

REVISED

Agenda

ND Teachers' Fund for Retirement Board Meeting

Thursday, March 23, 2017
1:00 pm

Workforce Safety & Insurance Board Room
1600 East Century Avenue
Bismarck, ND

1. Call to Order and Approval of Agenda - Pres. Gessner (Board Action) 5 min.
2. Approval of Minutes January 26, 2017 Meeting – Pres. Gessner (Board Action) 5 min.
3. Board Education: Audit Services Overview – Terra Miller Bowley (Information) 10 min.
4. Quarterly Audit Services Update – Terra Miller Bowley (Information) 10 min.
5. 2017 Legislative Update – Fay Kopp (Information) 15 min.
6. Teacher Shortage Areas – Supt. Baesler (Information) 10 min.
7. Actuarial Consulting RFP – Fay Kopp (Board Action) 15 min.
*Possible executive session to discuss exempt material pursuant to NDCC 44-04-18.4(6), and discuss negotiating strategy and provide negotiating instructions pursuant to NDCC 44-04-19.1(9).
8. Quarterly Investment Update – Dave Hunter (Information) 15 min.
9. Board Policy – 1st Reading - Fay Kopp (Board Action) 15 min.
 - In-staff Subbing Contract Period Policy C-24
10. Pension Plan Comparisons Report – Fay Kopp (Board Action) 30 min.
11. 2016-17 Board Calendar and Education Plan – Fay Kopp (Board Action) 10 min.
12. Other Business
Next Board Meeting: April 27, 2017 (WSI)
13. Adjournment

Any person who requires an auxiliary aid or service should contact the Retirement and Investment Office at 701-328-9885 at least three (3) days before the scheduled meeting.

**NORTH DAKOTA TEACHERS' FUND FOR RETIREMENT
MINUTES OF THE
JANUARY 26, 2017, BOARD MEETING**

BOARD MEMBERS PRESENT: Mike Gessner, President
Mike Burton, Trustee
Toni Gumeringer, Trustee
Rob Lech, Trustee
Mel Olson, Trustee
Kelly Schmidt, State Treasurer

ABSENT: Kirsten Baesler, State Superintendent

STAFF PRESENT: David Hunter, ED/CIO
Fay Kopp, Deputy ED/CRO
Terra Miller Bowley, Audit Services Supervisor
Darlene Roppel, Retirement Assistant
Shelly Schumacher, Retirement Program Manager

OTHERS PRESENT: Janylyn Murtha, Attorney General's Office
Nancy Peterson, NDU-R
Rebecca Pitkin, ND ESPB

CALL TO ORDER:

Mr. Mike Gessner, President of the Teachers' Fund for Retirement (TFFR) Board of Trustees, called the board meeting to order at 1:00 p.m. on Thursday, January 26, 2017, in the Board Room at Workforce Safety & Insurance (WSI) in Bismarck, ND.

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

Supt. Baesler was absent.

APPROVAL OF AGENDA:

The Board considered the meeting agenda.

MR. LECH MOVED AND MR. OLSON SECONDED TO APPROVE THE AGENDA AS PRESENTED.

AYES: TREASURER SCHMIDT, MR. BURTON, MR. LECH, MRS. GUMERINGER, MR. OLSON, AND PRESIDENT GESSNER

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

MINUTES:

The board considered the minutes of the regular TFFR board meeting held October 27, 2016.

MR. OLSON MOVED AND MR. BURTON SECONDED TO APPROVE THE MINUTES OF THE REGULAR TFFR BOARD MEETING HELD OCTOBER 27, 2016.

AYES: MR. LECH, MR. OLSON, TREASURER SCHMIDT, MR. BURTON, MRS. GUMERINGER, AND PRESIDENT GESSNER

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

BOARD EDUCATION: ND TEACHER SHORTAGES:

Mrs. Kopp introduced Ms. Rebecca Pitkin, Executive Director of the Education Standards and Practices Board (ESPB). Ms. Pitkin explained the process of determining critical shortage areas, alternative access licenses, and the benefits of shortage designations. Since the 2014-15 school year, ESPB has designated all areas as critical shortage areas. ESPB is working to alleviate shortages by changing some of the requirements for special education teachers and substitute teachers, recognition of other state educator licenses, and allowing Praxis test for endorsement in areas other than the educator's degree. She also commented on proposed legislation and rules to change license configuration and enable secondary majors to teach with a minor.

Ms. Pitkin explained that fewer individuals are choosing teaching as a career so there are fewer teacher education candidates. She also noted that it is challenging to increase flexibility while still maintaining high quality teachers, and doing what is best for kids.

2017 LEGISLATIVE UPDATE:

Mrs. Kopp gave an update on bills that are being monitored during the Legislative session that could potentially impact TFFR. The main concern is Retirement and Investment Office (RIO) budget bills, HB 1022 and HB 1082. As with other state agencies, budget cuts are being considered. Other bills being monitored include HB 1088, HB 1175, HB 1318, and SB 2030.

IRS DETERMINATION LETTER UPDATE:

Mrs. Kopp reported on the Internal Revenue Service (IRS) determination letter application which was made in January 2016. A request for more specific definitions of eligible retirement plan, eligible rollover, and other terms relating to the definition of direct rollover was received on January 13, 2017. While TFFR plan statutes may not currently contain the exact terminology requested, TFFR is operating in compliance with the Internal Revenue Code (IRC) rollover rules. These

technical clarifications will require changes to state law through the legislative process. The deadline for making the changes is 90 days after the 2019 legislative session ends. Since TFFR did not submit a bill in the current legislative session, the Board concurred to submit a bill in the 2019 session to make the necessary changes. Ms. Murtha will respond to the request from IRS.

QUARTERLY INVESTMENT UPDATE:

Mr. Hunter presented the quarterly investment update. Net investment return for one year ended 9/30/16 is 9.43% which exceeds the policy benchmark of 9.1%. TFFR generated a net return of 9.6% for the 5-years ended 9/30/16 which exceeded the policy benchmark of 8.9%. During the last 5 years, asset allocation and active management generated over \$780 million and \$65 million of TFFR's net investment income, respectively. TFFR's investment returns have consistently ranked in the second quartile of the Callan Public Fund Database over the last 5 years. Public market asset classes are all above their respective medians except cash. TFFR actual allocations are within 1% to 3% of target allocations. Mr. Hunter also reviewed managers that are currently on the State Investment Board (SIB) Watch List.

2016 GASB 67 & 68 REPORT:

Mrs. Schumacher reviewed the 2016 GASB 67 & 68 report. It was prepared by TFFR's actuary, Segal Company, and audited by the plan's auditor, CliftonLarsonAllen. The report will be posted on the TFFR website to be utilized by the school districts in their 2017 financial statements. Mr. Lech and Mr. Olson thanked TFFR for providing this information to school districts.

MR. LECH MOVED AND MRS. GUMERINGER SECONDED TO ACCEPT THE GASB 67 & 68 REPORT.

AYES: TREASURER SCHMIDT, MRS. GUMERINGER, MR. OLSON, MR. BURTON, MR. LECH, AND PRESIDENT GESSNER.

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

The meeting recessed at 2:27 p.m. and reconvened at 2:41 p.m.

ACTUARIAL CONTRACT:

Mrs. Kopp reviewed information on the current actuarial contract with Segal Company and actuarial fees paid in the last ten years. Segal Company has been the actuarial consultant since 2011. Their current contract will expire June 30, 2017. The Board considered whether to extend the contract or conduct a full search utilizing the Request for Proposal (RFP) process since it has been six years since the last RFP. After discussion,

MR. OLSON MOVED AND MR. LECH SECONDED TO PREPARE A REQUEST FOR PROPOSAL FOR TFFR'S ACTUARIAL CONSULTANT.

AYES: MRS. GUMERINGER, MR. LECH, TREASURER SCHMIDT, MR. BURTON, MR. OLSON, AND PRESIDENT GESSNER.

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

Mrs. Kopp outlined a proposed process similar to previous RFP's issued. Mrs. Kopp will prepare the RFP in conjunction with legal counsel and state procurement; a Committee of three RIO staff members will evaluate the proposals submitted; and summary information will be reviewed at the March 23, 2017, board meeting. If desired by the Board, finalists will be invited to the April 27, 2017, board meeting where a decision on awarding of the contract will be made, with the new contract beginning July 1, 2017. The Board concurred with this process.

ELIGIBLE SALARY DISCUSSION:

Mrs. Kopp introduced a question that has come up regarding whether certain salary payments made to TFFR members who are local education association (LEA) presidents and granted contract release time to perform union related duties are eligible retirement salary for TFFR purposes. This issue has been forwarded to TFFR's legal counsel for review. Depending on the outcome of the legal review, a board policy may be drafted for Board consideration at the March 23, 2017, TFFR board meeting.

TFFR BOARD POLICIES:

Mrs. Kopp presented the second reading of policy C-23 - Board Policy Introduction/Amendment/Passage and C-24 - In-staff Subbing Contract Period.

MR. OLSON MOVED AND TREASURER SCHMIDT SECONDED TO ADOPT POLICY C-23 BOARD POLICY INTRODUCTION/AMENDMENT/PASSAGE.

AYES: MR. BURTON, MRS. GUMERINGER, MR. OLSON, TREASURER SCHMIDT, MR. LECH, AND PRESIDENT GESSNER.

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

The Board considered Policy C-24, In-Staff Subbing Contract Period which was developed after review by the Board, stakeholder groups, legal counsel, and staff to clarify TFFR's current practice. Concerns about the current practice and draft policy were expressed by board members because of the shortage of substitute teachers, particularly in the rural areas. It was suggested that the Board reconsider the option of using the teacher's work schedule to determine the length of the

contract period for in-staff subbing, but only in cases where it is specifically detailed on the member's contract. After discussion,

MR. BURTON MOVED AND MRS. GUMERINGER SECONDED TO ADOPT POLICY C-24 IN-STAFF SUBBING CONTRACT PERIOD.

AYES: MR. BURTON AND PRESIDENT GESSNER.

NAYS: TREASURER SCHMIDT, MR. OLSON, MR. LECH, AND MRS. GUMERINGER.

MOTION FAILED.

ABSENT: SUPT. BAESLER

After further discussion, Board members asked staff to revise the draft board policy and provide additional information at the next meeting.

ANNUAL TFFR ENDS AND STATISTICS REPORT:

Mrs. Schumacher presented the annual Retirement Ends and Statistics Report for the year ended June 30, 2016. She provided information on members and employers, collections and payments, employer summary report and members' statements, employer outreach programs and communications, service purchases, tier membership, service retirements, disability retirements, and re-employed retiree reports. A new business manager workshop was held in June 2016 at the TFFR office; more workshops are being planned. The first webcast, How to Apply for Retirement Benefits, was added to the TFFR website; more will be added in the future. After discussion,

TREASURER SCHMIDT MOVED AND MR. LECH SECONDED TO ACCEPT THE ANNUAL TFFR ENDS AND STATISTICS REPORT.

AYES: MR. BURTON, MR. LECH, MRS. GUMERINGER, MR. OLSON, TREASURER SCHMIDT, AND PRESIDENT GESSNER.

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

ANNUAL RETIREMENT TRENDS REPORT:

Mrs. Schumacher presented the annual Retirement Trends Report. Of the 10,980 active members, 1,087 members are currently eligible to retire. On average, 378 teachers actually retired each year for a total of almost 3,800 for the 10 year period. After discussion,

MRS. GUMERINGER MOVED AND MR. BURTON SECONDED TO ACCEPT THE ANNUAL RETIREMENT TRENDS REPORT.

AYES: MR. OLSON, MRS. GUMERINGER, MR. LECH, TREASURER SCHMIDT, MR. BURTON, AND PRESIDENT GESSNER.

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

QUARTERLY AUDIT SERVICES REPORT:

Ms. Miller Bowley presented the quarterly audit activities report for July 1, 2016 - September 30, 2016. Eleven TFFR employer audits have been completed, five were in progress, five were pending but not yet started, and five employers were notified of an upcoming audit. Other audits completed include: benefit payment audit, TFFR file maintenance audit, and Executive Limitations audit. Audit Services provided support to the external auditor, CliftonLarsonAllen. Work continued on the Audit Service's Policy and Procedure Manual. The internship program concluded on August 19, 2016.

2015 CAFR AND PPCC AWARDS:

Mrs. Kopp reported the Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to RIO for the past 18 years. In addition, TFFR has received the 2016 Public Pension Standards Award for Administration from the Public Pension Coordinating Council (PPCC). TFFR has received an award for administration and/or funding from PPCC since 1992.

TFFR WEBCAST LIBRARY:

Mrs. Kopp encouraged board members to view the seven webcasts that have been added to the TFFR website. Each one is 9-14 minutes in length and provides information about the TFFR plan to members, employers and the public. Plans are to expand this webcast library in the future.

CONSENT AGENDA:

MRS. GUMERINGER MOVED AND MR. LECH SECONDED TO APPROVE THE CONSENT AGENDA WHICH CONSISTED OF DISABILITY APPLICATION # 2017-1D.

AYES: MR. LECH, TREASURER SCHMIDT, MR. BURTON, MRS. GUMERINGER, MR. OLSON, AND PRESIDENT GESSNER.

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

OTHER BUSINESS:

Mr. Hunter reviewed the agenda for the SIB meeting that will be held Friday, January 27, 2017.

The next regular board meeting will be held March 23, 2017, in the board room at WSI.

All presentations and reports from this meeting are on file at RIO.

ADJOURNMENT:

With no further business to come before the Board, President Gessner adjourned the meeting at 4:21 p.m.

Respectfully Submitted:

Mr. Mike Gessner, President
Teachers' Fund for Retirement Board

Darlene Roppel
Reporting Secretary

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: March 16, 2017
SUBJ: BOARD EDUCATION: AUDIT SERVICES OVERVIEW

Audit Services plays a critical role within the RIO organization, and provides valuable services to the TFFR and SIB programs. Terra Miller Bowley, Supervisor of Audit Services, will present information about the responsibilities and audits conducted by the Audit Services staff, with emphasis on those relating to the TFFR program.

Board Information Only. No board action is requested.

Attachments

RIO's Audit Services Division TFFR Employer Auditing

Terra L. Miller Bowley
TFFR Board Education
March 23, 2017

RIO's Audit Services Division

- RIO's Audit Services Division is comprised of two full time staff members who report administratively to the Executive Director/CIO and functionally to the State Investment Board (SIB) Audit Committee.
- Dottie Thorsen is a staff auditor and has been employed with RIO for over 18 years. 100% of her time is allocated to TFFR related audits. She is primarily responsible for TFFR Employer Audits, TFFR File Maintenance Audits, and the TFFR Benefit Payment Audit.
- Terra Miller Bowley is the Supervisor of Audit Services and has been employed with RIO for 2 and ½ years. 70% of her time is allocated to TFFR with the remaining 30% allocated to investment activities. She is primarily responsible for TFFR Employer Auditing, TFFR File Maintenance Audits, Executive Limitations Audit, and assisting RIO's External Auditors.

Primary Audit Responsibilities

TFFR Employer Auditing	76%
TFFR File Maintenance Audit	13%
TFFR Benefit Payment Audit	5%
Executive Limitation Audit	5%
RIO External Audit	1%

- TFFR File Maintenance Audit – Reviews changes made to TFFR member account data by staff within CPAS. Ensures changes made by staff are expected and appropriate given an individual's role within the organization. Also verifies changes are properly documented.
- TFFR Benefit Payment Audit – Reviews the processing and handling of deaths, long outstanding checks, and long term annuitants to ensure policies and procedures are being followed by staff.
- Executive Limitation Audit – Completed at the request of the SIB. Ensures the Executive Director/CIO is in compliance with the SIB Governance Manual Executive Limitation Policies A-1 – A-11.

TFFR Employer Auditing

- **Multiple Audits, One Purpose...**
 - A majority of audit resources are dedicated to TFFR Employer Auditing. The employer auditing program is actually comprised of several different audits which include:
 - Compliance Audits
 - Not in Compliance (NIC) Reviews
 - Requested Special Audits
 - Annual Salary Verification Project
 - The primary purpose of all employer auditing is to determine if the retirement salaries and contributions reported to TFFR by a participating employer are in compliance with the definition of salary as it appears in the North Dakota Century Code (N.D.C.C. § 15-39.1-04 (9)).
 - 70 -75 participating employers are audited by RIO's Audit Services Division in any given fiscal year.

TFFR Employer Auditing

- **Who Can Be Audited...**

- At the close of fiscal year 2016 TFFR had 214 participating employers which included school districts, special education units, vocational centers, state agencies, county superintendents, and others.
 - Participating employers with 10 or fewer total members are not eligible for inclusion in the employer auditing program.
 - County superintendents and Regional Education Associations (REA) are not included in the employer auditing program at this time.
 - 174 participating employers are currently eligible to be audited.

TFFR Employer Auditing

- **How Are Audits Prioritized...**

- Audit Services considers several factors when determining the order in which participating employers are audited. Those factors include:
 - Has a change in key personnel (superintendent and/or business manager) recently occurred?
 - Yes = ↑ Risk No = ↓ Risk
 - Has the employer recently changed payment models (Model 1, Model 2, etc.)?
 - Yes = ↑ Risk No = ↓ Risk
 - How long has it been since the employer was audited by RIO's Audit Services?
 - 3 or More Years = ↑ Risk 2 or Less Years = ↓ Risk
 - Was the employer found to be in compliance with reporting requirements at the conclusion of their most recent audit?
 - Yes = ↓ Risk No = ↑ Risk
 - Do staff have any concerns related to the accuracy and timeliness of reporting from the employer?
 - Yes = ↑ Risk No = ↓ Risk
- Employers with the highest “risk” are audited before employers with a lower “risk”.

TFFR Employer Auditing

- **TFFR Compliance Audit...The Basics**

- Every participating employer receives a TFFR Compliance Audit every eight years on a rotating cycle.
 - Since the inception of RIO's Audit Services Division three complete audit cycles have been completed.
 - The fourth audit cycle began in May 2016 and is projected to be completed in May 2024.
- Audit Services completes between 20 and 25 TFFR Compliance Audits each fiscal year.
- A TFFR Compliance Audit has an audit period of two years and verifies:
 - Reported salaries and contributions.
 - Reported service hours.
 - Eligibility for TFFR membership.

TFFR Employer Auditing

- **TFFR Compliance Audit...Sampling**

- Rarely are 100% of the members reported by a participating employer included in a TFFR Compliance Audit, except in cases of a systemic error.
 - A systemic error is an error which has caused the salaries and contributions of every member of a participating employer to be reported incorrectly.
- A sample of members reported by the participating employer is selected using a judgmental sampling technique.
 - Judgmental sampling is a non-probability sampling technique where a sample is selected by an individual based on their knowledge and professional experience.
- The size of the sample is based on the size of the participating employer.

Employer Size	Sample Size
Up to 250 Teachers/Administrators	3
251 to 500 Teachers/Administrators	5
501 to 700 Teachers/Administrators	6
701 to 900 Teachers/Administrators	7
901 to 975 Teachers/Administrators	9
976 or more Teachers/Administrators	10

TFFR Employer Auditing

- **TFFR Compliance Audit...Notification**

- The participating employer (business manager and superintendent) receives an audit notification via email.
- The employer is required to provide the following information within 30 days of notification:
 - Copies of individual contracts and payroll ledgers for each sample member. Employers are required to also provide a salary reconciliation which identifies each type of salary paid.
 - Copies of any negotiated agreements, salary schedules, and extra-curricular payment schedules.
 - Completed audit questionnaire which provides information regarding the employer's reporting practices.
 - Completed service hours worksheet. This is an Excel worksheet which assists in the calculation of actual hours worked by full-time and part-time employees.
- RIO's Audit Services notifies approximately 10 – 15 participating employers of an upcoming TFFR Compliance Audit each fiscal year.

TFFR Employer Auditing

- **TFFR Compliance Audit...The Details**

- The salaries and contributions which should have been reported for the individual members are calculated utilizing the information provided by the employer. The results are then compared to the amounts actually reported by the employer.
 - If the employer has failed to report eligible salary to TFFR, the member account is updated to reflect the corrected salary and the employer is billed for the contributions owed with interest.
 - If the employer reported ineligible salary to TFFR, the member account is updated to reflect the corrected salary and the contributions paid are refunded to the employer.
- Service hours reported by the employer are reviewed for accuracy. For part-time members the actual number of hours worked must be reported. For members who work in excess of 700 hours, a total of 700 hours should be reported.
 - If the service hours reported by the employer are incorrect, the member account is updated to reflect the corrected number of service hours.
- Eligibility for TFFR membership is verified. To be eligible for TFFR membership an individual must be currently licensed to teach in North Dakota by the ESPB and contractually employed in teaching, supervisory, administrative, or extracurricular services. Licenses are verified directly with ESPB.
 - If an employer has reported an individual ineligible for TFFR membership , the member account is closed and contributions paid are refunded.
 - If an employer has failed to report an individual eligible for TFFR membership, a member account is created and the employer is billed for the contributions owed with interest.

TFFR Employer Auditing

- **TFFR Compliance Audit...The Report**

- At the conclusion of a TFFR Compliance Audit a determination is made regarding an employer's compliance with reporting requirements. An employer can be found in compliance, generally in compliance, and not in compliance.
- The employer receives a copy of the audit report along with supporting documentation. Any reporting errors identified during the course of the audit are detailed in the audit report. Individual members are notified if a correction was made to their account as a result of the audit.
- Employers are required to provide a written response within 30 days of receiving the audit report. The written response must detail the actions the employer has taken or intends to take to correct the reporting errors noted in the audit report.
- Employers must also remit payment for any contributions and interest owed within 30 days of receiving the audit report.
- Employers who are determined to be in compliance or generally in compliance will be eligible for another TFFR Compliance Audit in eight years.
- Employers who are determined to be not in compliance will receive a Not in Compliance (NIC) Review.

TFFR Employer Auditing

- **Not in Compliance (NIC) Review...**

- The purpose of the NIC Review is to follow-up with the employer and review a sample of salaries and contributions that have been reported to TFFR after the conclusion of the TFFR Compliance Audit to ensure reporting errors identified during the prior audit have been corrected.
- A NIC Review follows a process similar to the one previously detailed for the TFFR Compliance Audit. However the audit period is one fiscal year.

- **Requested Special Audit...**

- On occasion Retirement Services requests that an audit be conducted on a particular employer for a specific timeframe.
 - Each audit is driven by the particular circumstance which necessitated the request.
 - The audit may involve a sample of members reported by a participating employer or all members reported by a particular employers.
 - The audit may focus on a particular month, fiscal year, or multiple fiscal years.

TFFR Employer Auditing

- **Annual Salary Verification Project...The Basics**
 - The Salary Verification Project is intended to:
 - Supplement other auditing activities, in particular TFFR Compliance Audits.
 - Increase the number of participating employers included in overall audit activities each fiscal year.
 - Reinforce to our participating employers the importance of timely and accurate reporting.
 - Audit Services completes this particular audit each fiscal year during the third or fourth quarter. The audit includes 50 members from 50 participating employers.
 - The Salary Verification Project has an audit period of one year and verifies:
 - Reported salaries and contributions.
 - Reported service hours.
 - Eligibility for TFFR membership.

TFFR Employer Auditing

- **Annual Salary Verification Project...Sampling**

- The initial sample population includes all member accounts which have a \$5,000 increase or decrease in retirement salary reported to TFFR.
- Member accounts are then eliminated if the member is employed by a participating employer who:
 - Is currently being audited.
 - Has been notified of an upcoming audit.
 - Has been audited in the last 12 months.
 - Has been selected for and participated in a GASB 68 Census Data Audit.
 - Were included in the prior year Salary Verification Project.
- One member account is selected from each of the remaining participating employers until 50 member accounts have been selected.
- This sampling approach ensures that the member accounts selected for inclusion in the audit come from participating employers who have not been in contact with RIO's Audit Services Division or our external auditors for at least one fiscal year.

TFFR Employer Auditing

- **Annual Salary Verification Project...Notification**
 - The participating employer (business manager and superintendent) receives an audit notification via email.
 - The employer is required to provide the following information within 10 days of notification:
 - Copies of individual contracts and payroll ledgers for the sample member.
 - Salary reconciliation which identifies each type of salary paid to the sample member.

TFFR Employer Auditing

- **Annual Salary Verification Project...The Details**
 - The salaries and contributions which should have been reported for the individual members are calculated utilizing the information provided by the employer. The results are then compared to the amounts actually reported by the employer.
 - If the employer has failed to report eligible salary to TFFR, the member account is updated to reflect the corrected salary and the employer is billed for the contributions owed with interest.
 - If the employer reported ineligible salary to TFFR, the member account is updated to reflect the corrected salary and the contributions paid are refunded to the employer.
 - Service hours reported by the employer are reviewed for accuracy. For part-time members the actual number of hours worked must be reported. For members who work in excess of 700 hours, a total of 700 hours should be reported.
 - If the service hours reported by the employer are incorrect, the member account is updated to reflect the corrected number of service hours.
 - Eligibility for TFFR membership is verified. To be eligible for TFFR membership an individual must be currently licensed to teach in North Dakota by the ESPB and contractually employed in teaching, supervisory, administrative, or extracurricular services. Licenses are verified directly with ESPB.
 - If an employer has reported an individual ineligible for TFFR membership , the member account is closed and contributions paid are refunded.
 - If an employer has failed to report an individual eligible for TFFR membership, a member account is created and the employer is billed for the contributions owed with interest.

TFFR Employer Auditing

- **Annual Salary Verification Project...The Report**
 - At the conclusion of the Salary Verification Project the employer receives a letter which details any errors identified during the course of the audit. This letter serves as the formal audit report.
 - Individual members are notified if a correction was made to their account as a result of the audit.
 - Employers must remit payment for any contributions and interest owed within 30 days of receiving the letter.
 - Retirement Services is notified if during the course of the audit any concerns regarding the accuracy of employer reporting are identified. Information gathered during the course of the audit is also used when prioritizing TFFR Compliance Audits in the next fiscal year.

QUESTIONS



**RETIREMENT AND INVESTMENT OFFICE
AUDIT SERVICES
2016 - 2017 2nd Quarter Audit Activities Report
October 1, 2016 – December 31, 2016**

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

Audit coverage is based on the July 1, 2016 through June 30, 2017 work plan approved by the SIB Audit Committee. The audit activities undertaken are consistent with the Audit Services charter and goals, and the goals of RIO. To the extent possible, our audits are being carried out in accordance with the International Standards for the Professional Practice of Internal Auditing. Audit effort is being directed to the needs of RIO and the concerns of management and the SIB Audit Committee.

Retirement Program Audit Activities

• **TFFR Compliance Audits and Not In Compliance (NIC) Reviews**

We examine employer reporting to the Teachers' Fund for Retirement (TFFR) to determine whether retirement salaries and contributions reported for members of TFFR are in compliance with the definition of salary as it appears in NDCC 15-39.1-04(9). Other reporting procedures reviewed during the audit process are calculation of service hours and eligibility for TFFR membership. A written report is issued after each audit examination is completed.

From October 1, 2016 to December 31, 2016:

- Five TFFR Compliance Audits were completed.
- Eight TFFR Compliance Audits were in progress.
- Three TFFR Compliance Audits were pending but not yet started.

A total of sixteen TFFR Compliance Audits had been completed year to date as of December 31, 2016. Since September Audit Services has suspended all other audit activity, when possible, to focus all available resources on the completion of TFFR Compliance Audits. At this time Audit Services does believe that a total of 20 – 25 TFFR Compliance Audits will be completed by the end of the fiscal year which would be consistent with the approved audit plan.

This is an area that requires special emphasis due to the level of risk identified through previous audit results. Our long-range plans include auditing each employer over a five year period.

• **TFFR File Maintenance Audits**

Audit Services tests changes made to TFFR member account data by RIO employees on a quarterly basis. Audit tables are generated and stored indicating any file maintenance changes made to member accounts. The TFFR File Maintenance Audit for the first quarter of fiscal year 2017 was completed and no exceptions were noted.

Administrative and Investment Audit Activities

• **Executive Limitation Audit**

On an annual basis Audit Services reviews the Executive Director/CIO's level of compliance with SIB Governance Manual Executive Limitation policies A-1 through A-11. Executive Limitation A-2 references staff relations. In an effort to gain insight into the relationship which exists between the Executive Director/CIO and staff an organization wide employee survey is conducted to provide employees the opportunity to evaluate the effectiveness of the Executive Director/CIO in the area of leadership, communication, and valuing employees. This survey was administered in December 2016.

Professional Development Activities

Audit Services continues to pursue networking and professional development opportunities via the IIA's local chapter, Central Nodak. Staff attended monthly IIA meetings throughout the quarter. In November 2016 the Supervisor of Audit Services participated in the IIA's annual student night as a round table discussion leader. The

Supervisor of Audit Services attended the IIA's fall seminar in October 2016 which focused on forensic accounting and financial statement fraud analysis. Staff anticipates attending the IIA's spring seminar in May 2017. Funds for professional development will likely be eliminated in the next biennium and the spring seminar represents one of the last opportunities prior to the end of the current biennium for any type of professional development.

Summary

Audit effort is directed to activities that are of greatest concern to the SIB Audit Committee, RIO Management, and our external audit partners. Audit Services will continue to work closely with the SIB Audit Committee, RIO Management, and our external audit partners to continue to improve overall efficiency, effectiveness, and economy of total audit activity.

TFFR Legislative Update

March 17, 2017

BILL NO. DESCRIPTION INTRODUCED BY:

HB 1022 RIO Budget Appropriations Committee

HB 1022 contains the 2017-19 budget authority and continuing appropriations for the Retirement and Investment Office (RIO) administrative expenses for operating the retirement program for the TFFR Board and the investment program for the SIB.

The House amended RIO's budget and reduced it from \$5.41 million to \$5.27 million. Operating Expenses were cut by 20% or \$200,000 and Contingencies were cut by 37% or \$30,000. Salaries and Wages increased by 2% or \$89,000 due to higher health care costs (\$54,000) and cost to continue salary increases implemented in our current biennium. The **House approved the amended bill** by vote of 81-10.

The Senate Appropriations Committee held a hearing on Engrossed HB 1022 on 3/7/17. Dave, Connie, and Fay attended. Dave presented testimony (attached) which was well received by the Committee. RIO requested that the Senate add back \$87,750 in temporary salaries and critical staff and board travel and professional development. Please note that this is a 1.0% decrease to RIO's current 2015-17 budget, and a 1.7% increase to the House approved 2017-19 budget.

HB 1022 RIO Budget Request to Senate						
	Current 2015-17 Base Level Biennium Budget	House Approved Budget for 2017-19 HB 1022	RIO's Amend- ment Request to Senate		RIO Budget Request Amendment to Senate (c)	% Change to House
Salaries and wages	4,340,551	4,429,510	8,541	a	4,438,051	0.2%
Operating expenses	990,874	790,027	79,209	b	869,236	10.0%
Capital assets	-	-	-		-	-
Contingencies	82,000	52,000	-		52,000	-
Total special funds	5,413,425	5,271,537	87,750		5,359,287	1.7%
FTE positions	19	19	-		19	-

Summary of Changes to House Approved Budget:

(a) Salary and wages increased by \$8,541 for Temporary Salaries.

(b) Operating Expenses increased by \$79,209 to maintain "critical" staff and board travel and professional development.

(c) RIO's request of \$5,359,287 is a 1% decrease to our 2015-17 budget and a 1.7% increase to the House approved bill.

No action has been taken by the Committee.

