	TEED D 1/0/D			
Investments	TFFR Board/SIB	Annual Review	September	9-27-18
	Investment Director	Annual Report	September	9-27-18
Retirement Services	TFFR Board	Annual Review	July	7-26-18
Remement Services	Internal Audit	Annual Report	July	7-26-18
	External Audit/Audit Com.	CliftonLarsonAllen	November	11-15-18
				7-26-18
	Interest Groups Retirement Officer	Annual Report *Staff Presentations	July Ongoing	7-20-18
	Retirement Officer	Stall Presentations	Origoing	
Account Claims	TFFR Board	Annual Review	July	7-26-18
7.000drit Olaimo	Internal Audit	Annual Report	July	7-26-18
	External Audit/Audit Com.	CliftonLarsonAllen	November	11-15-18
	Retirement Officer	*Staff Presentations	Ongoing	11 10 10
	1			
Trust Fund Valuation	TFFR Board	Annual Review	July	7-26-18
	Segal	Annual Valuation	October	10-25-18
	Internal Audit	Annual Report	October	7-26-18
	External Audit/Audit Com.	CliftonLarsonAllen	November	11-15-18
	Retirement Officer	*Staff Presentations	Ongoing	
Dragram Daliaiaa	TFFR Board	Annual Daview	linke	7-26-18
Program Policies	IFFR BOAID	Annual Review	July	7-20-10
* Ongoing RIO Staff Pr	recentations include:	1		
Origorny Nio Stan Fr	esentations include.			
	TFFR Accomplishments	Retirement Officer	July	7-26-18
	Customer Satisfaction	Retirement Officer	July	7-26-18
	RIO Budget Summary	Fiscal Management	September	9-27-18
	Technology Review	Information Tech	September	9-27-18
	TFFR Ends & Statistics	Retirement Services	January	1-24-19
	Retirement Trends	Retirement Services	March	3-21-19
	Pension Plan Comparisons	Retirement Officer	April	3-21-19
	Audit Services Update	Audit Services	Quarterly	J, O, J, A
	Investment Update	CIO	Quarterly	J, S, J, M, A



MEMORANDUM

TO: TFFR Board FROM: Fay Kopp DATE: July 18, 2019

SUBJ: Annual TFFR Customer Satisfaction Reports

To assist the **TFFR Board** in monitoring how well the TFFR program is serving member and employer needs, we collect evaluations and distribute various surveys each year. Attached are the results of the 2018-19 responses.

Please note that we are in the process of converting all evaluations and surveys over to Survey Monkey. Therefore, you will notice this year that results are shown differently depending upon the survey tool used. As we continue this transition in the upcoming year, results will be shown in a more consistent format.

We have reviewed the evaluation responses and comments received directly from the members and employers from retirement education workshops, group benefits counseling sessions, retirement 101 presentation, business manager workshops, and other member and employer communications. Here is a brief summary of overall scores, based on a 4-point scale (Excellent 4, Above Average 3, Average 2, Poor 1).

Members

Retirement Education Workshops	3.6
Retirement Group Counseling	3.9
Retirement 101 Presentation	3.7
Comment Cards	3.8

