



D A L L A S
POLICE & FIRE
PENSION SYSTEM



MINUTES SUMMARY
Board Meeting
Thursday, September 9, 2021

The regular and supplemental meetings of the Dallas Police and Fire Pension System Board of Trustees were held at 8:30 a.m. on Thursday, September 9, 2021.

REGULAR POLICE AND FIRE PENSION SYSTEM BOARD MEETING

The meeting was called to order at 8:30 a.m.

A. MOMENT OF SILENCE

The Board observed a moment of silence in memory of members and pensioners who recently passed away.

B. CONSENT AGENDA

Approved by the Board, subject to the final review of the staff.

C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. Authorized the Executive Director to engage Fleishman Hillard to prepare a communications plan for an amount not to exceed \$35,000.
2. Staff briefed the Board on HB 3898 and its potential effect on DPF.
3. The Board directed staff to reschedule the October 2021 Board meeting date to Friday, October 15, 2021, at 8:30 a.m. due to a potential scheduling conflict.
4. The Chief Financial Officer provided a status update on the annual financial audit.
5. The Executive Director reviewed the Monthly Contribution Report.
6. The Board and staff discussed future Trustee education. There was no future Trustee business-related travel or investment-related travel scheduled.

MINUTE SUMMARY
Board Meeting
Thursday, September 9, 2021

7. Investment staff briefed the Board on recent events and current developments with respect to the investment portfolio.
8. Investment staff provided an overview of DFPF's public fixed income investments.
9. Meketa and investment staff reviewed investment performance.
10. The Board denied a portion of a hardship request, subject to reconsideration on receipt of additional information that can support the request.
11. The Board granted survivor benefits under the provisions of Article 6243a-1, Section 6.06(o-2).
12. The Board and staff discussed legal issues.

D. BRIEFING ITEMS

1. Prior to commencing items for Board discussion and deliberation, the Chairman extended an opportunity for public comment. No one requested to speak to the Board.
2. The Executive Director's report was presented.

The regular Board meeting was adjourned at 12:17p.m.

MINUTE SUMMARY
Board Meeting
Thursday, September 9, 2021

SUPPLEMENTAL POLICE AND FIRE PENSION BOARD MEETING

The meeting was called to order and recessed at 8:30 a.m.

The meeting was reconvened at 12:17 p.m.

CONSENT AGENDA

Approved, subject to the final review of the staff.

The meeting was adjourned at 12:18 p.m.

Dallas Police and Fire Pension System
Thursday, September 9, 2021
8:30 a.m.
4100 Harry Hines Blvd., Suite 100
Second Floor Board Room
Dallas, TX

Regular meeting, Nicholas A. Merrick, Chairman, presiding:

ROLL CALL

Board Members

Present at 8:30 a.m. Nicholas A. Merrick, William F. Quinn, Armando Garza, Robert B. French (by telephone), Kenneth Haben (by telephone), Tina Hernandez Patterson, Steve Idoux (by telephone), Mark Malveaux (by telephone)

Absent: Michael Brown, Gilbert A. Garcia

Staff Kelly Gottschalk, Josh Mond, Ryan Wagner, Brenda Barnes, John Holt, Damion Hervey, Michael Yan, Cynthia Thomas (by telephone), Milissa Romero

Others Dick Mullinax, Louis Tridico, Leandro Festino, Aaron Lally, Colin Kowalski, David Harper, Ben Mesches, Jason Jordan (all by telephone)

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The meeting was called to order at 8:30 a.m.

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A. MOMENT OF SILENCE

The Board observed a moment of silence in memory of retired police officers James W. Behringer, Ronnie T. Smith, Clarence A. Durst, Jimmy L. Holland, Kevin G. Huey, David E. Ruiz, and retired firefighters Johnny R. Horn, Willie L. Galloway, Gerald H. Dees, T. R. Winkelvoss, Samuel E. Mobly, Randle E. Richardson, J. F. Lehew.

No motion was made.

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**Regular Board Meeting
Thursday, September 9, 2021**

B. CONSENT AGENDA

1. Approval of Minutes

Regular meeting of August 12, 2021

2. Approval of Refunds of Contributions for the Month of August 2021

3. Approval of Activity in the Deferred Retirement Option Plan (DROP) for September 2021

4. Approval of Estate Settlements

5. Approval of Survivor Benefits

6. Approval of Service Retirements

7. Approval of Alternate Payee Benefits

After discussion, Ms. Hernandez Patterson made a motion to approve the minutes of the meeting of August 12, 2021. Mr. Garza seconded the motion, which was unanimously approved by the Board.

After discussion, Mr. Quinn made a motion to approve the remaining items on the Consent Agenda, subject to the final approval of the staff. Ms. Hernandez Patterson seconded the motion, which was unanimously approved by the Board. Mr. Garza recused himself from the vote.

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C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. Communications Plan Framework

Dick Mullinax and Louis Tridico of FleishmanHillard presented the communication framework and discussed the next steps and budget for developing the communication plan.

After discussion, Ms. Hernandez Patterson made a motion to authorize the Executive Director to engage Fleishman Hillard to prepare a communications plan for an amount not to exceed \$35,000. Mr. Garza seconded the motion, which was unanimously approved by the Board.

**Regular Board Meeting
Thursday, September 9, 2021**

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2. HB 3898

Staff briefed the Board on HB 3898 and its potential effect on DPF.

No motion was made.

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3. Possible Rescheduling of October Board Meeting

The Board directed staff to reschedule the October 2021 Board meeting date to Friday, October 15, 2021, at 8:30 a.m. due to a potential scheduling conflict.

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4. Financial Audit Status

The Chief Financial Officer provided a status update on the annual financial audit.

No motion was made.

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5. Monthly Contribution Report

The Executive Director reviewed the Monthly Contribution Report.

No motion was made.

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6. Board approval of Trustee education and travel

- a.** Future Education and Business-related Travel
- b.** Future Investment-related Travel

The Board and staff discussed future Trustee education. There was no future Trustee business-related travel or investment-related travel scheduled.

No motion was made.

**Regular Board Meeting
Thursday, September 9, 2021**

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7. Portfolio Update

Investment staff briefed the Board on recent events and current developments with respect to the investment portfolio.

No motion was made.

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8. Public Fixed Income Portfolio Review

Investment staff provided an overview of DFPF's public fixed income investments.

No motion was made.

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9. Second Quarter 2021 Investment Performance Analysis and First Quarter 2021 Private Markets & Real Assets Review

Meketa and investment staff reviewed investment performance.

No motion was made.

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10. Hardship Request

The Board went into closed executive session at 10:57 a.m.

The meeting was reopened at 12:15 p.m.

After discussion, Mr. Garza made a motion to deny a portion of the hardship request being considered, subject to reconsideration on receipt of additional information that can support the request. Mr. Quinn seconded the motion, which was unanimously approved by the Board.

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**Regular Board Meeting
Thursday, September 9, 2021**

11. Closed Session - Board serving as Medical Committee

The Board went into closed executive session at 10:57 a.m.

The meeting was reopened at 12:15 p.m.

After discussion, Ms. Hernandez Patterson made a motion to grant survivor benefits under the provisions of Article 6243a-1, Section 6.06(o-2). Mr. Garza seconded the motion, which was unanimously approved by the Board.

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12. Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation or any other legal matter in which the duty of the attorneys to DFPF and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.

The Board went into closed executive session at 10:57 a.m.

The meeting was reopened at 12:15 p.m.

The Board and staff discussed legal issues.

No motion was made.

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Mr. Idoux and Mr. French left the meeting at 11:42 a.m.

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D. BRIEFING ITEMS

1. Public Comments

Prior to commencing items for Board discussion and deliberation, the Chairman extended an opportunity for public comment. No one requested to speak to the Board.

**Regular Board Meeting
Thursday, September 9, 2021**

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2. Executive Director's report

- a. Associations' newsletters
 - NCPERS Monitor (September 2021)
- b. Open Records
- c. Office Reopening Status
- d. CIO Recruitment
- e. Employee Service Awards

The Executive Director's report was presented.

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Ms. Gottschalk stated that there was no further business to come before the Board. On a motion by Mr. Quinn and a second by Mr. Garza, the meeting was adjourned at 12:17 p.m.

/s/ Nicholas A. Merrick

Nicholas A. Merrick
Chairman

ATTEST:

/s/ Kelly Gottschalk

Kelly Gottschalk
Secretary

AGENDA



Date: September 3, 2021

The regular meeting of the Dallas Police and Fire Pension System Board of Trustees will be held at **8:30 a.m. on Thursday, September 9, 2021, in the Second Floor Board Room at 4100 Harry Hines Boulevard, Dallas, Texas and via telephone conference for audio at 214-271-5080 access code 588694 or Toll-Free (US & CAN): 1-800-201-5203 and Zoom meeting for visual <https://us02web.zoom.us/j/86721365900?pwd=RXpPb1QwTUltY1Yxc1IwTms5ajNKUT09> Passcode: 969433.** Items of the following agenda will be presented to the Board:

A. MOMENT OF SILENCE

B. CONSENT AGENDA

1. Approval of Minutes

Regular meeting of August 12, 2021

2. Approval of Refunds of Contributions for the Month of August 2021

- 3. Approval of Activity in the Deferred Retirement Option Plan (DROP) for September 2021**
- 4. Approval of Estate Settlements**
- 5. Approval of Survivor Benefits**
- 6. Approval of Service Retirements**
- 7. Approval of Alternate Payee Benefits**

C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

- 1. Communications Plan Framework**
- 2. HB 3898**
- 3. Possible Rescheduling of October Board Meeting**
- 4. Financial Audit Status**
- 5. Monthly Contribution Report**

6. Board approval of Trustee education and travel

- a. Future Education and Business-related Travel
- b. Future Investment-related Travel

7. Portfolio Update

8. Public Fixed Income Portfolio Review

9. Second Quarter 2021 Investment Performance Analysis and First Quarter 2021 Private Markets & Real Assets Review

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.

10. Hardship Request

Discussion will be closed to the public under the terms of Sections 551.078 of the Texas Government Code.

11. Closed Session - Board serving as Medical Committee

Discussion will be closed to the public under the terms of Sections 551.078 of the Texas Government Code.

- 12. Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation or any other legal matter in which the duty of the attorneys to DFPF and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.**

D. BRIEFING ITEMS

- 1. Public Comment**
- 2. Executive Director's report**
 - a. Associations' newsletters**
 - NCPERS Monitor (September 2021)
 - b. Open Records**
 - c. Office Reopening Status**
 - d. CIO Recruitment**
 - e. Employee Service Awards**

The term "possible action" in the wording of any Agenda item contained herein serves as notice that the Board may, as permitted by the Texas Government Code, Section 551, in its discretion, dispose of any item by any action in the following non-exclusive list: approval, disapproval, deferral, table, take no action, and receive and file. At the discretion of the Board, items on this agenda may be considered at times other than in the order indicated in this agenda.

At any point during the consideration of the above items, the Board may go into Closed Executive Session as per Texas Government Code, Section 551.071 for consultation with attorneys, Section 551.072 for real estate matters, Section 551.074 for personnel matters, and Section 551.078 for review of medical records.