OTHER BILLS OF INTEREST:

HB 1023	PERS Budget	Appropriations Com.
-------------------------	--------------------	----------------------------

HB 1023 is the PERS appropriations bill. In addition to PERS budget items, the House approved amendments to the bill which would change the governance of PERS. These amendments make the PERS Retirement Board advisory and change its membership; create a state agency called the PERS Office; provide that the Governor appoint an Executive Director of the PERS Office; modify the membership on the SIB to include two members of the PERS advisory board and the PERS Office executive director or designee; and add three nonvoting members of the PERS advisory board to the interim Legislative Employee Benefits Programs Committee. The actuarial and technical analysis determined that there would be no actuarial impact on the PERS plan, however the amendments would have an impact on the governance of PERS, as well as potentially affect the governance of the SIB and RIO. The **House approved the amended bill** by a vote of 76-15.

The Senate GVA Committee held a hearing on Engrossed HB 1023 on 3/2/17. House Majority Leader Al Carlson presented the House amendments to the PERS budget bill, and indicated the possibility of additional amendments to separate the insurance and retirement aspects of the bill due to fiduciary concerns brought forward. Rep. Kasper also testified in favor of the bill. Testifying in opposition (or no position) on various sections of the bill were NDPERS Exec. Director Sparb Collins, ND United President Nick Archuleta, Senator Dever, and a retired public employee. Concerns brought up by those testifying in opposition to the bill was the process by which the amendments were added, lack of time to study the implications of the amendments, lack of member and employer input (including political subdivisions), and the need to study such significant changes relating to governance and fiduciary oversight of the PERS program from a multi-trustee to a sole trustee structure.

Senate Appropriations Committee has scheduled a hearing for 3/20 at 9 am.

HB 1088	Risk Management - Data Breach Response Costs	OMB
-------------------------	---	------------

HB 1088 would allow the State's Risk Management fund to cover state agencies for certain 1st party costs associated with a data breach including notification of affected parties, credit counseling, etc. A related OMB bill also includes special fund appropriation authority for self-insurance remediation costs, i.e. fixing the issues related to hardware and software. Please be reminded that RIO had originally included funds in an optional budget package for cyber insurance.

The **House approved the bill** by a vote of 91 – 1. The **Senate approved the bill** by a vote of 46-0. **The Governor signed the bill on 3/02.**

HB 1175 SIB Membership Reps. Kreidt, Delzer, Devlin, Kempenich & Sen. Klein

HB 1175 adds two members to the SIB, one selected by the House Majority Leader and one selected by the Senate Majority Leader, thereby increasing the number of SIB members to 13.

The **House approved the bill** by a vote of 71-22.

The Senate Political Subdivisions Committee held a public hearing on HB 1175 on 3/3/17. Rep. Devlin introduced the bill and indicated the main reason for the bill was to involve legislators on the investment board due to the amount of state funds invested by the SIB, particularly the Legacy Fund. No others testified in favor of the bill. Testifying in opposition to the bill was RaeAnn Kelsch (on behalf of ND Council of Educational Leaders). Dave Hunter (SIB) testified in a neutral position and provided information about the SIB members, responsibilities, and process. Testimony is attached. Besides Dave and Fay, others in attendance included Insurance Commissioner Godfread, and representatives from NDCEL, ND United, and NDRTA.

On 3/10, the Senate Political Subdivisions Committee gave the bill a “do not pass” recommendation, 6-0. **On 3/13, the bill failed in the Senate by a vote of 14-31.**

**HB 1318 Regional Education Associations
Reps. Schatz, Kasper, Rohr, D. Ruby, Toman; Sens. O. Larsen, Unruh**

HB 1318 repeals state statutes relating to regional education associations (REAs). Sections 2 and 3 remove specific references to REA’s in TFFR statutes regarding participation in the plan, and penalty for failure to make required reports and payments.

The House amended the bill to provide for a legislative management study of all entities receiving appropriations for the delivery of education. The **House approved the amended bill** by a vote of 58-31.

The Senate Education Committee held a hearing on 3/15/17. No action has been taken on the bill.

SB 2030 NDEA/ND United statutory reference updates Leg Mgmt/Education Com.

SB 2030 relates to updating statutory references of the former ND Education Association. While most sections of the bill delete NDEA and replace with ND United, Section 4 removed the requirement that the Governor receive a list of nominees from NDEA/ND United from which to appoint active teachers to the TFFR Board.

The Senate amended the bill to reinstate the provision that ND United submit a list of nominees (active elementary or secondary teachers) to the Governor for the TFFR Board. The **Senate approved the amended bill** by a vote of 46 – 0.

The House Education Committee held a public hearing on the Engrossed SB 2030. On 2/23, the Committee gave the bill a “do pass” recommendation, 12-0-2. On 3/3, the **House passed the bill** by a vote of 76-14. **The Governor signed the bill on 3/13.**

[ND Legislative website](#)

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: March 16, 2017
SUBJ: TEACHER SHORTAGE AREAS

State Supt. Baesler will review the different methods used by NDDPI and ESPB for determining teacher shortage areas.

Although state law requires TFFR to use the ESPB designation for critical shortage areas (when allowing a retired teacher to return to work up to full time after a one-year waiting period), it is important to recognize the differences in how the State determines teacher shortage areas for different purposes.

Board Information Only. No board action is requested..

Attachment

2016-2017 North Dakota Teacher Shortage Report FTE's

<u>Course Area</u>	<u>Regular</u>	<u>Irregular</u>	<u>Openings</u>	<u>Total</u>	<u>Shortage</u>	<u>Percentage</u>
Economics and Free Enterprise System	0	3	0	3	3	100.00%
Computer Education	7		1.5	8.5	1.5	17.65%
Driver and Traffic Safety Education	14.5		1	15.5	1	6.45%
Agriculture Education	96.9		6	102.9	6	5.83%
Special Education	396.16	6	18.3	420.46	24.3	5.78%
Family and Consumer Sciences	144.64	3	3.5	151.14	6.5	4.30%
Science	408.99	16	1	425.99	17	3.99%
PK-12 Counselor	395.38	11	1	407.38	12	2.95%
Mathematics	485.81	4	5.5	495.31	9.5	1.92%
English Language Arts	488.72	7	2	497.72	9	1.81%
Music	235.08	1	2.9	238.98	3.9	1.63%
Physical Education	298.77	2	2	302.77	4	1.32%
Social Studies	419.14	4	1	424.14	5	1.18%
Elementary Teacher (K-8)	6875.16	6.5	17.42	6899.08	23.92	0.35%
Languages/Native American Languages	48.42	2	0	50.42	2	3.97%
Art	99.18		1.5	100.68	1.5	1.49%
Early Childhood Teacher (PK)	218.57	2.5		221.07	2.5	1.13%
Trade and Industrial Education	87.91		1	88.91	1	1.12%
Business and Office Technology/Business Education	206.75		2	208.75	2	0.96%
Career Education	195.87		0	195.87	0	0.00%
Diversified Occupations	1.71		0	1.71	0	0.00%
Health	106.59		0	106.59	0	0.00%
Health Careers	38.21		0	38.21	0	0.00%
Marketing Education	25.7		0	25.7	0	0.00%
Technology Education/Industrial Arts	72.5		0	72.5	0	0.00%
Vocational Information Technology	26.6		0	26.6	0	0.00%

** See Col "Pct". Must be 5% or greater.

** See Col "Shortage" - Have more than three (3) vacancies.

TFFR Investment Update

For the Periods Ended December 31, 2016

March 15, 2017


Note: This document contains unaudited data as of December 31, 2016, which is deemed to be materially accurate, but is subject to change.

Dave Hunter, Executive Director/CIO
Darren Schulz, Deputy Chief Investment Officer
ND Retirement & Investment Office (RIO)
State Investment Board (SIB)

TFFR Investment Ends – December 31, 2016

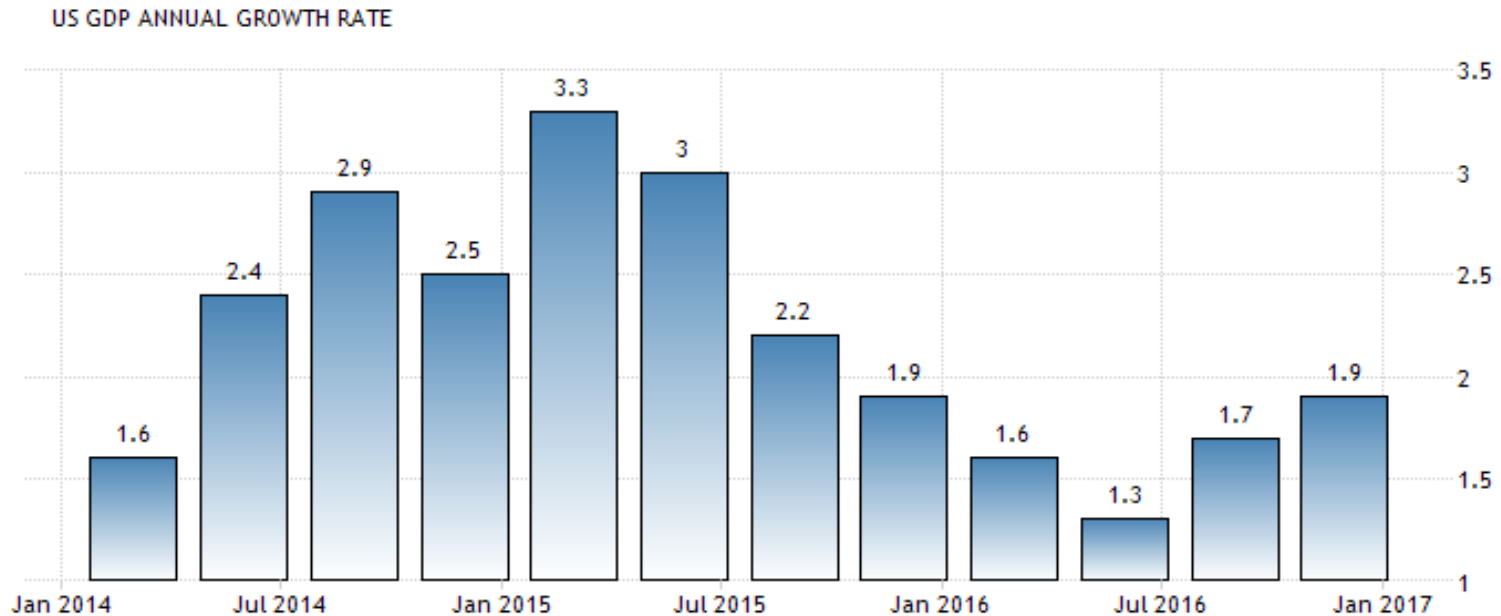
SIB clients should receive investment returns consistent with their written investment policies and market variables. This “End” is evaluated based on comparison of each client’s (a) actual net investment return, (b) standard deviation and (c) risk adjusted excess return, to the client’s policy benchmark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

		Current FYTD 12/31/2016	1 Yr Ended 12/31/2016	3 Yrs Ended 12/31/2016	5 Yrs Ended 12/31/2016	Risk 5 Yrs Ended 12/31/2016	Risk Adj Excess Return 5 Yrs Ended 12/31/2016
Net Investment Return	a	4.14%	6.99%	4.48%	8.61%	5.6%	0.32%
Policy Benchmark Return	b	4.17%	6.95%	4.04%	7.90%	5.3%	
Excess Return (Actual > Expected)	a - b	-0.04%	0.04%	0.44%	0.71%	105%	
<i>Estimated Excess Return in \$ (Actual > Expected)</i>			\$750,000	\$25 million	\$70 million		



Key Point: TFFR investments have approximated \$2 billion during the last 5-years and Excess Return has averaged over **0.70%** per annum. Based on these values, **TFFR’s use of active management has enhanced Net Investment Returns by \$70 million for the 5-years ended Dec. 31, 2016** (or \$2 billion x 0.70% = \$14 million x 5 years = \$70 million). This Excess Return has been achieved while adhering to prescribed **Risk** limits (e.g. **105%** versus a policy limit of 115%).

U.S. Economy – Annual GDP Growth Rates



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

US GDP Growth Rates:

The US economy expanded 1.9% in the 4th quarter of 2016 increasing from 1.7% for the 3rd quarter and consistent with the 4th quarter of 2015. The United States is the world's largest economy. Yet, in the last two decades, like in the case of many other developed nations, U.S. growth rates have been decreasing. If in the 50's and 60's the average growth rate was above 4 percent, in the 70's and 80's dropped to around 3 percent. In the last ten years, the average rate has been below 2 percent and since the second quarter of 2000 has never reached the 5 percent level. Last updated in February of 2017.

Global GDP Growth Rate - History & Forecast

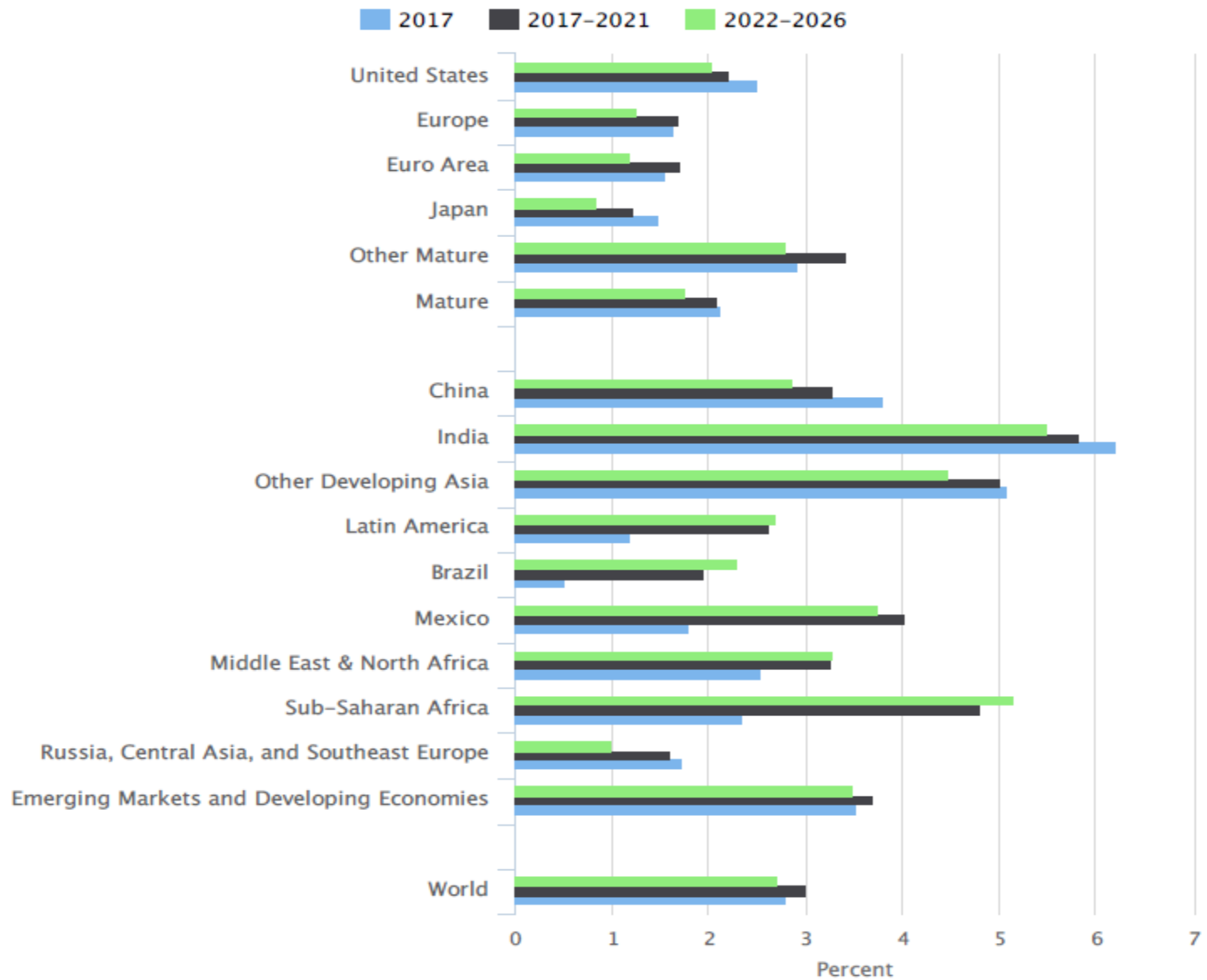
Global GDP Growth Rates (% change)	Actual 2015	Forecast 2016	Forecast 2017	Projected 2017-2021	Trend 2022-2026
United States	2.8	1.8	2.5	2.2	2.0
Europe	1.9	1.8	1.6	1.7	1.3
<i>of which: Euro Area</i>	1.6	1.7	1.6	1.7	1.2
<i>of which: United Kingdom</i>	2.2	2.0	1.2	1.5	1.4
Japan	1.6	1.4	1.5	1.2	0.8
Other mature	2.8	3.1	2.9	3.4	2.8
Mature Economies	2.3	2.0	2.1	2.1	1.8
China	4.2	4.0	3.8	3.3	2.9
India	7.3	6.6	6.2	5.8	5.5
Other developing Asia	5.2	5.5	5.1	5.0	4.5
Latin America	-0.6	-1.5	1.2	2.6	2.7
<i>of which: Brazil</i>	-3.8	-3.5	0.5	1.9	2.3
<i>of which: Mexico</i>	2.6	2.2	1.8	4.0	3.8
Middle East & North Africa	3.5	3.1	2.5	3.3	3.3
Sub-Saharan Africa	3.1	0.9	2.3	4.8	5.1
Russia, Ctr.Asia, S.E. Europe	0.0	0.8	1.7	1.6	1.0
Emerging & Developing	3.4	3.1	3.5	3.7	3.5
GLOBAL GDP GROWTH	2.9	2.6	2.9	3.0	2.7

- ▶ Global GDP Growth Rates have declined from:
 - ▶ **3%** in 2010-to-2015 to
 - ▶ **2.6%** in 2016 but expected to reach
 - ▶ **3%** in 2017 through 2021.

- ▶ Global GDP Growth in the Emerging Market and Developing Economies is expected to trend downward over the next decade largely due to China's growth rate slowing from:
 - ▶ 8% in 2010-to-2014 down to
 - ▶ **4%** in 2016 and **sub-4%** thereafter.

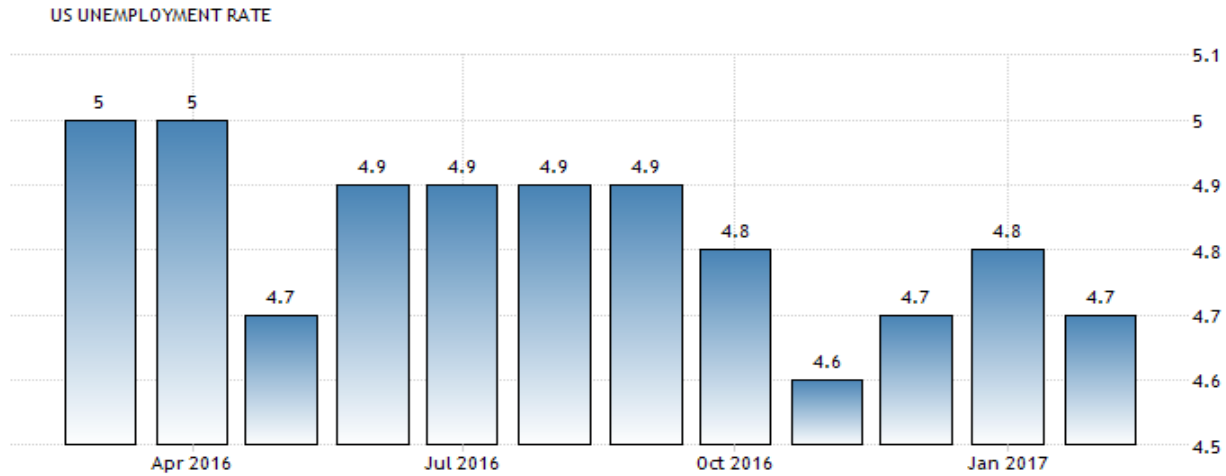
Key Take-Away: World GDP growth rates continue to show meaningfully positive trends albeit at slower rates.

Growth of Gross Domestic Product, 2017–2026



U.S. Unemployment Rates

2016
to
2017



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

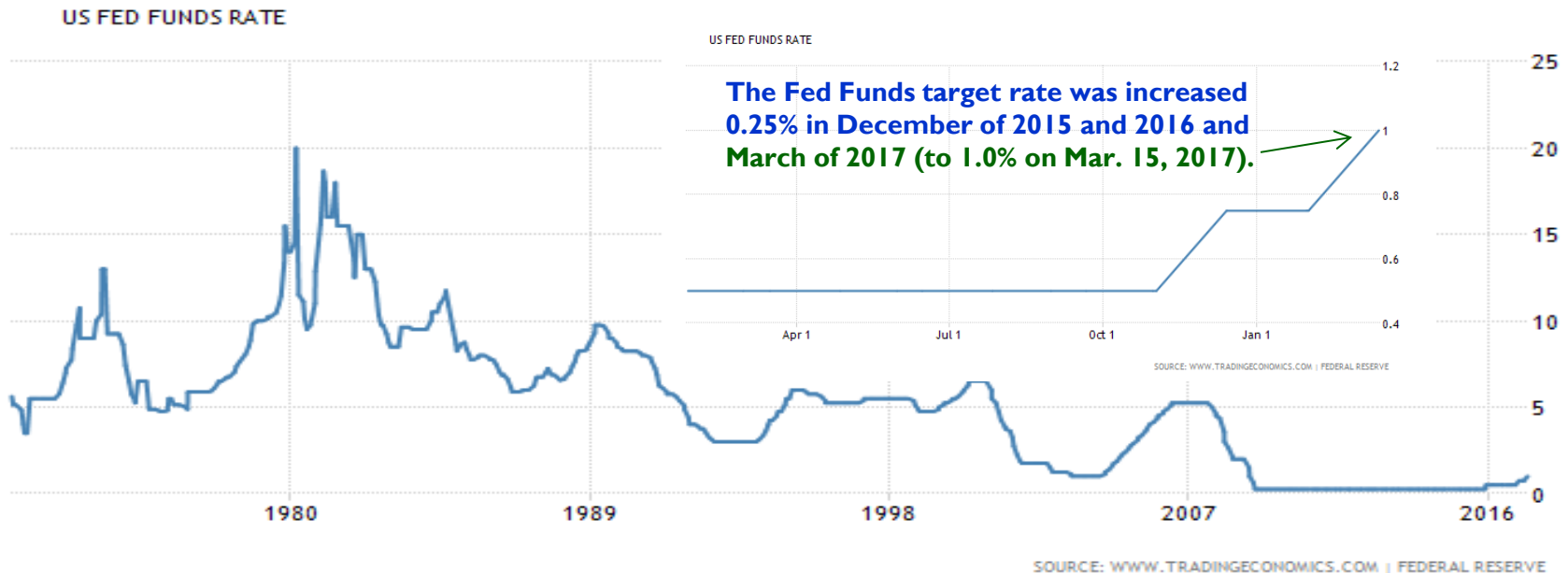
1950
to
2017



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

U.S. Fed Funds Rate (1971 to 2017)

Background: 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.

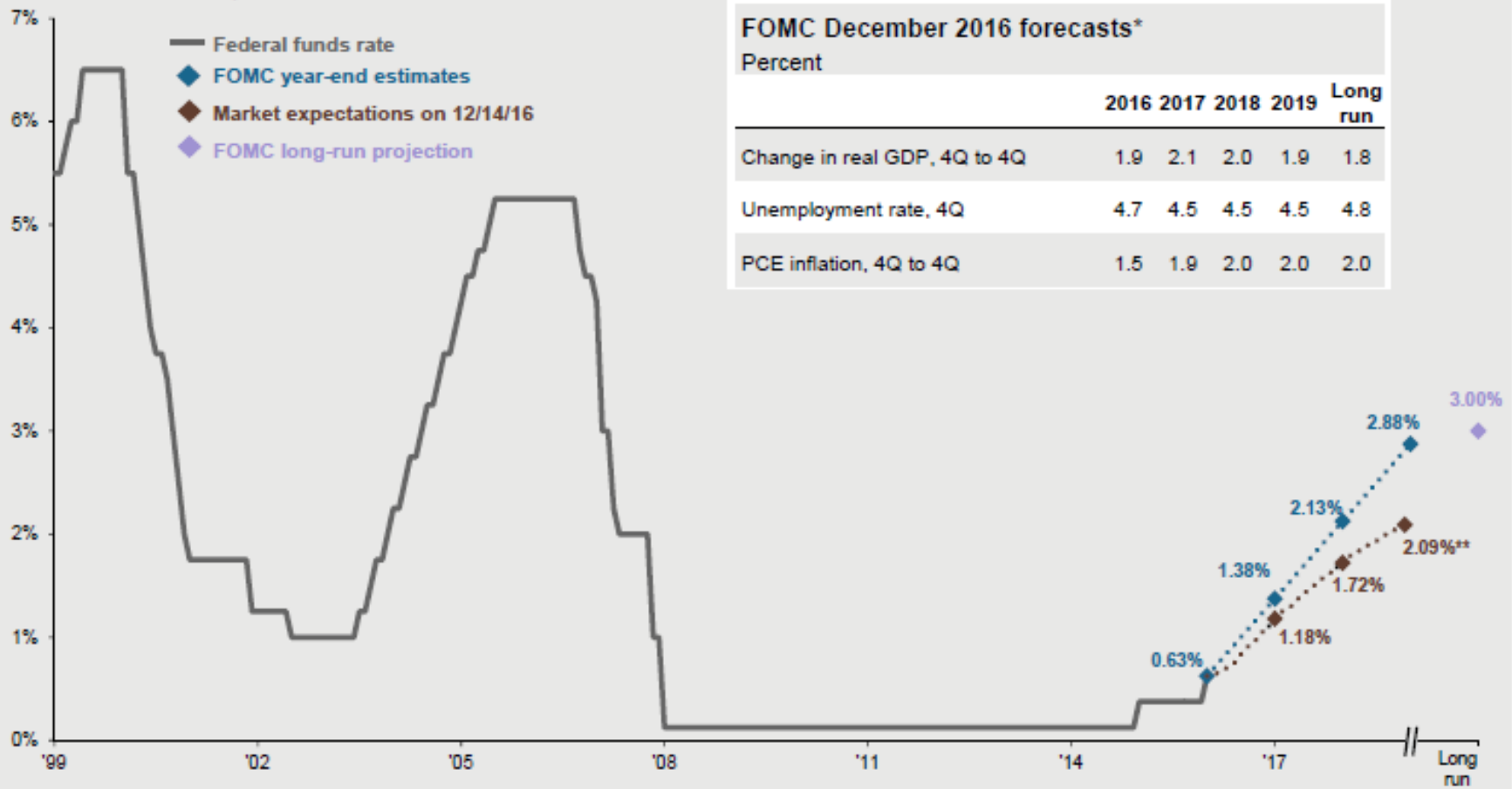


The Federal Reserve kept the target range for its federal funds steady at 0.5 percent to 0.75 percent during its Feb. 2017 meeting, in line with market expectations and following a 25bps hike in December. Policymakers noted improvements in business and consumer confidence and the rise in consumer prices and said near-term risks to the economic outlook appear roughly balanced. On March 15, 2017, the Fed Funds increased the target range by 0.25% to 0.75% and 1.00% citing progress in labor market growth, business fixed investment and inflation (with a target of 1.4% in 2017, 2.1% in 2018 and 3% in 2019).

Fed Fund Rate Expectations

Federal funds rate expectations

FOMC and market expectations for the fed funds rate



FOMC December 2016 forecasts*

Percent

	2016	2017	2018	2019	Long run
Change in real GDP, 4Q to 4Q	1.9	2.1	2.0	1.9	1.8
Unemployment rate, 4Q	4.7	4.5	4.5	4.5	4.8
PCE inflation, 4Q to 4Q	1.5	1.9	2.0	2.0	2.0

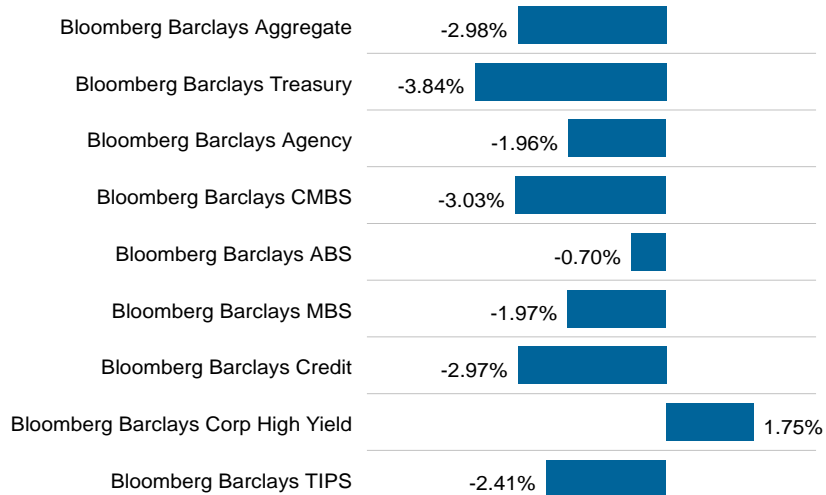
Source: FactSet, Federal Reserve, J.P. Morgan Asset Management.

Market expectations are the federal funds rates priced into the fed futures market as of the date of the December 2016 FOMC meeting. *Forecasts of 17 Federal Open Market Committee (FOMC) participants are median estimates. **Last futures market expectation is for November 2019 due to data availability. Guide to the Markets – U.S. Data are as of December 31, 2016.

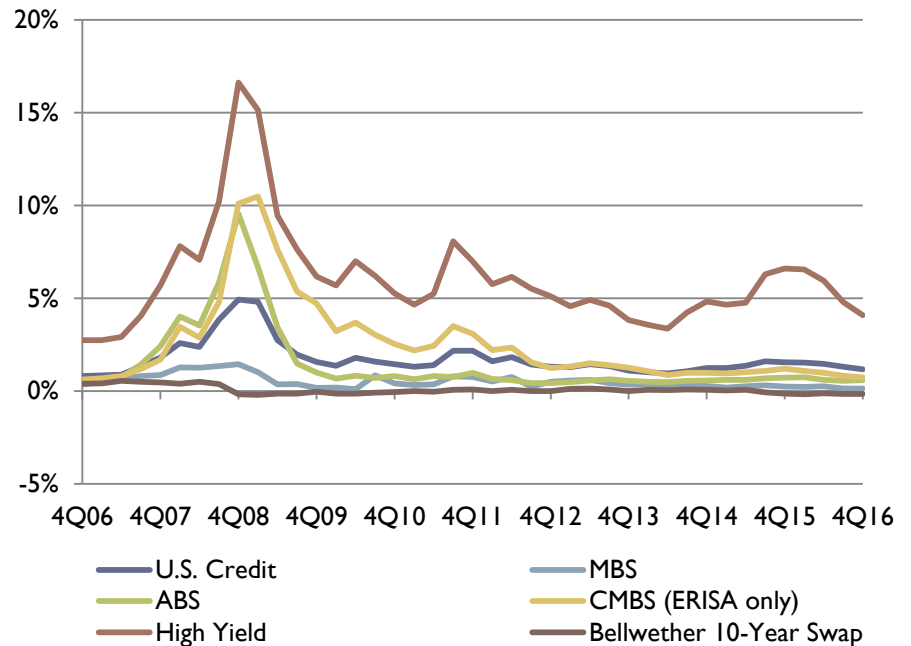
Total Rates of Return by Bond Sector

Periods Ending December 31, 2016

Total Returns



Effective Yield Over Treasuries



Source: Bloomberg Barclays

- ▶ Rising rates produced negative returns for all sectors except high yield.
- ▶ Worst performing sector of the Aggregate was Treasuries.
- ▶ Treasury Inflation Protected Securities (TIPS) outperformed Treasuries on rising inflation expectations (-2.4%).