Employers

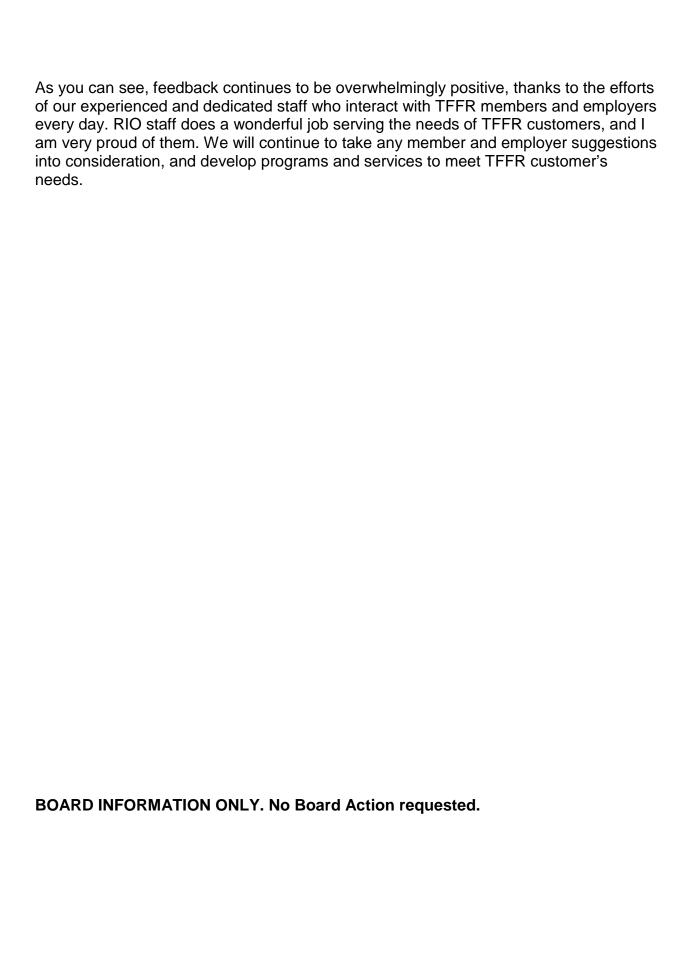
Business Manager Workshops 3.7

Member & Employer Interest Groups

ND Assn of School Business Managers, ND Council of Educational Leaders, ND Retired Teachers Assn, ND School Board Assn, and ND United.

3.8

Overall Customer Satisfaction Score



TFFR Retirement Education Workshop

Evaluation Summary

Minot (7/10/2018) & West Fargo (7/12/18)

Total in Attendance	89
Evaluation Forms Returned	44

	Excellent	Above Average	Average	Poor	Weighted Average
1. TFFR Pension Benefits Presentation	26	18			3.5

Comments:

- Thanks for answering my questions
- Answered many questions
- I appreciate having my current information provided to me. Thank you!
- Made it very interesting
- Available to talk outside of presentation – great info

- The counselor touched on the pertinent and relatable info for the time frame
- Give this part more time so we can explore/ask more questions
- It was helpful to have personal TFFR info printed off and available to reference during the presentation

	Excellent	Above Average	Average	Poor	Weighted Average
2. Social Security & Medicare Presentation	29	13	2		3.5

Comments:

- Thanks for clarifying answers
- Very helpful
- Very valuable!
- May want to block more time for these areas. Time for information, and time for questions
- Good handouts knowledgeable

- Would have liked more time/info on the Medicare facts, costs, supplements, etc.
- The personal examples provided made the info more understandable

	Excellent	Above Average	Average	Poor	Weighted Average
3. Insurance Presentation	22	16	4		3.3

Comments:

- Good information
- Since MPS has BC/BS, is there a reason you chose Sanford to present?
- Good speaker, very knowledgeable
- Very good speaker, very informative
- Covered everything, good information

- Info got me thinking about the potential steps involved in acquiring healthcare
- COBRA info was helpful, maybe more examples/scenarios similar to our situations looking toward retirement, late 50's etc.

	Excellent	Above Average	Average	Poor	Weighted Average
4. Estate Planning Presentation	14	12	1		3.4

Comments:

- Very informative
- This is something I need to do. The information is greatly appreciated!

	Excellent	Above Average	Average	Poor	Weighted Average
5. Please Rate the Overall Seminar	28	13			3.6

Comments:

- Liked having varied speakers/presenters in one place, able to get many questions answered
- I'm still a few years from retirement, but I want to be better prepared to make the best decisions for my husband and I
- The sound and the visual aid were easy to read, and able to hear (I wear hearing aids).
- Thank you!
- Fantastic
- Very interesting to hear!
- Needed more time
- Fantastic
- Give her more time!

- Fantastic! I may connect in the future for law assistance
- Extremely helpful information
- Very good

		Yes	No
	Do you feel that attendance at this seminar was time well spent?	39	
7.	Would you recommend this seminar to others?	38	
	Will attendance today motivate you to take action relative to your retirement planning?	37	1

If yes, what action will you take?

- Talk to an agent about insurance
- See an individual agent for more planning/retirement options
- Estate planning
- Beneficiaries/will
- Update will, sign up for social security account/retirement estimator
- Start doing a plan for when to retire
- Talk to insurance agent looking at some numbers to decide for sure which year I will retire
- Check beneficiary designations, add contingent beneficiaries
- Medicare and Social Security planning
- Create a "my social security" account
- Establish time line of items to do in order to retire June of 2018 and make a will
- Plan ahead
- Get the checklist printed off and possibly retire in 2019
- Move ahead with retirement paperwork
- Estate planning
- Find out more about the windfall clause; make a will
- Set up social security account
- Deadlines, insurance shopping
- Think about the insurance issue
- Already underway this filled in gaps
- Long term care planning, estate planning
- Estate planning, COBRA payment
- Better estate planning
- Start looking into retirement info, try to set up an appointment to go through my info
- Look at my deeds, apply for my social security, redo my will, and do POA for my sons and list them as contingent beneficiaries
- Changes in estate planning
- 403B

	Start the retirement process soon!Finish my will		
9.	Was the length of the program appropriate? (One day)	37	1

If no, how long should the program be?