MOMENT OF SILENCE

In memory of our Members and Pensioners who recently passed away

NAME	ACTIVE/ RETIRED	DEPARTMENT	DATE OF DEATH
Johnny R. Horn	Retired	Fire	Aug. 5, 2021
Willie L. Galloway	Retired	Fire	Aug. 7, 2021
James W. Behringer	Retired	Police	Aug. 13, 2021
Gerald H. Dees	Retired	Fire	Aug. 14, 2021
Ronnie T. Smith	Retired	Police	Aug. 14, 2021
Clarence A. Durst	Retired	Police	Aug. 16, 2021
Jimmy L. Holland	Retired	Police	Aug. 16, 2021
T. R. Winkelvoss	Retired	Fire	Aug. 19, 2021
Kevin G. Huey	Retired	Police	Aug. 20, 2021
Samuel E. Mobly	Retired	Fire	Aug. 21, 2021
Randle E. Richardson	Retired	Fire	Aug. 21, 2021
J. F. Lehew	Retired	Fire	Aug. 22, 2021
David E. Ruiz	Retired	Police	Aug. 22, 2021

Regular Board Meeting –Thursday, September 9, 2021

**Dallas Police and Fire Pension System
Thursday, August 12, 2021
8:30 a.m.
Via telephone conference**

Regular meeting, Nicholas A. Merrick, Chairman, presiding:

ROLL CALL

Board Members

Present at 8:33 a.m. Nicholas A. Merrick, Armando Garza, Michael Brown, Robert B. French, Gilbert A. Garcia, Kenneth Haben, Tina Hernandez Patterson, Steve Idoux, Mark Malveaux

Absent: William F. Quinn

Staff

Kelly Gottschalk, Josh Mond, Ryan Wagner, Brenda Barnes, John Holt, Damion Hervey, Cynthia Thomas, Greg Irlbeck, Milissa Romero

Others

None

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The meeting was called to order at 8:33 a.m.

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A. MOMENT OF SILENCE

The Board observed a moment of silence in memory of retired police officers Arlyn J. Brown, Jerry Langbein, James W. Heard, and retired firefighters M. D. Biggerstaff, Samuel H. Atchison, Brad L. Allen, S. C. Gleghorn, Paul E. Overton, Randal P. Luper.

No motion was made.

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B. CONSENT AGENDA

1. Approval of Minutes

Regular meeting of July 15, 2021

**Regular Board Meeting
Thursday, August 12, 2021**

B. CONSENT AGENDA (continued)

- 2. Approval of Refunds of Contributions for the Month of July 2021**
- 3. Approval of Activity in the Deferred Retirement Option Plan (DROP) for August 2021**
- 4. Approval of Estate Settlements**
- 5. Approval of Survivor Benefits**
- 6. Approval of Service Retirements**
- 7. Approval of Alternate Payee Benefits**
- 8. Approval of Payment of Previously Withdrawn Contributions**
- 9. Approval of Payment of QDRO Buyback Contributions**

After discussion, Mr. Garza made a motion to approve the minutes of the meeting of July 15, 2021. Mr. Haben seconded the motion, which was unanimously approved by the Board.

After discussion, Mr. Garza made a motion to approve the remaining items on the Consent Agenda, subject to the final approval of the staff. Ms. Hernandez Patterson seconded the motion, which was unanimously approved by the Board.

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C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. January 1, 2021 Actuarial Valuation Assumptions

At the June 2021 Board meeting Jeff Williams from Segal, discussed the assumptions for the January 2021 valuations and recommended no changes from the Assumptions used in the prior actuarial valuation except for possible consideration of lowering the 7% assumed rate of return. At the July 2021 Board Meeting the rate of return assumption was discussed and the Board requested that Segal prepare an impact study of various return assumptions based on estimated January 1, 2021 net asset values.

**Regular Board Meeting
Thursday, August 12, 2021**

1. January 1, 2021 Actuarial Valuation Assumptions (continued)

The Executive Director reviewed with the Board Segal's impact study of lowering the assumed rate of return from the current 7% assumed rate of return to 6.75% and 6.5%.

After discussion, Mr. Garcia made a motion to direct Segal to use its recommended assumptions in preparing the January 1, 2021 Actuarial Valuation for the Regular Plan (Combined Plan) and the Supplemental Plan and approved a reduction of the assumed rate of return to 6.5%. Mr. Garza seconded the motion, which was unanimously approved by the Board.

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2. Portfolio Update

Investment staff briefed the Board on recent events and current developments with respect to the investment portfolio.

No motion was made.

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3. Investment Policy Statement

Investment staff reviewed a summary of amendments to the Investment Policy Statement (IPS) reflecting the new long-term asset allocation and its implementation approved at the July 2021 Board meeting.

After discussion, Mr. Garcia made a motion to approve the proposed revised Investment Policy Statement. Mr. Haben seconded the motion, which was unanimously approved by the Board.

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4. Infrastructure Portfolio Review

Staff provided an overview of the three funds which comprise the infrastructure asset class: the Global Maritime Investment Fund managed by JPMorgan Asset Management, and the Asian Infrastructure and Related Resources Opportunity funds I and II, both managed by The Rohatyn Group.

No motion was made.

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**Regular Board Meeting
Thursday, August 12, 2021**

5. Monthly Contribution Report

The Executive Director reviewed the Monthly Contribution Report.

No motion was made.

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6. Board approval of Trustee education and travel

- a. Future Education and Business-related Travel
- b. Future Investment-related Travel

The Board and staff discussed future Trustee education. There was no future Trustee business-related travel or investment-related travel scheduled.

No motion was made.

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7. Quarterly Financial Reports

The Chief Financial Officer presented the second quarter 2021 financial statements.

No motion was made.

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8. 2021 Mid-Year Budget Review

The Chief Financial Officer presented a review of the 2021 Operating Expense Budget detailing expenses for the first six months of the calendar year.

No motion was made.

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**Regular Board Meeting
Thursday, August 12, 2021**

9. Financial Audit Status

The Chief Financial Officer provided a status update on the annual financial audit.

No motion was made,

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10. Hardship Request

The consideration of the Hardship request was postponed.

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11. Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation or any other legal matter in which the duty of the attorneys to DFPF and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.

The Board went into closed executive session at 9:59 a.m.

The meeting was reopened at 10:25 a.m.

No motion was made.

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D. BRIEFING ITEMS

1. Public Comments

Prior to commencing items for Board discussion and deliberation, the Chairman extended an opportunity for public comment. No one requested to speak to the Board.

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**Regular Board Meeting
Thursday, August 12, 2021**

2. Executive Director's report

- a. Associations' newsletters
 - NCPERS Monitor (August 2021)
 - NCPERS PERSist (Summer 2021)
 - TEXPERS Pension Observer (Vol. 3, 2021)
<http://online.anyflip.com/mxfu/jofm/mobile/index.html>
- b. Open Records
- c. Office Reopening Status
- d. CIO Recruitment

The Executive Director's report was presented.

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Ms. Gottschalk stated that there was no further business to come before the Board. On a motion by Mr. Garza and a second by Mr. Garcia, the meeting was adjourned at 10:25 a.m.

Nicholas A. Merrick
Chairman

ATTEST:

Kelly Gottschalk
Secretary



DISCUSSION SHEET

ITEM #C1

Topic: Communications Plan Framework

Attendees: Dick Mullinax, FleishmanHillard

Discussion: During the November 2020 Board meeting the Board directed the Executive Director to develop a communication plan related to funding issues. In February 2021 FleishmanHillard was authorized by the Board to develop a communication framework as the first phase of the communication plan development. A subcommittee of the Board participated in a workshop conducted by FleishmanHillard and from that work a communication framework was developed. FleishmanHillard will present the communication framework to the Board and discuss the next steps and budget for developing the communication plan.

Recommendation: Available at the meeting.

Regular Board Meeting – Thursday, September 9, 2021



DISCUSSION SHEET

ITEM #C2

Topic: HB 3898

Discussion: Staff will brief the Board on HB 3898 and its potential effect on DPFP.

Regular Board Meeting – Thursday, September 9, 2021

H.B. No. 3898

1 AN ACT

2 relating to the funding of public retirement systems.

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

4 SECTION 1. Section 28(h), Texas Local Fire Fighters
5 Retirement Act (Article 6243e, Vernon's Texas Civil Statutes), is
6 amended to read as follows:

7 (h) A retirement system established under this Act is exempt
8 from Subchapter C, Chapter 802, Government Code, except Sections
9 802.2011, 802.2015, 802.202, 802.205, and 802.207.

10 SECTION 2. Section 802.109, Government Code, is amended by
11 amending Subsections (a), (d), (e), (f), and (h) and adding
12 Subsection (e-1) to read as follows:

13 (a) Except as provided by Subsection (e) and subject to
14 Subsections (c) and (k), a public retirement system shall select an
15 independent firm with substantial experience in evaluating
16 institutional investment practices and performance to evaluate the
17 appropriateness, adequacy, and effectiveness of the retirement
18 system's investment practices and performance and to make
19 recommendations for improving the retirement system's investment
20 policies, procedures, and practices. Each evaluation must include:

21 (1) a summary of the independent firm's experience in
22 evaluating institutional investment practices and performance and
23 a statement that the firm's experience meets the experience
24 required by this subsection;

H.B. No. 3898

1 (2) a statement indicating the nature of any existing
2 relationship between the independent firm and the public retirement
3 system and confirming that the firm and any related entity are not
4 involved in directly or indirectly managing the investments of the
5 system;

6 (3) a list of the types of remuneration received by the
7 independent firm from sources other than the public retirement
8 system for services provided to the system;

9 (4) a statement identifying any potential conflict of
10 interest or any appearance of a conflict of interest that could
11 impact the analysis included in the evaluation due to an existing
12 relationship between the independent firm and:

13 (A) the public retirement system; or

14 (B) any current or former member of the governing
15 body of the system; and

16 (5) an explanation of the firm's determination
17 regarding whether to include a recommendation for each of the
18 following evaluated matters:

19 (A) an analysis of any investment policy or
20 strategic investment plan adopted by the retirement system and the
21 retirement system's compliance with that policy or plan;

22 (B) [~~2~~] a detailed review of the retirement
23 system's investment asset allocation, including:

24 (i) [~~A~~] the process for determining
25 target allocations;

26 (ii) [~~B~~] the expected risk and expected
27 rate of return, categorized by asset class;

H.B. No. 3898

1 (iii) [~~(C)~~] the appropriateness of
2 selection and valuation methodologies of alternative and illiquid
3 assets; and

4 (iv) [~~(D)~~] future cash flow and liquidity
5 needs;

6 (C) [~~(3)~~] a review of the appropriateness of
7 investment fees and commissions paid by the retirement system;

8 (D) [~~(4)~~] a review of the retirement system's
9 governance processes related to investment activities, including
10 investment decision-making processes, delegation of investment
11 authority, and board investment expertise and education; and

12 (E) [~~(5)~~] a review of the retirement system's
13 investment manager selection and monitoring process.

14 (d) A public retirement system shall conduct the evaluation
15 described by Subsection (a):

16 (1) once every three years, if the total assets of the
17 retirement system [~~has total assets the book value of which,~~] as of
18 the last day of the preceding [~~last~~] fiscal year were [~~considered in~~
19 ~~an evaluation under this section, was~~] at least \$100 million; or

20 (2) once every six years, if the total assets of the
21 retirement system [~~has total assets the book value of which,~~] as of
22 the last day of the preceding [~~last~~] fiscal year were [~~considered in~~
23 ~~an evaluation under this section, was~~] at least \$30 million and less
24 than \$100 million.

25 (e) A public retirement system is not required to conduct
26 the evaluation described by Subsection (a) if the total assets of
27 the retirement system [~~has total assets the book value of which,~~] as

H.B. No. 3898

1 of the last day of the preceding fiscal year were~~[, was]~~ less than
2 \$30 million.

3 (e-1) Not later than the 30th day after the date an
4 independent firm completes an evaluation described by Subsection
5 (a), the independent firm shall:

6 (1) submit to the public retirement system for
7 purposes of discussion and clarification a substantially completed
8 preliminary draft of the evaluation report; and

9 (2) request in writing that the system, on or before
10 the 30th day after the date the system receives the preliminary
11 draft, submit to the firm:

12 (A) a description of any action taken or expected
13 to be taken in response to a recommendation made in the evaluation;
14 and

15 (B) any written response of the system that the
16 system wants to accompany the final evaluation report.

17 (f) The independent firm shall file the final evaluation
18 report, including the evaluation results and any response received
19 from the public retirement system, [A report of an evaluation under
20 this section must be filed] with the governing body of the [public
21 retirement] system:

22 (1) not earlier than the 31st day after the date on
23 which the preliminary draft is submitted to the system; and

24 (2) not later than the later of:

25 (A) the 60th day after the date on which the
26 preliminary draft is submitted to the system; or

27 (B) May 1 in the [of each] year following the year

H.B. No. 3898

1 in which the system is evaluated under Subsection (a) [~~(d)~~].