The Capital Markets at January 2017

U.S. and Global Capital Markets Rallied After Mid-Year Investor Uncertainty

- Stock and bond markets endured a wild ride around the world, with Brexit and the US elections roiling investors' emotions. Underlying economic data remain positive, and tell a story of persistent modest growth in the U.S. and weak recovery in Europe.
- Five-year US equity returns through 2016 are very strong. Ten-year returns no longer include the robust 2003-05 results. Fifteen-year equity returns are still below long-run averages, but are above those of fixed income, as 2000-2002 downturn as rolled off the calculation.

							Average Annual Returns for periods ended 12.31.2016		
	2011	2012	2013	2014	2015	2016	5 Years	10 Years	15 Years
Broad U.S. Stock Market									
Russell 3000	1.03	16.42	33.55	12.56	0.48	12.74	14.67	7.07	7.11
Large Cap U.S. Stocks									
S&P 500	2.11	16.00	32.39	13.69	1.38	11.96	14.66	6.95	6.69
Small Cap U.S. Stocks									
Russell 2000	-4.18	16.35	38.82	4.89	-4.41	21.31	14.46	7.07	8.49
Non-U.S. Stock Markets									
MSCI EAFE US\$	-12.14	17.32	22.78	-4.90	-0.81	1.00	6.53	0.75	5.28
MSCI Emerging Markets	-18.17	18.63	-2.27	-1.82	-14.60	11.60	1.64	2.17	9.85
Fixed Income									
Barclays Aggregate	7.84	4.21	-2.02	5.97	0.55	2.65	2.23	4.34	4.58
Barclays Gbl Agg ex USD	4.36	4.09	-3.08	-3.09	-6.02	1.49	-1.39	2.44	4.96
Barclays Long Gov/Credit	22.49	8.78	-8.83	19.31	-3.30	6.67	4.07	6.85	7.03
Real Estate									
NCREIF	14.26	10.54	10.98	11.82	13.33	8.01	10.92	6.94	9.01
Hedge Funds									
CS Hedge Fund Index	-2.52	7.67	9.73	4.13	-0.71	1.25	4.34	3.75	5.74
Private Equity									
Cambridge Private Equity*	11.00	13.33	22.13	12.75	7.10*	4.06*	10.89*	10.54*	10.22*
Commodities									
Bloomberg Commodity	-13.37	-1.14	-9.58	-17.04	-24.70	11.40	-9.06	-6.23	-0.11
Cash Market									
90-Day T-Bill	0.10	0.11	0.07	0.03	0.05	0.33	0.12	0.80	1.34
Inflation									
CPI-U**	2.96	1.74	1.50	0.76	0.73	1.69	1.30	1.82	2.07


* Private equity data is time-weighted return series for periods ended 6.30.2016 rather than 12.31.2016 in select columns due to a reporting lag.

** CPI-U data are measured as year-over-year change through 11.30.2016.

Source: Callan Associates

Asset Class Performance

Periodic Table of Investment Returns
for Periods Ended December 31, 2016



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
	Russell:2000 Index 8.8%	Russell:2000 Index 21.3%	S&P:500 8.9%	S&P:500 14.7%	Russell:2000 Index 7.1%
	S&P:500 3.8%	S&P:500 12.0%	Russell:2000 Index 6.7%	Russell:2000 Index 14.5%	S&P:500 6.9%
	Blmbg:Commodity Price Idx 2.5%	MSCI:EM Gross 11.6%	Blmbg:Aggregate Idx 3.0%	MSCI:EAFE 6.5%	Blmbg:Aggregate Idx 4.3%
	3 Month T-Bill 0.1%	Blmbg:Commodity Price Idx 11.4%	3 Month T-Bill 0.1%	Blmbg:Aggregate Idx 2.2%	MSCI:EM Gross 2.2%
	MSCI:EAFE (0.7%)	Blmbg:Aggregate Idx 2.6%	MSCI:EAFE (1.6%)	MSCI:EM Gross 1.6%	3 Month T-Bill 0.8%
	Blmbg:Aggregate Idx (3.0%)	MSCI:EAFE 1.0%	MSCI:EM Gross (2.2%)	3 Month T-Bill 0.1%	MSCI:EAFE 0.7%
	MSCI:EM Gross (4.1%)	3 Month T-Bill 0.3%	Blmbg:Commodity Price Idx (11.4%)	Blmbg:Commodity Price Idx (9.1%)	Blmbg:Commodity Price Idx (6.2%)

2016: U.S. Small Cap Equities (**Russell 2000**) returned 21.3% in 2016, while U.S. Large Cap (**S&P 500**) and Emerging Market (**MSCI EM**) Equities rose 12% and 11.6%, respectively. U.S. Fixed Income (**Blmbg. Aggregate**) returned 2.6% and International Equity (**MSCI EAFE**) was up 1%.

Investment Returns for 1- and 5-years ended Dec. 31, 2016

In 2016, TFFR posted a net investment return of 6.99% versus a policy benchmark of 6.95%. Overall, TFFR's equity managers underperformed benchmarks by 0.37%, while fixed income and real asset managers outperformed their benchmarks by 0.73% and 0.42%, respectively, in 2016. **U.S. Equity returns were strong overall with Large Cap up 11% and Small Cap up 17.5%**, but failed to keep pace with benchmark returns of 12% and 21.3%, respectively. International Equity posted a net return of over 3.8% surpassing its benchmark of less than 3.2%. World Equity managers generated a 6.7% return in 2016, but again failed to exceed its benchmark of 7.5%. **Fixed income earned over 6.4% in 2016 versus a 4.9% global index with all sectors outperforming their benchmarks except for High Yield (which earned 13.8% versus a 17.1% index). Real Assets generated solid absolute and relative returns (+5.6% actual vs +5.2% index)** largely due to Real Estate (up 9.8%) while Infrastructure returns of 3.3% were muted and Timber results were very disappointing (**down 4%** versus the +2.6% index).

Asset allocation is the #1 driver of investment returns. For the 5-years ended 12/31/16, TFFR earned a net return of 8.6% per annum, which exceeded the policy benchmark of 7.9% by 0.70%. Strong returns in U.S. equities played a key role, as they rose by 15% per annum the last 5-years. Real estate was the second best performing sector generating 12% returns since 2012. International equities underperformed long-term projections, but still earned over 6% per annum the last 5-years. Infrastructure also earned over 6% since 2012 in line with long term expectations. International fixed income, timber and private equity were disappointing on both an absolute and relative perspective earning less than 2% per annum since 2012. **Asset allocation and active management were responsible for \$790 million (92%) and \$70 million₁ (8%) of TFFR's net income, respectively, since 2012.**

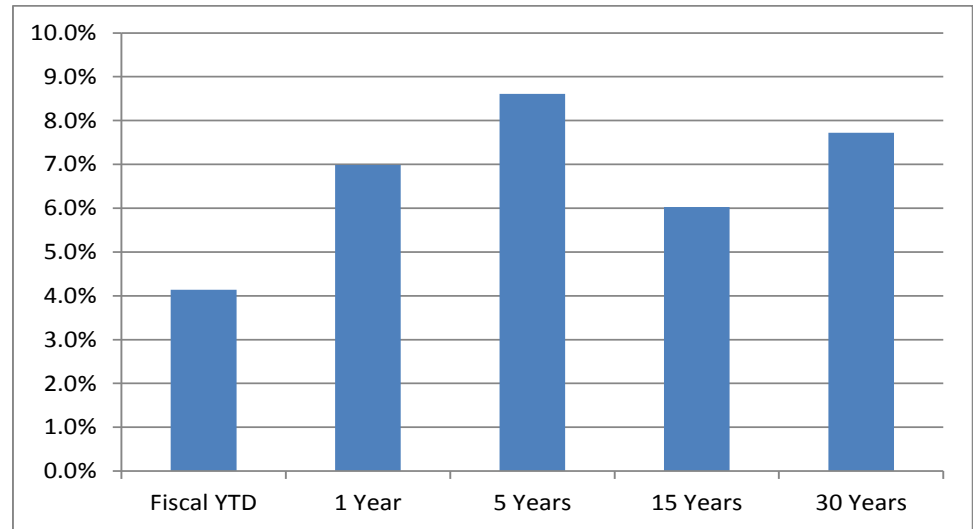
TFFR's investment returns have consistently ranked in the second quartile of the Callan Public Fund Sponsor Database over the last five years. On an unadjusted basis, TFFR's returns ranked in the 30th percentile for the 5-year periods ended December 31, 2016.

TFFR Net Investment Return – Tables and Bar Charts

Return Table / Bar Chart:

At Dec. 31, 2016:

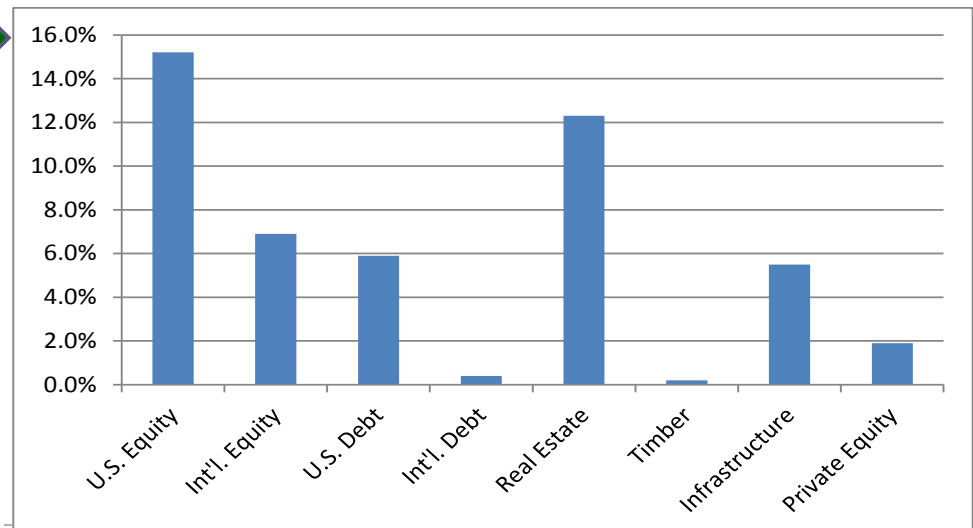
Fiscal YTD	4.1%
1 Year	7.0%
5 Years	8.6%
15 Years	6.0%
30 Years	7.7%



Asset Class Returns

5-Years Ended Dec. 31, 2016

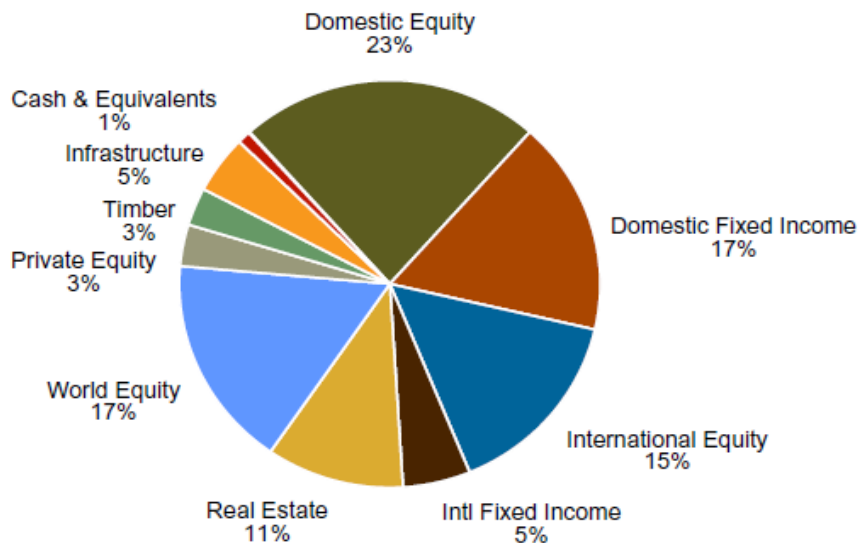
U.S. Equity	15.2%
Int'l. Equity	6.9%
U.S. Debt	5.9%
Int'l. Debt	0.4%
Real Estate	12.3%
Timber	0.2%
Infrastructure	5.5%
Private Equity	1.9%



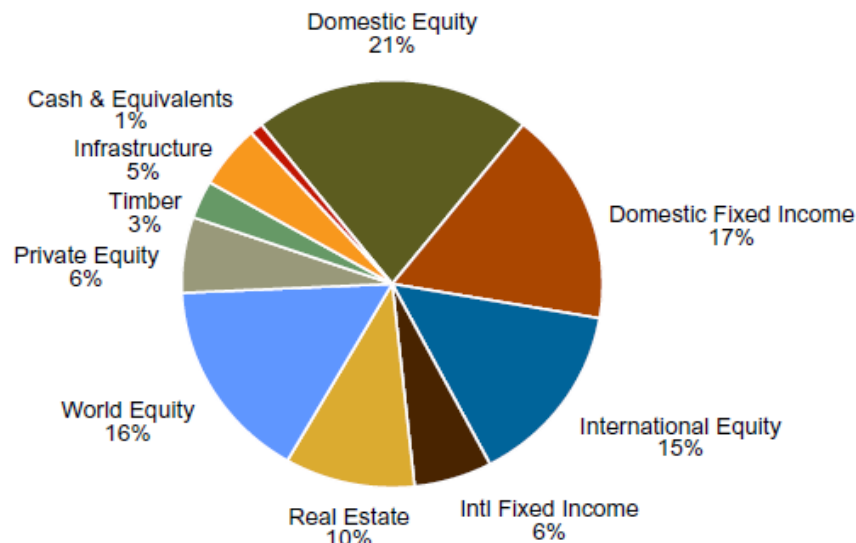
TFFR Actual Allocations are within 1% to 3% of Target Allocations

The **Private Equity Underweight of 2.7%** is offset by Overweight allocations to **Domestic Equity of 1.8%**, **International Equity of 0.6%** and **World Equity of 0.8%**.

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equity	497,561	23.2%	21.4%	1.8%	37,981
Domestic Fixed Income	364,947	17.0%	17.0%	0.0%	(141)
International Equity	326,003	15.2%	14.6%	0.6%	12,457
Intl Fixed Income	112,731	5.2%	6.0%	(0.8%)	(16,123)
Real Estate	228,480	10.6%	10.0%	0.6%	13,722
World Equity	361,507	16.8%	16.0%	0.8%	17,896
Private Equity	70,138	3.3%	6.0%	(2.7%)	(58,717)
Timber	65,467	3.0%	3.0%	0.0%	1,040
Infrastructure	98,578	4.6%	5.0%	(0.4%)	(8,801)
Cash & Equivalents	22,163	1.0%	1.0%	0.0%	687
Total	2,147,574	100.0%	100.0%		

Actual versus Benchmark Return Comparisons – Equity

Returns for Periods Ended December 31, 2016

Global Equity outperformed overall policy benchmarks for the 3- and 5-year periods ended Dec. 31, 2016, by 0.17% and 0.39%, respectively.

U.S. Small Cap Equity (off 0.38%), World Equity (off 1.15%) and Private Equity underperformed the last 5 years.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Global Equity				
Gross	1.67%	8.05%	3.99%	10.80%
Net	1.61%	7.79%	3.67%	10.45%
Wtd Avg Global Equity Benchmark	2.37%	8.16%	3.50%	10.06%
Domestic Equity				
Gross	4.14%	12.79%	8.41%	15.41%
Net	4.10%	12.56%	8.20%	15.18%
Wtd Avg Domestic Equity Benchmark	4.98%	14.14%	8.25%	14.70%
Large Cap Equity				
Gross	2.99%	11.18%	9.27%	15.64%
Net	2.97%	11.02%	9.09%	15.43%
Benchmark(1)	3.83%	12.05%	8.59%	14.69%
Small Cap Equity				
Gross	8.04%	18.00%	5.25%	14.37%
Net	7.95%	17.54%	4.98%	14.08%
Russell 2000 Index	8.83%	21.31%	6.74%	14.46%
International Equity				
Gross	(3.00%)	4.05%	(0.09%)	7.17%
Net	(3.04%)	3.86%	(0.30%)	6.88%
Wtd Avg Intl Equity Benchmark	(1.09%)	3.17%	(1.64%)	5.63%
Developed Intl Equity				
Gross	(2.05%)	2.61%	(0.14%)	8.14%
Net	(2.10%)	2.37%	(0.38%)	7.85%
Benchmark(2)	(0.36%)	1.22%	(1.53%)	6.58%
Emerging Markets				
Gross	(6.32%)	9.05%	(0.51%)	2.59%
Net	(6.32%)	9.05%	(0.56%)	2.34%
Benchmark(3)	(4.16%)	11.19%	(2.55%)	1.28%
World Equity				
Gross	2.55%	7.06%	3.24%	10.02%
Net	2.46%	6.66%	2.57%	9.26%
MSCI World Index	1.86%	7.51%	3.80%	10.41%
Private Equity				
Net	2.65%	0.30%	(1.78%)	1.93%

Actual vs Benchmark Returns – Global Fixed Income and Real Assets

Net returns for Fixed Income and Real Assets generally exceeded stated policy benchmarks for the 3- and 5- years ended Dec. 31, 2016, excluding Timber.

Returns for Periods Ended December 31, 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Global Fixed Income				
Gross	(2.53%)	5.91%	3.63%	4.75%
Net	(2.59%)	5.64%	3.38%	4.61%
Wtd Avg Global Fixed Inc. Benchmark	(4.11%)	4.91%	1.94%	2.45%
Domestic Fixed Income				
Gross	(0.79%)	6.67%	4.90%	5.95%
Net	(0.84%)	6.43%	4.67%	5.87%
Wtd Avg Domestic FI Benchmark	(1.88%)	6.21%	3.37%	3.64%
Inv. Grade Fixed Income				
Gross	(1.66%)	3.82%	4.54%	4.87%
Net	(1.70%)	3.66%	4.40%	4.74%
Bimbg Aggregate Index	(2.98%)	2.65%	3.03%	2.23%
Below Inv. Grade Fixed Income				
Gross	1.66%	14.24%	5.89%	9.32%
Net	1.56%	13.79%	5.45%	8.85%
Bimbg HY Corp 2% Issue	1.75%	17.13%	4.67%	7.36%
International Fixed Income				
Gross	(7.77%)	4.05%	(0.71%)	0.72%
Net	(7.86%)	3.68%	(1.06%)	0.36%
Wtd Avg Intl Fixed Income Benchmark	(10.26%)	1.49%	(2.59%)	(1.39%)
Global Real Assets				
Gross	0.62%	6.03%	8.73%	8.16%
Net	0.52%	5.58%	8.29%	7.73%
Wtd Avg Global Real Assets Benchmark	1.14%	5.16%	7.17%	7.46%
Real Estate				
Gross	2.14%	10.38%	13.49%	12.89%
Net	2.02%	9.84%	12.93%	12.35%
NCREIF Total Index	1.73%	7.97%	11.02%	10.91%
Timber				
Net	(6.07%)	(3.95%)	2.01%	0.21%
NCREIF Timberland Index	1.18%	2.59%	5.96%	7.06%
Infrastructure				
Gross	1.85%	3.90%	3.86%	6.14%
Net	1.73%	3.30%	3.29%	5.47%
CPI-W	(0.04%)	1.99%	0.90%	1.16%
Cash & Equivalents - Net				
3-month Treasury Bill	0.16%	0.51%	0.22%	0.16%
	0.09%	0.33%	0.14%	0.12%
Total Fund				
Gross	0.49%	7.28%	4.80%	8.94%
Net	0.43%	6.99%	4.48%	8.61%
Target*	0.63%	6.94%	4.03%	7.90%

TFFR Long Term Results are Near Long-Term Assumptions

The TFFR Pension Plan is a Long Term Investor

Net returns for the TFFR Pension Plan approximate 7.72% for the 30-years ended Dec. 31, 2016, which is materially consistent with the plan’s long term actuarial assumption of 7.75%.

ND RETIREMENT AND INVESTMENT OFFICE
 ND STATE INVESTMENT BOARD
 INVESTMENT PERFORMANCE SUMMARY
 AS OF DECEMBER 31, 2016

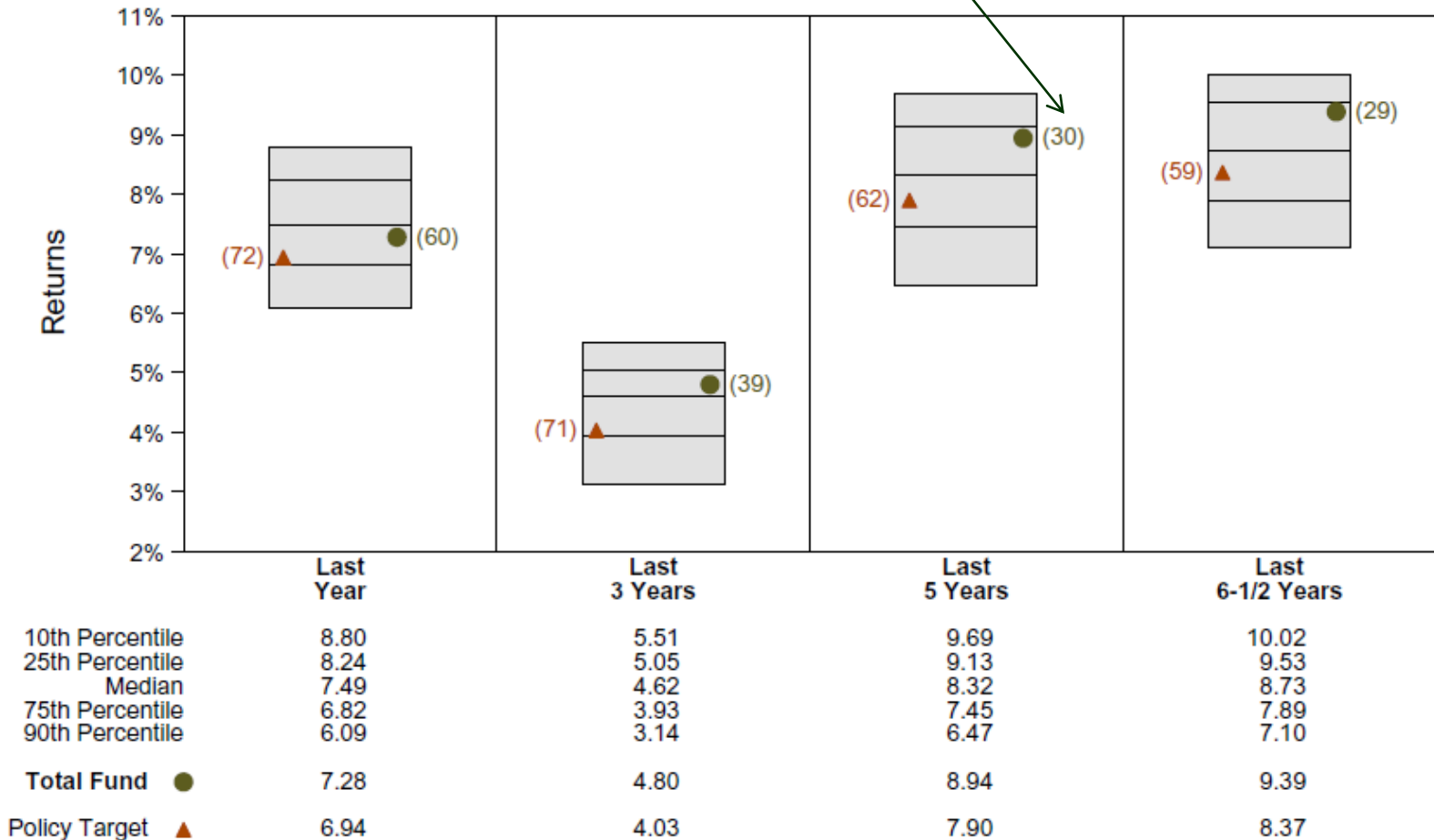
Investment Performance (net of fees)

Fund Name	Market Values as of 12/31/16	FYTD 2017	Fiscal Years ended June 30					Periods ended 6/30/16 (annualized)				
			2016	2015	2014	2013	2012	3 Years	5 Years	10 Years	20 Years	30 Years
TFFR	2,147,574,445	4.14%	0.28%	3.52%	16.53%	13.57%	-1.12%	6.55%	6.32%	4.45%	6.48%	7.73%

↑
 For 30-years ended June 30, 2016.

TFFR's "gross" returns were ranked in the 30th percentile for the 5-years ended Dec. 31, 2016, based on Callan's "Public Fund Sponsor Database".

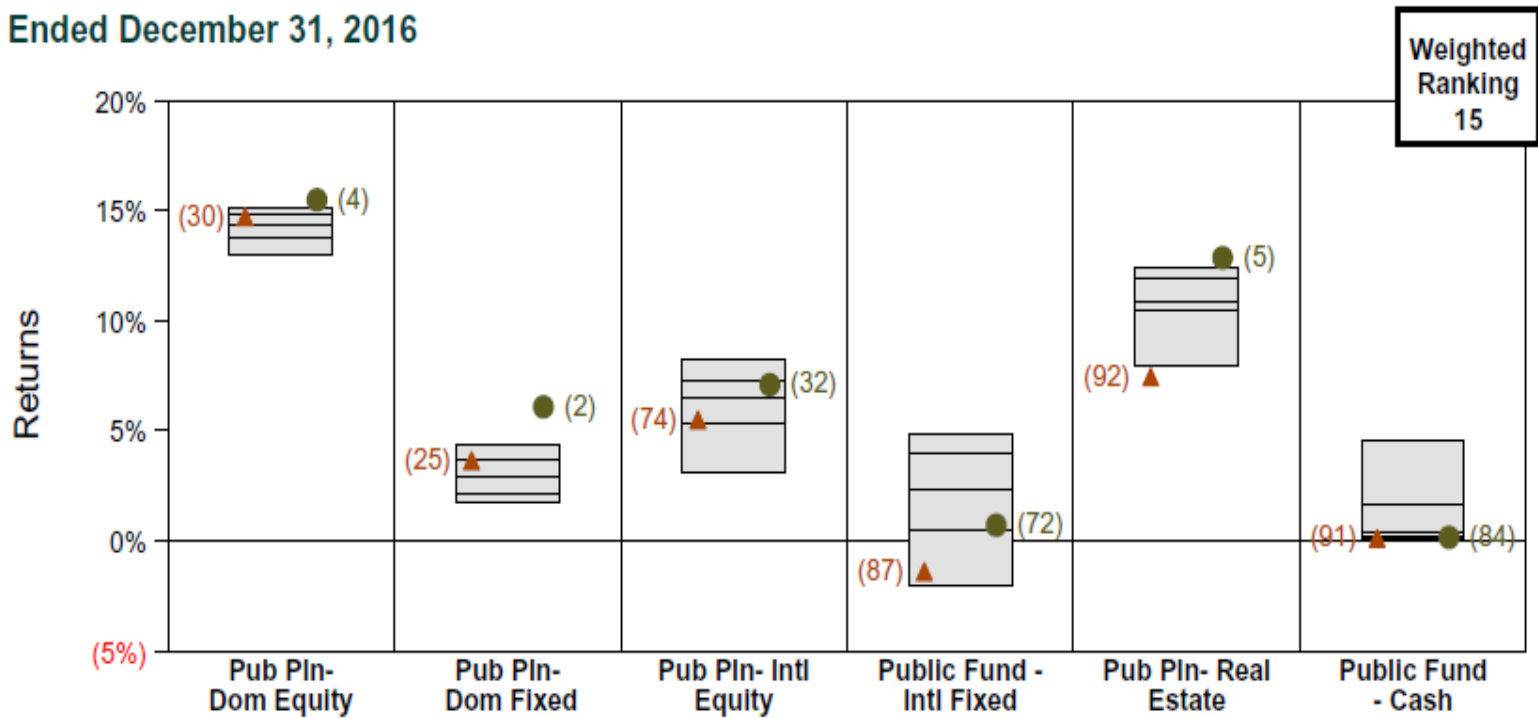
CAI Public Fund Sponsor Database



* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Barclays Aggregate Index, 11.8% MSCI EAFE, 10.0% NCREIF Total Index, 6.0% NDSIB TFFR - Private Equity, 6.0% Barclays Global Agg ex-US, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Barclays US HY Corp 2% Cp, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

SIB managers performed well in the public markets for the last 5 years, but have been challenged in private equity and timber.

Total Asset Class Performance
Five Years Ended December 31, 2016




	Pub Pln-Dom Equity	Pub Pln-Dom Fixed	Pub Pln-Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	15.16	4.33	8.23	4.84	12.44	4.55
25th Percentile	14.83	3.65	7.27	3.95	11.87	1.64
Median	14.34	2.87	6.46	2.34	10.83	0.42
75th Percentile	13.78	2.10	5.32	0.50	10.50	0.20
90th Percentile	13.00	1.75	3.14	(2.05)	7.98	0.14

Asset Class Composite ●	15.48	6.09	7.09	0.71	12.86	0.16
Composite Benchmark ▲	14.71	3.64	5.50	(1.39)	7.44	0.12


NDSIB Watch List

As of 12/31/2016

TO: State Investment Board ("SIB") Clients
 FROM: Retirement and Investment Office – Dave Hunter, Darren Schulz and Eric Chin
 DATE: January 20, 2017
 SUBJECT: SIB Client Watch List Update – NO CHANGES

PIMCO MBS (Pen.)		\$180,755,902		
	Returns	Index ¹	Excess	
1 Year	3.89	1.67	2.21	
3 Year	3.76	3.07	0.69	
Inception*	2.53	2.05	0.48	


*Funded 3/31/2012

JP Morgan MBS (Pen.)		\$121,248,064		
	Returns	Index ¹	Excess	
1 Year	2.48	1.67	0.80	
Inception*	2.52	2.21	0.31	

*Funded 09/30/2014

PIMCO Unconstrained (Pen.)		\$64,666,853		
	Returns	Index ²	Excess	
1 Year	6.36	0.75	5.62	
3 Year	2.76	0.42	2.33	
Inception*	2.79	0.39	2.40	

*Funded 3/12/2012

UBS International Fixed (Pen.)		\$99,777,972		
	Returns	Index ³	Excess	
1 Year	1.64	1.49	0.16	
3 Year	(2.73)	(2.59)	(0.14)	
Inception*	5.80	5.51	0.29	

*Funded 07/01/1989

- ¹ Barclays Mortgage Index
- ² Libor 3-Month
- ³ Barclays Global Aggregate ex-US

Note: Return data is gross of fee due to data availability

RIO routinely reviews manager performance, organizational structure, investing philosophy/style and fund flows of specific strategies and the firms overall operations. These reviews serve as the basis for Staff recommendations to add, maintain or remove managers from our Watch List.

There are four firms currently on our Watch List including PIMCO (2 strategies), JPMorgan, UBS and Adams Street Partners, all within the Pension Trust.

PIMCO	MBS	\$181 million	JPMorgan	MBS	\$121 million
PIMCO	Unconstrained	64 million	UBS	International	101 million

PIMCO has been on Watch since October of 2014 largely due to significant organizational changes including the departure of PIMCO's founder, Bill Gross, in late-September of 2014, and the prior departure of Mohamed El-Arian, PIMCO's former CEO. Since then, there have been additional turnover including the latest announcement that Douglas Hodge, who served as PIMCO's CEO since Mohamed El-Arian left in early-2014, will now step aside so as to allow Emmanuel Roman to become its next CEO on November 1, 2016. Mr. Roman was previously CEO of Man Group Plc, the world's largest publicly traded hedge fund manager, since February 2013.