- Since it's summer, I wouldn't mind a working lunch (bring my own) to get done a bit earlier and enjoy the sunshine
- Morning or maybe ½ day until 1:00

	Yes	No
10. Was the time of the program convenient?	38	

If not, what would be a better time?

• Convenient summer workshop, rather than a weekend

11. Do you have any suggestions for future programs?

- Having the presentation notes online to follow helped me follow the information presented. Having visual aids or documents helps me because I am hearing impaired – wear hearing aids
- Thanks for an excellent day!
- Let us know for sure where to park, sign showing which door to enter; thanks for providing rolls and water! Easy to hear and nice accommodations
- Coffee
- It's helpful to have visuals (slides); I appreciate online access to all the information, however, I like to add notes so handouts with the slides would be helpful
- I would like it if we were offered the opportunity in Minot for some individual counseling

- Well organized, very informative
- Inform attendees about which entry will be used, if possible; maybe poster on the door?
- Better description to meeting room door number or side
- This was a great presentation; lots of good information
- Good location, easy to find, good room and temp good
- I would not have minded a working lunch in order to have a shorter day here
- I am slightly hard of hearing, so a microphone would have been helpful
- I feel that "new teachers" would greatly benefit. I'm very shocked by how many have no clue about TFFR

TFFR Retirement Group Counseling 2018-19 Evaluation Summary Dickinson, Devils Lake, Fargo, Grand Forks, Jamestown, Minot & Williston

Total in attendance	244
Evaluation Forms Returned	112

	Excellent	Above Average	Average	Poor	Weighted Average
Please rate the overall program	97	7	2		3.9
program	37	,	۷		3.5

What did you like best about the program?

- I felt comfortable asking questions
- Explanation of the steps needed to take to receive benefits
- I appreciated hearing all options and the benefits (or negatives) of each benefit option
- Information was what I needed
- · Packet and slide show
- Explaining of the payout option, answering individual questions was very helpful
- Explaining the options and work after retirement
- Careful explanation of benefits and choices
- Very clear on retirement and the options provided
- Verification
- Good explanation
- Cleared up all my questions
- All information
- Great information
- Brochures are great! Super information

- Good explanations
- Counselor was wonderful she knows her stuff
- Step-by-step pace of presenter
- Everything was explained well
- Every form was displayed and information was given
- Very informative and thorough
- Lots of great info
- The counselor is very helpful and knowledgeable – answered all questions
- The facts were very interesting, enjoyed the talk, lots of information
- Facts and details of retirement process website
- Good handouts and take homes, presenter was knowledgeable and did a good job, the counselor explained things well!
- Step by step instructions! Very helpful!
- Very specific explanations of benefits and retirement process

- Good information
- All the information given
- Questions and answers
- Everything, lots of great information
- Very informative and clarified all my questions on how to proceed with retirement
- Folder/PowerPoint
- Good folders with additional information, PowerPoint was good!
- Information to get started with retirement
- Knowledgeable presenter, answered all questions
- Very knowledgeable and organized
- Lots of good, helpful information
- All was informative
- Very informative
- A great meeting to go to get info, glad spouse was also invited, very open to questions, thank you for including personal info
- Organized folder and speaker
- Well organized, no wasted time
- This is the third meeting that I've attended and it gets a little easier to understand each time
- Very informative
- Lots of info provided, nothing unexpected, so surprises
- Informative
- The person is knowledgeable
- The information and handout/packet
- Very complete
- The information
- Step by step procedures
- Very informative, The counselor answered all my questions

- Thank you
- Appreciated the personalized envelope with important data
- Able to ask questions as we go through info
- Great information
- The counselor knows her stuff, packet
- Length of presentation, packet of forms
- Location, time of presentation for out of town teachers
- Good information
- Very clear definitions and instructions
- Info on retirement
- Being able to ask questions was helpful
- Very informative
- Helps to know the options available and the steps/forms needed to retire
- Slides, great presentation!
- Very knowledgeable presenter
- Able to ask questions, my personal information
- Learned about salary
- Very well explained! Questions were answered very accurately!
- Organized paperwork
- Appreciate the benefit estimate sheet to give a realistic view of retirement
- Time for interaction and questions
- Everything, well presented, easy to understand
- Simple explanations with PowerPoint; Having the estimation sheet was great
- Everything excellent information

- Very informative Thank you!
- Folder
- Well planned, well organized, well presented!
- Small group
- Great job Counselor, you are so friendly and know your stuff
- Easy to understand
- Getting actual handouts; The counselor did a nice job of explaining everything!