2 (h) A governmental entity that is the employer of active
3 members of a public retirement system evaluated under Subsection
4 (a) may pay all or part of the costs of the evaluation. The [A]
5 public retirement system shall pay any remaining unpaid [the] costs
6 of the [each] evaluation [of the system under this section].

7 SECTION 3. Section 802.2011, Government Code, is amended to
8 read as follows:

9 Sec. 802.2011. FUNDING POLICY. (a) In this section:

10 (1) "Funded ratio" means the ratio of a public
11 retirement system's actuarial value of assets divided by the
12 system's actuarial accrued liability.

13 (2) "Governmental entity" has the meaning assigned by
14 Section 802.1012.

15 (3) "Statewide retirement system" means:

16 (A) the Employees Retirement System of Texas,
17 including a retirement system administered by that system;

18 (B) the Teacher Retirement System of Texas;

19 (C) the Texas County and District Retirement
20 System;

21 (D) the Texas Emergency Services Retirement
22 System; and

23 (E) the Texas Municipal Retirement System.

24 (b) The governing body of a public retirement system and, if
25 the system is not a statewide retirement system, its associated
26 governmental entity shall:

27 (1) jointly, if applicable:

H.B. No. 3898

- 1 (A) develop and adopt a written funding policy
2 that details a a ~~[the governing body's]~~ plan for achieving a funded
3 ratio of the system that is equal to or greater than 100 percent;
4 and
- 5 (B) timely revise the policy to reflect any
6 significant changes to the policy, including changes required as a
7 result of formulating and implementing a funding soundness
8 restoration plan, including a revised funding soundness
9 restoration plan, under Section 802.2015 or 802.2016;
- 10 (2) maintain for public review at its main office a
11 copy of the policy;
- 12 (3) file a copy of the policy and each change to the
13 policy with the board not later than the 31st day after the date the
14 policy or change, as applicable, is adopted; and
- 15 (4) post ~~[submit]~~ a copy of the most recent edition of
16 the policy on a publicly available Internet website in accordance
17 with Section 802.107(c)(2) ~~[and each change to the policy to the~~
18 ~~system's associated governmental entity not later than the 31st day~~
19 ~~after the date the policy or change is adopted].~~
- 20 (c) For purposes of Subsection (b)(1)(B), the written
21 funding policy must outline any automatic contribution or benefit
22 changes designed to prevent having to formulate a revised funding
23 soundness restoration plan under Section 802.2015(d), including
24 any automatic risk-sharing mechanisms that have been implemented,
25 the adoption of an actuarially determined contribution structure,
26 and other adjustable benefit or contribution mechanisms.
- 27 (d) The board may adopt rules necessary to implement this

H.B. No. 3898

1 section.

2 SECTION 4. Section [802.2015](#), Government Code, is amended by
3 amending Subsections (a), (c), (d), (e), (f), and (g) and adding
4 Subsections (d-1), (e-1), (e-2), (e-3), (e-4), and (h) to read as
5 follows:

6 (a) In this section:

7 (1) "Funded ratio" has the meaning assigned by Section
8 [802.2011](#).

9 (2) "Governmental [~~,"governmental]~~ entity" has the
10 meaning assigned by Section [802.1012](#).

11 (c) A public retirement system shall notify the associated
12 governmental entity in writing if the [~~retirement]~~ system receives
13 an actuarial valuation indicating that the system's actual
14 contributions are not sufficient to amortize the unfunded actuarial
15 accrued liability within 30 [~~40~~] years. The [~~If a public retirement~~
16 ~~system's actuarial valuation shows that the system's amortization~~
17 ~~period has exceeded 40 years for three consecutive annual actuarial~~
18 ~~valuations, or two consecutive actuarial valuations in the case of~~
19 ~~a system that conducts the valuations every two or three years, the]~~
20 governing body of the public retirement system and the governing
21 body of the associated governmental entity shall jointly formulate
22 a funding soundness restoration plan under Subsection (e) if the
23 system's actuarial valuation shows that the system's expected
24 funding period:

25 (1) has exceeded 30 years for three consecutive annual
26 actuarial valuations, or two consecutive annual actuarial
27 valuations in the case of a system that conducts the valuations

H.B. No. 3898

1 every two or three years; or

2 (2) effective September 1, 2025:

3 (A) exceeds 40 years; or

4 (B) exceeds 30 years and the funded ratio of the

5 system is less than 65 percent [~~in accordance with the system's~~

6 ~~governing statute~~].

7 (d) Except as provided by Subsection (d-1), the [~~The~~

8 governing body of a public retirement system and the governing body

9 of the associated governmental entity that have an existing

10 [~~formulated a~~] funding soundness restoration plan under Subsection

11 (e) shall formulate a revised funding soundness restoration plan

12 under Subsection (e-1) [~~that subsection, in accordance with the~~

13 ~~system's governing statute,~~] if the system becomes subject to

14 Subsection (c) before the 10th anniversary of the date prescribed

15 by Subsection (e)(2)(A) or (B), as applicable [~~conducts an~~

16 ~~actuarial valuation showing that:~~

17 [~~(1) the system's amortization period exceeds 40 years,~~

18 ~~and~~

19 [~~(2) the previously formulated funding soundness~~

20 ~~restoration plan has not been adhered to~~].

21 (d-1) The governing body of a public retirement system and

22 the governing body of the associated governmental entity are not

23 subject to Subsection (d) if:

24 (1) the system's actuarial valuation shows that the

25 system's expected funding period exceeds 30 years but is less than

26 or equal to 40 years; and

27 (2) the system is:

H.B. No. 3898

1 (A) adhering to an existing funding soundness
2 restoration plan that was formulated before September 1, 2025; or
3 (B) implementing a contribution rate structure
4 that uses or will ultimately use an actuarially determined
5 contribution structure and the system's actuarial valuation shows
6 that the system is expected to achieve full funding.

7 (e) A funding soundness restoration plan formulated under
8 this section must:

9 (1) be developed by the public retirement system and
10 the associated governmental entity in accordance with the system's
11 governing statute; ~~and~~

12 (2) be designed to achieve a contribution rate that
13 will be sufficient to amortize the unfunded actuarial accrued
14 liability within 30 ~~[40]~~ years not later than the later of:

15 (A) the second ~~[10th]~~ anniversary of the
16 valuation date stated in the actuarial valuation that required
17 formulation of the plan under this subsection; or

18 (B) September 1, 2025;

19 (3) be based on actions agreed to be taken by the
20 system and entity that were approved by the respective governing
21 bodies of both the system and the entity before the plan was
22 adopted; and

23 (4) be adopted at open meetings of the respective
24 governing bodies of the system and the entity not later than the
25 second anniversary of the date the actuarial valuation that
26 required application of this subsection was adopted by the
27 governing body of the system ~~[on which the final version of a~~

H.B. No. 3898

1 ~~funding soundness restoration plan is agreed to].~~
2 (e-1) A revised funding soundness restoration plan
3 formulated under this section must:
4 (1) be developed by the public retirement system and
5 the associated governmental entity in accordance with the system's
6 governing statute;
7 (2) be designed to achieve a contribution rate that
8 will be sufficient to amortize the unfunded actuarial accrued
9 liability within 25 years not later than the second anniversary of
10 the valuation date stated in the actuarial valuation that required
11 formulation of a revised plan under this subsection;
12 (3) be based on actions, including automatic
13 risk-sharing mechanisms, an actuarially determined contribution
14 structure, and other adjustable benefit or contribution
15 mechanisms, agreed to be taken by the system and entity that were
16 approved by the respective governing bodies of both the system and
17 the entity before the plan was adopted; and
18 (4) be adopted at open meetings by the respective
19 governing bodies of the system and the entity not later than the
20 second anniversary of the date the actuarial valuation that
21 required application of this subsection was adopted by the
22 governing body of the system.
23 (e-2) Not later than the 90th day after the date on which the
24 plan is adopted by both the governing body of the system and the
25 governing body of the associated governmental entity, a system may
26 submit to the board an actuarial valuation required under Section
27 802.101(a) or other law that shows the combined impact of all

H.B. No. 3898

1 changes to a funding soundness restoration plan adopted under this
2 section, including a revised funding soundness restoration plan
3 adopted under Subsection (e-1). If a system does not provide an
4 actuarial valuation to the board in accordance with this
5 subsection, the board may request that the system provide a
6 separate analysis of the combined impact of all changes to a funding
7 soundness restoration plan adopted under this section not later
8 than the 90th day after the date the board makes the request. An
9 actuarial valuation or separate analysis conducted under this
10 subsection must include:

11 (1) an actuarial projection of the public retirement
12 system's expected future assets and liabilities between the
13 valuation date described by Subsection (e)(2)(A) or (e-1)(2), as
14 applicable, and the date at which the plan is expected to achieve
15 full funding; and

16 (2) a description of all assumptions and methods used
17 to perform the analysis which must comply with actuarial standards
18 of practice.

19 (e-3) The associated governmental entity may pay all or part
20 of the costs of the separate analysis required under Subsection
21 (e-2). The public retirement system shall pay any costs for the
22 analysis not paid by the associated governmental entity.

23 (e-4) A funding soundness restoration plan adopted under
24 this section, including a revised funding soundness restoration
25 plan adopted under Subsection (e-1), may not include actions that
26 are subject to future approval by the governing bodies of either the
27 public retirement system or the associated governmental entity.

H.B. No. 3898

1 (f) A public retirement system and the associated
2 governmental entity required to ~~[that]~~ formulate a funding
3 soundness restoration plan under this section, including a revised
4 funding soundness restoration plan, shall provide a report to the
5 board on ~~[any updates of]~~ progress made by the system and entity in
6 formulating the plan, including a draft of any plan and a
7 description of any changes under consideration for inclusion in a
8 plan, not later than the first anniversary of the date of the
9 actuarial valuation that required formulation of the plan under
10 Subsection (e) or (e-1) and each subsequent six-month period until
11 the plan is submitted to the board under this section ~~[entities~~
12 ~~toward improved actuarial soundness to the board every two years]~~.

13 (g) Each public retirement system that formulates a funding
14 soundness restoration plan as provided by this section shall submit
15 a copy of that plan to the board and any change to the plan not later
16 than the 31st day after the date on which the plan is adopted by both
17 the governing body of the system and the governing body of the
18 associated governmental entity or the date the change is agreed to.

19 (h) The board may adopt rules necessary to implement this
20 section.

21 SECTION 5. Section [802.2016](#), Government Code, is amended to
22 read as follows:

23 Sec. 802.2016. FUNDING SOUNDNESS RESTORATION PLAN FOR
24 CERTAIN PUBLIC RETIREMENT SYSTEMS. (a) In this section:

25 (1) "Funded ratio" has the meaning assigned by Section
26 [802.2011](#).

27 (2) "Governmental ~~[, "governmental]~~ entity" has the

H.B. No. 3898

1 meaning assigned by Section 802.1012.

2 (b) This section applies only to a public retirement system
3 that is governed by Article 6243i, Revised Statutes, and its
4 associated governmental entity.