Despite of the above senior management turnover, PIMCO has generally performed in a satisfactory manner with strong results in less liquid strategies (e.g. DiSCO and Bravo) and moderate results in the public sector mandates. As a result, RIO has advised the SIB to keep PIMCO's public mandates on Watch the last two years. During this time, the MBS strategy (\$181 million) has generally provided above benchmark returns (after fees), while the Unconstrained Bond mandate has underperformed expectations (net returns of 2.8% per annum) although recent performance has been encouraging with a 6.3% net return for the 1-year end 12/31/2016. Given this mixed performance, Staff recommends that both PIMCO strategies remain on Watch until RIO completes its fixed income manager review in the Pension Trust in the next few months.

The JPMorgan Mortgage Backed Securities (MBS) mandate was placed on Watch at the April 22, 2016, board meeting following the departure Henry Song as Co-Portfolio Manager. This event followed the earlier departure of Doug Swanson as Portfolio Manager in September 2015. Although JPMorgan generally maintains strong bench strength across the board, the departure of two highly tenured portfolio managers within eight months is highly unusual. Since April, RIO has met with the new JPMorgan MBS portfolio management team in addition to Henry Song at his successor firm. Staff continues to believe there is no immediate risk to the overall management of this strategy given JPM's bench strength and relatively conservative risk profile of this specific mandate. As such, RIO recommends that JPMorgan MBS strategy remain on Watch until Staff completes its fixed income manager review in the next few months. As of 12/31/2016, the JPMorgan MBS strategy has provided above benchmark performance since inception (+0.20%) and improved results (MBS Index +0.50%) over the last year.

UBS International Debt strategy was placed on Watch in early-2015 when trailing 1-, 3-, and 5-year returns were over 30 bps below benchmark. During the last year, UBS performance improved such that inception to date results and 1-year returns now approximate the benchmark (after fees). RIO continues to recommend that UBS remain on Watch until Staff completes its fixed income manager review in the next few months.

Adams Street Private Equity valued at approximately \$37 million

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Private Equity*					
Net	2.65%	0.30%	(1.78%)	1.96%	0.01%
Adams Street Direct Co-Invest Fd	7.53%	8.31%	17.84%	14.43%	6.60%
Adams Street Direct Fund 2010	6.82%	2.26%	14.16%	12.67%	-
Adams Street 1998 Partnership	(0.16%)	1.18%	1.39%	4.23%	1.04%
Adams Street 1999 Partnership	2.13%	3.06%	(1.15%)	3.75%	2.48%
Adams Street 2000 Partnership	0.94%	1.00%	(0.53%)	0.36%	3.30%
Adams Street 2001 Partnership	8.47%	7.68%	2.51%	6.53%	4.75%
Adams Street 2002 Partnership	15.92%	29.86%	5.64%	8.23%	5.49%
Adams Street 2003 Partnership	6.39%	7.01%	10.35%	10.72%	7.02%
Adams Street 2010 Partnership	9.20%	9.17%	15.54%	13.48%	-
Adams Street 2008 Fund	6.75%	9.74%	13.07%	10.66%	-
Adams Street 1999 Non-US	9.08%	(1.19%)	(0.32%)	5.45%	6.33%
Adams Street 2000 Non-US	0.17%	1.51%	0.16%	(2.80%)	2.73%
Adams Street 2001 Non-US	(11.28%)	(19.82%)	13.27%	12.64%	4.61%
Adams Street 2002 Non-US	(3.54%)	9.96%	6.39%	5.03%	3.91%
Adams Street 2003 Non-US	5.28%	24.39%	12.49%	14.94%	12.31%
Adams Street 2004 Non-US	3.48%	4.09%	8.19%	5.13%	5.39%
Adams Street 2010 Non-US	9.22%	12.25%	8.48%	8.95%	-
Adams Street 2010 Non-US Emg	5.16%	8.61%	14.33%	3.49%	-
Adams Street 2015 Global Fd	28.68%	52.01%	-	-	-
Adams Street BVCF IV Fund	3.23%	3.14%	18.80%	24.97%	27.48%

TO: TFFR Board Members
FROM: Dave Hunter (on behalf of the State Investment Board)
RE: Invitation to attend Callan College Onsite on July 28, 2017

TFFR board members are invited to attend a Callan College Onsite at the Bismarck State College Energy Center on July 28, 2017. Senior Callan professionals will be offering investment education on asset allocation, capital markets theory, investment policy statements and fiduciary responsibilities. This important Board Education should be interesting for most board trustees. The meeting will be divided into three 1.5 hour segments to allow attendees to select the educational topics they deem to be most worthwhile. The Callan College Onsite is scheduled to commence at 8:30 am and conclude by 2:00 pm with two 15 minutes breaks and 1 hour for lunch. The SIB intends to offer this educational opportunity to each of our 14 client boards in addition to the Legacy and Budget Stabilization Fund Advisory Board.

Appendix of Supporting Materials

For TFFR Investment Update as of Dec. 31, 2016

Callan's Quarterly Reports of investment performance are available on the following web address:

<http://www.nd.gov/rio/SIB/Publications/Callan%20Quarterly%20reports/Pension%20Trust/2016-12%20Pension.pdf>

Board members can review monthly manager level performance using the following web address:

http://www.nd.gov/rio/RIO_ref/report_type.asp?reportType=performance

Interim Investment Update: Based on interim and unaudited investment results as of Jan. 31, 2017, plus estimated benchmark data for February, TFFR's Net Return is estimated at approximately 7.5% for the eight (8) months ended February 28, 2017.

Global Equity, Fixed Income and Real Asset Valuations

Asset Class Allocation

	December 31, 2016			Inv. Return	September 30, 2016	
	Market Value	Weight	Net New Inv.		Market Value	Weight
GLOBAL EQUITY	\$1,255,209,365	58.45%	\$(19,717,931)	\$20,471,607	\$1,254,455,689	58.50%
Domestic Equity	\$497,561,440	23.17%	\$(10,651,430)	\$19,767,257	\$488,445,613	22.78%
Large Cap	380,127,361	17.70%	(10,436,080)	11,017,655	379,545,786	17.70%
Small Cap	117,434,079	5.47%	(215,350)	8,749,602	108,899,827	5.08%
International Equity	\$326,002,762	15.18%	\$(5,098,801)	\$(10,090,477)	\$341,192,040	15.91%
Developed Intl Equity	255,746,378	11.91%	(98,801)	(5,345,738)	261,190,917	12.18%
Emerging Markets	70,256,384	3.27%	(5,000,000)	(4,744,739)	80,001,123	3.73%
World Equity	\$361,507,417	16.83%	\$(445,113)	\$8,980,555	\$352,971,975	16.46%
Private Equity	\$70,137,746	3.27%	\$(3,522,587)	\$1,814,272	\$71,846,061	3.35%
GLOBAL FIXED INCOME	\$477,677,688	22.24%	\$(2,053,709)	\$(12,470,715)	\$492,202,113	22.95%
Fixed Income Comp	\$364,946,580	16.99%	\$(1,344,982)	\$(2,917,230)	\$369,208,792	17.22%
Investment Grade Fixed	266,217,605	12.40%	(1,162,353)	(4,527,629)	271,907,587	12.68%
Below Inv. Grade Fixed Income	98,728,975	4.60%	(182,629)	1,610,399	97,301,205	4.54%
International Fixed Income	\$112,731,109	5.25%	\$(708,727)	\$(9,553,485)	\$122,993,321	5.74%
GLOBAL REAL ASSETS	\$392,524,518	18.28%	\$1,255,865	\$2,427,954	\$388,840,698	18.13%
Real Estate	228,479,546	10.64%	1,598,075	4,852,536	222,028,935	10.35%
Timber	65,467,202	3.05%	(208,921)	(4,234,170)	69,910,293	3.26%
Infrastructure	98,577,769	4.59%	(133,289)	1,809,587	96,901,471	4.52%
Cash & Equivalents	\$22,162,877	1.03%	\$13,107,862	\$29,982	\$9,025,033	0.42%
Securities Lending Income	\$0	0.00%	\$(36,401)	\$36,401	-	-
Total Fund	\$2,147,574,448	100.0%	\$(7,444,315)	\$10,495,229	\$2,144,523,533	100.0%

ND TEACHERS FUND FOR RETIREMENT
INVESTMENT PERFORMANCE REPORT AS OF DECEMBER 31, 2016

	December-16				September-16					Current Fiscal YTD		Prior Year FY16		3 Years Ended 6/30/2016		5 Years Ended 6/30/2016	
	Allocation		Quarter Gross ⁽⁴⁾	Policy	Allocation		Quarter Gross ⁽⁴⁾			Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾	Net
	Market Value	Actual			Market Value	Actual	Policy	Gross ⁽⁴⁾	Net								
TOTAL FUND	2,147,574,445	100.0%	100.0%	0.49%	2,144,533,865	100.0%	100.0%	3.77%	3.69%	4.28%	4.14%	0.61%	0.27%	6.89%	6.55%	6.66%	6.32%
POLICY TARGET BENCHMARK				0.63%				3.52%	3.52%	4.17%	4.17%	0.61%	0.61%	5.96%	5.96%	5.73%	5.73%
ATTRIBUTION ANALYSIS																	
Asset Allocation				0.00%				-0.03%	-0.03%	-0.03%	-0.03%	-0.06%	-0.06%	0.05%	0.05%	0.14%	0.14%
Manager Selection				-0.14%				0.28%	0.20%	0.14%	-0.01%	0.06%	-0.27%	0.88%	0.54%	0.79%	0.45%
TOTAL RELATIVE RETURN				-0.14%				0.25%	0.17%	0.11%	-0.04%	0.00%	-0.34%	0.93%	0.59%	0.93%	0.59%
GLOBAL EQUITIES	1,255,209,367	58.4%	58.0%	1.67%	1,254,455,883	58.5%	58.0%	5.39%	5.30%	7.15%	7.00%	-3.62%	-3.93%	6.88%	6.53%	7.81%	7.53%
Benchmark			52.0%	2.37%			52.0%	5.13%	5.13%	7.63%	7.63%	-3.76%	-3.76%	6.05%	6.05%	7.08%	7.08%
Epoch (1)	150,417,380	7.0%	7.0%	-1.26%	152,651,114	7.1%	7.0%	3.15%	2.98%	1.85%	1.62%	-5.93%	-6.53%	6.49%	5.78%	7.57%	6.80%
LSV	211,090,037	9.8%	9.0%	5.45%	200,320,861	9.3%	9.0%	6.84%	6.74%	12.66%	12.53%	-7.05%	-7.85%	6.58%	5.84%	N/A	N/A
Total Global Equities	361,507,417	16.8%	16.0%	2.55%	352,971,975	16.5%	16.0%	5.21%	5.08%	7.89%	7.67%	-6.53%	-7.27%	6.44%	5.70%	7.14%	6.55%
MSCI World				1.86%				4.87%	4.87%	6.81%	6.81%	-2.78%	-2.78%	6.95%	6.95%	7.72%	7.72%
Domestic - broad Benchmark	497,561,442	23.2%	21.5%	4.14%	488,445,807	22.8%	21.5%	4.30%	4.17%	8.63%	8.45%	2.02%	1.90%	11.55%	11.33%	11.48%	11.29%
				4.98%				5.15%	5.15%	10.39%	10.39%	0.72%	0.72%	10.54%	10.54%	10.49%	10.49%
Large Cap Domestic																	
LA Capital	143,547,523	6.7%	6.6%	1.04%	144,396,879	6.7%	6.6%	3.76%	3.71%	4.84%	4.73%	5.17%	4.95%	14.27%	14.03%	13.62%	13.40%
Russell 1000 Growth				1.01%				4.58%	4.58%	5.64%	5.64%	3.02%	3.02%	13.07%	13.07%	12.35%	12.35%
LA Capital	87,034,873	4.1%	3.3%	4.54%	89,134,357	4.2%	3.3%	3.23%	3.20%	7.92%	7.86%	6.04%	5.92%	12.62%	12.48%	13.07%	12.90%
Russell 1000				3.83%				4.03%	4.03%	8.01%	8.01%	2.94%	2.94%	11.48%	11.48%	11.88%	11.88%
Northern Trust	69,380,267	3.2%	3.3%	4.22%	67,625,212	3.2%	3.3%	4.32%	4.32%	8.72%	8.72%	1.76%	1.76%	11.10%	10.70%	12.55%	12.16%
Clifton	80,164,710	3.7%	3.3%	3.88%	78,389,532	3.7%	3.3%	3.86%	3.65%	7.90%	7.67%	4.60%	4.60%	11.89%	11.88%	12.45%	12.30%
S&P 500				3.82%				3.85%	3.85%	7.82%	7.82%	3.99%	3.99%	11.66%	11.66%	12.10%	12.10%
Total Large Cap Domestic	380,127,363	17.7%	16.6%	2.99%	379,545,980	17.7%	16.6%	3.76%	3.69%	6.86%	6.76%	4.63%	4.52%	12.77%	12.60%	12.86%	12.64%
Russell 1000 (2)				3.83%				4.03%	4.03%	8.01%	8.01%	2.94%	2.94%	11.48%	11.48%	12.09%	12.09%
Small Cap Domestic																	
Atlanta Capital	52,969,423	2.5%	2.4%	7.24%	49,543,798	2.3%	2.4%	2.46%	2.28%	9.88%	9.47%	N/A	N/A	N/A	N/A	N/A	N/A
Clifton	64,464,656	3.0%	2.4%	8.73%	59,356,029	2.8%	2.4%	9.35%	8.88%	18.89%	18.38%	-5.49%	-5.85%	8.31%	7.84%	9.61%	9.13%
Total Small Cap Domestic	117,434,079	5.5%	4.8%	8.04%	108,899,827	5.1%	4.8%	6.19%	5.85%	14.72%	14.27%	-6.86%	-7.04%	7.22%	6.87%	9.40%	8.95%
Russell 2000				8.83%				9.05%	9.05%	18.68%	18.68%	-6.73%	-6.73%	7.09%	7.09%	8.35%	8.35%
International - broad Benchmark	326,002,762	15.2%	14.5%	-3.00%	341,192,040	15.9%	14.5%	8.04%	8.00%	4.80%	4.72%	-7.72%	-7.91%	3.60%	3.34%	5.53%	5.24%
				-1.09%				6.81%	6.81%	5.65%	5.65%	-10.38%	-10.38%	1.46%	1.46%	3.82%	3.82%
Developed International																	
NTGI	123,582,002	5.8%	5.9%	-0.32%	123,966,351	5.8%	5.9%	6.35%	6.34%	6.01%	5.99%	-9.50%	-9.54%	N/A	N/A	N/A	N/A
MSCI World Ex US				-0.36%				6.29%	6.29%	5.91%	5.91%	-9.84%	-9.84%				
William Blair	57,589,903	2.7%	3.5%	-5.89%	61,246,555	2.9%	3.5%	9.89%	9.86%	3.42%	3.29%	N/A	N/A	N/A	N/A	N/A	N/A
MSCI ACWI ex-US (Net)				-1.25%				6.91%	6.91%	5.57%	5.57%						
DFA (4)	36,950,203	1.7%	1.2%	1.71%	36,320,154	1.7%	1.2%	10.54%	10.54%	12.44%	12.44%	-9.28%	-9.28%	6.24%	6.01%	4.42%	3.99%
Wellington	37,624,271	1.8%	1.2%	-4.94%	39,657,857	1.8%	1.2%	6.71%	6.47%	1.43%	1.00%	1.90%	1.06%	9.80%	8.90%	9.09%	8.18%
S&P/Citigroup BMI EPAC < \$2BN				-3.15%				7.90%	7.90%	4.49%	4.49%	-3.37%	-3.37%	7.29%	7.29%	4.37%	4.37%
Total Developed International	255,746,378	11.9%	11.8%	-2.05%	261,190,917	12.2%	11.8%	7.79%	7.74%	5.58%	5.48%	-7.68%	-7.92%	4.15%	3.86%	3.11%	2.71%
MSCI World Ex US (3)				-0.36%				6.29%	6.29%	5.91%	5.91%	-10.16%	-10.16%	2.06%	2.06%	1.68%	1.68%
Emerging Markets																	
Axiom	51,663,288	2.4%	2.1%	-6.47%	59,463,257	2.8%	2.1%	9.13%	9.13%	2.08%	2.08%	-10.32%	-10.32%	N/A	N/A	N/A	N/A
DFA (4)	18,593,096	0.9%	0.7%	-5.92%	20,537,865	1.0%	0.7%	8.18%	8.18%	1.78%	1.78%	-5.64%	-5.64%	2.65%	2.43%	-0.21%	-0.66%
Total Emerging Markets	70,256,384	3.3%	2.8%	-6.32%	80,001,123	3.7%	2.8%	8.89%	8.89%	2.00%	2.00%	-9.25%	-9.25%	0.46%	0.29%	-0.77%	-1.17%
MSCI Emerging Markets				-4.16%				9.03%	9.03%	4.49%	4.49%	-12.06%	-12.06%	-1.56%	-1.56%	-3.78%	-3.78%

ND TEACHERS FUND FOR RETIREMENT
INVESTMENT PERFORMANCE REPORT AS OF DECEMBER 31, 2016

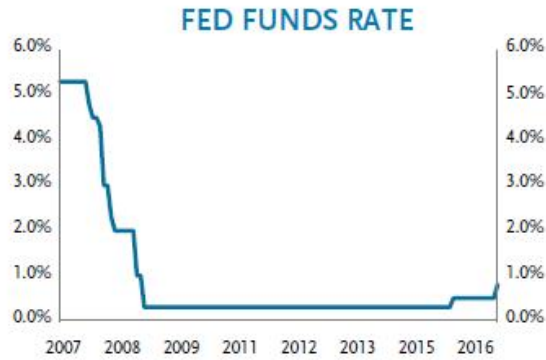
	December-16				September-16					Current		Prior Year		3 Years Ended		5 Years Ended	
	Allocation		Quarter Gross ⁽⁴⁾	Policy	Allocation		Quarter			Fiscal YTD		FY16		6/30/2016		6/30/2016	
Market Value	Actual	Market Value			Actual	Policy	Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾
Private Equity																	
Brinson 1998 Partnership Fund	57,646	0.0%	-0.16%		57,738	0.0%	-0.33%	-0.33%		-0.49%	-0.49%	4.14%	4.14%	1.77%	1.77%	0.95%	0.95%
Brinson 1999 Partnership Fund	153,221	0.0%	2.13%		150,032	0.0%	-3.80%	-3.80%		-1.55%	-1.55%	12.03%	12.03%	2.61%	2.61%	2.21%	2.21%
Brinson 2000 Partnership Fund	434,719	0.0%	0.94%		430,656	0.0%	-0.30%	-0.30%		0.64%	0.64%	-1.75%	-1.75%	-1.74%	-1.74%	1.43%	1.43%
Brinson 2001 Partnership Fund	608,100	0.0%	8.47%		687,938	0.0%	-1.49%	-1.49%		6.86%	6.86%	-10.11%	-10.11%	2.31%	2.31%	4.78%	4.78%
Brinson 2002 Partnership Fund	152,265	0.0%	15.92%		341,875	0.0%	0.54%	0.54%		16.54%	16.54%	9.43%	9.43%	1.65%	1.65%	4.69%	4.69%
Brinson 2003 Partnership Fund	148,309	0.0%	6.39%		139,401	0.0%	0.12%	0.12%		6.51%	6.51%	-2.55%	-2.55%	13.28%	13.28%	7.77%	7.77%
Total Brinson Partnership Funds	1,554,260	0.1%	6.45%		1,807,837	0.1%	-0.85%	-0.85%		5.54%	5.54%	-1.98%	-1.98%	1.87%	1.87%	3.69%	3.69%
Brinson 1999 Non-US Partnership Fund	31,644	0.0%	9.08%		29,009	0.0%	-8.08%	-8.08%		0.27%	0.27%	13.44%	13.44%	1.29%	1.29%	5.77%	5.77%
Brinson 2000 Non-US Partnership Fund	338,417	0.0%	0.17%		337,829	0.0%	3.37%	3.37%		3.55%	3.55%	-7.88%	-7.88%	-2.64%	-2.64%	-2.51%	-2.51%
Brinson 2001 Non-US Partnership Fund	68,518	0.0%	-11.28%		77,233	0.0%	-1.30%	-1.30%		-12.44%	-12.44%	23.36%	23.36%	24.09%	24.09%	12.41%	12.41%
Brinson 2002 Non-US Partnership Fund	330,173	0.0%	-3.54%		472,741	0.0%	-0.16%	-0.16%		-3.69%	-3.69%	29.09%	29.09%	8.10%	8.10%	5.92%	5.92%
Brinson 2003 Non-US Partnership Fund	127,434	0.0%	5.28%		267,555	0.0%	2.82%	2.82%		8.25%	8.25%	18.08%	18.08%	11.09%	11.09%	9.99%	9.99%
Brinson 2004 Non-US Partnership Fund	145,022	0.0%	3.48%		193,082	0.0%	4.06%	4.06%		7.68%	7.68%	-8.26%	-8.26%	5.80%	5.80%	3.35%	3.35%
Total Brinson Non-US Partnership Fund	1,041,208	0.0%	-0.61%		1,377,449	0.1%	0.61%	0.61%		0.00%	0.00%	10.65%	10.65%	6.97%	6.97%	5.26%	5.26%
Adams Street 2008 Non-US Partnership Fd	3,474,882	0.2%	6.75%		3,323,875	0.2%	0.00%	0.00%		6.75%	6.75%	11.84%	11.84%	12.71%	12.71%	9.22%	9.22%
Brinson BVCF IV	1,789,584	0.1%	3.23%		1,733,599	0.1%	0.00%	0.00%		3.23%	3.23%	-1.65%	-1.65%	18.20%	18.20%	29.22%	29.22%
Adams Street Direct Co-investment Fund	1,911,337	0.1%	7.53%		2,136,989	0.1%	0.00%	0.00%		7.53%	7.53%	8.30%	8.04%	16.34%	15.92%	13.24%	13.00%
Adams Street 2010 Direct Fund	534,752	0.0%	6.82%		564,062	0.0%	0.00%	0.00%		6.82%	6.82%	7.48%	7.48%	15.27%	15.27%	13.88%	13.88%
Adams Street 2010 Non-US Emerging Mkts	632,383	0.0%	5.16%		594,312	0.0%	0.00%	0.00%		5.16%	5.16%	10.50%	10.50%	11.83%	11.83%	0.77%	0.77%
Adams Street 2010 Non-US Developed Mkts	1,350,555	0.1%	9.22%		1,192,699	0.1%	0.00%	0.00%		9.22%	9.22%	9.63%	9.63%	6.70%	6.70%	7.21%	7.21%
Adams Street 2010 Partnership Fund	2,736,135	0.1%	9.20%		2,538,773	0.1%	0.00%	0.00%		9.20%	9.20%	6.18%	6.18%	13.70%	13.70%	12.03%	12.03%
Total Adams Street 2010 Funds	5,253,825	0.2%	8.43%		4,889,846	0.2%	0.00%	0.00%		8.43%	8.43%	7.80%	7.80%	12.22%	12.22%	10.71%	10.71%
Adams Street 2015 Global Fund	1,535,429	0.1%	28.68%		1,193,203	0.1%	0.00%	0.00%		28.68%	28.68%	N/A	N/A	N/A	N/A	N/A	N/A
Adams Street 2016 Global Fund	345,367	0.0%	N/A		-	0.0%	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matlin Patterson Global Opportunities II	745,041	0.0%	-0.49%		748,720	0.0%	0.00%	0.00%		-0.49%	-0.49%	7.27%	7.27%	3.19%	3.19%	-27.34%	-27.34%
Matlin Patterson Global Opportunities III	12,595,750	0.6%	1.41%		12,420,383	0.6%	0.00%	0.00%		1.41%	1.41%	-5.68%	-5.68%	-1.30%	-1.30%	22.01%	22.01%
InvestAmerica (Lewis and Clark Fund)	612,409	0.0%	0.00%		612,409	0.0%	0.00%	0.00%		0.00%	0.00%	-51.19%	-51.19%	-35.55%	-35.55%	-19.67%	-19.67%
L&C II	4,114,905	0.2%	0.00%		4,426,748	0.2%	0.00%	0.00%		0.00%	0.00%	1.88%	1.88%	-6.77%	N/A	-5.56%	N/A
Corsair III	6,553,457	0.3%	6.91%		6,168,124	0.3%	-0.42%	-0.42%		6.46%	6.46%	34.22%	34.22%	7.06%	7.06%	1.57%	1.35%
Corsair III - ND Investors LLC	0	0.0%	N/A		0	0.0%	24.54%	24.54%		N/A	N/A	6.41%	6.41%	-0.10%	-0.10%	2.58%	2.53%
Corsair IV	9,643,268	0.4%	7.17%		10,569,671	0.5%	-1.06%	-1.06%		6.03%	6.03%	-2.38%	-2.38%	13.58%	13.58%	6.12%	6.00%
Capital International (CIPEF V)	2,602,445	0.1%	-14.38%		3,498,742	0.2%	-0.60%	-0.60%		-14.90%	-14.90%	-25.52%	-25.52%	-10.61%	-10.61%	-9.35%	-9.35%
Capital International (CIPEF VI)	8,932,194	0.4%	1.05%		8,961,340	0.4%	-0.87%	-0.87%		0.16%	0.16%	1.06%	1.06%	-9.32%	-9.32%	N/A	N/A
EIG (formerly TCW)	2,098,561	0.1%	-15.90%		2,375,799	0.1%	-0.41%	-0.41%		-16.24%	-16.24%	-87.59%	-87.59%	-38.29%	-38.29%	-24.04%	-24.04%
Quantum Resources	18,246	0.0%	N/A		23,777	0.0%	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Quantum Energy Partners	3,259,659	0.2%	0.62%		3,535,831	0.2%	7.24%	7.24%		7.91%	7.91%	-22.63%	-22.63%	-6.45%	-6.45%	4.85%	4.85%
Total Private Equity (4)	70,137,746	3.3%	6.0%	2.65%	71,846,061	3.4%	6.0%	1.71%	1.71%	4.41%	4.41%	-7.19%	-7.20%	-2.95%	-2.97%	0.50%	0.48%
GLOBAL FIXED INCOME	477,677,688	22.2%	23.0%	-2.53%	492,210,993	23.0%	23.0%	2.12%	2.06%	-0.46%	-0.58%	4.75%	4.49%	4.40%	4.15%	3.81%	3.61%
Benchmark				-4.11%				1.48%	1.48%	-2.69%	-2.69%	6.36%	6.36%	3.68%	3.68%	2.38%	2.38%
Domestic Fixed Income	364,946,580	17.0%	17.0%	-0.79%	369,217,672	17.2%	17.0%	2.34%	2.29%	1.54%	1.43%	3.82%	3.59%	5.01%	4.79%	4.49%	4.32%
Benchmark				-1.88%				1.64%	1.64%	-0.26%	-0.26%	4.83%	4.83%	4.15%	4.15%	2.92%	2.92%
Investment Grade Fixed Income																	
PIMCO (DISCO II) (4)	42,580,431	2.0%	2.0%	3.08%	41,473,209	1.9%	1.9%	4.15%	4.15%	7.36%	7.36%	4.39%	4.39%	6.84%	6.84%	N/A	N/A
BC Aggregate				-2.98%				0.46%	0.46%	-2.53%	-2.53%	6.00%	6.00%	4.06%	4.06%		
State Street	27,037,793	1.3%	1.3%	-11.67%	30,737,959	1.4%	1.3%	-0.36%	-0.37%	-11.99%	-12.01%	19.28%	19.23%	10.44%	10.40%	N/A	N/A
BC Long Treasuries				-11.67%				-0.36%	-0.36%	-11.98%	-11.98%	19.30%	19.30%	10.46%	10.46%		
PIMCO Unconstrained	27,964,862	1.3%	1.7%	1.75%	27,625,245	1.3%	1.7%	3.27%	3.16%	5.08%	4.85%	-0.84%	-0.95%	N/A	N/A	N/A	N/A
3m LIBOR				0.23%				0.19%	0.19%	0.42%	0.42%	0.49%	0.49%				
Declaration (Total Return) (4)	38,034,393	1.8%	1.6%	-0.50%	38,380,266	1.8%	1.6%	2.16%	2.16%	1.64%	1.64%	2.59%	2.59%	4.30%	4.30%	N/A	N/A
3m LIBOR				0.23%				0.19%	0.19%	0.42%	0.42%	0.49%	0.49%	0.33%	0.33%		
JP Morgan	52,433,128	2.4%	2.6%	-1.76%	53,610,709	2.5%	2.6%	0.55%	0.50%	-1.21%	-1.31%	4.60%	4.32%	N/A	N/A	N/A	N/A
PIMCO	78,166,999	3.6%	3.6%	-1.96%	80,080,198	3.7%	3.9%	0.72%	0.68%	-1.25%	-1.33%	4.42%	4.24%	3.60%	3.42%	N/A	N/A
BC Mortgage Backed Securities Index				-1.97%				0.60%	0.60%	-1.39%	-1.39%	4.34%	4.34%	3.76%	3.76%		
Total Investment Grade Fixed Income	266,217,605	12.4%	13.0%	-1.66%	271,907,587	12.7%	13.0%	1.56%	1.52%	-0.13%	-0.20%	5.15%	5.01%	4.81%	4.69%	5.16%	5.02%
BC Aggregate				-2.98%				0.46%	0.46%	-2.53%	-2.53%	6.00%	6.00%	4.06%	4.06%	3.76%	3.76%