- Everything was in the package all info there
- All; very informative
- The counselor is very organized; excellent presenter; all the materials we received
- The knowledge of the presenter
- The counselor is very knowledgeable and answered all my questions
- Very informational
- Individual attention, clean answers to questions

What did you like least about the program?

- Could be a little more organized with the facts and a handout for the process, that once
 we retire how is that process work or what to do
- The seats were hard
- No pens, no water
- No water or pens for participants
- Time of day (second session 6-7)
- So much very fast
- No table to lay papers on
- No individual sessions
- Informative, yet short
- Lots of stuff that I know nothing about, I must do some research
- Took too long to cover material

	Yes	No
Was the length of the program appropriate?	110	1
 If not, how long should the program be? Length about right, but there is a lot of info to Keep at 1-hour length Maybe an extra ½ hour for questions A bit longer 1.5 hours 	go throug	;h
Would you recommend this program to others?	94	

Any additional comments?

- Thank you! Very helpful
- Great job
- Good job
- Thank you (8)
- Very helpful and good packets of useful info
- Very good information!
- Great session
- Keep up the good work!
- Very knowledgeable presenter
- Didn't like it at the end of duty day
- Start at earlier time like 4pm
- Thanks to Devils Lake for hosting a session in this area
- Planning on calling after looking over material – have a couple questions! Thanks!

- Love the help over the phone when it has been needed in the past
- Come to Wahpeton
- Thank you, useful information
- Could read and get same info
- A good starting point to "get the ball rolling"
- Thanks
- Appreciate the info and knowing that I can call and get more info and/or questions answered!
- Recommend to everyone retiring
- Keep holding the trainings
- Thanks for answering questions
- Great job
- Very informative

TFFR 2018-19 Retirement 101 Evaluation Summary

Thompson School – August 21, 2018

People in attendance	43
Evaluation Forms Returned	11

	Excellent	Above Average	Average	Poor	Weighted Average
Please rate the overall program	8	3			3.7

Comments:

- Understanding how the Tiers and process work
- I appreciate the knowledge/information given
- Very informative (3)
- Good information

Lots of detailed info and a personalized report

What did you like best about the program?

- Learning more about the TFFR process
- Retirement benefits
- The descriptions of how TFFR works and benefit options!
- Graphics
- Good explanations
- It helped me to understand the program better

What did you like least about the program?

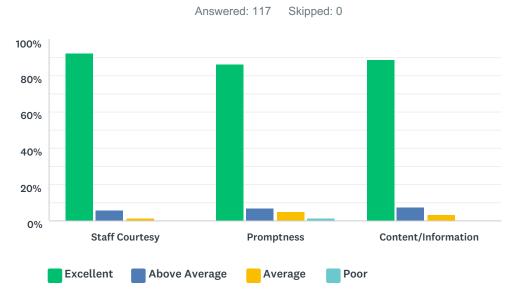
• Hard to see overhead type

	Yes	No
Was the length of the program appropriate?	10	
If not, how long should the program be? • A bit longer		
Was the time of the program convenient (Part of In-service day?)	11	
If not, what would be a better time?	•	

Do you have any suggestions for future programs?

- Individual counseling for retirement age people
- Would love to have this presentation every 3 or 4 years!

Q1 Are we providing you with quality service and information about your TFFR benefits? Please tell us how we are doing.



	EXCELLENT	ABOVE AVERAGE	AVERAGE	POOR	TOTAL	WEIGHTED AVERAGE
Staff Courtesy	92.31% 108	5.98% 7	1.71% 2	0.00%	117	3.91
Promptness	86.32% 101	6.84% 8	5.13% 6	1.71% 2	117	3.78
Content/Information	88.89% 104	7.69% 9	3.42% 4	0.00%	117	3.85