5 (c) A public retirement system shall notify the associated
6 governmental entity in writing if the [~~retirement~~] system receives
7 an actuarial valuation indicating that the system's actual
8 contributions are not sufficient to amortize the unfunded actuarial
9 accrued liability within 30 [~~40~~] years. The governing body of [~~If a~~
10 ~~public retirement system's actuarial valuation shows that the~~
11 ~~system's amortization period has exceeded 40 years for three~~
12 ~~consecutive annual actuarial valuations, or two consecutive~~
13 ~~actuarial valuations in the case of a system that conducts the~~
14 ~~valuations every two or three years,]~~ the associated governmental
15 entity shall formulate a funding soundness restoration plan under
16 Subsection (e) if the system's actuarial valuation shows that the
17 system's expected funding period:

18 (1) has exceeded 30 years for three consecutive annual
19 actuarial valuations, or two consecutive annual actuarial
20 valuations in the case of a system that conducts the valuations
21 every two or three years; or

22 (2) effective September 1, 2025:

23 (A) exceeds 40 years; or

24 (B) exceeds 30 years and the funded ratio of the
25 system is less than 65 percent [~~in accordance with the public~~
26 ~~retirement system's governing statute].~~

27 (d) Except as provided by Subsection (d-1), the governing

H.B. No. 3898

1 body of an ~~[An]~~ associated governmental entity that has an existing
2 ~~[formulated a]~~ funding soundness restoration plan under Subsection
3 (e) shall formulate a revised funding soundness restoration plan
4 under Subsection (e-1) ~~[that subsection, in accordance with the~~
5 ~~public retirement system's governing statute,]~~ if the system
6 becomes subject to Subsection (c) before the 10th anniversary of
7 the date prescribed by Subsection (e)(2)(A) or (B), as applicable
8 ~~[conducts an actuarial valuation showing that:~~

9 ~~[(1) the system's amortization period exceeds 40 years,~~
10 ~~and~~

11 ~~[(2) the previously formulated funding soundness~~
12 ~~restoration plan has not been adhered to].~~

13 (d-1) The associated governmental entity is not subject to
14 Subsection (d) if:

15 (1) the system's actuarial valuation shows that the
16 system's expected funding period exceeds 30 years but is less than
17 or equal to 40 years; and

18 (2) the system is:

19 (A) adhering to an existing funding soundness
20 restoration plan that was formulated before September 1, 2025; or

21 (B) implementing a contribution rate structure
22 that uses or will ultimately use an actuarially determined
23 contribution structure and the system's actuarial valuation shows
24 that the system is expected to achieve full funding.

25 (e) A funding soundness restoration plan formulated under
26 this section must:

27 (1) be developed in accordance with the public

H.B. No. 3898

1 retirement system's governing statute by the associated
2 governmental entity; ~~and~~

3 (2) be designed to achieve a contribution rate that
4 will be sufficient to amortize the unfunded actuarial accrued
5 liability within 30 ~~[40]~~ years not later than the later of:

6 (A) the second ~~[10th]~~ anniversary of the
7 valuation date stated in the actuarial valuation that required
8 formulation of the plan under this subsection; or

9 (B) September 1, 2025;

10 (3) be based on actions, including automatic
11 risk-sharing mechanisms, an actuarially determined contribution
12 structure, and other adjustable benefit or contribution
13 mechanisms, agreed to be taken by the system and entity that were
14 approved by the governing body of the associated governmental
15 entity before the plan was adopted; and

16 (4) be adopted at an open meeting of the governing body
17 of the associated governmental entity not later than the second
18 anniversary of the date the actuarial valuation that required
19 application of this subsection was adopted by the governing body of
20 the system ~~[on which the final version of a funding soundness~~
21 ~~restoration plan is formulated].~~

22 (e-1) A revised funding soundness restoration plan
23 formulated under this section must:

24 (1) be developed by the associated governmental
25 entity in accordance with the system's governing statute;

26 (2) be designed to achieve a contribution rate that
27 will be sufficient to amortize the unfunded actuarial accrued

H.B. No. 3898

1 liability within 25 years not later than the second anniversary of
2 the valuation date stated in the actuarial valuation that required
3 formulation of a revised plan under this subsection;

4 (3) be based on actions agreed to be taken by the
5 system and entity that were approved by the governing body of the
6 associated governmental entity before the plan was adopted; and

7 (4) be adopted at an open meeting of the governing body
8 of the associated governmental entity not later than the second
9 anniversary of the date the actuarial valuation that required
10 application of this subsection was adopted by the governing body of
11 the system.

12 (e-2) Not later than the 90th day after the date on which the
13 plan is adopted by the governing body of the associated
14 governmental entity, a system may submit to the board an actuarial
15 valuation required under Section 802.101(a) or other law that shows
16 the combined impact of all changes to a funding soundness
17 restoration plan adopted under this section, including a revised
18 funding soundness restoration plan adopted under Subsection (e-1).
19 If a system does not provide an actuarial valuation to the board in
20 accordance with this subsection, the board may request that the
21 system provide a separate analysis of the combined impact of all
22 changes to a funding soundness restoration plan adopted under this
23 section not later than the 90th day after the date the board makes
24 the request. An actuarial valuation or the separate analysis
25 conducted under this subsection must include:

26 (1) an actuarial projection of the public retirement
27 system's expected future assets and liabilities between the

H.B. No. 3898

1 valuation date described by Subsection (e)(2)(A) or (e-1)(2), as
2 applicable, and the date at which the plan is expected to achieve
3 full funding; and

4 (2) a description of all assumptions and methods used
5 to perform the analysis which must comply with actuarial standards
6 of practice.

7 (e-3) The associated governmental entity may pay all or part
8 of the costs of the separate analysis required under Subsection
9 (e-2). The public retirement system shall pay any costs for the
10 analysis not paid by the associated governmental entity.

11 (e-4) A funding soundness restoration plan adopted under
12 this section, including a revised funding soundness restoration
13 plan adopted under Subsection (e-1), may not include actions that
14 are subject to future approval by the governing body of the
15 associated governmental entity.

16 (f) An associated governmental entity required to formulate
17 [that formulates] a funding soundness restoration plan under this
18 section, including a revised funding soundness restoration plan,
19 shall provide a report to the board on [any updates of] progress
20 made by the [public retirement system and] associated governmental
21 entity in formulating the plan, including a draft of any plan and a
22 description of any changes under consideration for inclusion in a
23 plan, not later than the first anniversary of the date of the
24 actuarial valuation that required formulation of the plan under
25 Subsection (e) or (e-1) and each subsequent six-month period until
26 the plan is submitted to the board under this section [toward
27 improved actuarial soundness to the board every two years].

H.B. No. 3898

1 (g) An associated governmental entity that formulates a
2 funding soundness restoration plan as provided by this section
3 shall submit a copy of that plan to the board and any change to the
4 plan not later than the 31st day after the date on which the plan is
5 adopted by the governing body of the associated governmental entity
6 or the date the change is formulated.

7 (h) The board may adopt rules necessary to implement this
8 section.

9 SECTION 6. Section 802.109, Government Code, as amended by
10 this Act, applies only to an evaluation commenced on or after the
11 effective date of this Act. An evaluation commenced before the
12 effective date of this Act is governed by the law in effect on the
13 date the evaluation was commenced, and the former law is continued
14 in effect for that purpose.

15 SECTION 7. The changes in law made by this Act apply to a
16 funding soundness restoration plan that is formulated or revised
17 under Section 802.2015 or 802.2016, Government Code, as applicable,
18 on or after the effective date of this Act. A funding soundness
19 restoration plan formulated or revised before the effective date of
20 this Act other than a plan that is subject to Section 802.2015(d-1)
21 or Section 802.2016(d-1), Government Code, as added by this Act, is
22 governed by the law as it existed immediately before that date, and
23 the former law is continued in effect for that purpose, except if:

24 (1) the public retirement system and its associated
25 governmental entity are required to formulate a revised funding
26 soundness restoration plan under Section 802.2015(d), Government
27 Code, as that section existed immediately before the effective date

H.B. No. 3898

1 of this Act, the system and its associated governmental entity
2 shall formulate the plan under Section 802.2015(e), Government
3 Code, as amended by this Act, rather than as that section existed
4 immediately before the effective date of this Act; or

5 (2) a public retirement system's associated
6 governmental entity is required to formulate a revised funding
7 soundness restoration plan under Section 802.2016(d), Government
8 Code, as that section existed immediately before the effective date
9 of this Act, the associated governmental entity shall formulate the
10 plan under Section 802.2016(e), Government Code, as amended by this
11 Act, rather than as that section existed immediately before the
12 effective date of this Act.

13 SECTION 8. This Act takes effect September 1, 2021.

H.B. No. 3898

President of the Senate

Speaker of the House

I certify that H.B. No. 3898 was passed by the House on May 11, 2021, by the following vote: Yeas 119, Nays 24, 2 present, not voting; and that the House concurred in Senate amendments to H.B. No. 3898 on May 28, 2021, by the following vote: Yeas 122, Nays 23, 2 present, not voting.

Chief Clerk of the House

I certify that H.B. No. 3898 was passed by the Senate, with amendments, on May 26, 2021, by the following vote: Yeas 31, Nays 0.

Secretary of the Senate

APPROVED: _____

Date

Governor



DISCUSSION SHEET

ITEM #C3

Topic: Possible Rescheduling of October Board Meeting

Discussion: Staff will discuss the possible need to move the October Board meeting due to the Townsend trial. If it is determined that an alternate date is needed, staff will check with the Board members on their availability.

Regular Board Meeting – Thursday, September 9, 2021



DISCUSSION SHEET

ITEM #C4

Topic: Financial Audit Status

Discussion: The Chief Financial Officer will provide a status update on the annual financial audit.

Regular Board Meeting – Thursday, September 9, 2021



DISCUSSION SHEET

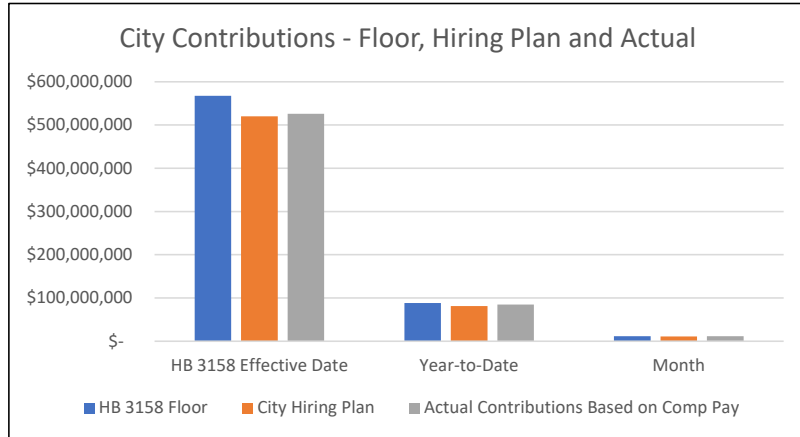
ITEM #C5

Topic: **Monthly Contribution Report**

Discussion: Staff will review the Monthly Contribution Report.

Regular Board Meeting – Thursday, September 9, 2021

Contribution Tracking Summary - September 2021 (July 2021 Data)



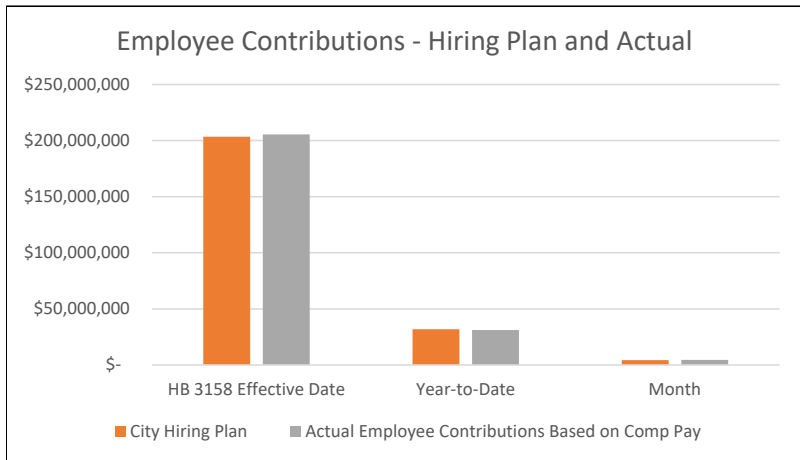
Actual Comp Pay was 101% of the Hiring Plan estimate since the effective date of HB 3158.

In the most recent month Actual Comp Pay was 105% of the Hiring Plan estimate and 97% of the Floor amount.

The Hiring Plan Comp Pay estimate increased by 3.03% in 2021. The Floor increased by 2.76%.

Through 2024 the HB 3158 Floor is in place so there is no City Contribution shortfall.

The combined actual employees was 149 less than the Hiring Plan for the pay period ending August 3, 2021. Fire was over the estimate by 50 fire fighters and Police under by 199 officers.



Employee contributions exceeded the Hiring Plan estimate for the month, the year and since inception.

There is no Floor on employee contributions.