ND TEACHERS FUND FOR RETIREMENT
INVESTMENT PERFORMANCE REPORT AS OF DECEMBER 31, 2016

	December-16				September-16					Current Fiscal YTD		Prior Year FY16		3 Years Ended 6/30/2016		5 Years Ended 6/30/2016		
	Market Value	Allocation		Quarter Gross ⁽⁴⁾	Market Value	Allocation		Quarter Gross ⁽⁴⁾ Net		Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾	Net	Gross ⁽⁴⁾	Net	
Below Investment Grade Fixed Income																		
Loomis Sayles	77,564,683	3.6%	3.0%	1.07%	76,794,235	3.6%	3.0%	5.92%	5.79%	7.06%	6.79%	-0.25%	-0.75%	4.61%	4.10%	5.77%	5.27%	
PIMCO (BRAVO II) (4)	19,958,794	0.9%	0.9%	3.80%	19,215,557	0.9%	0.9%	0.00%	0.00%	3.80%	3.80%	7.02%	7.02%	N/A	N/A	N/A	N/A	
Goldman Sachs 2008 Fund (4)	117,826	0.0%	0.0%	16.12%	244,876	0.0%	0.0%	-0.73%	-0.73%	15.28%	15.28%	3.00%	3.00%	17.57%	17.57%	8.95%	8.95%	
Goldman Sachs Fund V (4)	1,087,871	0.1%	0.1%	3.01%	1,055,416	0.0%	0.0%	0.00%	0.00%	3.01%	3.01%	-5.12%	-5.12%	6.11%	6.11%	8.41%	8.41%	
Total Below Investment Grade Fixed Income	98,728,975	4.6%	4.0%	1.66%	97,310,085	4.5%	4.0%	4.61%	4.51%	6.34%	6.13%	0.70%	0.29%	5.43%	4.98%	6.71%	6.27%	
BC High Yield 2% Issuer Constrained Index				1.75%				5.55%	5.55%	7.40%	7.40%	1.65%	1.65%	4.20%	4.20%	5.84%	5.84%	
International Fixed Income																		
Benchmark	112,731,109	5.2%	6.0%	-7.77%	122,993,321	5.7%	6.0%	1.47%	1.38%	-6.42%	-6.58%	7.88%	7.50%	2.01%	1.65%	1.37%	1.09%	
				-10.26%				1.03%	1.03%	-9.34%	-9.34%	11.24%	11.24%	1.85%	1.85%	0.41%	0.41%	
Developed Investment Grade Int'l FI																		
UBS Global (Brinson)	46,722,365	2.2%	3.0%	-10.50%	52,527,054	2.4%	3.0%	1.18%	1.10%	-9.45%	-9.59%	11.43%	11.07%	1.52%	1.20%	0.03%	-0.28%	
BC Global Aggregate ex-US (4)				-10.26%				1.03%	1.03%	-9.34%	-9.34%	11.24%	11.24%	1.85%	1.85%	0.28%	0.28%	
Brandywine	66,008,744	3.1%	3.0%	-5.74%	70,466,267	3.3%	3.0%	1.69%	1.59%	-4.15%	-4.33%	5.12%	4.73%	2.66%	2.26%	4.50%	4.09%	
BC Global Aggregate (ex-US)				-7.07%				0.82%	0.82%	-6.31%	-6.31%	8.87%	8.87%	2.79%	2.79%	1.77%	1.77%	
Total Developed Investment Grade Int'l FI	112,731,109	5.2%	6.0%	-7.77%	122,993,321	5.7%	6.0%	1.47%	1.38%	-6.42%	-6.58%	7.88%	7.50%	2.01%	1.65%	2.29%	1.93%	
BC Global Aggregate ex-US				-10.26%				1.03%	1.03%	-9.34%	-9.34%	11.24%	11.24%	1.85%	1.85%	0.28%	0.28%	
GLOBAL REAL ASSETS	392,524,513	18.3%	18.0%	0.62%	388,841,956	18.1%	18.0%	0.78%	0.71%	1.40%	1.24%	8.37%	7.83%	9.76%	9.30%	7.44%	7.10%	
Benchmark				1.14%				1.12%	1.12%	2.27%	2.27%	6.27%	6.27%	7.86%	7.86%	6.28%	6.28%	
Global Real Estate																		
INVESCO - Core	105,018,474			2.17%	103,646,528			1.68%	1.59%	3.89%	3.71%	10.96%	10.59%	12.72%	12.32%	12.09%	11.65%	
INVESCO - Fund II (4)	62,504			-2.76%	2,218,919			0.00%	0.00%	-2.76%	-2.76%	6.65%	6.65%	9.06%	9.06%	15.56%	15.56%	
INVESCO - Fund III (4)	12,521,154			6.47%	11,759,885			0.00%	0.00%	6.47%	6.47%	14.25%	14.25%	17.06%	17.06%	N/A	N/A	
INVESCO - Fund IV (4)	12,436,629			2.56%	9,444,307			0.00%	0.00%	2.56%	2.56%	4.66%	4.66%	N/A	N/A	N/A	N/A	
INVESCO - Asia Real Estate Fund (4)	34,407			-31.45%	436,981			-3.02%	-3.02%	-33.52%	-33.52%	12.140%	12.140%	43.66%	43.66%	23.12%	23.12%	
INVESCO - Asia Real Estate Fund III (4)	8,144,112			3.46%	5,668,272			-0.64%	-0.64%	2.79%	2.79%	N/A	N/A	N/A	N/A	N/A	N/A	
J.P. Morgan Strategic & Special Funds	81,410,501			2.18%	79,675,261			1.97%	1.73%	4.20%	3.72%	12.25%	10.95%	14.01%	12.87%	14.00%	12.93%	
J.P. Morgan Alternative Property Fund	116,150			1.07%	130,842			0.00%	0.00%	1.07%	1.07%	2.80%	2.80%	-10.60%	-10.60%	1.01%	0.94%	
J.P. Morgan Greater Europe Fund (4)	3,776,547			-11.05%	4,248,801			1.16%	1.16%	-10.02%	-10.02%	24.44%	24.44%	34.32%	34.32%	N/A	N/A	
J.P. Morgan Greater China Property Fund (4)	4,959,068			3.30%	4,802,398			0.00%	0.00%	3.30%	3.30%	16.24%	16.24%	32.27%	32.27%	16.18%	16.18%	
Total Global Real Estate	228,479,546	10.6%	10.0%	2.14%	222,030,192	10.4%	10.0%	1.48%	1.36%	3.66%	3.41%	11.96%	11.34%	14.82%	14.26%	13.68%	13.15%	
NCREIF TOTAL INDEX				1.73%				1.77%	1.77%	3.53%	3.53%	10.64%	10.64%	11.60%	11.60%	11.51%	11.51%	
Timber																		
TIR - Teredo	15,568,845	0.7%		0.47%	15,495,338	0.7%		0.00%	0.00%	0.47%	0.47%	9.29%	9.29%	10.42%	10.42%	6.70%	6.70%	
TIR - Springbank	49,898,358	2.3%		-7.94%	54,414,955	2.5%		0.00%	0.00%	-7.94%	-7.94%	2.97%	2.97%	0.38%	0.38%	-1.38%	-1.38%	
Total Timber (4)	65,467,202	3.0%	3.0%	-6.07%	69,910,293	3.3%	3.0%	0.00%	0.00%	-6.07%	-6.07%	4.34%	4.34%	3.63%	3.63%	2.28%	2.28%	
NCREIF Timberland Index				1.18%				0.67%	0.67%	1.86%	1.86%	3.39%	3.39%	7.74%	7.74%	6.70%	6.70%	
Infrastructure																		
JP Morgan (Asian) (4)	13,059,056	0.6%		3.69%	12,700,195	0.6%		-0.47%	-0.47%	3.19%	3.19%	-9.66%	-9.66%	-3.00%	-3.00%	1.61%	1.61%	
JP Morgan (IIF)	67,815,797	3.2%		1.62%	64,407,161	3.0%		0.00%	0.00%	1.62%	1.45%	5.11%	3.93%	5.27%	4.26%	6.17%	5.09%	
Grosvenor (formerly Credit Suisse) (4)	15,176,580	0.7%		1.64%	18,110,492	0.8%		-0.37%	-0.37%	1.26%	1.26%	8.42%	8.42%	8.85%	8.85%	N/A	N/A	
Grosvenor CIS II (4)	2,526,332	0.1%		0.27%	1,683,623	0.1%		-0.89%	-0.89%	-0.62%	-0.62%	6.10%	6.10%	N/A	N/A	N/A	N/A	
Total Infrastructure	98,577,765	4.6%	5.0%	1.85%	96,901,471	4.5%	5.0%	-0.15%	-0.15%	1.70%	1.58%	3.66%	2.89%	4.74%	4.09%	5.24%	4.71%	
CPI				-0.04%				0.09%	0.09%	0.04%	0.04%	0.64%	0.64%	0.76%	0.76%	0.81%	0.81%	
Cash Equivalents																		
Northern Trust STIF	16,983,847			0.17%	6,202,194			0.13%	0.13%	0.30%	0.30%	0.29%	0.29%	0.13%	0.13%	0.12%	0.12%	
Bank of ND	5,179,029			0.12%	2,822,839			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total Cash Equivalents	22,162,877	1.0%	1.0%	0.16%	9,025,033	0.4%	1.0%	0.12%	0.12%	0.28%	0.28%	0.29%	0.29%	0.13%	0.13%	0.12%	0.12%	
90 Day T-Bill				0.09%				0.10%	0.10%	0.18%	0.18%	0.19%	0.19%	0.09%	0.09%	0.09%	0.09%	

NOTE: Monthly returns and market values are preliminary and subject to change.
New asset class structure began October 1, 2011. Composite returns for new composites not available prior to that date.
Portfolios moved between asset classes will show historical returns in new position.

Hoping for Houdini! – Limited Flexibility if a Recession Accompanies the Deleveraging



Source: Bloomberg



Source: Bloomberg

TOTAL U.S. PUBLIC DEBT AS A PERCENT OF GDP



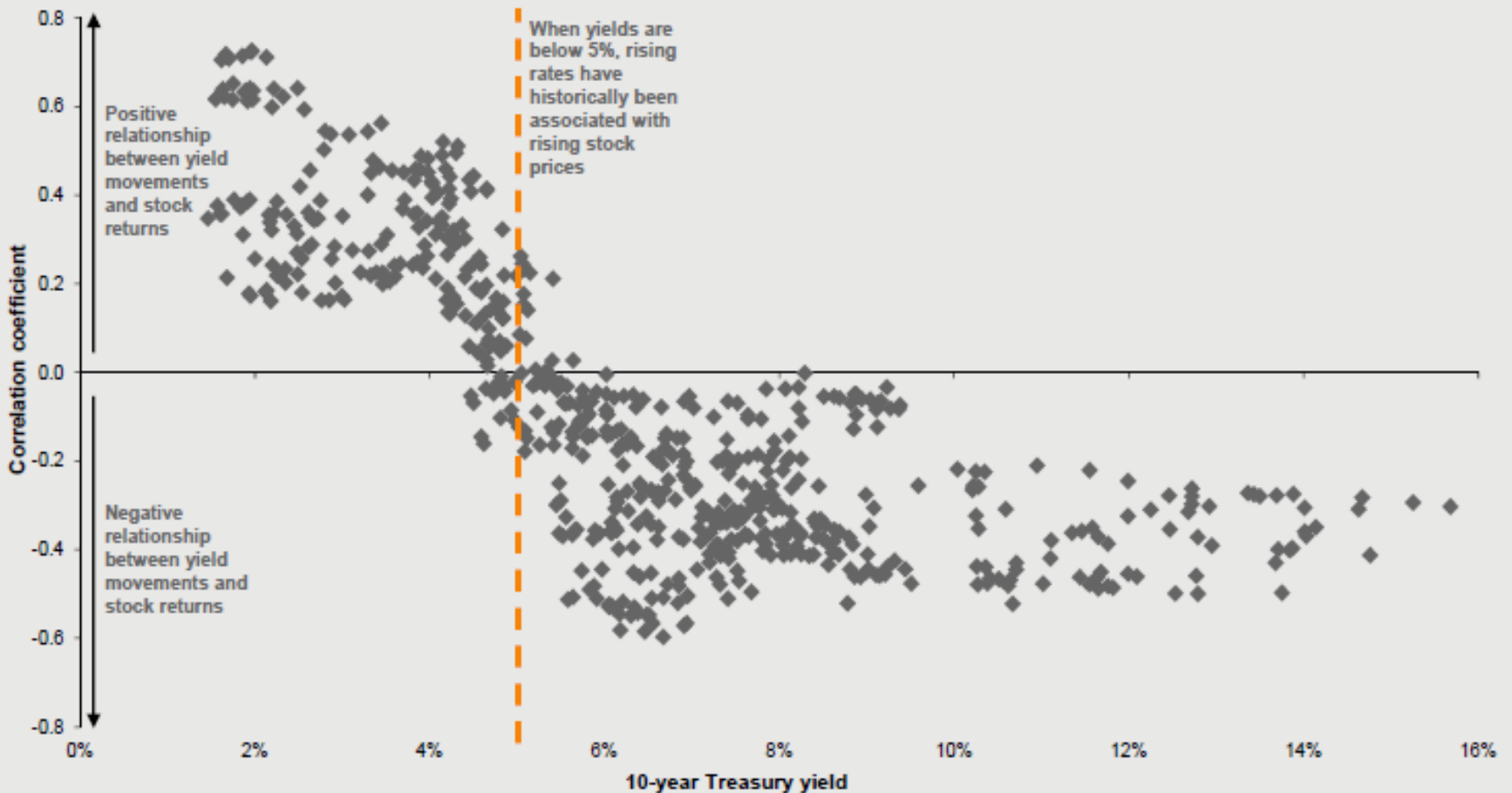
Source: U.S. Office of Management & Budget, BEA



How Equities Respond to Interest Rate Movements

Correlations between weekly stock returns and interest rate movements

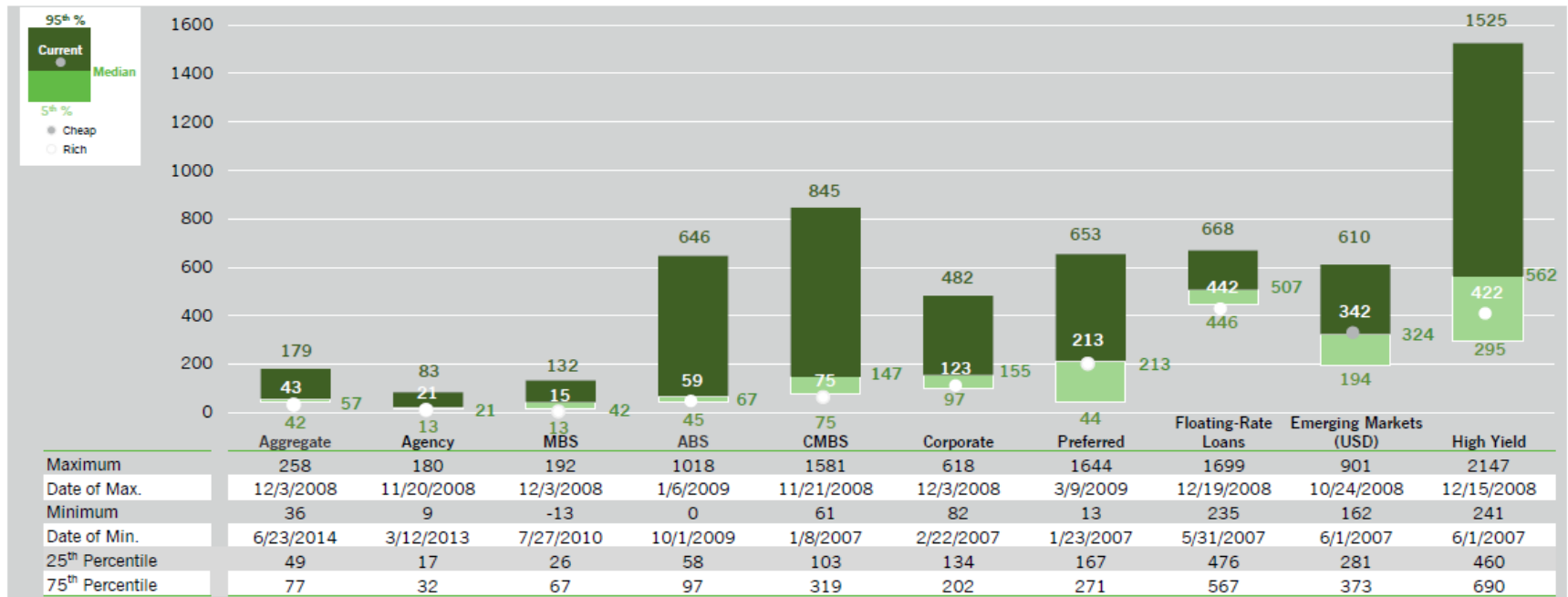
Weekly S&P 500 returns, 10-year Treasury yield, rolling 2-year correlation, May 1963 – December 2016



Source: FactSet, Standard & Poor's, FRB, J.P. Morgan Asset Management.
Returns are based on price index only and do not include dividends. Markers represent monthly 2-year correlations only.
Guide to the Markets – U.S. Data are as of December 31, 2016.

Bonds Continue to be Expensive

Fixed income spread analysis (bps)



Source: Factset as of 12/31/16. Spread history measures past 10 years. Data provided is for informational use only. Past performance is no guarantee of future results. See end of report for important additional information. All spreads are in basis points and measure option-adjusted yield spread relative to comparable maturity U.S. Treasuries with the exception of floating-rate loans, which is the average discounted spread over Libor. Agency represented by Bloomberg Barclays U.S. Agency Index. MBS represented by Bloomberg Barclays U.S. Mortgage Backed Securities (MBS) Index. ABS represented by Bloomberg Barclays U.S. Asset Backed Securities (ABS) Index. CMBS represented by Bloomberg Barclays U.S. CMBS Investment Grade Index. Corporate represented by Bloomberg Barclays U.S. Corporate Investment Grade Index. Preferred represented by BofA Merrill Lynch Fixed Rate Preferred Securities Index. Floating-Rate Loans represented by S&P/LSTA Leveraged Loan Index. Emerging Markets(USD) represented by JPMorgan Emerging Markets Bond Index (EMBI) Global Diversified. High Yield represented by BofA Merrill Lynch US High Yield Index.

- ▶ Spreads are below median in all areas except for emerging market debt. Agencies are at median.
- ▶ High yield contracted the most this quarter followed by U.S. credit.

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: March 16, 2017
SUBJ: Board Policy – 1st Reading
In-Staff Subbing Contract Period, Policy C-24

BACKGROUND INFORMATION – TFFR BOARD REVIEW

At the July 2016 TFFR Board meeting, the Board discussed retiree substitute teaching. (July 14, 2016 board memo attached.) At that time, the concerns that were being expressed by some employers related to TFFR's interpretation of contracted in-staff subbing, particularly as it pertains to re-employed retirees. To summarize TFFR's current practice:

If an active teacher or retiree has a contract (or written agreement) with the school district for full or part time work, TFFR uses the calendar dates indicated on the contract to determine the teacher's contract period. If subbing occurs during that time frame, it is considered to be in-staff subbing so retirement contributions are required to be paid on the substitute teaching pay and the hours are counted toward the annual hour limit for re-employed retirees (700 – 1000 hours depending upon length of contract). If the active teacher or retiree does not have a contract (or written agreement) with the school district, then no retirement contributions are required to be paid on substitute teaching pay, and the hours are not counted toward the annual hour limit for re-employed retirees.

Some employers requested that the TFFR Board revise the current interpretation by considering the retiree's work schedule (for example number of days and/or working hours instead of calendar dates) when determining the contract period for in-staff subbing. This would allow contracted retirees to do additional subbing since the hours would not count against the annual hour limit. More of the subbing would then be considered non-contracted, and the employer and retiree would not have to pay retirement contributions on that portion of the subbing salary.

As part of its review of the issue, the TFFR Board requested feedback from stakeholder groups regarding the impact of TFFR's current practice on in-staff subbing by contracted retirees. TFFR staff met with stakeholder group representatives from NDASBM, NDCEL, NDRTA, ND United and ND United-Retired, NDDPI, and NDESPB on September 7, 2016. NDSBA was contacted separately since they were not able to attend the meeting.

In general, stakeholder groups did not believe any changes should be made that might negatively impact the plan, particularly since 2011 funding improvement changes were made to collectively improve plan funding levels. Although the estimated cost impact of retiree in-staff subbing is relatively minor for most school districts and retirees, they indicated the TFFR plan should continue requiring contributions on retiree earnings (both regular contracted hours and in-staff subbing) as agreed to in 2011. However, if there is a way to make a minor change to allow retirees to do more subbing, but continue paying retirement contributions, stakeholder groups were not opposed to doing so, but are not in favor of making changes that would require legislation at this time. There didn't appear to be a strong desire to change current practice since it is not causing a big problem in most districts or for most retirees. The Board may want to wait to address it legislatively if and when it does become a bigger concern.

At the September 2016 TFFR Board meeting, trustees considered the feedback from stakeholder representatives, legal counsel, and RIO audit and retirement services staff. (September 15, 2016 board memo attached.) The Board discussed the pros and cons of the following options, as well as variations of these options.

- 1) Continue current practice – Develop board policy to clarify current practice. For both active members and re-employed retirees, TFFR uses the calendar dates indicated on the teacher's contract to determine the length of the teachers' contract period for in-staff subbing.
- 2) Modify current practice – Develop new board policy to describe future practice. For re-employed retirees only OR for both active members and re-employed retirees, TFFR would use the teacher's work schedule (for example specific days and/or working hours instead of calendar dates) to determine the length of the teacher's contract period for in-staff subbing. This would allow re-employed retirees to do additional subbing beyond the annual hour limit. Re-employed retirees and school districts would not be required to pay retirement contributions on the subbing salary earned during those "non-contract hours."
- 3) Modify current practice – Draft legislative bill to change retiree re-employment provisions in state law. Allow contracted in-staff subbing to not count toward retiree annual hour limit, although payment of retirement contributions would be required (like extracurricular duties and professional development hours in current law.)

Jan pointed out that any policy could still be challenged and appealed to the Board by an individual member or employer, so no rights would be impaired by a policy.

After discussion, the Board directed staff to continue the current practice (option 1) and to draft a board policy to clarify the current practice.

At the October 27, 2016 board meeting, a draft board policy reflecting the current practice was brought to the Board for its first reading. Following that meeting, in November, 2016, the draft policy was sent to member and employer stakeholder groups as well as employers who requested potential changes to the current practice. No further comments were received at that time.

At the January 26, 2017 TFFR board meeting, the draft board policy was brought for second reading and final approval. The policy was not approved, and after further discussion, Board members decided to reconsider the option of using the teacher's work schedule to determine the length of the teacher's contract period for in-staff subbing, but only in cases where it is specifically detailed on the member's contract. The Board asked staff to revise the board policy and provide additional information.

REVISED DRAFT POLICY: CONTRACT PERIOD FOR IN-STAFF SUBBING

RIO staff met to discuss potential changes to the current practice and policy considerations.

Attached is a revised draft policy which reflects TFFR's current practice for determining the contract period for in-staff subbing for both active members and re-employed retirees. This is the default practice that would be used in evaluating employee contracts which are very broad and might only include general employment information like position, start date, etc. Currently, the majority of contracts written are pretty generic, and the contract period for in-staff subbing would be based on the beginning and ending calendar dates indicated on the contract. (See attached sample contracts.)

The revised policy also provides an option (or exception) for TFFR to use a different contract period, but only if specifically detailed on the member's contract (for example, the employee's work schedule showing specific days and/or working hours) to determine the length of the contract period for in-staff subbing. This would allow re-employed retirees to do additional subbing beyond the annual hour limit (700-1000 hours). However, those re-employed retirees and school districts would not be required to pay retirement contributions on the subbing salary earned during those "non-contract days or hours" as long as specifically detailed on the contract. Currently, most contracts written do not provide the employee's work schedule details, but if included in future contracts, the alternate contract period would be recognized for in-staff subbing purposes.

The revised policy also makes it clear that the board is not prohibited from making individual eligible salary determinations upon appeal.

Jan Murtha, TFFR legal counsel, has reviewed the revised draft policy and this memo, and provided her suggestions which have been incorporated.

Please be reminded that a statutory change would be required to allow contracted in-staff subbing to be excluded from the retiree annual hour limit, but still require payment of retirement contributions (like extracurricular duties and professional development hours in current law) since only those exclusions are currently set forth in statute. If the subbing is reasonably being interpreted as being done under contract, the Board does not have the discretion to exclude.

Here are some factors to consider relating to the revised draft policy on “In-staff Subbing Contract Period.”

Pros:

- Revised draft policy allows re-employed retirees to be contracted for 700-1000 hours for regular teaching duties and also substitute teach during the remainder of the day/week/school year IF the school district includes specific details of the employee’s work schedule on the retiree’s contract. This could help alleviate the shortage of substitute teachers in some school districts.
- Allows school districts/retirees a choice regarding how TFFR will determine contract period for in-staff subbing.
 - For those school districts who choose to include specific details of the employee’s work schedule in the contracts, their contract period for in staff subbing would be more narrowly defined, so additional subbing beyond the annual hour limit could be performed and retirement contributions would not be required.
 - For those school districts who choose to not include specific details of the employee’s work schedule in the contracts, their contract period for in staff subbing would be more broadly defined, so additional subbing beyond the annual hour limit could not be performed and retirement contributions would be required.
- Reduces the amount of retirement contributions that must be paid on sub pay by re-employed retirees and school districts in those school districts where the work schedule is detailed on the retiree’s contract. Consequently, it would have a small financial benefit to those retirees and school districts compared to the current practice.
- Doesn’t require legislation.

Cons:

- Revised policy doesn't treat all school districts/retirees consistently since the contract period is based on whether the school district includes details of the work schedule on the retiree's contract.
 - For those school districts who choose to include specific details, they do not have to pay retirement contributions on the sub pay and they do not have to count the subbing hours toward the annual hour limit for retirees.
 - For those school districts who choose not to include specific details, they do have to pay retirement contributions on the sub pay and they do have to count the subbing hours toward the annual hour limit for retirees.
- Slightly reduces the amount of contributions which will be paid into the TFFR plan on substitute teaching performed by re-employed retirees for those school districts/retirees who detail the work schedule on retiree contracts. If those salaries comprise:
 - 1% of \$8 million annual salaries (8 mil X 24.5% X 1%) = est. \$20,000 less
 - 3% of \$8 million annual salaries (8 mil X 24.5% X 3%) = est. \$60,000 less
 - 5% of \$8 million annual salaries (8 mil X 24.5% X 5%) = est. \$100,000 less
- Increases administrative complexity and communications for school districts and TFFR. Employers will be required to maintain documentation related to the date substitute teaching occurred and if applicable, the time of day or period of day in which it occurred. The burden of proof will be on the employer to prove that the substitute teaching should be excluded from TFFR pensionable earnings and hours. If an employer cannot prove the substitute teaching occurred outside of the contracted period, TFFR would require the employer to pay contributions and report the subbing hours.
- Potential for increased negative public perception of "double dipping" since re-employed retirees would be able to work nearly full time (contracted teaching plus non contracted subbing) and collect full pension benefits, but only for those employers who detail the work schedule on retiree contracts.
- If the Board decides to move forward in the future with legislation to specifically exclude substitute teaching from the retiree annual hour limit, but require payment of retirement contributions (like extracurricular duties and professional development hours in current law), a decision will need to be made regarding whether detailing the work schedules on contracts (which results in no retirement contributions having to be paid) should be eliminated or continued.

- If eliminated, some school districts would have to begin paying retirement contributions on retiree subbing when they didn't have to previously (if they detailed the work schedules on contracts).
- If continued, the inconsistent treatment between those that detail work schedules on contracts and those that don't, will continue with some sub pay being subject to retirement contributions, and some not.

NEXT STEPS

The Board can continue reviewing this issue at the March board meeting. Depending on the outcome of the board discussion, the Board can: 1) approve the first reading of the revised draft policy; 2) make additional changes to the revised draft policy; or 3) provide other direction to staff as it relates to this issue.

Board Action Requested.

Attachments: July 2016 Board Memo
September 2016 Board Memo
Sample Contracts
Revised Draft Policy, C-24

NEW POLICY – Revised – 1st Reading

Policy Type: TFFR Program

Polity Title: In-staff Subbing Contract Period

It is the policy of the TFFR Board of Trustees that the following guidelines apply for the purpose of determining the contract period for in-staff subbing for active members and re-employed retirees as provided for in NDCC 15-39.1-04 (4) and (12), 15-39.1-19.1, 15-39.1-19.2, and NDAC 82-05-06-01.

- 1) In-staff subbing is defined as substitute teaching duties performed by a contracted teacher for the contracting TFFR participating employer.
- 2) If the active member or re-employed retiree has a contract or written agreement with the participating employer for full or part time work, TFFR will view the beginning and ending calendar dates indicated on the contract as the contract term to determine the contract period, unless the contract period is otherwise specifically detailed in the active member or re-employed retiree's contract.
 - If substitute teaching duties are performed during the contract term, those duties are considered in-staff subbing, and retirement contributions are required to be paid on the substitute teaching pay. The in-staff subbing hours are reported as compensated hours for active members and are counted toward the annual hour limit for re-employed retirees (700 – 1000 hours depending upon length of contract).
 - If substitute teaching duties are performed before the beginning calendar date or after the ending calendar date of the contract term, those duties are not considered in-staff subbing, and no retirement contributions are required to be paid on the substitute teaching pay. The subbing hours are not reported as compensated hours for active members and are not counted toward the annual hour limit for re-employed retirees.
- 3) If the active member or re-employed retiree does not have a contract or written agreement with the participating employer, then no retirement contributions are required to be paid on the substitute teaching pay. The subbing hours are not reported as compensated hours for active members and are not counted toward the annual hour limit for re-employed retirees.

This policy does not prohibit the Board from making an eligible salary determination for an individual member pursuant to N.D.A.C. 82-04-02-01.

TFFR Board Adopted: _____, 2017

Lane: 1

Step: 0

FTE: .51

[REDACTED] PUBLIC SCHOOL DISTRICT #
[REDACTED]
[REDACTED]

THIS AGREEMENT is made and entered into on the 9th day of January, 2015 between [REDACTED], a duly qualified teacher (hereinafter called TEACHER) holding a valid North Dakota Teacher's License Number and the School Board of [REDACTED], County of [REDACTED], North Dakota (hereinafter called the SCHOOL DISTRICT).

1. **DURATION:** Said TEACHER is licensed to teach in the public schools in said State of North Dakota and hereby contracts to teach in said SCHOOL DISTRICT during the 2014-2015 school year for a term of 93 days, beginning on January 9, 2015.

Provided further that if school is dismissed for some unforeseen reason, such as, but not limited to weather, failure of the heating plant, etc., the school year may be extended by the number of days school was not in session for the above stated reasons.

2. **SALARY:** The School Board of said SCHOOL DISTRICT agrees to pay said TEACHER an annual salary of [REDACTED] for the 2014-2015 school year, for a total salary of [REDACTED] payable in 8 equal installments. Rounding adjustments will be made in the final installment.
3. **LIQUIDATED DAMAGES:** It is hereby agreed that should said TEACHER resign the position without being released by the School Board or otherwise breach this contract, during the life of this contract, the said School Board is authorized to retain ten percent of the said TEACHER'S annual salary in liquidated damages caused by such resignation or breach.
4. **ASSIGNMENT(S):** The above-named TEACHER agrees to faithfully perform such services as may be reasonably assigned by the School Board or its designated representative(s) during the life of this contract, including teaching assignments for which said TEACHER is highly qualified.
5. **COMPLIANCE WITH POLICIES:** Said TEACHER agrees to comply with all policies of the SCHOOL DISTRICT, which policies shall be made readily available for review upon request by the said TEACHER.
6. **QUALIFICATIONS:** The above named TEACHER hereby certifies that said TEACHER is highly qualified as defined and required by No Child Left behind Act of 2001 and the North Dakota Education Standards and Practices Board.
7. **DEADLINE FOR ACCEPTANCE:** This contract must be signed and postmarked to the business manager by 5:00 p.m. on the 30th day of January, 2015 or it will be deemed rejected.

LICENSURE: This contract does not become valid until TEACHER receives a valid license issued by the Education Standards and Practices Board, or a valid temporary or provisional license.

[REDACTED]
[REDACTED]
[REDACTED]

President of the Board of Education

[REDACTED]
[REDACTED]

Business Manager

[REDACTED]
[REDACTED]
[REDACTED]

Date

1-13-15

██████████ PUBLIC SCHOOL DISTRICT #
██████████
██████████

THIS AGREEMENT is made and entered into on the 4th day of November, 2014 between ██████████
██████████ a duly qualified teacher (hereinafter called **TEACHER**) holding a valid North Dakota Teacher's
License Number and the School Board of ██████████ County of ██████████ North
Dakota (hereinafter called the **SCHOOL DISTRICT**).