Q2 Comments/Suggestions

Answered: 84 Skipped: 33

#	RESPONSES
1	Give the counselor a raise!!
2	I just retired. The process (paperwork, etc.) was very easy and quick. Everyone I spoke with was wonderful. Thank you!!
3	Everything was great!
4	Love getting that check!
5	They were terrific! Thank you so much!
6	Thank you! You were very easy and pleasant to work with.
7	Very helpful when I sent an email.
8	Nice job! Well done!
9	Thanks!
10	Any questions I had, the counselor was very helpful and great to work with!
11	The counselor has been so helpful, knowledgeable and fantastic to work with.
12	Thanks!
13	I'm very impressed with the excellent service that was provided for me on the phone and in person. Wonderful.
14	Very helpful staff. The website has great information. Thanks!
15	The staff was so helpful to answer all my questions and to help me make the best decisions about retirement.
16	The staff was very easy to talk to and helpful. They demonstrated that they are about the people they work with. Thank you!
17	You guys are great!
18	Thank you so much for all of your help through this process! It's such a relief to work with you.
19	The counselor was very quick to respond and very helpful. My process was seamless. Much appreciated.
20	Everyone said the paperwork was unbelievable when you retire. I don't agree. I think you made it very clear and had precise forms with clear directions. Thank you!
21	I only needed 4 or 5 minutes so my counselor gave up a short break to squeeze me in between two others so I wouldn't have to wait around for 1/2 hour.
22	Very helpful when I had questions.
23	Thanks for making this easier than I anticipated!
24	Thank you!
25	I really appreciate how promptly my application for retirement benefits was processed by your office and I was very impressed by the information your office staff provided me as I contemplated my decision to retire!
26	Great customer service!
27	You all are great people to work with
28	Great to work with, thanks
29	Thank you for professional information and positive, helpful comments!

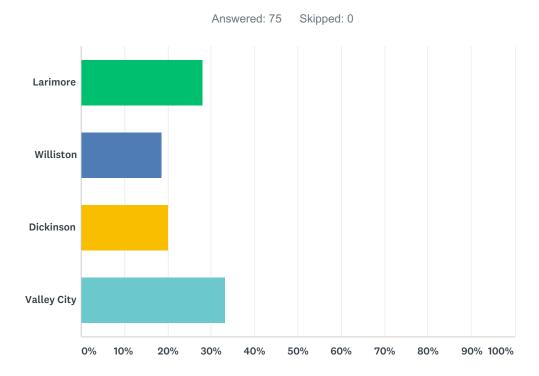
Customer Feedback

30	The counselor was great to work with!
31	Thank you for your assistance!
32	Perhaps all of this could be taken care of before the school year ends. Vacations and obligations sometimes interfere with receiving timely information.
33	The counselor was a blessing to work with - patient, knowledgeable, and thorough in her assistance with me through this process.
34	Fantastic job!
35	Thanks for being readily available to answer my many questions.
36	Made me miss North Dakotan hospitality.
37	Thank you, thank you, thank you, for your help and guidance.
38	I was very pleased with the kind and helpful assistance given to me by the counselor.
39	IN all aspects, it has been very easy and a special thank you to the counselor for helping me and answering any questions.
40	What a great bunch of gals! So friendly and helpful.
41	Thanks for everything.
42	The counselor was amazing and so helpful! She made this process so comfortable and each time I asked questions she answered them thoroughly.
43	My first deposit was entered today. I will enjoy the money. Everything was explained very well with paperwork issues.
44	Thank you for laying everything out in a way that made it easy to understand!
45	Thank you for everything!
46	The counselor did an excellent job helping me through the entire process of retiring this year.
47	The counselor was very helpful and knowledgeable.
48	Made the whole process enjoyable instead of frightful!
49	Thank you for making this new chapter of my life less stressful.
50	Very helpful
51	Thank you for all you do.
52	TFFR staff is great, but there seems to be a disconnect with those retiring on TFFR and the PERS staff.
53	Thank you so much. I really appreciate your time and service. Thanks again.
54	The counselor was amazing to work with!
55	Awesome support and direction! Thank you for all you do for retirees.
56	The counselor is amazing. She made the process so easy. Thank you so much!
57	The service of TFFR was excellent. The staff made this process very easy to complete.
58	Very efficient! Glad they are there for me!
59	Thank you for your assistance in all.
60	Thank you for taking time with me.
61	Meetings, emails, and phone calls were very helpful. I appreciated when you let me know you had received something.
62	Thank you for your assistance!
63	Very easy process
64	Best service ever! Thank you!
65	Detail oriented, returned phone calls promptly.