Contribution Summary Data

City Contributions

Jul-21	Number of Pay Periods Beginning in the Month	HB 3158 Floor	City Hiring Plan	Actual Contributions Based on Comp Pay	Additional Contributions to Meet Floor Minimum	Comp Pay Contributions as a % of Floor Contributions	Comp Pay Contributions as a % of Hiring Plan Contributions
Month	2	\$ 11,764,000	\$ 10,827,692	\$ 11,388,866	\$ 375,134	97%	105%
Year-to-Date		\$ 88,230,000	\$ 81,207,692	\$ 85,098,653	\$ 2,973,347	96%	105%
HB 3158 Effective Date		\$ 567,401,000	\$ 519,968,077	\$ 525,886,517	\$ 41,588,190	93%	101%

*Due to the Floor through 2024, there is no cumulative shortfall in City Contributions
Does not include the flat \$13 million annual City Contribution payable through 2024.
Does not include Supplemental Plan Contributions.*

Employee Contributions

Jul-21	Number of Pay Periods Beginning in the Month	City Hiring Plan	Actual Employee Contributions Based on Comp Pay	Actual Contribution Shortfall Compared to Hiring Plan	Actuarial Valuation Contribution Assumption	Actual Contributions as a % of Hiring Plan Contributions	Actual Contributions as a % of Actuarial Val Assumption
Month	2	\$ 4,236,923	\$ 4,455,340	\$ 218,417	\$ 4,236,924	105%	105%
Year-to-Date		\$ 31,776,923	\$ 31,274,024	\$ 1,615,562	\$ 31,776,930	98%	98%
HB 3158 Effective Date		\$ 203,465,769	\$ 205,625,468	\$ 2,159,699	\$ 198,356,572	101%	104%

Potential Earnings Loss from the Shortfall based on Assumed Rate of Return \$ (476,348)

Does not include Supplemental Plan Contributions.

Reference Information

City Contributions: HB 3158 Bi-weekly Floor and the City Hiring Plan Converted to Bi-weekly Contributions						
	HB 3158 Bi-weekly Floor	City Hiring Plan-Bi-weekly	HB 3158 Floor Compared to the Hiring Plan	Hiring Plan as a % of the Floor	% Increase/ (decrease) in the Floor	% Increase/ (decrease) in the Hiring Plan
2017	\$ 5,173,000	\$ 4,936,154	\$ 236,846	95%		
2018	\$ 5,344,000	\$ 4,830,000	\$ 514,000	90%	3.31%	-2.15%
2019	\$ 5,571,000	\$ 5,082,115	\$ 488,885	91%	4.25%	5.22%
2020	\$ 5,724,000	\$ 5,254,615	\$ 469,385	92%	2.75%	3.39%
2021	\$ 5,882,000	\$ 5,413,846	\$ 468,154	92%	2.76%	3.03%
2022	\$ 6,043,000	\$ 5,599,615	\$ 443,385	93%	2.74%	3.43%
2023	\$ 5,812,000	\$ 5,811,923	\$ 77	100%	-3.82%	3.79%
2024	\$ 6,024,000	\$ 6,024,231	\$ (231)	100%	3.65%	3.65%

The HB 3158 Bi-weekly Floor ends after 2024

Employee Contributions: City Hiring Plan and Actuarial Val. Converted to Bi-weekly Contributions				
		City Hiring Plan Converted to Bi-weekly Employee Contributions	Actuarial Valuation Assumption Converted to Bi-weekly Employee contributions	Actuarial Valuation as a % of Hiring Plan
2017		\$ 1,931,538	\$ 1,931,538	100%
2018		\$ 1,890,000	\$ 1,796,729	95%
2019		\$ 1,988,654	\$ 1,885,417	95%
2020		\$ 2,056,154	\$ 2,056,154	100%
2021		\$ 2,118,462	\$ 2,118,462	100%
2022		\$ 2,191,154	\$ 2,191,154	100%
2023		\$ 2,274,231	\$ 2,274,231	100%
2024		\$ 2,357,308	\$ 2,357,308	100%

The information on this page is for reference. The only numbers on this page that may change before 2025 are the Actuarial Valuation Employee Contributions Assumptions for the years 2020-2024 and the associated percentage.

Reference Information - Actuarial Valuation and GASB 67/68 Contribution Assumptions

Actuarial Assumptions Used in the Most Recent Actuarial Valuation - These assumptions will be reevaluated annually & may change.

City Contributions are based on the Floor through 2024, the Hiring Plan from 2025 to 2037, after 2037 an annual growth rate of 2.75% is assumed
 Employee Contributions for 2018 are based on the 2017 actual employee contributions inflated by the growth rate of 2.75% and the Hiring Plan for subsequent years until 2038, when the 2037 Hiring Plan is increased by the 2.75 growth rate for the next 10 years

Actuarial/GASB Contribution Assumption Changes Since the Passage of HB 3158

	Actuarial Valuation	GASB 67/68
YE 2017 (1/1/2018 Valuation)		
2018 Employee Contributions Assumption - based on 2017 actual plus growth rate not the Hiring Plan Payroll	\$ (2,425,047)	*
2019 Estimate (1/1/2019 Valuation)		
2019 Employee Contribution Assumption	\$ 9,278	*
<i>*90% of Hiring Plan was used for the Cash Flow Projection for future years in the 12/31/2017 GASB 67/68 calculation. At 12-31-17, 12-31-18 and 12-31-2019 this did not impact the pension liability or the funded percentage.</i>		

The information on this page is for reference. It is intended to document contribution related assumptions used to prepare the Actuarial Valuation and changes to those assumptions over time, including the dollar impact of the changes. Contribution changes impacting the GASB 67/68 liability will also be included.

City Hiring Plan - Annual Computation Pay and Numbers of Employees						
Year	Computation Pay			Number of Employees		
	Hiring Plan	Actual	Difference	Hiring Plan	Actual EOY	Difference
2017	\$ 372,000,000	Not Available	Not Available	5,240	4,935	(305)
2018	\$ 364,000,000	\$ 349,885,528	\$ (14,114,472)	4,988	4,983	(5)
2019	\$ 383,000,000	\$ 386,017,378	\$ 3,017,378	5,038	5,104	66
2020	\$ 396,000,000	\$ 421,529,994	\$ 25,529,994	5,063	4,988	(75)
2021	\$ 408,000,000			5,088		
2022	\$ 422,000,000			5,113		
2023	\$ 438,000,000			5,163		
2024	\$ 454,000,000			5,213		
2025	\$ 471,000,000			5,263		
2026	\$ 488,000,000			5,313		
2027	\$ 507,000,000			5,363		
2028	\$ 525,000,000			5,413		
2029	\$ 545,000,000			5,463		
2030	\$ 565,000,000			5,513		
2031	\$ 581,000,000			5,523		
2032	\$ 597,000,000			5,523		
2033	\$ 614,000,000			5,523		
2034	\$ 631,000,000			5,523		
2035	\$ 648,000,000			5,523		
2036	\$ 666,000,000			5,523		
2037	\$ 684,000,000			5,523		

Comp Pay by Month - 2021	Annual Divided by 26 Pay Periods	Actual	Difference	2020 Cumulative Difference	Number of Employees EOM	Difference
January	\$ 31,384,615	\$ 33,074,493	\$ 1,689,878	\$ 1,689,878	4960	(128)
February	\$ 31,384,615	\$ 33,017,462	\$ 1,632,847	\$ 3,322,725	4926	(162)
March	\$ 31,384,615	\$ 32,960,217	\$ 1,575,602	\$ 4,898,327	4929	(159)
April	\$ 47,076,923	\$ 49,564,745	\$ 2,487,822	\$ 7,386,148	4935	(153)
May	\$ 31,384,615	\$ 33,011,653	\$ 1,627,037	\$ 9,013,186	4913	(175)
June	\$ 31,384,615	\$ 32,932,804	\$ 1,548,189	\$ 10,561,374	4904	(184)
July	\$ 31,384,615	\$ 33,011,207	\$ 1,626,592	\$ 12,187,966	4939	(149)
August				\$ 12,187,966		
September				\$ 12,187,966		
October				\$ 12,187,966		
November				\$ 12,187,966		
December				\$ 12,187,966		



DISCUSSION SHEET

ITEM #C6

Topic: Board approval of Trustee education and travel

- a. Future Education and Business-related Travel
- b. Future Investment-related Travel

Discussion:

- a. Per the Education and Travel Policy and Procedure, planned Trustee education and business-related travel and education which does not involve travel requires Board approval prior to attendance.

Attached is a listing of requested future education and travel noting approval status.

- b. Per the Investment Policy Statement, planned Trustee travel related to investment monitoring, and in exceptional cases due diligence, requires Board approval prior to attendance.

There is no future investment-related travel for Trustees at this time.

Regular Board Meeting – Thursday, September 9, 2021

**Future Education and Business Related Travel & Webinars
Regular Board Meeting – September 9, 2021**

ATTENDING APPROVED

- 1. Conference: Opal: Emerging Managers Summit**
Dates: September 27-28, 2021
Location: Austin, TX
Est Cost: \$800

- 2. Conference: Opal: Public Funds Fall Forum**
Dates: September 28-29, 2021
Location: Austin, TX
Est Cost: \$800



DISCUSSION SHEET

ITEM #C7

Topic: Portfolio Update

Discussion: Investment Staff will brief the Board on recent events and current developments with respect to the investment portfolio.

Regular Board Meeting – Thursday, September 9, 2021



D A L L A S
POLICE & FIRE
PENSION SYSTEM



Portfolio Update

September 9, 2021

Executive Summary

- Liquidation of private market assets remains the top focus.
 - Received \$136M in distributions year to date, with \$59M in August led by the closing of two large DFW-area real estate sales.
- Board approved updated long-term Asset Allocation in July and Updated Investment Policy Statement (IPS) in August.
- Rebalancing Activity:
 - \$40M funded to new US Small Cap manager, Eastern Shore.
 - \$20M (net) funded to each of Global Equity, EM Equity (RBC) and EM Debt (Ashmore) at the beginning of September, consistent with the implementation plan.
- Staff and Meketa have launched International (Non-US) Small Cap search process.

Public Markets Performance Snapshot - Estimates

Public Markets (ex-Cash) currently make up 69% of DFPF Investment Portfolio.

Net of fees	Index	Aug-21			YTD as of 8/31/21		
		Manager	Index	Excess	Manager	Index	Excess
Total Public Portfolio (ex-Cash)	60% MSCI ACWI IMI / 40% BBG Global AGG	1.3%	1.3%	0.0%	9.9%	8.3%	1.5%
Global Equity	MSCI ACWI IMI	2.0%	2.5%	-0.5%	17.0%	16.0%	1.0%
Boston Partners	MSCI World	1.4%	2.5%	-1.1%	19.9%	17.9%	2.0%
Manulife	MSCI ACWI	0.9%	2.5%	-1.6%	16.7%	15.9%	0.8%
Invesco (OFI)	MSCI ACWI	2.8%	2.5%	0.3%	17.3%	15.9%	1.3%
Walter Scott	MSCI ACWI	2.4%	2.5%	-0.1%	16.2%	15.9%	0.2%
Northern Trust MSCI ACWI IMI	MSCI ACWI IMI	2.4%	2.5%	-0.1%	12.4%	12.9%	-0.5%
EM Equity - RBC	MSCI EM IMI	1.8%	2.4%	-0.7%	-0.4%	4.7%	-5.1%
Public Fixed Income (ex-Cash)	BBG Multiverse TR	0.1%	-0.3%	0.4%	0.9%	-2.0%	3.0%
S/T IG Bonds - IR+M	BBG 1-3YR AGG	-0.1%	0.0%	0.0%	0.4%	0.1%	0.2%
IG Bonds - Longfellow	BBG US AGG	0.0%	-0.2%	0.2%	0.1%	-0.8%	0.9%
Bank Loans - Pacific Asset Mgmt	CS Leveraged Loan	0.1%	0.5%	-0.4%	3.2%	3.9%	-0.7%
High Yield - Loomis Sayles	BBG USHY 2% Cap	0.4%	0.5%	-0.1%	3.6%	4.6%	-1.0%
EM Debt - Ashmore	50% JPM EMBI / 25% ELM I / 25% GBI-EM	0.7%	0.7%	0.0%	-2.4%	-0.5%	-2.0%

Source: JPM Morgan custody data, manager reports, Investment Staff estimates and calculations. Numbers may not foot due to rounding.
 * - Ashmore Benchmark performance for prior month is equal to the manager return due to lag in benchmark reporting

Rebalancing Activity & Global Equity Detail

In this view staff adjusts reported private market values to roughly estimate the impact of events that have not yet been recognized.
Rebalancing activity shown below occurred between 8/31/21 and 9/7.