1. **DURATION:** Said **TEACHER** is licensed to teach in the public schools in said State of North Dakota and hereby contracts to teach in said **SCHOOL DISTRICT** during the 2014-2015 school year for a term of 183 days, beginning on August 18th, 2014.
Provided further that if school is dismissed for some unforeseen reason, such as, but not limited to weather, failure of the heating plant, etc., the school year may be extended by the number of days school was not in session for the above stated reasons.
2. **SALARY:** The School Board of said **SCHOOL DISTRICT** agrees to pay said **TEACHER** an annual salary of ██████████ plus \$██████████ for the 183rd day, for a total salary of ██████████ payable in 12 equal installments. Rounding adjustments will be made in the final installment.
3. **LIQUIDATED DAMAGES:** It is hereby agreed that should said **TEACHER** resign the position without being released by the School Board or otherwise breach this contract, during the life of this contract, the said School Board is authorized to retain ten percent of the said **TEACHER'S** annual salary in liquidated damages caused by such resignation or breach.
4. **ASSIGNMENT(S):** The above-named **TEACHER** agrees to faithfully perform such services as may be reasonably assigned by the School Board or its designated representative(s) during the life of this contract, including teaching assignments for which said **TEACHER** is highly qualified.
5. **COMPLIANCE WITH POLICIES:** Said **TEACHER** agrees to comply with all policies of the **SCHOOL DISTRICT**, which policies shall be made readily available for review upon request by the said **TEACHER**.
6. **QUALIFICATIONS:** The above named **TEACHER** hereby certifies that said **TEACHER** is highly qualified as defined and required by No Child Left behind Act of 2001 and the North Dakota Education Standards and Practices Board.
7. **DEADLINE FOR ACCEPTANCE:** This contract must be signed and postmarked to the business manager by 5:00 p.m. on the 4th day of December, 2014 or it will be deemed rejected.

LICENSURE: This contract does not become valid until **TEACHER** receives a valid license issued by the Education Standards and Practices Board, or a valid temporary or provisional license.

████████████████████
████████████████████
████████████████████

President of the Board of Education

████████████████████
████████████████████
████████████████████

Business Manager

11/5/14

Date

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: July 14, 2016
SUBJ: TFFR Retiree Substitute Teaching

The challenges school districts are experiencing in hiring both regular teachers and substitute teachers in recent years has put added pressure on retired teachers and administrators to return to covered employment in both full and part time capacities. Recently, some employers are questioning TFFR's current interpretation of "contracted" in-staff subbing, particularly when it pertains to re-employed retirees, and would like TFFR to consider changing its practice.

Attached is background material on TFFR retiree re-employment provisions and information about retiree substitute teaching concerns raised by some school districts. I have also included comments from Jan Murtha, TFFR legal counsel, related to her review of the issue, whether or not changes could be made to the current practice, and if so, what would need to be done. Finally, I have provided staff's review of the issue, options for Board consideration, and factors to consider. Please review this information for discussion at the meeting.

BOARD ACTION REQUESTED: BOARD MOTION OR DIRECTIVE FOR STAFF TO (1) DRAFT BOARD POLICY TO REFLECT CURRENT PRACTICE; (2) DRAFT BOARD POLICY TO REFLECT CHANGED PRACTICE; (3) DRAFT LEGISLATIVE BILL TO CHANGE PROVISIONS; OR (4) OTHER BOARD DIRECTIVE.

TFFR RETIREE SUBSTITUTE TEACHING

Here is background material on TFFR retiree re-employment provisions followed by additional information about retiree substitute teaching concerns raised by some school districts.

Retiree Re-employment Provisions Background Information

Current law (NDCC 15-39.1-19.1) allows public school teachers and administrators, after a minimum 30-day break in service, to return to TFFR covered employment after retirement and continue receiving their TFFR benefits under certain employment limitations.

The maximum annual hour limit under the General Rule is based on the length of the re-employed retiree's contract: 9 month or less contract = 700 hours; 10 month contract = 800 hours; 11 month contract = 900 hours; 12 month contract = 1,000 hours. If the re-employed retiree stays under the annual hour limit, they continue receiving their monthly TFFR pension benefit. If the re-employed retiree exceeds the annual hour limit, their monthly TFFR benefit is suspended and they are then treated like an active employee with their benefit possibly recalculated upon subsequent retirement if they meet certain other conditions outlined in state law. For some re-employed retirees, having their benefit suspended may also have IRS tax reporting implications.

Employment as a non-contracted substitute teacher does not apply to the annual hour limit. Professional development and extracurricular duties do not apply to the annual hour limit.

Under the Critical Shortage Area exemption, retirees can return to TFFR covered employment in an approved critical shortage area and exceed the annual hour limitation (work full time) and continue receiving their monthly TFFR pension benefit. A one-year waiting period is required. Critical shortage areas are determined each year by the Education Standards and Practices Board (ESPB). For the current school year, ESPB has designated all areas as critical shortage areas.

Initially, employer contributions were paid by the employer on the eligible salary earned by retirees who returned to covered employment under the General Rule annual hour limit and the Critical Shortage Area exemption. The payment of member contributions was not required. The 2011 Legislative Assembly subsequently passed HB1134 which required the payment of member contributions on the eligible salary earned by re-employed retirees effective 07/01/2012. The re-employed retiree's pension benefit does not increase as a result of the additional contributions being paid (unless their benefit was suspended because they exceeded the annual hour limit and did not qualify for the Critical Shortage Area exemption). The member contributions are included in the retiree's guaranteed account value.

Here is an example to help clarify the General Rule, which is the method under which most retirees return to covered employment:

Example: John Jones is age 58, has 30 years of TFFR service, and receives an average annual salary of \$50,000 as an active teacher. John is eligible for retirement, so he resigns from his full time teaching position and retires from the school district. (Note: There must be complete cessation of employment in order to begin collecting TFFR benefits.) John's TFFR benefit would be calculated as follows: \$50,000 final average salary X 30 years X 2.0% multiplier = \$30,000 annual TFFR benefit. After John resigns from his position, retires and begins receiving benefits, a 30 day break in service is required before he may return to covered employment on a limited basis while still receiving his annual benefit from TFFR. John decides to return to covered employment as a re-employed retiree under the General Rule annual hour limit. As a 9-month teacher, John is allowed to work up to 700 hours (part time), earn salary and benefits from the school district, and receive his annual benefit from TFFR. Working part time, John will earn \$25,000 for teaching duties from the school district plus \$30,000 in annual benefit payments from TFFR for a total of \$55,000. Under current law, employer and retiree contributions are required to be paid. Retiree contributions would total \$2,938. ($25,000 \times 11.75\% = \$2,938$) and would be added to John's guaranteed account value. Employer contributions would total \$3,187 ($25,000 \times 12.75\% = \$3,187$). John's retirement benefit does not increase as a result of returning to teach, however it is important to note that John can continue receiving his annual benefit from TFFR while earning a salary for part time teaching duties.

See [Working After Retirement Brochure](#)

See [NDCC 15-39.1-19.1 and 15-39.1-19.2](#)

See [NDAC 82-05-06-01](#)

Retiree Re-employment Statistics

During the 2014-2015 school year (FY 2015) there were 314 re-employed retirees working for 135 employers with an average age of 63 and an average salary of \$25,600.

- Of the 314 re-employed retirees, 290 (92%) worked part time under the General Rule annual hour limit, 22 (7%) worked full time under the Critical Shortage Area exemption, and 2 (1%) worked full time under the Benefit Suspension and Recalculation option.
- Of the 314 re-employed retirees, 268 (85%) were teachers, 22 (7%) were principals or other administrators, and 24 (8%) were superintendents.

Re-employed retirees earned approximately \$8,000,000 in eligible salary in 2014-2015. Total retiree (\$8 m x 11.75% = \$940,000) and employer (\$8 m x 12.75% = \$1,020,000) contributions received by the plan were approximately \$1,960,000.

Preliminary figures for the 2015-16 show about 325 re-employed retirees returned to covered employment during the past school year.

See Attachment 1 – TFFR Reemployed Retiree Statistics

Substitute Teaching Reporting Requirements

In general, substitute teachers are not reportable to TFFR since they are not contracted teachers. The only time a substitute teacher, including a re-employed retiree who substitute teaches, is reportable is if:

- The teacher is contracted to perform substitute teaching duties only.

Example: A teacher is contracted as a long term substitute teacher to fill in for a regularly contracted teacher who is on maternity leave.

- The teacher is contracted to perform regular teaching duties, and also performs in-staff substitute teaching duties during the contract term. For TFFR purposes, in-staff subbing, while not defined in the century or administrative code is defined in the TFFR employer guide as a licensed contracted teacher, including a re-employed retiree, who performs substitute teaching duties for the contracting district. Employers are instructed to report the substitute teaching pay earned during the contract period only.

Example 1: A full time contracted teacher performs in-staff subbing duties during the teacher's prep period.

Example 2: A part time contracted teacher performs coaching duties under a seven week time certain contract, and also performs in-staff subbing duties during the contracted seven weeks. Subbing done outside of the seven weeks is not reportable.

Example 3: A part time contracted teacher performs regular teaching duties in the morning under a time certain contract, and also performs in-staff subbing duties in the afternoon.

Employer and retiree contributions are required to be paid on salary earned by re-employed retirees who perform in-staff subbing duties while under contract with a TFFR participating employer.

Retirees who perform substitute teaching duties and are not under contract with the TFFR participating employer are not subject to the annual hour limit and employer and retiree contributions are not required to be paid.

See [TFFR Employer Guide, pg. 34](#)

Retiree Substitute Teaching Concerns Raised by Employers

The difficulties school districts are experiencing in hiring both regular teachers and substitute teachers in recent years has put added pressure on retired teachers and administrators to return to covered employment in both full and part time capacity. School districts indicate that it is difficult to hire retirees for three reasons:

- 1) General Rule annual hour limit restricts the number of hours a retiree may return to covered employment to a maximum of 700 – 1000 hours. The number of allowable hours is based on the length of the retiree’s contract. Therefore, most retirees are restricted to 700 hours or about half time employment since most teaching contracts are for the 9-month school year.
- 2) Critical Shortage Area exemption for full time retiree employment requires a one-year waiting period between retirement and re-employment.
- 3) Member and employer contributions are required to be paid on re-employed retiree’s salary which creates added budget pressure, particularly with regards to retiree in-staff subbing.

Some employers are questioning TFFR’s current interpretation of “contracted” in-staff subbing, particularly when it pertains to re-employed retirees. For both active members and re-employed retirees TFFR uses the calendar dates indicated on the teacher’s contract to determine the teacher’s contract period for in-staff subbing. Some employers are requesting that TFFR consider revising its current interpretation by considering the retiree’s work schedule (for example number of days and/or working hours instead of calendar dates) when determining the contract period for in-staff subbing. This would allow retirees to do additional subbing. Due to the fact that the subbing would be considered non-contracted, the employer and retiree would not pay retirement contributions on the subbing salary. Here are a few examples to help describe the issue:

- **Example 1:** *Teacher has a part-time contract to work 8 hours a day for 76 days from August 27 – May (end of school year).*

Current practice: *TFFR would define the contract period to be August 27 – May (end of school year). Any subbing done during this time frame for this employer would be considered in-staff subbing and reported to TFFR. If the teacher is a re-employed retiree, the in-staff subbing hours would be counted toward the retiree return to work annual hour limit (700 hours) and contributions would be paid.*

Requested practice: *Some employers only want to consider the actual 76 days worked to be “contracted” and do not want to report and count hours for subbing done on the other days. For example, the contract could say the teacher will only work Mondays and Wednesdays, or could list the actual 76 days to be worked, so those are the days that would be considered as contracted days. The other days would be considered to be non-contracted so unlimited subbing could be done on those days.*

- **Example 2:** Teacher has a part-time contract for nine months to work mornings from August 27 – May (end of school year).

Current practice: TFFR would define the contract period to be August 27 - May (end of school year). Any subbing done during this time frame for this employer would be considered in-staff subbing and reported to TFFR. If the teacher is a re-employed retiree, the in-staff subbing hours would be counted toward the retiree return to work annual hour limit (700 hours) and contributions would be paid.

Requested practice: Some employers only want to consider the actual mornings worked to be “contracted” and do not want to report and count hours for subbing done in the afternoons. For example, the contract could say the teacher will only work mornings from 8 - 11:30 am, so those are the hours that would be considered as contracted hours. The afternoons would be non-contracted hours, so unlimited subbing could be done in the afternoons.

- **Example 3:** Teacher has a part-time contract to coach from August 27 – November 10 and March 2 – May 30.

Current practice: TFFR would define the contract periods to be August 27 – November 10 and March 2 – May 30. Any subbing done during these time frames for this employer would be considered in-staff subbing and reported to TFFR. If the teacher is a re-employed retiree, the in-staff subbing hours would be counted toward the retiree return to work annual hour limit (700 hours) and contributions would be paid. Any subbing done November 11 – March 1 would not be considered in-staff subbing and would not be reported and subject to retiree return to work hour limits.

Requested practice: While employers generally follow the current guidelines in this example without question, some employers may only want to consider the actual hours spent coaching to be “contracted” and may not want to report and count hours for subbing done during the regular school day. In this case, the regular school day would be considered non-contracted hours, so unlimited subbing could be done.

Legal Review of Retiree Substitute Teaching Issue

Staff asked TFFR's legal counsel, Jan Murtha, to review TFFR's current practice and consider whether changes could be made to the current practice, and if so, what would need to be done.

1) Is TFFR's current practice of determining when "contracted in-staff subbing" occurs reasonable and supported by state statutes and administrative rules?

Jan indicated that TFFR's current practice appears to be reasonable. ND Century Code discusses retiree reemployment in terms of a contract period comprised of months and hours (15-39.1-19.1); however the example teacher contracts which have been provided for the purpose of this discussion set up the contract term based on months or days, without any reference to hours. It is reasonable, therefore, for TFFR to take the position that any "worked hours" accumulated during the total number of days or months within the identified contract term must be applied toward the annual hour limit. It was also noted, however, that the more specific the "contract term" (ie, designating the specific days and hours of the week worked), the more reasonable an employer argument that subbing by re-employed retirees outside of the contract term should not be considered in-staff subbing.

2) Does TFFR have any latitude in determining when "contracted in-staff subbing" occurs?

- The Board could develop a policy or employer guidance regarding how TFFR intends to interpret the "length of the reemployed retiree's contract" as defined under 15-39.1-19.1. Any policy could still be challenged and reviewed by the Board on appeal by an individual member so no member rights would be impaired by the policy.

***Example:** A board policy could be developed stating that if a part-time contract details the exact hours/times/days worked for the purposes of defining the contract term, then "contracted in-staff subbing" would only occur for re-employed retirees (or policy could apply to both actives and re-employed retirees), when done within the contracted term. Employers could be instructed to be very specific in their contracts with regard to work schedule and add a phrase to the contracts which states that any subbing done by the individual outside of the specific contracted hours or days will not be covered by the terms of the contract, and need not be reported to TFFR.*

- A statutory change would be required to allow in-staff subbing to be excluded from the retiree return to work annual hour limit like professional development and extra-curricular hours (but the earnings still reported to TFFR and contributions paid), since the exclusions for professional development and extra-curricular hours are currently set forth in statute (15-39.1-19.1(1)(b)).

- A statutory change would also be required to allow all subbing (including in-staff subbing) to be excluded from the retiree return to work annual hour limit, since the statute makes a point of excluding employment as a “non-contracted” substitute teacher. If the subbing is reasonably being interpreted as being done under contract (ie within the contract term), the Board does not have the discretion to exclude.

Staff Review of Retiree Substitute Teaching Issue

After review of the re-employed retiree substitute teaching issue, including input from employers, legal counsel, audit, and retirement services staff, we have identified the following options for Board consideration.

- 1) **Continue current practice** – Develop board policy to clarify current practice. For both active members and re-employed retirees TFFR uses the calendar dates indicated on the teacher’s contract to determine the length of the teacher’s contract period for in-staff subbing.

Factors to consider:

- Current practice treats in-staff subbing consistently for both active and retired members which is simpler to communicate to employers and members and simpler for the plan to administer.
- Relatively broad interpretation of “contracted” vs “non- contracted” based on start and end calendar dates or term of contract.
- Restricts the amount of subbing that can be done by re-employed retirees if they are already under contract with the school district.
- Seeks to offset the potential negative public perception of “double dipping” by balancing the opportunity for retired teachers to work part time and collect full pension benefits with school districts need to hire both regular and substitute teachers due to the teacher shortage.
- Ensures contributions will be paid into the TFFR plan on all eligible salary for duties performed by re-employed retirees, including in-staff substitute teaching. If contracted retiree in-staff subbing is:
 - 1% of \$8 million annual salaries (8 mil X 24.5% X 1%) = est. \$20,000
 - 3% of \$8 million annual salaries (8 mil X 24.5% X 3%) = est. \$60,000
 - 5% of \$8 million annual salaries (8 mil X 24.5% X 5%) =est. \$100,000
- Re-employed retirees and school districts must pay contributions on in-staff subbing which causes additional strain on limited funds available to retirees and school districts (budget impact).

- 2) **Modify current practice** – Develop new board policy to clarify future practice. For re-employed retirees only OR for both active members and re-employed retirees, TFFR will use the teacher’s work schedule (for example specific days and/or working hours instead of calendar dates) to determine the length of the teacher’s contract period for in-staff subbing. This would allow re-employed retirees to do additional subbing beyond the annual hour limit. Re-employed retirees and school district will not be required to pay retirement contributions on the subbing salary earned during those “noncontract” hours.

Factors to consider:

- Decide whether to interpret re-employed retiree in-staff subbing different from active in-staff subbing. If in-staff subbing is not treated consistently for active and retired members, it will be more difficult to communicate to employers and members. It will also be more difficult for the plan to administer.
- More narrow interpretation of contracted in-staff substitute teaching which is strictly tied to the work schedule defined in the contract.
- Re-employed retiree substitute teaching would be almost unlimited which would help school districts deal with teacher shortages. Re-employed retirees could be contracted for 700-1000 hours for regular teaching duties and also substitute teach during the remainder of the day/week/school year.
- Potential for increased negative public perception of “double dipping” since re-employed retirees would be able to work full time (contracted teaching plus non contracted subbing) and collect full pension benefits.
- Reduces the amount of contributions which will be paid into the TFFR plan on substitute teaching performed by re-employed retirees. If contracted retiree in-staff subbing is:
 - 1% of \$8 million annual salaries (8 mil X 24.5% X 1%) = est. \$20,000 less
 - 3% of \$8 million annual salaries (8 mil X 24.5% X 3%) = est. \$60,000 less
 - 5% of \$8 million annual salaries (8 mil X 24.5% X 5%) = est. \$100,000 less
- Reduces the amount that must be paid by re-employed retirees and school districts (budget impact).

- 3) **Draft legislative bill** - Change retiree-re-employment provisions in state law. Various retiree re-employment provisions could be changed relating to retiree in-staff subbing, general eligibility requirements, annual hour limits, waiting periods, contribution requirements, etc.

As it relates to re-employed retiree in-staff subbing, a statutory change would be required to allow in-staff subbing to be excluded from the re-employed retiree return to work annual hour limit like professional development and extra-curricular hours (but the earnings still reported to TFFR and contributions paid), since the exclusions for professional development and extra-curricular hours are currently set forth in statute.

A statutory change would also be required to allow all subbing (including in-staff subbing) to be excluded from the re-employed retiree return to work annual hour limit, since the statute makes a point of excluding employment as a “non-contracted” substitute teacher. If the subbing is reasonably being interpreted as being done under contract, the Board does not have the discretion to exclude.

Factors to consider:

- Depending upon the type and magnitude of the change(s), there could be either a positive or negative financial or administrative impact on the TFFR fund and/or school districts. Modifications should be considered carefully and seek to balance the needs of the TFFR fund with the needs of the school districts. Care should be taken to ensure that changes do not incentivize active teachers to retire earlier than they would have in order to take advantage of retiree re-employment provisions.
- April 1, 2016 deadline for filing bill drafts with Legislative Employee Benefits Programs Committee has passed. A request for late submission for interim study would be required.

Next Steps

The TFFR Board will review the issue of retiree substitute teaching at the July 2016 meeting. Unless more information is needed, the Board will be asked to select one of the three options to move forward: 1) continue current practice; 2) change current practice; 3) draft legislative bill.

Based on the Board’s directive, staff will draft a board policy or legislative bill draft for consideration at the September TFFR board meeting.

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: September 15, 2016
SUBJ: Retiree Substitute Teaching

TFFR BOARD REVIEW

At the July 23, 2016 TFFR Board meeting, the Board discussed retiree substitute teaching concerns brought to our attention by a few employers this summer. (See July 14, 2016 Memo to Board.) The concerns that are being expressed relate to TFFR's interpretation of contracted in-staff subbing, particularly as it pertains to re-employed retirees. To summarize TFFR's current practice:

If an active teacher or retiree has a contract (or written agreement) with the school district for full or part time work, TFFR uses the calendar dates indicated on the contract to determine the teacher's contract period. If subbing occurs during that time frame, it is considered to be in-staff subbing so retirement contributions are required to be paid on the substitute teaching pay and the hours are counted toward the annual hour limit for re-employed retirees (700 – 1000 hours depending upon length of contract). If the active teacher or retiree does not have a contract (or written agreement) with the school district, then no retirement contributions are required to be paid on substitute teaching pay, and the hours are not counted toward the annual hour limit for re-employed retirees.

Some employers are requesting that TFFR consider revising its current interpretation by considering the retiree's work schedule (for example number of days and/or working hours instead of calendar dates) when determining the contract period for in-staff subbing. This would allow contracted retirees to do additional subbing. More of the subbing would then be considered non-contracted, and the employer and retiree would not have to pay retirement contributions on that portion of the subbing salary.

STAKEHOLDER GROUP MEETING

As part of its review of the issue, the TFFR Board requested feedback from stakeholder groups regarding the impact of TFFR's current practice on in-staff subbing by contracted retirees. TFFR staff met with stakeholder group representatives from NDASBM, NDCEL, NDRTA, ND United and ND United-Retired, NDDPI, and NDESPB on Wednesday, September 7, 2016. NDSBA was not able to attend the meeting, so I am attempting to contact them separately to discuss.

At the September 7 meeting with the stakeholder groups, TFFR staff reviewed information included in the following attachments:

- 1) July 14, 2016 Memo to TFFR Board
- 2) 2015-16 Re-employed Retiree Report (agenda # 6)
- 3) Summary of Audit Services Data
- 4) Potential Cost Impact

We generally discussed the following questions:

- 1) Is retiree in-staff substitute teaching a big issue? Have you heard concerns from retirees and employers about TFFR rules relating to retiree subbing?
- 2) If so, is this primarily a small, rural school issue or is it a concern for schools of all sizes?
- 3) Is TFFR's current practice relating to in-staff subbing restricting school districts' ability to hire retirees as contracted teachers? (i.e. Do retirees prefer the flexibility of subbing with no TFFR restrictions or contribution payments, so do not want contracted employment?)
- 4) Is TFFR's current practice relating to in-staff subbing restricting school districts' ability to hire contracted retirees as substitute teachers? (i.e. Are contracted retirees at their maximum hours limit so unable to do additional in-staff substitute teaching?)
- 5) Does TFFR's current practice relating to retiree in-staff subbing have a material financial impact on school districts? (i.e. Retirement contributions must be paid on in-staff subbing done by contracted retirees.)

Stakeholder group representatives generally agreed that TFFR's interpretation of the contract period for retiree in-staff subbing does not appear to be a big issue at this time. Until TFFR brought this topic up for discussion, most had not heard from their members of specific concerns. Stakeholder groups noted that most concerns they have heard relate to the difficulty of finding both contracted and substitute teachers. They also mentioned concerns with the annual hour limit which restricts the total number of hours a retiree may return to covered employment to a maximum of 700-

1000 hours, as well as the requirement to pay member and employer contributions on re-employed retiree's salary which does not increase the retiree's monthly benefit.

Although it hasn't been brought to them as a problem, most generally agreed that TFFR's interpretation of the contract period for retiree in-staff subbing would probably impact small, rural schools more than larger schools, particularly small schools which employ many retirees in contracted positions and also need those same retirees to substitute teach. However, finding substitute teachers is an issue for both small and large schools.

It didn't appear as though TFFR's current interpretation is probably restricting school districts' ability to hire retirees as contracted teachers, although there might be a minor impact on a school district's ability to use the contracted retirees as substitute teachers because they are limited on the number of hours the retiree can work. For those retirees who only want the flexibility of subbing, they wouldn't accept a contracted position anyway. For retirees who are open to accepting a contracted position, they are likely to do so without considering the impact that in-staff subbing would have on their contracted position. The substitute teaching is secondary in that case. For coaching, extracurricular duties, and professional development performed by retirees, the hours are not counted toward the annual hour limit, although retirement contributions are paid on the salary earned. Having these hours excluded from the hours limit may allow contracted retirees more hours to substitute teach.

From an employer's perspective, if the retiree is already contracted and working for the school district, the retiree is more likely to agree to do some subbing since they are already at the school. In these cases the requirement to count the in-staff subbing hours might impact whether retirees are able to perform the subbing duties or not since they may already be at or near their maximum annual hours limit. It was also pointed out that it is very difficult for business managers to track all retiree sub hours until after it has happened, so retirees also need to track their hours to ensure they do not exceed the annual hour limit. From a retiree's perspective, it is difficult for a contracted retiree to say no to the school when they are asked to sub, unless they know it will affect their annual hour limit. If the retiree is not tracking their hours or is not aware that the contracted subbing will affect their annual hour limit, they may inadvertently exceed the limit and jeopardize their pension benefit.

As far as whether the contract period for retiree in-staff subbing has a material financial impact on schools, most generally agreed that it is not a material amount UNLESS it is a small school and the school employs many retirees in contracted positions and those retirees are willing to substitute teach a lot. While it might not impact any individual retiree or school much, there is a collective financial impact on TFFR, although it is probably quite small. However, because the stakeholder groups all supported the contribution and benefit changes in the 2011 legislative package, most agreed that it would be best to allow those changes to remain in place, and not to change them again since it could be to the detriment of TFFR.

STAKEHOLDER GROUP FEEDBACK

- 1) Stakeholder group representatives seem to recognize the complexity and technical nature of the contracted retiree in-staff subbing issue.
- 2) Most believe the goal should be to get an adequate number of active teachers in the classrooms so retirees aren't filling contracted positions, but are filling primarily substitute teaching positions. If that were the case, then there would be no retiree annual hours limit concerns or required contributions since retirees would not hold contracted positions. It was also pointed out that this is a long term goal, and finding subs today is a more immediate need.
- 3) Stakeholder groups do not believe any changes should be made that might negatively impact the plan, particularly since 2011 funding improvement changes were made to collectively improve plan funding levels.
- 4) Estimated cost impact of retiree in-staff subbing is relatively minor for most school districts and retirees. TFFR plan should continue requiring retiree and employer contributions on retiree earnings (both regular contracted hours and in-staff subbing) as agreed to in 2011.
- 5) **IF** there is a way to make a minor change to allow retirees to do more subbing but continue paying retirement contributions, stakeholder groups are not opposed to doing so, but are not in favor of making changes that would require legislation at this time.
 - Generally open to allowing retirees to perform unlimited substitute teaching while under contract as long as retirement contributions continue to be paid (similar to current law with extracurricular duties and professional development hours). This option would require legislation.
 - Generally open to allowing flexibility for employers to specifically state the retiree's work schedule on the teaching contract, then anything outside of the contracted work schedule is non-contracted employment and not reportable to TFFR. For those employers who do not specifically state the retiree's exact work schedule on the teaching contract, then the contract period for determining in-staff subbing would be the calendar dates indicated on the contract as TFFR currently requires. It was noted that this option still does not treat all retiree subbing the same way since how specific the contract is written determines whether or not the subbing is reportable. This option is administratively complex, may require legal interpretation, and will reduce contributions paid into the plan. This option would require a board policy.
 - Generally OK with not making any changes to retiree in-staff subbing requirements at this time.

- 6) There didn't appear to be a strong desire to change current practice since it is not causing a big problem in most districts or for most retirees. The Board may want to wait to address it legislatively if and when it does become a bigger concern.
- 7) Stakeholder groups appreciated the opportunity to discuss the issue with TFFR staff.

TFFR BOARD OPTIONS

As outlined in the July 14, 2016 memo to the Board, staff identified the following options for Board consideration.

- 1) **Continue current practice – Develop board policy to clarify current practice.** For both active members and re-employed retirees, TFFR uses the calendar dates indicated on the teacher's contract to determine the length of the teachers' contract period for in-staff subbing.
- 2) **Modify current practice – Develop new board policy to describe future practice.** For re-employed retirees only OR for both active members and re-employed retirees, TFFR will use the teacher's work schedule (for example specific days and/or working hours instead of calendar dates) to determine the length of the teacher's contract period for in-staff subbing. This would allow re-employed retirees to do additional subbing beyond the annual hour limit. Re-employed retirees and school district will not be required to pay retirement contributions on the subbing salary earned during those "non-contract hours."
- 3) **Modify current practice – Draft legislative bill to change retiree re-employment provisions in state law.** Allow contracted in-staff subbing to not count toward retiree annual hour limit, although payment of retirement contributions would be required (like extracurricular duties and professional development hours in current law.)
- 4) **Request additional information.**
- 5) **Other**

Please plan to discuss this topic in more detail at the September meeting.

Attachments

MEMORANDUM

TO: TFFR Board

FROM: Fay Kopp

DATE: March 16, 2017

SUBJ: Annual Public Pension Plan Comparisons Report
2015 Public Fund Survey


Attached is the [Public Fund Survey](#) for FY 2015 (published December 2016) conducted by NASRA. This survey provides information on key characteristics of most of the nation's largest public retirement systems.

Keep in mind that the survey does not include 2016 actuarial and investment information which will be reflected in next year's survey.

As I do each year, I will make a brief presentation at the meeting comparing NDTFFR to the 2015 Public Fund Survey.

Board Action Requested: Accept annual public pension plan comparison's report.

Attachment



Public Pension Plan Comparisons

ND Teachers' Fund for Retirement Board
March 2017



2015 Public Fund Survey

- Published December 2016 for FY 2015
 - **Survey results do not include FY 2016 data.**
- Includes key characteristics of 124 large public retirement plans which represents about 85% of entire state and local government (SLG) retirement system community.
- Survey sponsored by NASRA since 2001. Survey data compiled by Center for Retirement Research at Boston College since 2013.
- Accessible online at www.nasra.org/publicfundsurvey



Public Pension Plans Overview

- ❑ Retirement benefits play an important role in attracting and retaining qualified employees needed to perform essential public services, promote orderly turnover of workers, and enhance the retirement security of a large segment of the nation's workforce.
- ❑ Pension plans provide stable and adequate income replacement in retirement for long-term SLG public employees and teachers, and ancillary benefits related to disability and death before retirement.
- ❑ SLG systems generally are funded in advance by investing employee and employer contributions during employees' working years. Benefits are distributed in the form of a lifetime payout in retirement.



Response to Market Decline

- 2008-09 market decline, combined with other factors, increased plan's unfunded liabilities – and the cost of amortizing them - for most public pension plans.
- In the past few years, many public plan sponsors have responded to higher pension costs by:
 - Raising contributions from employees
 - Raising contributions from employers
 - Reducing benefits (primarily for new hires) – higher retirement ages, lower retirement multipliers, increased vesting requirements, etc.
 - Capping benefits or salaries; addressing salary spiking, etc.
 - Offering DC or hybrid plan designs for new employees.
 - Postponing or reducing future retiree COLAs



Actuarial Funding Levels

- ❑ Funding ratio is most recognized measure of plan's financial health.
- ❑ Determined by dividing actuarial value of assets by liabilities.
- ❑ Both fully funded and underfunded plans rely on future contributions and investment returns.
- ❑ Plan's funded status is a snapshot in a long-term, continuous financial and actuarial process.
- ❑ Most public pension benefits are prefunded.
 - Significant portion of assets needed to fund liabilities is accumulated during working life of participant.
- ❑ Pay-as-you-go is opposite of prefunded
 - Current pension obligations are paid with current revenues.
 - Much more expensive



Actuarial Funding Levels

- Investment returns have a substantial effect on a pension plan's funding level.
 - Investment market performance was relatively strong during the 1990s, followed by two periods, from 2000-02 and 2008-09, of sharp market declines.
- Other factors that affect a plan's funding level include actual contributions received relative to those that are required; changes in benefit levels; changes in actuarial assumptions; and rates of employee salary growth.