Customer Feedback

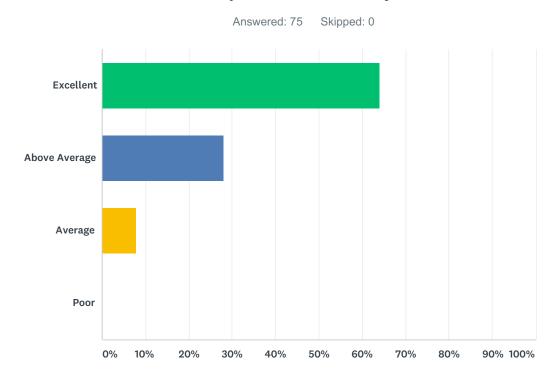
66	The counselor is awesome! My meeting with her last summer helped so much! She is also very good with emails to keep people informed.
67	The counselor was extremely helpful, professional and got paperwork completed for me.
68	Thank you for your guidance.
69	Extremely helpful and informative! Even helped me correct my error in a timely fashion. Plus they returned phone calls when they said they would.
70	Efficient & helpful.
71	Thank you so much for all your answers and assistance!
72	We were very satisfied with our service.
73	The counselor was always friendly, helpful, patient and kind. Your customer service is EXCELLENT! Thank you!
74	The counselor was friendly, informative, clear and so helpful. This made the whole process of annuity benefits easy for me. Thanks!
75	I want to thank you for all your help in my application.
76	Thanks for helping the process go well.
77	Very prompt and helpful. Thank you!
78	Excellent rapport, comunication and effectiveness!
79	I would like a personal phone call to ask if I had any questions for NDTFFR prior to starting. I was slightly confused when I received the forms and conversation by staff. I was unable to go to any event helped in my city.
80	I'm just finishing my first year of retirement. The staff at TFFR and NDPERS were great assisting me with all the paperwork.
81	Yes, so far so good!
82	This process took forever after all my papers were in. May need to look at your process!
83	Staff was courteous and helpful when I contacted the office to get my retirement benefits started!
84	This is a little late, but felt I needed to do this! All staff we have dealt with have been amazing! Thank you for everything!

Q1 What location did you attend?



ANSWER CHOICES	RESPONSES	
Larimore	28.00%	21
Williston	18.67%	14
Dickinson	20.00%	15
Valley City	33.33%	25
TOTAL		75

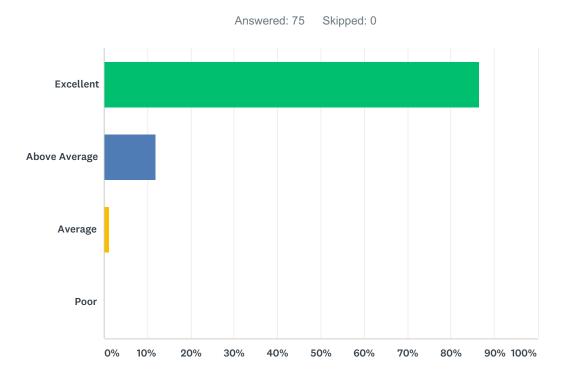
Q2 How would you rate the subject material?



ANSWER CHOICES	RESPONSES	
Excellent	64.00%	48
Above Average	28.00%	21
Average	8.00%	6
Poor	0.00%	0
TOTAL		75
WEIGHTED AVERAGE		3.5

#	COMMENTS
1	It's always a pleasure to attend these workshops.
2	TFFR presentation and info was very informative
3	Being a new business manager I learned a great deal at the meeting.
4	I thought it was very informative. I appreciated all the examples that were given. Nice job, ladies.
5	loved the game at the start! Did learn some things Thanks!

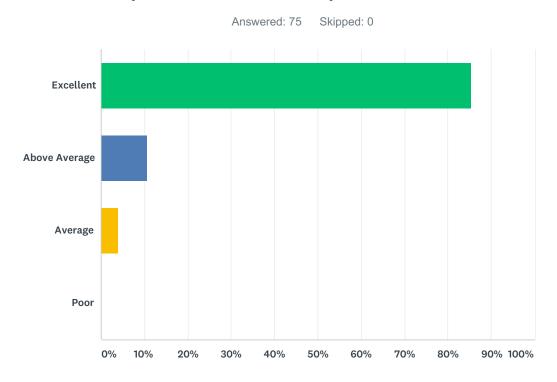
Q3 How knowledgeable, organized and effective were the speakers?



ANSWER CHOICES	RESPONSES	
Excellent	86.67%	65
Above Average	12.00%	9
Average	1.33%	1
Poor	0.00%	0
TOTAL		75
WEIGHTED AVERAGE		3.8

#	COMMENTS
1	I have attended many, many, many workshops with RIO staff and they do an excellent job explaining the ins and outs of the TFFR plans and give examples. They are always very professional and helpful when you call the office for help as well. I'm glad to hear that there is an individual training for new business managers in their office to help them. This is an excellent idea. Speaking from experience this would of been so helpful to me back when I started in 1982.
2	RIO staff are excellent speakers and are very knowledgeable about the subject. They are well prepared and answer questions thoroughly!!
3	RIO staff are great!!
4	They are always great!