DFPF Asset Allocation Using Stressed Private Market Values	8/30/2021	Adjustments		Adj. NAV 9/7/2021	Target		Variance			
	NAV	\$ mil.	% of NAV		\$ mil.	%	\$ mil.	%		
Equity	1,051	-46	-4.3%	40.0	1,045	52.0%	1,306	65%	-261	-13.0%
Global Equity	789	0	0.0%	20.0	809	40.2%	1,105	55%	-297	-14.8%
<i>Boston Partners</i>	<i>144</i>	<i>0</i>	<i>0.0%</i>		<i>144</i>	<i>7.2%</i>	<i>161</i>	<i>8%</i>	<i>-16</i>	<i>-0.8%</i>
<i>Manulife</i>	<i>148</i>	<i>0</i>	<i>0.0%</i>	<i>-10.0</i>	<i>138</i>	<i>6.9%</i>	<i>161</i>	<i>8%</i>	<i>-23</i>	<i>-1.1%</i>
<i>Invesco (OFI)</i>	<i>142</i>	<i>0</i>	<i>0.0%</i>		<i>142</i>	<i>7.1%</i>	<i>161</i>	<i>8%</i>	<i>-19</i>	<i>-0.9%</i>
<i>Walter Scott</i>	<i>150</i>	<i>0</i>	<i>0.0%</i>	<i>-10.0</i>	<i>140</i>	<i>7.0%</i>	<i>161</i>	<i>8%</i>	<i>-20</i>	<i>-1.0%</i>
<i>Northern Trust ACWI IMI Index</i>	<i>204</i>	<i>0</i>	<i>0.0%</i>		<i>204</i>	<i>10.1%</i>	<i>301</i>	<i>15%</i>	<i>-98</i>	<i>-4.9%</i>
<i>Eastern Shore US Small Cap</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>	<i>40.0</i>	<i>40</i>	<i>2.0%</i>	<i>80</i>	<i>4%</i>	<i>-40</i>	<i>-2.0%</i>
<i>Future International Small Cap Mandate</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>		<i>0</i>	<i>0.0%</i>	<i>80</i>	<i>4%</i>	<i>-80</i>	<i>-4.0%</i>
<i>Russell Transition</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>		<i>0</i>	<i>0.0%</i>	<i>0</i>	<i>0%</i>	<i>0</i>	<i>0.0%</i>
Emerging Markets Equity	71	0	0.0%	20.0	91	4.5%	100	5%	-10	-0.5%
Private Equity*	191	-46	-23.8%		146	7.3%	100	5%	45	2.3%
Fixed Income	594	0	0.0%	-40.0	554	27.5%	502	25%	51	2.5%
Cash	125	0	0.0%	-60.0	65	3.2%	60	3%	5	0.2%
ST Investment Grade Bonds	186	0	0.0%		186	9.2%	121	6%	65	3.2%
Investment Grade Bonds	77	0	0.0%		77	3.8%	80	4%	-4	-0.2%
Bank Loans	76	0	0.0%		76	3.8%	80	4%	-5	-0.2%
High Yield Bonds	77	0	0.0%		77	3.8%	80	4%	-3	-0.2%
Emerging Markets Debt	47	0	0.0%	20.0	67	3.4%	80	4%	-13	-0.6%
Private Debt*	6	0	0.0%		6	0.3%	0	0%	6	0.3%
Real Assets*	411	0	0.0%	0.0	411	20.4%	201	10%	210	10.4%
Real Estate*	236	0	0.0%		236	11.8%	100	5%	136	6.8%
Natural Resources*	125	0	0.0%		125	6.2%	100	5%	25	1.2%
Infrastructure*	49	0	0.0%		49	2.4%	0	0%	49	2.4%
Total	2,055	-46	-2.2%	0.0	2,010	100.0%	2,010	100%	0	0.0%
Safety Reserve ~\$162M=18 mo net CF	311	0	0.0%	-60.0	251	12.5%	181	9%	70	3.5%
*Private Mkt. Assets w/NAV Discount	608	-46	-7.5%	0.0	562	28.0%	301	15%	261	13.0%

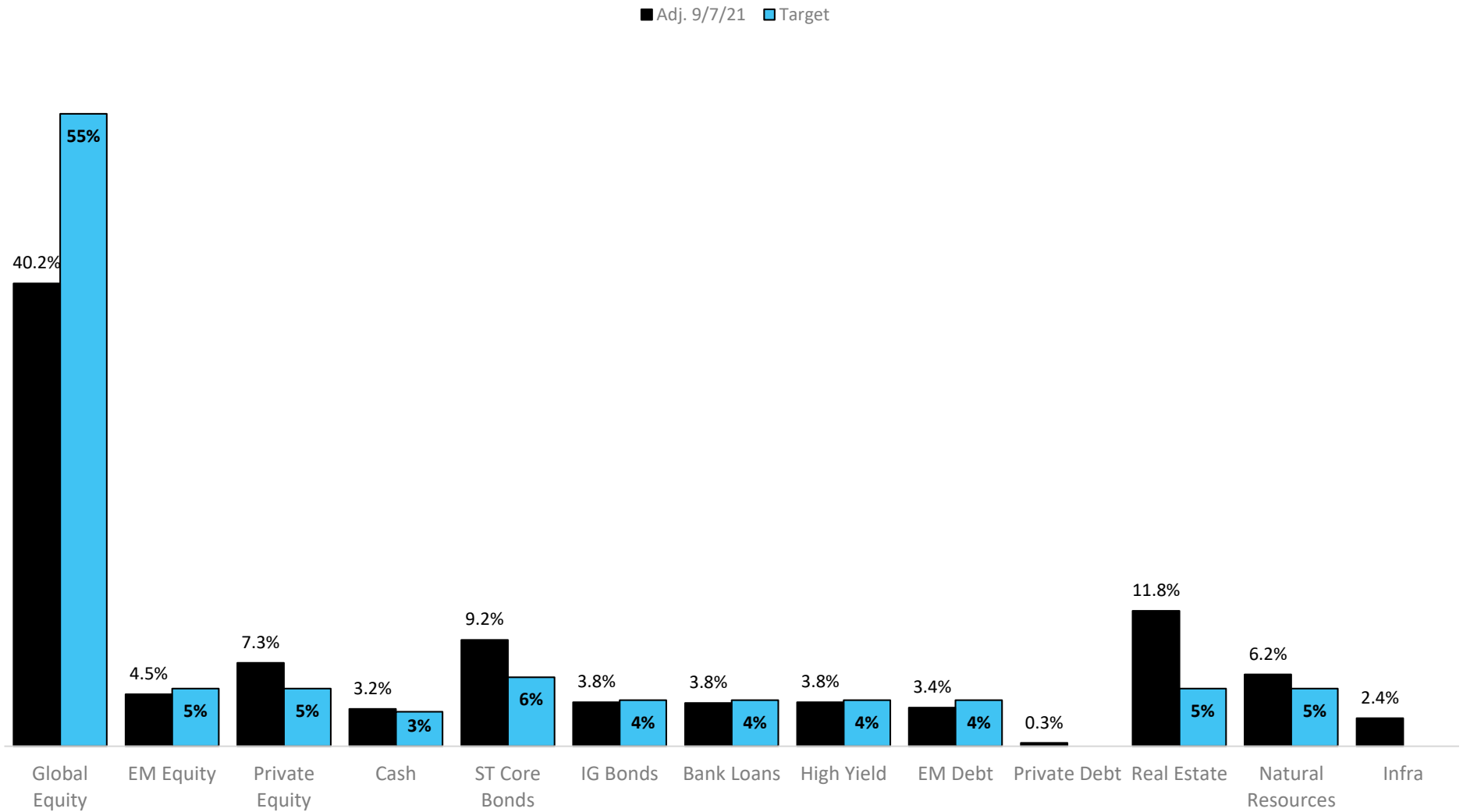
Source: Preliminary JP Morgan Custodial Data, Staff Estimates and Calculations

Individual target percentages for Global Equity managers are expected targets based on increase in allocation to 55%. Will be reviewed by IAC in September.

Numbers may not foot due to rounding

Adjusted Asset Allocation – Actual vs Target (Post Rebalancing)

In this view staff adjusts reported private market values to roughly estimate the impact of events that have not yet been recognized.



Asset Class Returns – JPM Guide to the Markets

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD	2006 - 2020	
																Ann.	Vol.
REITs 35.1%	EM Equity 39.8%	Fixed Income 5.2%	EM Equity 79.0%	REITs 27.9%	REITs 8.3%	REITs 19.7%	Small Cap 38.8%	REITs 28.0%	REITs 2.8%	Small Cap 21.3%	EM Equity 37.8%	Cash 1.8%	Large Cap 31.5%	Small Cap 20.0%	REITs 28.6%	Large Cap 9.9%	EM Equity 23.3%
EM Equity 32.6%	Comdty. 16.2%	Cash 1.8%	High Yield 59.4%	Small Cap 26.9%	Fixed Income 7.8%	High Yield 19.6%	Large Cap 32.4%	Large Cap 13.7%	Large Cap 1.4%	High Yield 14.3%	DM Equity 25.6%	Fixed Income 0.0%	REITs 28.7%	EM Equity 18.7%	Comdty. 23.3%	Small Cap 8.9%	REITs 23.1%
DM Equity 26.9%	DM Equity 11.6%	Asset Alloc. -25.4%	DM Equity 32.5%	EM Equity 19.2%	High Yield 3.1%	EM Equity 18.6%	DM Equity 23.3%	Fixed Income 6.0%	Fixed Income 0.5%	Large Cap 12.0%	Large Cap 21.8%	REITs -4.0%	Small Cap 25.5%	Large Cap 18.4%	Large Cap 21.7%	High Yield 7.5%	Small Cap 22.6%
Small Cap 18.4%	Asset Alloc. 7.1%	High Yield -26.9%	REITs 28.0%	Comdty. 16.8%	Large Cap 2.1%	DM Equity 17.9%	Asset Alloc. 14.9%	Asset Alloc. 5.2%	Cash 0.0%	Comdty. 11.8%	Small Cap 14.6%	High Yield -4.1%	DM Equity 22.7%	Asset Alloc. 10.6%	Small Cap 15.4%	REITs 7.1%	DM Equity 19.1%
Large Cap 15.8%	Fixed Income 7.0%	Small Cap -33.8%	Small Cap 27.2%	Large Cap 15.1%	Cash 0.1%	Small Cap 16.3%	High Yield 7.3%	Small Cap 4.9%	DM Equity -0.4%	EM Equity 11.6%	Asset Alloc. 14.6%	Large Cap -4.4%	Asset Alloc. 19.5%	DM Equity 8.3%	DM Equity 12.0%	EM Equity 6.9%	Comdty. 18.8%
Asset Alloc. 15.0%	Large Cap 5.5%	Comdty. -35.6%	Large Cap 26.5%	High Yield 14.8%	Asset Alloc. -0.7%	Large Cap 16.0%	REITs 2.9%	Cash 0.0%	Asset Alloc. -2.0%	REITs 8.6%	High Yield 10.4%	Asset Alloc. -5.8%	EM Equity 18.9%	Fixed Income 7.5%	Asset Alloc. 11.4%	Asset Alloc. 6.7%	Large Cap 16.7%
High Yield 13.7%	Cash 4.8%	Large Cap -37.0%	Asset Alloc. 25.0%	Asset Alloc. 13.3%	Small Cap -4.2%	Asset Alloc. 12.2%	Cash 0.0%	High Yield 0.0%	High Yield -2.7%	Asset Alloc. 8.3%	REITs 8.7%	Small Cap -11.0%	High Yield 12.6%	High Yield 7.0%	High Yield 2.7%	DM Equity 5.0%	High Yield 12.2%
Cash 4.8%	High Yield 3.2%	REITs -37.7%	Comdty. 18.9%	DM Equity 8.2%	DM Equity -11.7%	Fixed Income 4.2%	Fixed Income -2.0%	EM Equity -1.8%	Small Cap -4.4%	Fixed Income 2.6%	Fixed Income 3.5%	Comdty. -11.2%	Fixed Income 8.7%	Cash 0.5%	EM Equity 1.2%	Fixed Income 4.5%	Asset Alloc. 11.8%
Fixed Income 4.3%	Small Cap -1.6%	DM Equity -43.1%	Fixed Income 5.9%	Fixed Income 6.5%	Comdty. -13.3%	Cash 0.1%	EM Equity -2.3%	DM Equity -4.5%	EM Equity -14.6%	DM Equity 1.5%	Comdty. 1.7%	DM Equity -13.4%	Comdty. 7.7%	Comdty. -3.1%	Cash 0.0%	Cash 1.2%	Fixed Income 3.2%
Comdty. 2.1%	REITs -15.7%	EM Equity -53.2%	Cash 0.1%	Cash 0.1%	EM Equity -18.2%	Comdty. -1.1%	Comdty. -9.5%	Comdty. -17.0%	Comdty. -24.7%	Cash 0.3%	Cash 0.8%	EM Equity -14.2%	Cash 2.2%	REITs -5.1%	Fixed Income -0.6%	Comdty. -4.0%	Cash 0.8%