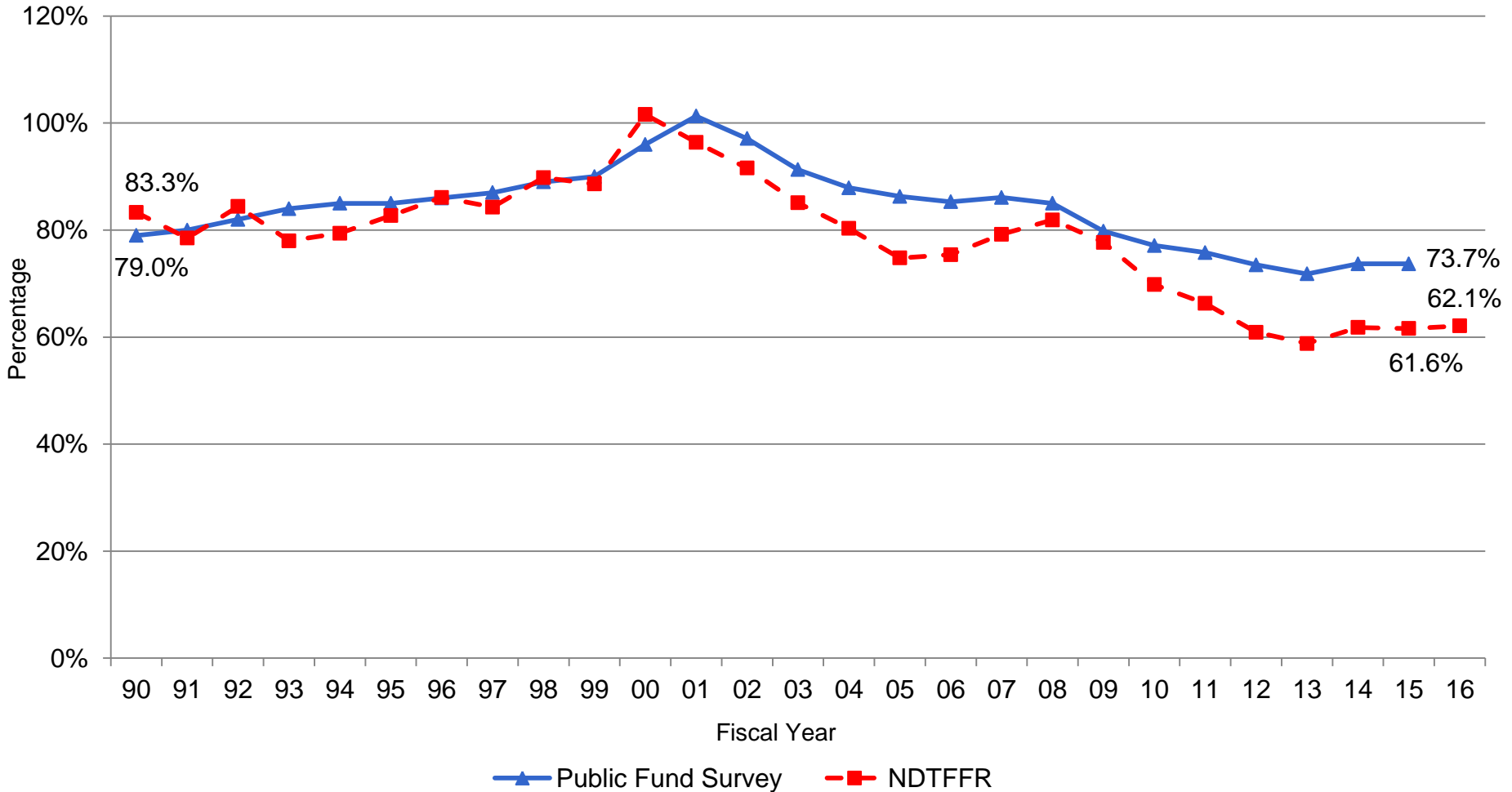


Actuarial Funding Levels

- According to the 2015 Public Fund Survey, public pension funding levels remained relatively unchanged from FY14 to FY15 at 73.7%.

- **NDTFFR** funding slightly declined from 61.8% in FY14 to 61.6% in FY15 primarily due to changes in actuarial assumptions (investment return and mortality tables). NDTFFR funding increased slightly to 62.1% in 2016.
 - NDTFFR ranking remained unchanged at 92 of 121 plans in 2015 Survey.

Change in Actuarial Funding Levels



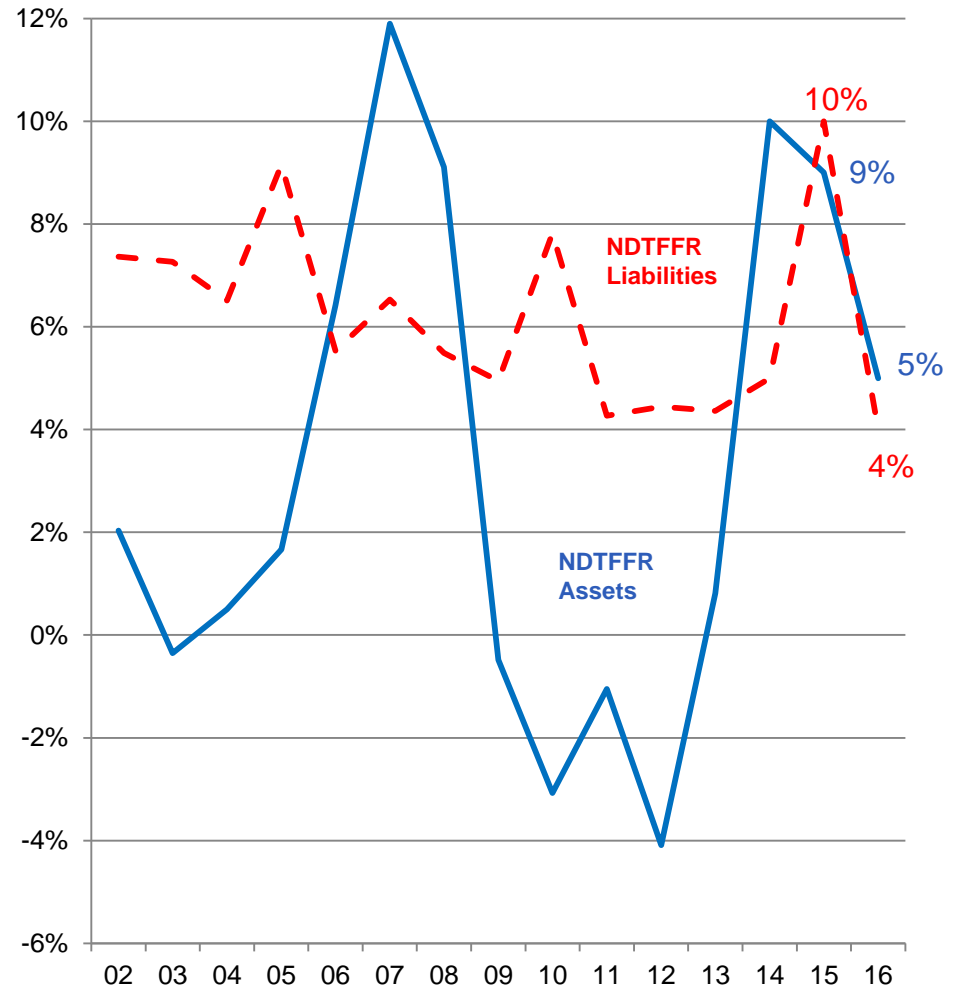
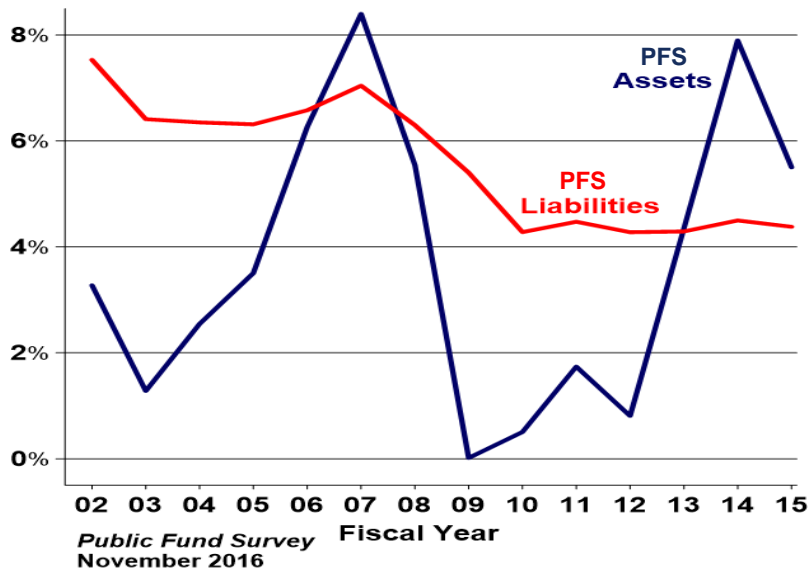
*Note: 1990-2000 PFS funding level numbers are biannual



Actuarial Assets and Liabilities

- For a pension plan's funding to improve, its AVA must grow faster than its AVL.
- For most plans in the PFS, **liability growth** remains lower, at a median rate at or below 4.5% for 6 consecutive years.
 - Lower rate of growth in liabilities is due to low salary growth, declining or stagnant employment levels in most SLGs, and the many reductions in pension benefits enacted in recent years.
 - Rates of liability growth would be lower were it not for many plans reducing their investment return assumptions in recent years, which increases a plan's liabilities.
- **NDTFFR** liability growth has generally declined over the past decade, but changes in actuarial assumptions following experience studies increased liabilities in 2005, 2010, and 2015 as expected.
- Tepid **asset growth** from FY09 to FY13 reflects the actuarial smoothing of assets of the sharp market declines experienced in 2008-09. These losses now have been fully recognized. The strong growth in FY14 and FY15 reflect improvement in AVA levels as more recent market gains are recognized.
- **NDTFFR** asset growth followed similar trends as the PFS, although asset returns were more volatile.

Change in Actuarial Assets & Liabilities

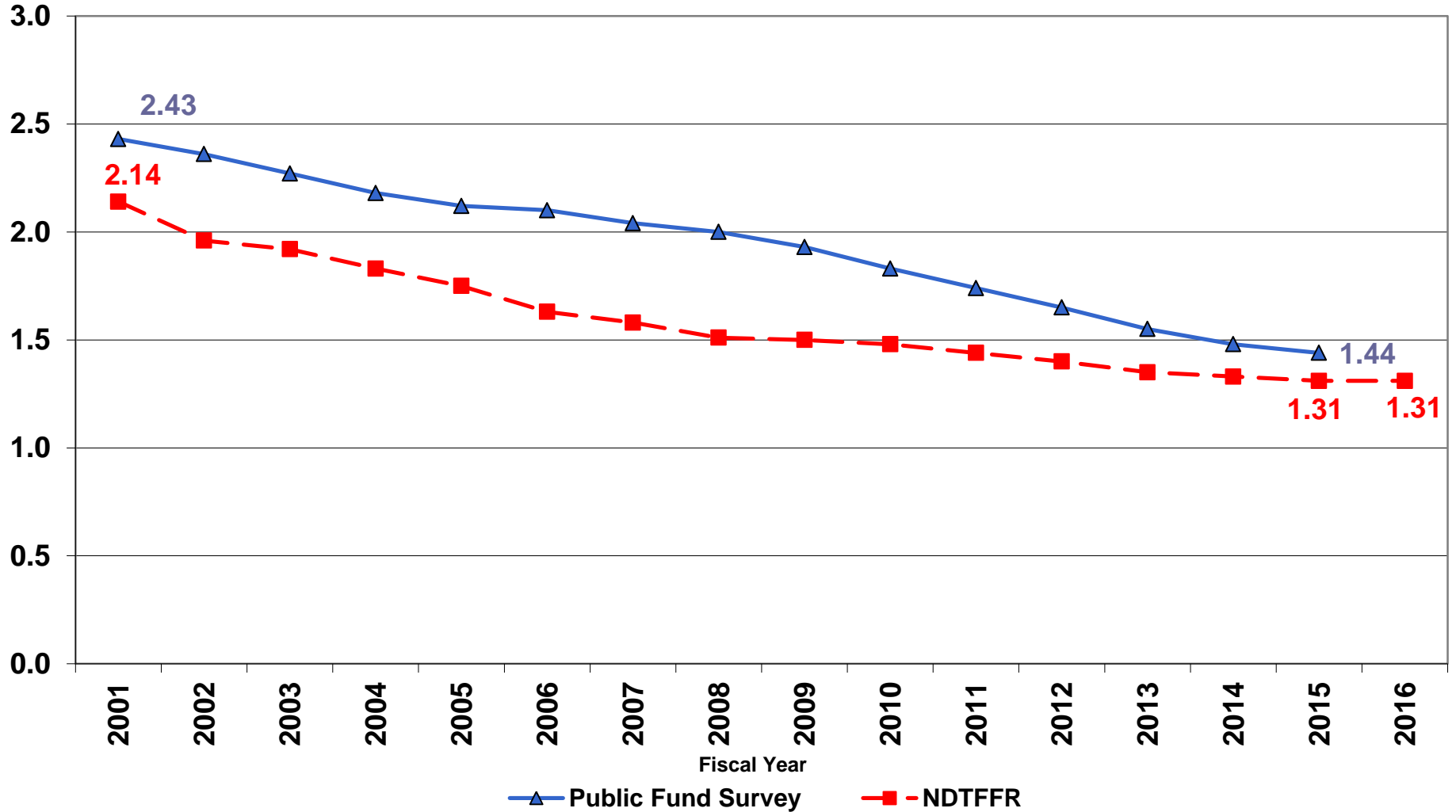




Membership Changes

- PFS shows the rate of increase in annuitants continued a pattern of annual growth of around 4%.
- After 6 consecutive years of decline, the number of active members grew in FY15 which is consistent with U.S. Census Bureau reports showing a reversal of the trend of reduction in the number of persons employed by SLGs.
- The difference between the continued increase in annuitants and a declining number of active members is driving a sustained reduction in the overall ratio of actives to annuitants. This ratio dropped to 1.44 in FY15.
- For **NDTFFR** the ratio was 1.31 in FY15 (and 1.31 in FY16).
- Although a declining active-annuitant ratio does not, by itself, pose an actuarial or financial problem, when combined with a poorly-funded plan with a high UAAL, a low or declining ratio of actives to annuitants can result in relatively high required pension costs for plans like NDTFFR.

Ratio of Active Members to Annuitants

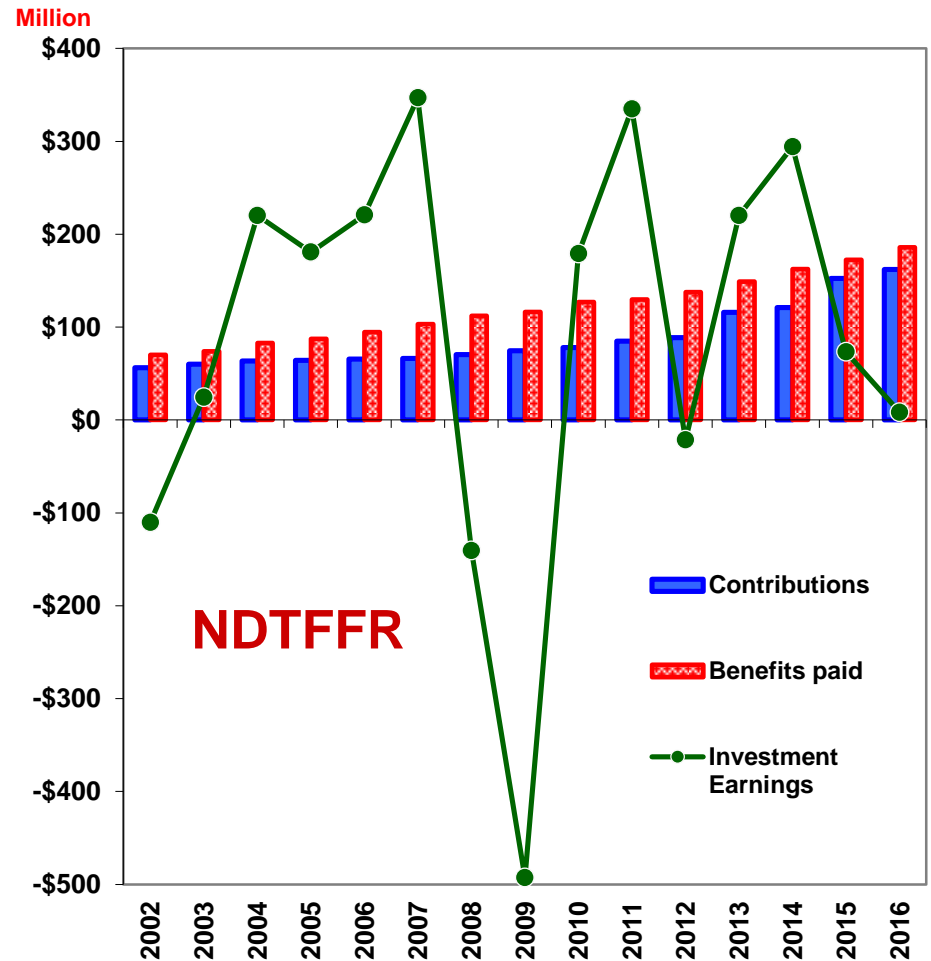
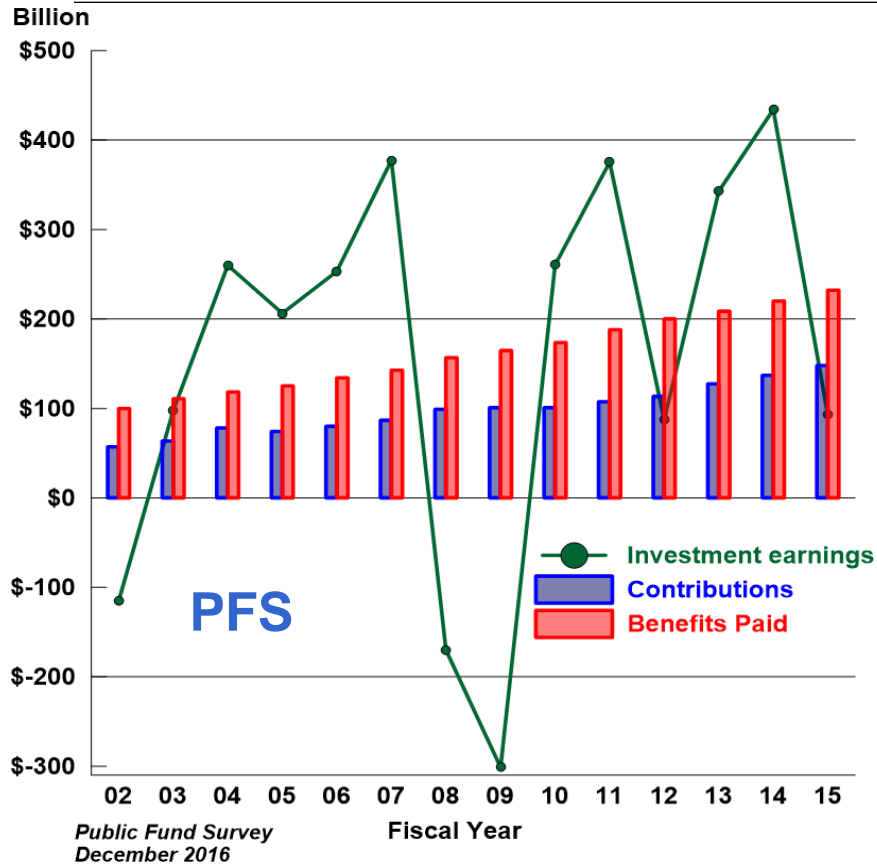




Revenues, Expenditures, and Investment Earnings

- ❑ Contributions and investment earnings accrue to pension trust funds, established for the sole purpose of paying benefits and funding administrative costs.
- ❑ Benefits paid by public retirement systems are paid from trust funds; pension payments are not made from SLG operating budgets or general funds.
- ❑ Growth in levels of contributions and benefits is mostly stable and predictable over time.
- ❑ Investment earnings, which comprise over 60% of public pension revenues over the past 30 years, vacillate, often appreciably, depending on market performance.

TFFR Revenues and Distributions





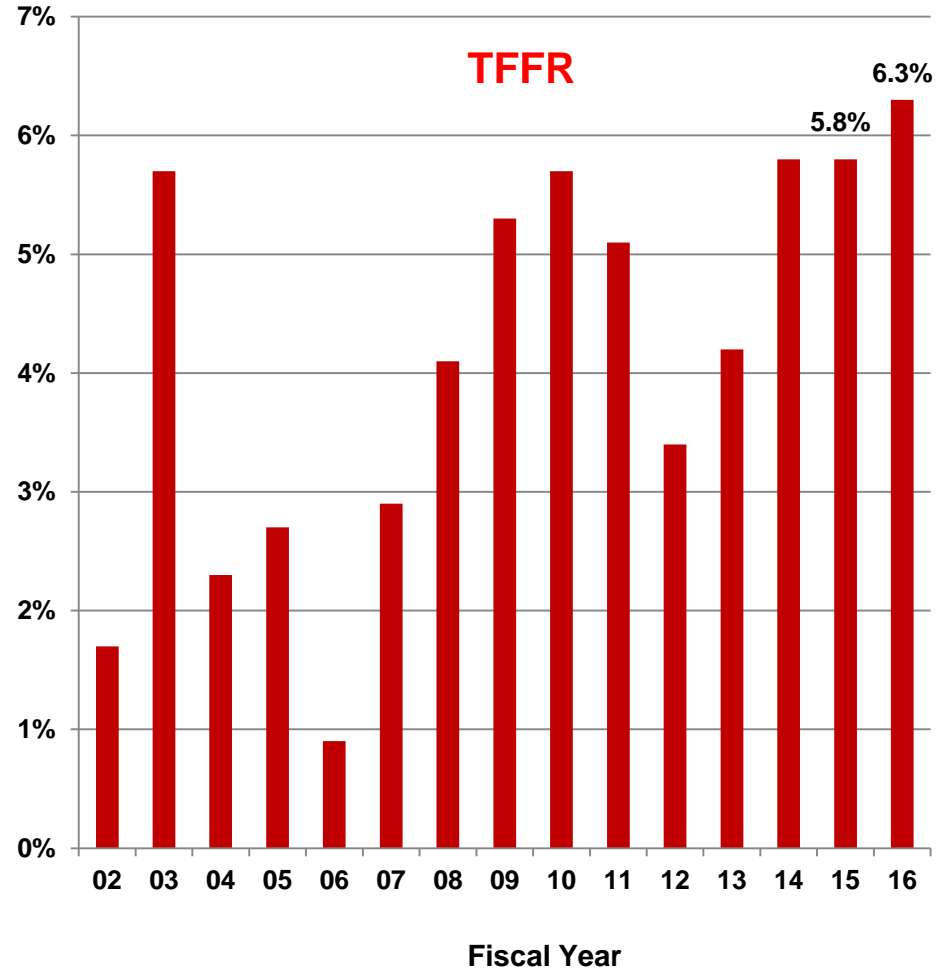
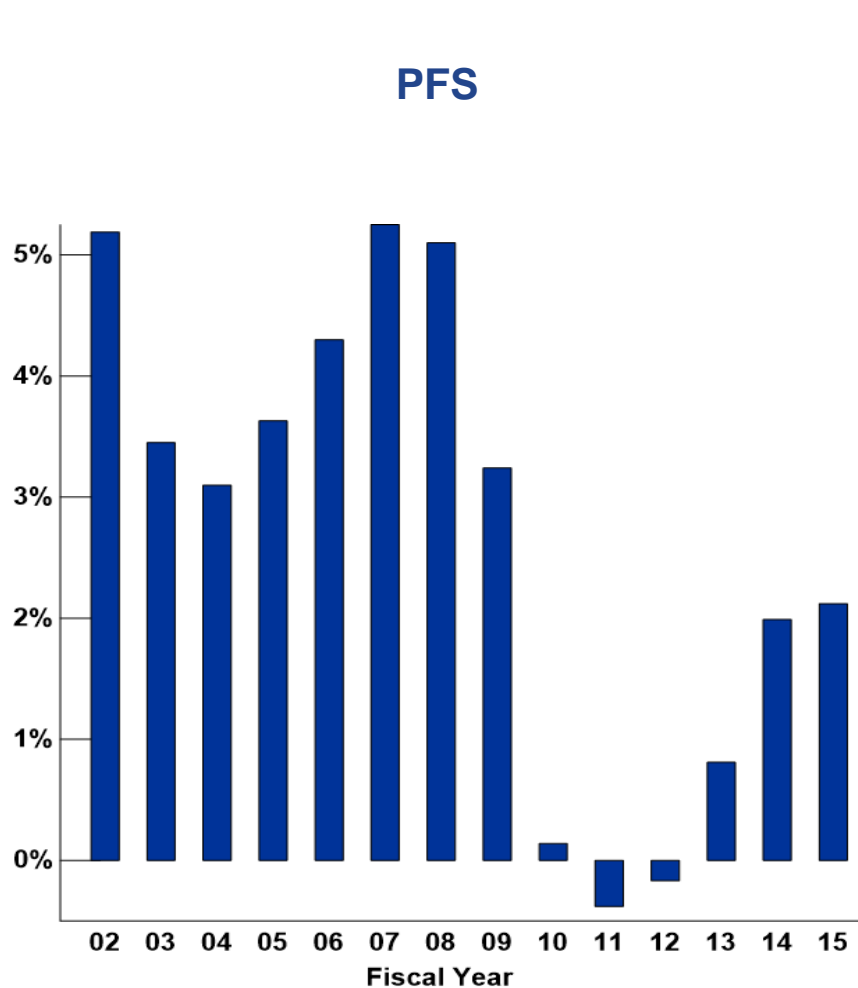
Annual Change in Payroll

- Median change in active member payroll from FY09 to FY12 was either negative or in decline. This reflects:
 - Stagnant or declining employment levels
 - Modest salary growth

- Wage growth for public workers has remained around 1% since mid 2009, although higher wage growth was reflected in 2014 and 2015.

- **NDTFFR** active payroll increased an average of 5% from \$417.7 million in 2008 to \$589.8 in 2015.

Annual Change in Payroll

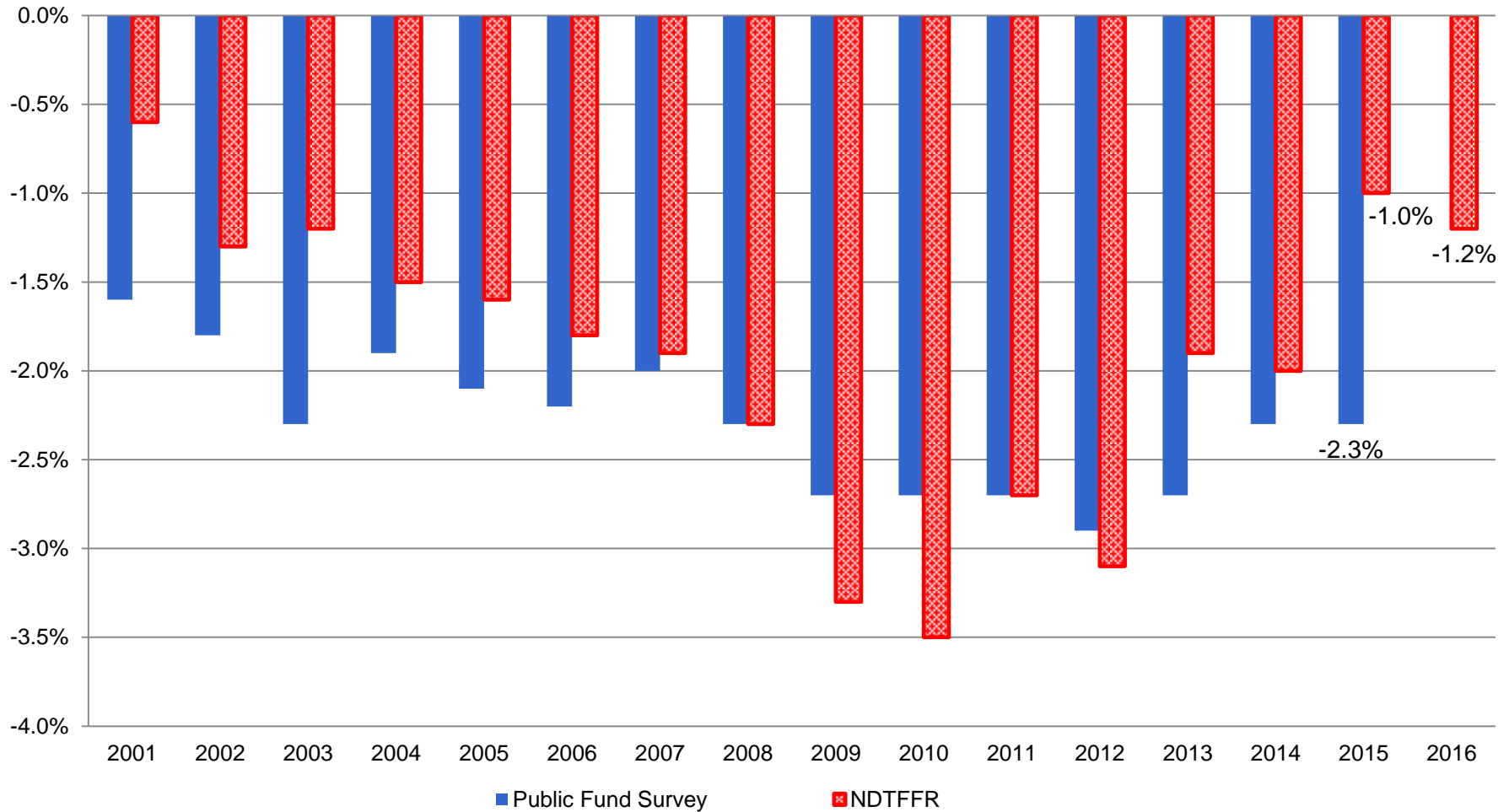




External Cash Flow

- External cash flow is the difference between a system's contributions in and payments out for benefits and administrative expenses, divided into the value of the system's assets. It excludes investment gains and losses.
 - A growing number of annuitants, combined with low or negative rate of growth in active members will result in a reduction in external cash flow.
 - Conversely, a growing asset base will offset a rate of negative cash flow.
- Nearly all systems have external cash flow that is negative, meaning they pay out more each year than they collect in contributions.
 - By itself, negative cash flow is not an indication of financial or actuarial distress.
 - A lower or more negative cash flow may require the system's assets to be managed more conservatively, with a larger allocation to more liquid assets to meet payroll requirements.
- PFS results show external cash flow was relatively unchanged from FY14 to FY15 at -2.3%.
- **NDTFFR** external cash flow changed from -2.0% in FY14 to -1.0% in FY15 (and -1.2% in FY16).

External Cash Flow





Contribution Rates

- Variety of arrangements for payment of employee and employer contribution rates.
 - Employee rates are typically fixed % of pay.
 - Employer rates may be fixed or floating.
 - Rates may be set by statute, actuarial requirements, board, etc.