Q4 How would you rate the service you receive from TFFR staff?



ANSWER CHOICES	RESPONSES	
Excellent	85.33%	64
Above Average	10.67%	8
Average	4.00%	3
Poor	0.00%	0
TOTAL		75
WEIGHTED AVERAGE		3.8

#	COMMENTS
1	Outstanding. I have always received professional, helpful advice. If there was something that needed to be researched, I got an answer back right away and a follow up.
2	Anytime I have questions and either call into the office, email or see them at a workshop, they thoroughly answer my questions!!
3	Always so courteous and helpful !!
4	Always so nice, friendly, and happy to answer questions which I very much appreciate!

Q5 How could we serve you better? Other comments?

Answered: 19 Skipped: 56

#	RESPONSES
1	Keep the trainings for new business managers and allowing them to do the fall and spring workshops every year.
2	I think everyone is doing a great job in keeping the BM on track!!
3	Would the ACH payment option to be initiated on your end, and not on my end.
4	The payroll upload to your website is awesome. It's quick and easy! Thank you for that!!!!
5	I am fairly new so I don't have an opinion at this time. =)
6	You all do a GREAT job with TFFR. Always kind and helpful when called upon. You guys rock!!!!!
7	Keep doing what you are doing :)
8	They do a great job.
9	Thanks for all you do!
10	RIO staff always do an excellent presentation and are also very helpful throughout the year!!
11	The presenters did a wonderful job.
12	The information given at the workshops is always good. And if I have a problem or concern, the people at TFFR are wonderful with fixing the issue. Thank you!
13	I was not aware that there was a workshop for new business managers.
14	RIO staff are always well prepared and answer our questions. Very nice to work with.
15	You do an excellent job.
16	would PERS ever come do a workshop on similar information? who is covered/reporting/rate increases?
17	You are already doing an excellent job!
18	Wonderful & helpful staff, never talk down to people.
19	Always excellent presenters and really enjoyed the different aspect of the ice breaker at the beginning with the questions

Teachers' Fund For Retirement (TFFR) 2019 Customer Satisfaction Survey Member & Employer Interest Groups

Q2 Organization

Answered: 5 Skipped: 0

#	RESPONSES
1	North Dakota United
2	ND School Board Association
3	North Dakota Retired Teachers Association
4	ND Assoc of School Business Managers
5	ND Council of Educational Leaders

Q3 Are you receiving quality service and information about the TFFR benefits program? Please check the response which best reflects your experience with TFFR.



	EXCELLENT	ABOVE AVERAGE	AVERAGE	POOR	N/A	TOTAL	WEIGHTED AVERAGE
Staff courtesy and professionalism	100.00% 5	0.00%	0.00%	0.00%	0.00%	5	4.00
Staff promptness of response	80.00% 4	20.00% 1	0.00%	0.00%	0.00%	5	3.80
Clarity and effectiveness of information	80.00% 4	20.00% 1	0.00%	0.00%	0.00%	5	3.80
Staff knowledge of TFFR program	100.00% 5	0.00%	0.00%	0.00%	0.00%	5	4.00
Ease of obtaining information or services - phone, website, newsletters, publications	80.00% 4	20.00% 1	0.00%	0.00%	0.00%	5	3.80
Member outreach services - presentations, conferences, benefits counseling and retirement education	60.00%	0.00%	40.00% 2	0.00%	0.00%	5	3.20
Employer outreach services - presentations, conferences, meetings	40.00% 2	0.00%	40.00% 2	0.00%	20.00%	5	3.00
Legislative proposals, presentations	80.00% 4	20.00% 1	0.00%	0.00%	0.00%	5	3.80
Overall quality of service	80.00%	20.00%	0.00%	0.00%	0.00%	5	3.80

Q4 How can the TFFR Board and/or RIO staff improve their service to TFFR members and employers?

Answered: 5 Skipped: 0

#	RESPONSES
1	We'd love to see more outreach to more members in the form of presentations and planning, including tailored presentations to those who are new to the profession.
2	NA
3	No suggestions.
4	Implement the website so employees can be entered electrically instead of all the paper forms.

Q5 Comments

Answered: 4 Skipped: 1

#	RESPONSES
1	Keep up the great work!
2	Easy to work with, professional and timely.
3	Thanks for your hard work!!
4	Thanks for all your hard work.