Source: Barclays, Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management.
 Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Bloomberg Barclays Global HY Index, Fixed Income: Bloomberg Barclays US Aggregate, REITs: NAREIT Equity REIT Index, Cash: Bloomberg Barclays 1-3m Treasury. The "Asset Allocation" portfolio assumes the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Bloomberg Barclays US Aggregate, 5% in the Bloomberg Barclays 1-3m Treasury, 5% in the Bloomberg Barclays Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Balanced portfolio assumes annual rebalancing. Annualized (Ann.) return and volatility (Vol.) represents period from 12/31/05 to 12/31/20. Please see disclosure page at end for index definitions. All data represents total return for stated period. The "Asset Allocation" portfolio is for illustrative purposes only. Past performance is not indicative of future returns.
 Guide to the Markets – U.S. Data are as of August 30, 2021.



Investment Initiatives – 2021 Quarterly Plan

Q3 2021

- International Small Cap Search & RFP
- Global Equity Structure Review to IAC

Q4 2021

- Possible International Small Cap Manager Selection
- Global Equity Structure Review to Board

2021 Board Investment Review Plan*

Staff presentations targeted for 15 minutes, Manager presentations 30 – 60 minutes.

January ✓	• Real Estate Reviews: Vista 7, King's Harbor, & Museum Twr.
February ✓	• Real Estate: Clarion Presentation
March ✓	• Natural Resources: Staff Portfolio Review - Forest Investment Associates and BTG Pactual
April ✓	• Real Estate: AEW Presentation
May ✓	• Natural Resources: Hancock Presentation
August ✓	• Infrastructure: Staff review of AIRRO and JPM Maritime
September	• Staff review of Public Fixed Income managers
October	• Staff review of Public Equity managers
November	• Staff review of Private Equity and Debt

*Presentation schedule is subject to change.



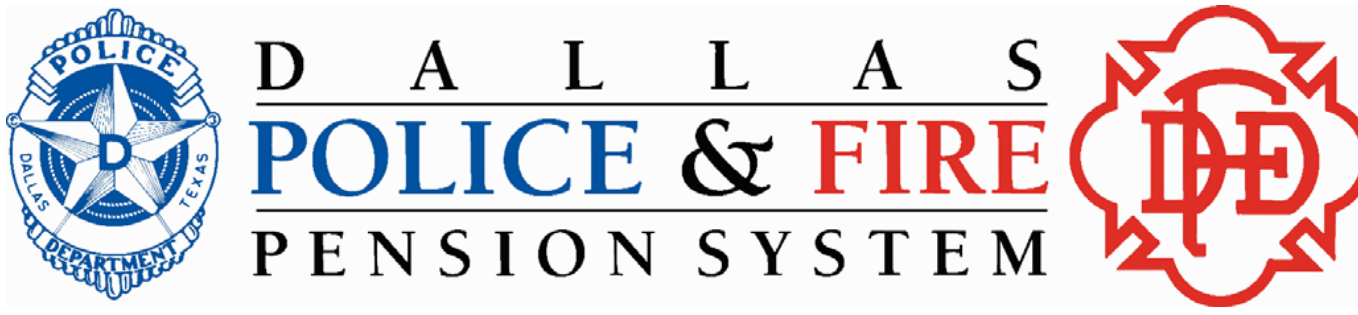
DISCUSSION SHEET

ITEM #C8

Topic: **Public Fixed Income Portfolio Review**

Discussion: Staff will provide an overview of DFPF public fixed income investments.

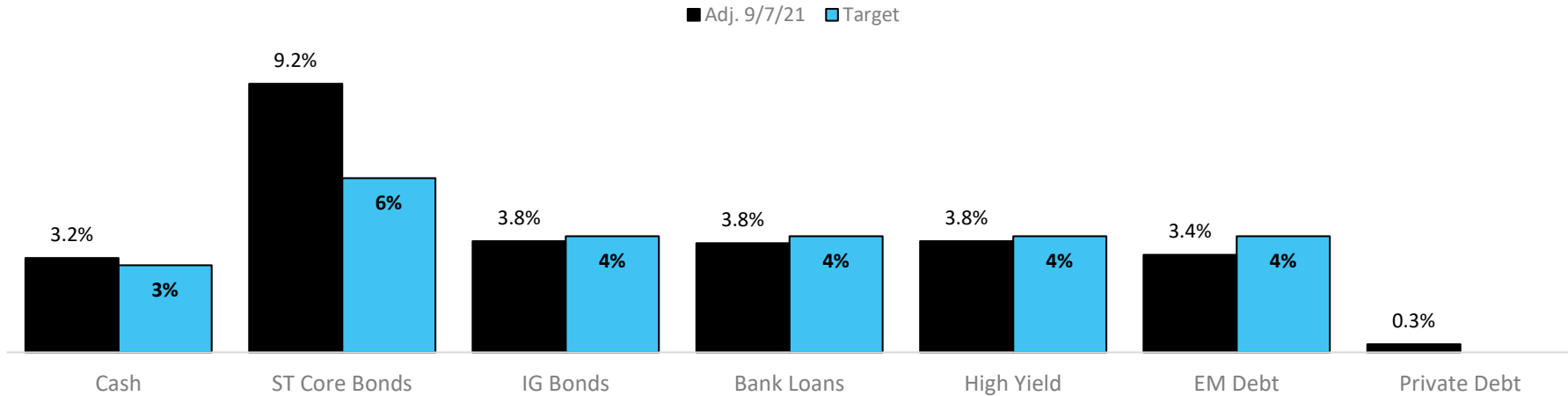
Regular Board Meeting – Thursday, September 9, 2021



Public Fixed Income Portfolio Review

September 9th, 2021

Public Fixed Income Structure Overview



DPFP Asset Allocation Using Stressed Private Market Values	Adj. 9/7/21		Target		Variance	
	\$ mil.	%	\$ mil.	%	\$ mil.	%
Fixed Income	554	27.5%	502	25.0%	51	2.5%
Cash	65	3.2%	60	3.0%	5	0.2%
ST Investment Grade Bonds	186	9.2%	121	6.0%	65	3.2%
Investment Grade Bonds	77	3.8%	80	4.0%	-4	-0.2%
Bank Loans	76	3.8%	80	4.0%	-5	-0.2%
High Yield Bonds	77	3.8%	80	4.0%	-3	-0.2%
Emerging Markets Debt	67	3.4%	80	4.0%	-13	-0.6%
Private Debt	6	0.3%	0	0.0%	6	0.3%

Source: JP Morgan Custodial Data, Staff Estimates and Calculations
 Numbers may not foot due to rounding

Data is preliminary

Public Fixed Income Structure Overview

Fixed Income Portfolio Milestones

- June 2017: Funded investment grade bond allocation with **Income Research and Management (IR+M)**.
- Dec 2017: Transition from Ashmore hard dollar and local currency strategies into **Ashmore's Blended Emerging Market Debt** portfolio.
- Apr 2018: Approved Safety Reserve allocation and added \$198MM to **IR+M** in 2Q 2018.
- Oct 2018: Approved new asset allocation which included a new 4% allocation to investment grade bonds.
- Dec 2018: Approved **Vanguard (VBTIX)** as the interim investment grade bond investment.
- Feb 2020: Initiated full redemption from **Loomis Bank Loans** and reinvested in **Pacific Asset Management (PAM)** Bank Loans, making PAM the sole Bank Loan Manager.
- Jul 2020: Fully redeemed from **Vanguard (VBTIX)** and funded **Longfellow Investment Grade Core Bonds** with \$60.5M.
- Nov 2020: Fully redeemed from **Brandywine Global Bonds** with intent to eliminate the Global Bond Allocation at the next asset allocation study in 2021.
- Dec 2020: Switched the Loomis Full Discretion High Yield investment to the more benchmark aware **Loomis US High Yield** strategy.
- Jul 2021: Initiated monthly redemptions from **IR+M** until the end of 2021 in compliance with the new asset allocation.
- Jul 2021: Reduced the **Safety Reserve** from 15% to 9% and eliminated the 4% **Global Bond** allocation.

Portfolio Performance & Characteristics

Performance (Net) as of 6/30/21	QTD	YTD	1 Yr	3 Yrs	5 Yrs	SI (Dec-10)
DPFP Public Fixed Income	1.5%	0.7%	6.3%	4.2%	5.3%	5.1%
DPFP Public Fixed Income (ex IR+M)	2.5%	1.1%	10.0%	4.6%	5.6%	5.3%
Barclays Multiverse Total Return	1.4%	-3.0%	3.2%	4.3%	2.6%	2.5%

Performance provided by Meketa – excludes 3% cash allocation

as of 6/30/21	IR+M (ST Investment Grade)	Longfellow (Investment Grade)	Pacific Asset (Bank Loans)	Loomis (US High Yield)	Ashmore (EM Debt)	DPFP Fixed Income (Total)	Barclays Multiverse TR (Benchmark)
Yield to Maturity	0.6%	1.6%	4.5%	4.6%	8.0%	2.1%	1.3%
Average Quality	AA-	A+	B	B+	BB	BBB	AA
Weighted Average Maturity	2.2	7.4	5.0	6.8	12.8	4.7	10.9
Average Duration	1.9	5.8	0.3	3.7	7.6	3.0	7.3

Metrics provided by Meketa and Investment Managers

Income Research + Management

Short Term Investment Grade Bonds

Market Value (7/31/2021):	\$201,865,423	Inception Date:	June 2017
Investment Structure:	Separate Account	Benchmark:	Barclays US 1-3Yr Aggregate Bond Index

Philosophy

- Relative-value orientation with a duration neutral approach that emphasizes bottom-up security selection
- Careful security selection and risk management provide superior results over the long term
- Allocations to securitized bonds can add both high-quality diversification and yield to a portfolio

Process

- The Investment Committee sets sector allocation targets and the sector teams focus on security selection
- Research analysts perform security analysis on structure, price and credit (quality, liquidity and management)
- Portfolio construction is handled by the portfolio strategy team who takes into consideration the sector positioning, security selection, investment guidelines and cash flow needs of the portfolio
- Risk team conducts market risk evaluation, accesses relative value and monitors exposure to sectors & issuers

Organization

- Headquartered in Boston with consistent management since inception (1987)
- 181 employees and 54 investment professionals with average tenure of 15yrs for investment committee
- 61 employee shareholders who own 90.2% of the company
- \$97B of assets focused exclusively on US fixed income management

Income Research + Management – Short Term Investment Grade Bonds

Performance (7/31/21)	QTD	YTD	1 Yr	3 Yrs	SI (6/2017)
IR + M (Net)	0.22%	0.42%	1.20%	3.59%	2.70%
Barclays US 1-3Yr Aggregate	0.17%	0.15%	0.38%	2.91%	2.17%
Excess Return	0.05%	0.27%	0.82%	0.68%	0.53%

Max Drawdown	Mar-20	Feb-18	Nov-16	2008
IR + M	-1.12%	-0.11%	-0.41%	-3.44%
Barclays US 1-3Yr Aggregate	0.40%	-0.09%	-0.41%	-0.63%

Performance Expectations

- Stable returns with low volatility, consistent with the fund mandate and liquidity role in DFPF portfolio
- Long-term outperformance driven by overweight of high-quality spread sectors relative to the benchmark
- Modest underperformance during risk-off/spread widening

Performance Commentary

- During 1Q20 the fund had a drawdown of 1.12% vs 0.00% for the index, which we expected given the overweight to spread sectors. The fund still provided ample liquidity for DFPF to rebalance into equities during this time.
- Positioning remained underweight US Treasuries & overweight spread sectors since the COVID drawdown, which resulted in outperformance throughout the recovery. This is consistent with expectations.
- For the remainder of the year, DFPF is redeeming \$16M each month to reach the new target allocation of 6.0%.