- Contribution rates differ on basis of Social Security participation.
 - About 30% of employees of SLGs do not participate in Social Security.
 - About 40% of all public school teachers do not participate in Social Security.

- Other considerations include benefit design (benefit multiplier, early retirement eligibility, vesting, automatic retiree increase provisions); statutory limits; funded status; actuarial assumptions; demographics (number of females, retirement rates, termination rates, etc.)



Contribution Rates

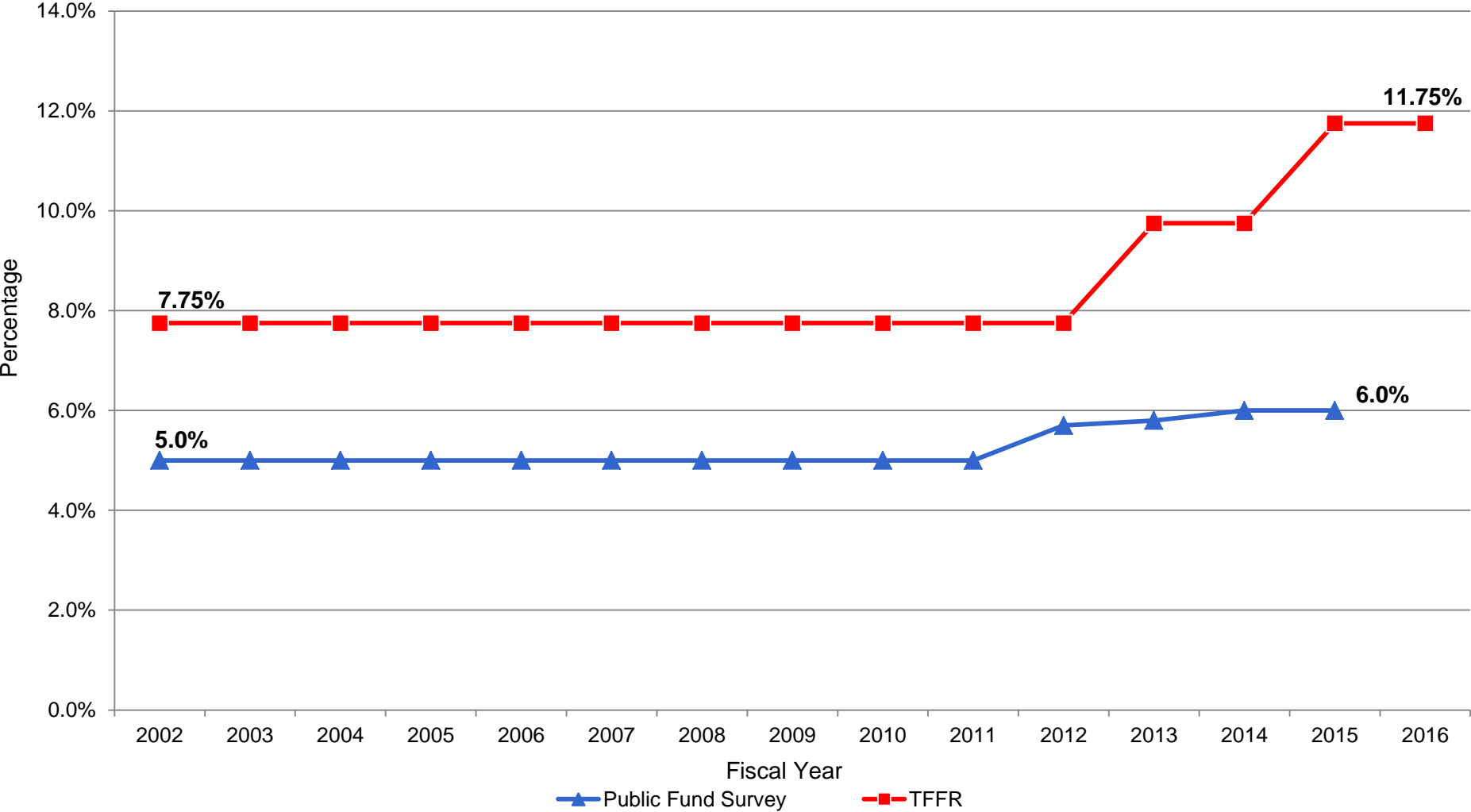
- Nearly every state has made changes to its pension plan; since 2009, the most common change has been an increase in required employee contribution rates.

- Median **employee** contribution rate remained at 6.0% in 2015 for Social Security eligible workers.
 - **NDTFFR** employee rate is 11.75% (effective 7/1/14). This rate will be in effect until the plan is 100% funded, then reduced to 7.75%.

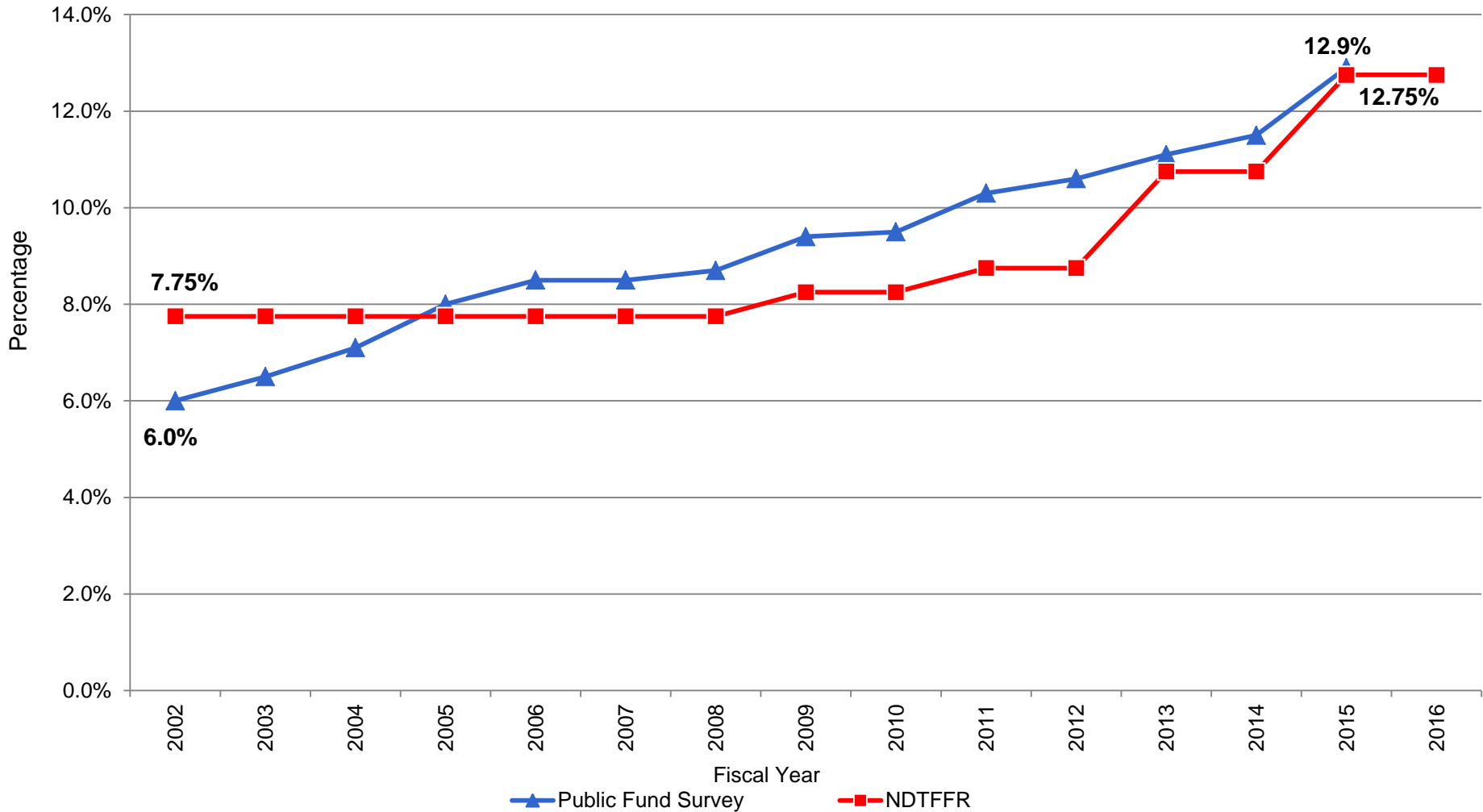
- Median **employer** contribution rate rose to 12.9% in 2015 for Social Security eligible workers.
 - **NDTFFR** employer rate is 12.75% (effective 7/1/14). This rate will be in effect until the plan is 100% funded, then reduced to 7.75%.



Employee Contribution Rates



Employer Contribution Rates

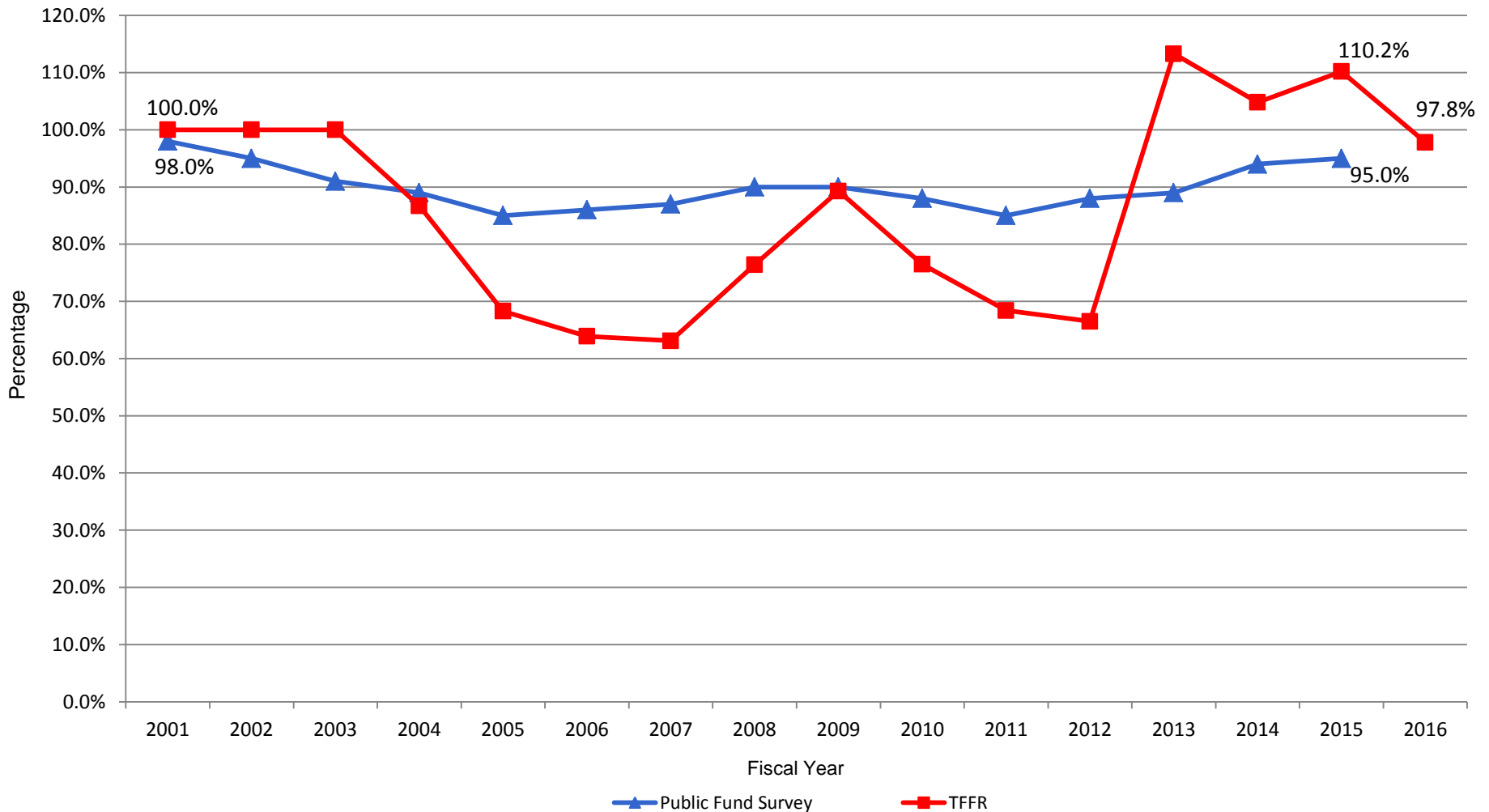




Actuarially Determined Contribution

- An actuarially determined contribution (ADC)is a target or recommended contribution to a DB pension plan as defined by GASB.
- Efforts to fund public pensions are improving after a period of declining ARC/ADC effort during and after the Great Recession.
- According to the PFS, the average ARC/ADC received in FY 15 was about 95%.
 - Over 75% of plans received more than 90% of their ARC/ADC representing a continued restoration of funding discipline.
- **NDTFFR** received 110.2% of ADC in FY15 (and 97.8% in FY16).

Average ARC/ADC Received

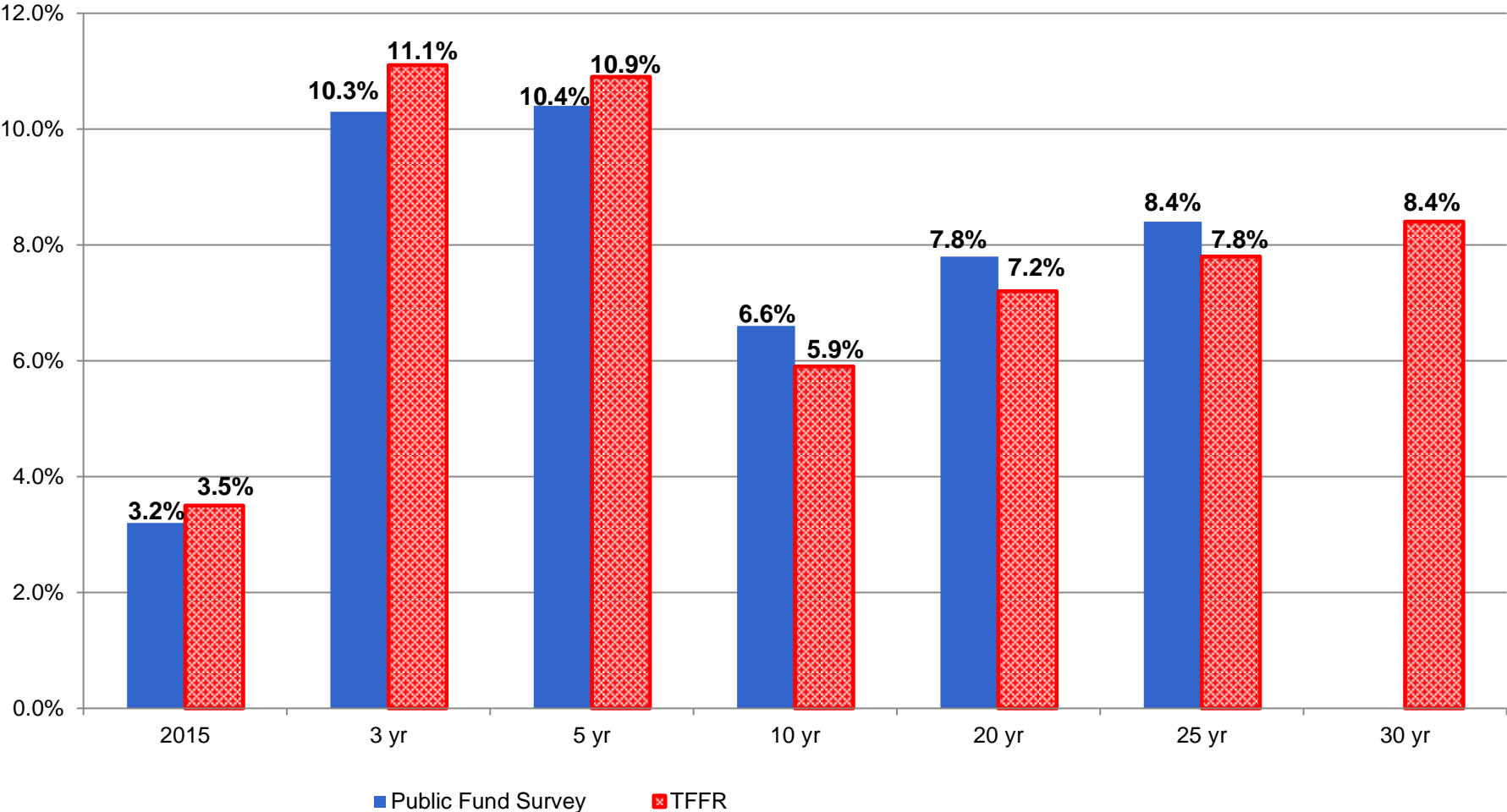




Investment Returns

- Median investment return for plans with FY end date of 6/30/15 (about $\frac{3}{4}$ of PFS participants), was 3.2%.
- **NDTFFR** return was 3.5% for FY15 (and 0.3% for FY16).
- Returns for many of the time periods have dropped below the assumed investment returns used by most public plans, a result largely of sub-par returns over the 10-year period ended 6/30/15, and the dropping off of relatively strong returns at the beginning of the measurement periods. Returns for the 25-year periods ended in FY15 remain close to or above most plans' long-term return assumption.

Annual Investment Returns (net)





Actuarial Assumptions

Actuarial valuations contains many assumptions.

- Demographic
 - Retirement rate
 - Mortality rate
 - Turnover rate
 - Disability rate
- Economic
 - Investment return rate
 - Inflation rate
 - Salary increase rate
- NDTFFR Experience Study was conducted in 2015; revised assumptions approved by the Board became effective 7/1/15.



Investment Return Assumption

- Of all assumptions, a public pension plan's investment return assumption has the greatest effect on the long-term cost of the plan. Because a majority of revenues of a typical fund come from investment earnings, even a minor change in a plan's investment return assumption can impose a disproportionate impact on a plan's funding level and cost.
- Investment assumption is made up of 2 components
 - Inflation assumption
 - Real return assumption which is investment return net of inflation.

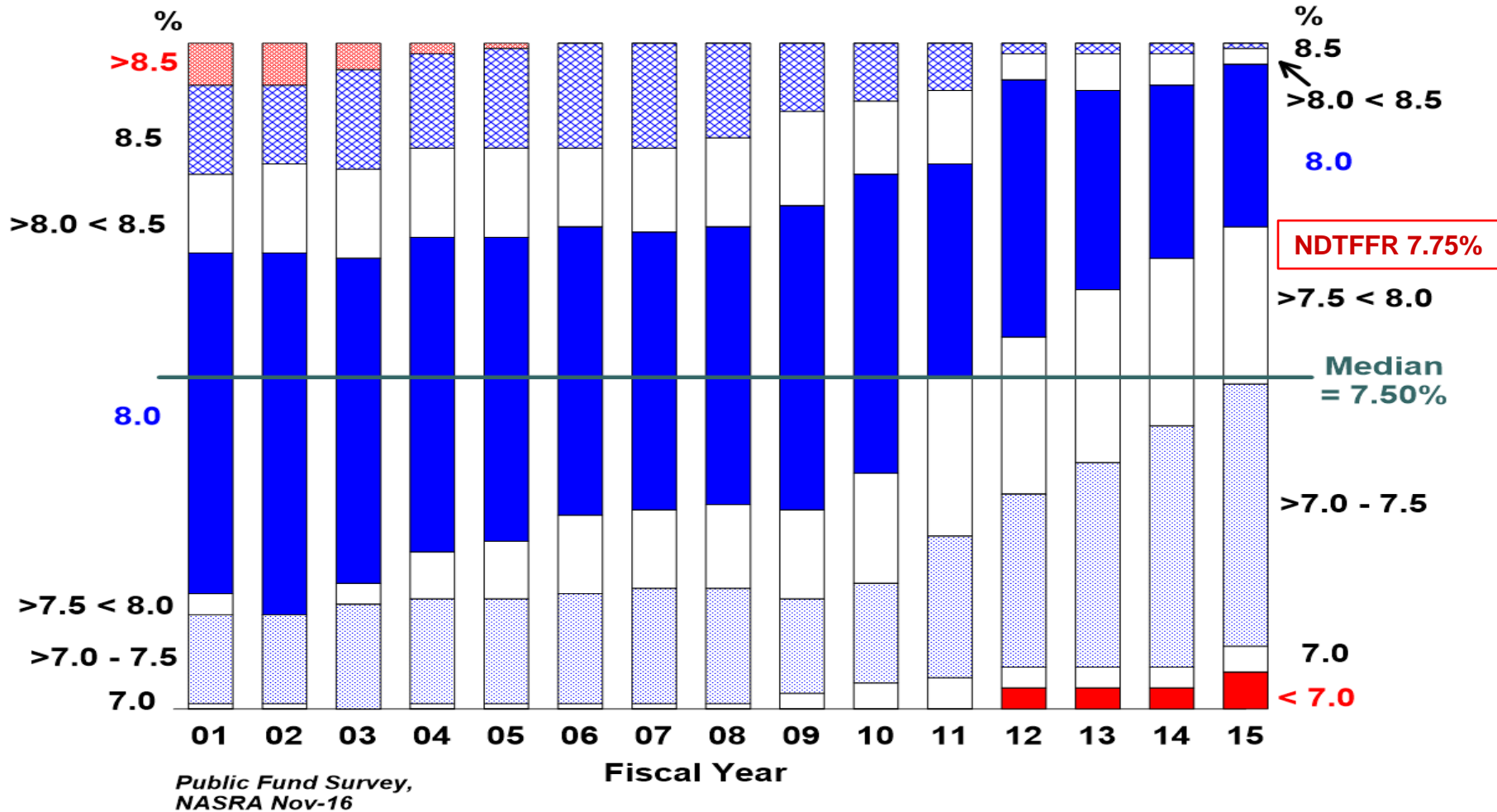


Investment Return Assumption

- The most common investment return assumption used by public pension plans was 8.0% for most of the PFS measurement period.
- Since 2009, many plans have reduced their investment return assumption.
- Median investment return assumption was 7.5% in 2015.
- **NDTFFR** investment return assumption was reduced from 8.0% to 7.75% effective 7/1/15.

Investment Return Assumption

Change in Distribution of Public Pension Investment Return Assumptions, FY 01 to FY15



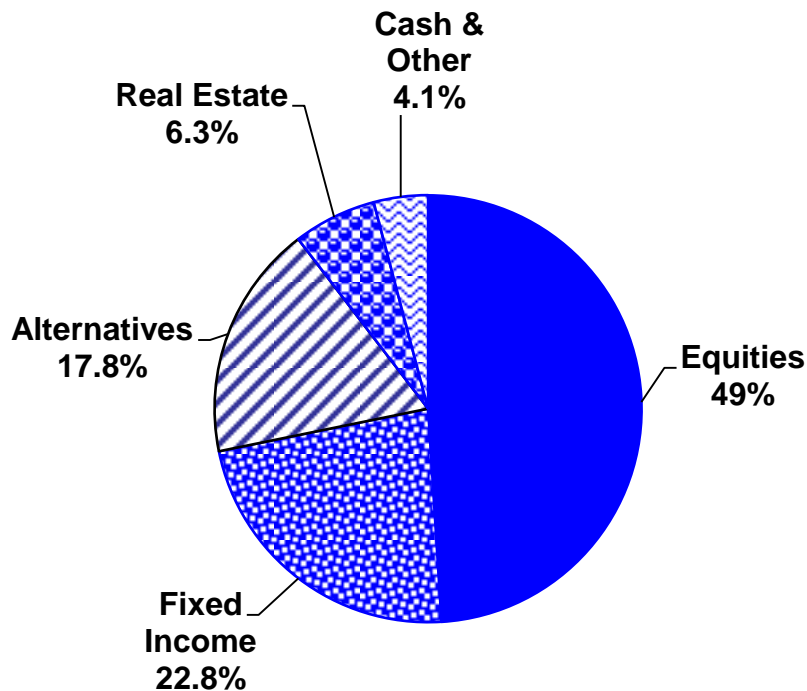


Asset Allocation

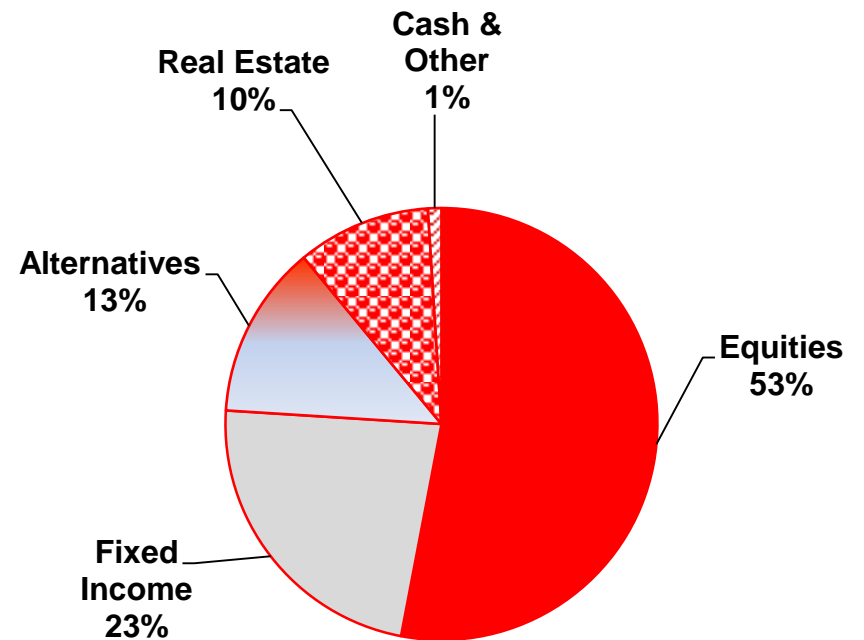
There were minor changes to PFS plan's asset allocations.

- PFS average allocation to Equities dropped slightly to 49%.
 - Fixed income remains just below 23%, its lowest allocation ever.
 - Real Estate remains at about 6%.
 - Alternatives (composed of primarily private equity and hedge funds) increased to nearly 18%.
- Compared to the 2015 PFS, **NDTFFR** has less in Cash and Alternatives, about the same in Fixed Income, and more in Real Estate and Equities.
- NDTFFR recently had asset liability study conducted, and made minor allocation changes effective in 2016.

Asset Allocation



Public Fund Survey
Fiscal Year 2015



NDTFFR
2015



Conclusion

- Public pension plan **funding levels are beginning to slowly improve.**
- A very difficult operating environment currently exists featuring volatile investment markets; criticism of public employees, their benefits, and their governing boards; and challenging fiscal conditions facing many SLG.
- **Like NDTFFR, most public retirement systems strive to maintain sound investment, funding, and governance practices, and seek opportunities to continuously improve in those areas.**

Until next year's survey....Questions?



MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: March 16, 2017
SUBJ: Other Public Pension Databases, Reports, and Studies

In addition to the Public Fund Survey conducted by NASRA, there are other databases, reports, and surveys conducted on public pension plans which are intended to serve as a reliable source of accurate information for those involved with pension and retirement security policy. For example:

- 1) [Public Plans Database](#) (PPD) is a publicly accessible database of financial, actuarial, and other plan data for 160 of the nation's largest state and local government (SLG) public pension plans. The PPD is a partnership between the Center for State and Local Government Excellence (CSLGE), the Center for Retirement Research at Boston College (CRR), and the National Association of State Retirement Administrators (NASRA). Consequently, the NASRA Public Fund Survey data is now compiled by CRR, and so the data is consistent. Data comes from the annual financial reports, actuarial reports, benefit summaries, and other information on system's websites.
- 2) [NEA Characteristics of Large Public Pension Plans](#) is a detailed study conducted by the National Education Association (NEA) every 5 years and includes data from 114 large plans which contain pre-k-12 and higher education employees. Survey topics include plan administration, investment, retirement eligibility, COLA, contribution rates, benefit formulas, actuarial methods and funding, and retirement board membership. (Most recent report was in 2016.)
- 3) [NCPERS Public Retirement Systems Study](#) is an annual survey conducted by the National Council of Public Employee Retirement Systems (NCPERS) which analyzes the most current data available on 159 SLG funds' fiscal condition and steps being taken to ensure fiscal and operational integrity. The most recent study finds that public funds continue to become more cost effective with administrative and investment expenses decreasing. Funds are continuing to tighten benefits and assumptions by lowering actuarial assumed rate of returns, increasing employee contributions, and raising benefit age or service requirements. Funds are currently experiencing healthy 3, 5, and 20 year investment returns (close to or exceeding 8%). Also, funds are experiencing an increase in average funded level.

Board Information Only. No board action is requested.

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: March 16, 2017
SUBJ: 2017-18 Board Calendar and Education Plan

TFFR Board policy C-2 requires the Board to conduct a minimum of six board meetings each year. Board meetings are generally scheduled for the day preceding the SIB meetings beginning in July of each year, unless a different day is determined. Special meetings may also be called, or this schedule can be adjusted if needed. Attached are suggested meeting dates for 2017-18. TFFR meetings are typically scheduled for Thursday's at 1 pm; TFFR meetings are not scheduled in August and May due to potential conflicts with school start and end dates.

I am also working on the 2017-18 Board Education plan, and am very interested in any suggestions from board members on agenda items, topics or information that would assist you in carrying out your board responsibilities. As examples, here are some board education topics from the past few years:

2014-15

- Actuarial valuation process (Segal)
- Actuarial experience study process (Segal)
- Defined benefit, defined contribution, and hybrid plan designs (Segal)
- GASB actuarial, audit, and administrative implications (Segal, et al)
- ND education demographics (DPI)
- ND teacher shortages (ESPB)

2015-16

- Pension fund governance (K. Ambachtsheer)
- Actuarial valuation process (Segal)
- Asset liability study process (Callan)
- Actuarial audit process (Cavanaugh Macdonald)
- Fiduciary duties/Ethics (AGO)

2016-17

- Pension plan governance (Aon Hewitt)
- State cyber security (ITD)
- Actuarial valuation process (Segal)
- National pension issues (Segal)
- ND education demographics (DPI)
- ND teacher shortages (ESPB)
- Audit services overview (RIO)
- Open records/Open meetings (April 2017)

BOARD ACTION: Approve or adjust 2017-18 board meeting schedule. Provide directives for board agenda or board education topics.

DRAFT **2017-18** **TFFR AND SIB MEETING SCHEDULE**

July 2017

27 TFFR - 1:00 pm
28 Special TFFR - 8:30 am
28 SIB – 8:30 am
(SIB Governance Retreat)

August 2017

-- TFFR - No meeting
25 SIB - 8:30 am

September 2017

21 TFFR - 1:00 pm
22 SIB - 8:30 am

October 2017

26 TFFR - 1:00 pm
27 SIB - 8:30 am

November 2017*

-- TFFR - No meeting
17 SIB - 8:30 am

December 2017

-- No meetings

January 2018

25 TFFR - 1:00 pm
26 SIB - 8:30 am

February 2018

-- TFFR - No meeting
23 SIB - 8:30 am

March 2018

22 TFFR - 1:00 pm
23 SIB - 8:30 am

April 2018

26 TFFR - 1:00 pm
27 SIB - 8:30 am

May 2018

-- TFFR - No meeting
25 SIB - 8:30 am

June 2018

-- No meetings

Notes:

- 1) SIB meetings scheduled for 4th Friday of each month, except for November* which is 3rd Friday due to Thanksgiving.
- 2) TFFR meetings scheduled for day preceding SIB meetings.

03/16/17

MARCH 2017 BOARD READING

[NASRA - Public Pension Plan Investment Return Assumptions](#)

[NIRS - Retirement Security 2017](#)