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Memorandum

<u></u>
TFFR Board
Connie Flanagan, CFO
July 15, 2019
Annual Affirmation of Code of Conduct Policy
Program Policy C-3, Board Members' Code of Conduct, which is attached to this memorandum the Code of Ethical Responsibility for the TFFR Board. Item #11 of this indicates that each Board Member is required to reaffirm their understanding of this innually and disclose any conflicts of interest. Therefore, please read and sign the ent below to comply with this requirement.
read and understand TFFR Program Process Policy C-3 Board Members' Code of ct. I have disclosed any conflicts of interest as required by this policy."
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Detail of any conflicts of interest (if any):

TFFR BOARD MEMO July 25, 2019

RE: Mission, Vision, and Value Statement Development

FROM: Rob Lech, TFFR Board President

BOARD FOCUS: Informational

At the April 25, 2019 meeting of the Teacher's Fund for Retirement board, it was approved to move forward with a comprehensive policy and governance review. That committee has been chaired by Mr. Cody Mickelson and includes Rob Lech, TFFR Board President and Mike Burton, TFFR Vice-President. At the Governance and Policy Review Committee meetings, it was determined that we should engage the full board in the review and development of mission, vision and value statements.

Timeline

To provide the appropriate time to comprehensively review, update and approve mission, vision and draft value statements, the process will be conducted over a period of meetings. As these are embedded into policies, we will approve them, consistent with policy adoption, as first and second readings.

The timeline will be to conduct the mission exercise at the July 25, 2019 meeting with a formal mission approval at the September 26, 2019 meeting. A vision exercise will be completed at this same meeting with a formal vision approval at the October 24, 2019 meeting. Finally, the value statement exercise will be completed at the October 24 meeting with a formal value statement approval at the January 23, 2020 meeting.

Mission Exercise

The mission development exercise will be conducted in three stages at the July 25, 2019 meeting: 1) Individual, 2) Small Group, and 3) Full Board.

Initially, board members will work individually to identify our cause, our actions, and our impact and use those to draft a mission statement. Next, board members will share their draft mission statement with other board members in groups of 2-3 and develop one statement to bring to the full group. Finally, the groups will present their draft mission statement to the full board. Through a selection process, the board will approve a mission statement through a policy reading at the next regular meeting.

Recommended Action: Informational			

North Dakota Teachers Fund for Retirement

Board Exercise

Mission Statement Review and Development

Mission is defined as "a purpose, reason for being". <u>A mission statement focuses on today and contains important information about the organization.</u>

All mission statements have three elements: CAUSE, ACTIONS, and IMPACT

OUR CAUSE: Who? What? Where?

OUR ACTIONS: What we do

OUR IMPACT: Changes for the better

A good definition for a mission statement is a <u>sentence or short paragraph which is written to reflect</u> an <u>organization</u>'s core purpose, identity, values, and principle organizational goals.

Current TFFR Mission:

The mission of TFFR, a trust fund, is to advocate for, develop, and administer a comprehensive retirement program for all trust fund members within the resources available.

Mission Statement Exemplars:

- 1. "Enriching our community through the power of live music that educates, entertains and inspires"
- 2. "Engaging students with challenging and innovative experiences to prepare them for future success"
- 3. "Administer a cost-efficient retirement plan that provides lifetime pension payments to public employees and serves to attract and retain a quality workforce"

OUR CAUSE	
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OUR IMPACT CHANGES FOR THE BETTER	
CHANGES FOR THE BETTER	
CHANGES FOR THE BETTER	

Confidential information will be sent separate when available.	
	ı will be sent separately



NDTFFR Board Reading July 2019

- <u>State and Local Government Contributions to Statewide Pension</u>
 <u>Plans.</u> National Association of State Retirement Administrators
 (NASRA): June 2019.
- <u>Auto-Triggers: Exploring their Potential in the Public Pension</u>
 <u>Ecosystem.</u> National Conference on Public Employee Retirement Systems (NCPERS), April 2019.
- How has the Decline in Assumed Returns Affected Plan Costs?
 Center for Retirement Research at Boston College, June 2019.
- <u>Do Benefit Cuts Encourage Public Employees to Leave?</u>
 Center for Retirement Research at Boston College, May 2019.
- The Implications of Social Security's Missing Trust Fund.
 Center for Retirement Research at Boston College, June 2019.
- Social Security's Financial Outlook: the 2019 Update.
 Center for Retirement Research at Boston College, May 2019.
- <u>Maintaining Target Allocations: Effects on Plan Performance.</u>
 Center for Retirement Research at Boston College, April 2019.
- The State Pension Funding Gap: 2017.
 The Pew Charitable Trusts, June 2019
- <u>Legal Protections for State Pension and Retiree Health Benefits.</u>
 The Pew Charitable Trusts, May 2019.