Longfellow Investment Management

Investment Grade Bonds

Market Value (7/31/2021):	\$76,778,718	Inception Date:	July 2020
Investment Structure:	Separate Account	Benchmark:	Barclays US Aggregate Index

Philosophy

- Defensive in nature as they believe upside is limited while downside risk can be substantial in fixed income
- Goal is to provide attractive risk-adjusted returns while maintaining modest tracking error and volatility
- Diversified across sectors, industries and maturities to provide risk mitigation
- Takes advantage of their smaller firm and AUM size to participate more actively in the market

Process

- Bottom-up approach that identifying undervalued sectors and mispriced securities of the fixed income market
- Attributes yield spread to various risk elements (credit, call, event, and liquidity) to identify opportunities
- Constructs portfolio with attractive bonds & diversifies by sector/maturity with duration +/- 10% of the index
- Use top-down quantitative models to perform stress tests and quantify portfolio, issuer, and sector level risks

Organization

- Headquartered in Boston and founded in 1986
- 47 employees & 25 investment professionals with average tenure of 8yrs with the firm & 20yrs in the industry
- 100% employee and 62% women owned firm with 13 principles having a majority ownership
- \$17.2B of firm assets with \$16.1B focused on fixed income & \$3.6B in investment grade core, its largest strategy

Longfellow Investment Management - Investment Grade Bonds

Performance (7/31/21)	QTD	YTD	1 Yr	SI (7/2020)
Longfellow IG Core (Net)	0.94%	0.21%	1.08%	1.08%
Barclays US Aggregate	1.12%	-0.50%	-0.70%	-0.70%
Excess Return	-0.18%	0.71%	1.78%	1.78%

Max Drawdown*	Mar-20	Nov-16	Jun-13	Oct-08
Longfellow IG Core	-2.33%	-1.98%	-1.44%	-2.10%
Barclays US Aggregate	-0.59%	-2.37%	-1.55%	-2.36%

*Composite drawdown values

Performance Expectations

- Stable modest excess returns and low volatility, consistent with fund mandate & risk mitigation role in our portfolio
- Long-term outperformance driven by overweight of high-quality spread sectors relative to the benchmark
- Modest underperformance during risk-off/spread widening
- Sector allocation & security selection have accounted for 70%-80% of excess returns while duration & yield curve positioning have accounted for 20%-30%

Performance Commentary

- Portfolio was funded over the course of 2020
- Performance since inception has been positive relative to the benchmark due to a higher spread sector allocation during a market recovery

Pacific Asset Management

Bank Loans

Market Value (7/31/2021):	\$75,505,033	Inception Date:	July 2017
Investment Structure:	Commingled Fund (Biweekly Liquidity)	Benchmark:	Credit Suisse Leveraged Loan Index

Philosophy

- Targets the largest and most liquid US bank loans using bottom-up credit analysis focused on capital preservation and downside risk
- Minimize defaults and distress by investing in companies with large margins of safety
- High conviction approach that leads to a selective portfolio of 80-150 issuers

Process

- Begins with top-down research looking at macro and sector trends to determine portfolio weights
- Then portfolio managers and research teams screen the US Bank Loans universe for size and liquidity
- Bottom-up credit analysis is incorporated and looks at loan structure, capital structure and credit
- Securities are then selected and brought to the investment committee for approval
- Risk is monitored through attribution analysis as a quantitative check on the results of the decision making

Organization

- Headquartered in Newport Beach, CA & founded in 2007 as a subsidiary of Pacific Life Insurance
- \$17B institutional fixed income firm with \$5.5B in bank loans (largest and longest tenured asset class)
- 22 investment professionals with an average firm tenure of 10 years; employees own 30% of the equity
- No investment professional departures and 3 additions to the team in the last 3 years

Pacific Asset Management – Bank Loans

Performance (7/31/21)	QTD	YTD	1 Yr	3 Yrs	SI (7/2017)
Pacific Asset (Net)	0.04%	3.11%	7.49%	4.02%	4.20%
Credit Suisse Leveraged Loan	0.00%	3.48%	9.60%	4.07%	4.34%
Excess Return	0.04%	-0.37%	-2.11%	-0.05%	-0.14%

Max Drawdown	20-Mar	18-Dec	16-Feb	14-Dec
Pacific Asset	-9.56%	-3.20%	-1.11%	-1.25%
Credit Suisse Leveraged Loan	-13.65%	-3.09%	-4.70%	-1.10%

Composite used for metrics prior to inception

Performance Expectations

- Outperformance in down markets and underperformance in up markets due to the quality bias of the strategy
- Low number of defaults as a result of investing in large firms with high margins of safety

Performance Commentary

- Fund outperformed as we expected during the COVID drawdown as a higher quality portfolio provided protection
- DFPF initiated full redemption from Loomis Bank Loans (higher yielding strategy) and redeployed to Pacific in Feb 2020, which benefitted overall fixed income performance
- Fund has underperformed as we expected throughout the recovery as the higher quality portfolio lagged its benchmark

Loomis Sayles

US High Yield

Market Value (7/31/2021):	\$76,689,704	Inception Date:	December 2020
Investment Structure:	Separate Account	Benchmark:	BBG High Yield 2% Issuer Capped
Philosophy			
<ul style="list-style-type: none"> • Uses top down and bottom-up research to make investment decisions • Believe 80% of high yield returns are driven by coupon income, 20% by capital appreciation • Contrarian value-driven approach with a strong emphasis on security selection to avoid defaults 			
Process			
<ul style="list-style-type: none"> • Starts with top-down research from the macro, US Yield Curve and global asset allocation teams • Then goes to product teams who apply long-term themes & sector strategies for security selection • Portfolio managers manage the strategy by monitoring sector targets, security selection, quality & duration • Overall risk is monitored through sensitivity testing of rates, spreads, currencies and concentration 			
Organization			
<ul style="list-style-type: none"> • Headquartered in Boston & founded in 1926; wholly owned by Natixis Global Asset Management • 786 employees and 343 investment professionals with an average tenure of 10.5 years • \$360.3B firmwide assets; \$254.7B in fixed income (\$3.1B with the USHY team) and \$105.6B in equities • DFPF has been invested with Loomis Sayles High Yield Strategy since 1998 • In Dec 2020, DFPF transitioned from a Full Discretion strategy to a US benchmark aware strategy 			

Loomis Sayles – US High Yield

Performance (7/31/21)	QTD	YTD	SI (12/31/20)
Loomis US HY (Net)	0.10%	3.24%	3.24%
BBG High Yield 2% Issuer Capped	0.38%	4.00%	4.00%
Excess Return	-0.28%	-0.76%	-0.76%

Max Drawdown	Mar-20	Dec -18	Jan-16	Sep-11
Loomis US HY (Net)	-12.10%	-5.06%	-8.06%	-7.95%
BBG High Yield 2% Issuer Capped	-12.71%	-4.54%	-9.65%	-7.18%

Performance Expectations

- Benchmark aware and should track benchmark closely with sector and issue selection generating alpha
- Objective is to outperform the Bloomberg Barclays US Corporate High Yield 2% Issuer Capped Index by 100-125 basis points annualized on a gross of fee basis over a market cycle
- Volatility is slightly lower than the benchmark in this strategy

Performance Commentary

- Transition from Loomis Full Discretion High Yield portfolio to US High Yield went smoothly on 12/31/2020
- All the assets were transferred over and carefully transitioned to reflect the USHY composite throughout 1Q21
- Performance YTD has trailed the benchmark slightly due to a longer duration position during the rate rise in 1Q21

Ashmore

Emerging Markets Blended Debt

Market Value (7/31/2021):	\$47,143,079	Inception Date:	December 2017
Investment Structure:	Commingled Fund (Biweekly Liquidity)	Benchmark:	50% JP Morgan Emerging Market Bond Global Diversified 25% JP Morgan Emerging Local Markets Plus 25% JP Morgan Government Bond Emerging Markets

Philosophy

- Strategy allocates across EM external debt, local currency debt, corporate debt and rates
- Predominately top-down focused on macro-economics, politics, interest rates and currencies
- Value driven to exploit a lack of quality information in EM and liquidity obsessed for risk monitoring

Process

- Investment committee meets weekly to review macros, countries, corporate credit, FX and theme allocation
- Portfolio construction considers investment committee outlooks, absolute & relative value, liquidity, concentration, portfolio limits/mandates and funding availability for each trade idea
- Risk is monitored through frequent portfolio sensitivity analysis of G7 duration, credit risk, FX risk, liquidity, yield curve, concentration and correlation

Organization

- Headquartered in London, founded in 1992 as part of the Australia and New Zealand Banking Group
- Became independent in 1999 and listed on the London exchange (FTSE: ASHM) in 2006
- 311 employees and 99 investment professionals with average tenure of 18 years for investment committee
- Mark Coombs (founder) owns 35% and other employees own 7%. Remaining ownership resides on the FTSE.
- Jan Dehn (Global Head of Research) will retire in 4Q21 and be replaced by Gustavo Medeiros (Deputy-Head of Research)
- \$94.4B of assets all in emerging markets with \$72.5B in EM Debt (\$23.4B in EM Blended Debt)

Ashmore - Emerging Markets Blended Debt

Performance (7/31/21)	QTD	YTD	1 Yr	3 Yrs	SI (12/2017)
Ashmore EM Blended Debt (Net)	-1.88%	-3.26%	4.75%	2.25%	1.14%
50% JPM EMBI GD / 25% JPM ELMI+ / 25% JPM GBIEM GD	-0.03%	-1.35%	3.92%	4.28%	2.89%
Excess Return	-1.85%	-1.91%	0.83%	-2.03%	-1.75%

Max Drawdown	Mar-20	2018	Jan-16	2013/14	4Q '08
Ashmore EM Blended Debt	-21.48%	-9.17%	-16.46%	-10.27%	-23.70%
50% JPM EMBI GD / 25% JPM ELMI+ / 25% JPM GBIEM GD	-12.66%	-8.08%	-11.82%	-9.71%	-19.69%

Composite used for metrics prior to inception

Performance Expectations

- The fund's value style buys into cheapness at times of market dislocation when value is at its greatest
- Therefore, underperformance is expected during market sell offs where price volatility remains high, followed by outperformance through the subsequent market recovery

Performance Commentary

- Significant relative underperformance (-882bps) during the COVID drawdown attributed to overweights in South America (Argentina, Ecuador, Brazil) and Lebanon. These countries, that Ashmore believes are attractively priced, were especially hit hard during the COVID drawdown.
- Ashmore followed their value philosophy & added modestly to hard hit positions during the downturn. Relative outperformance during the recovery has been positive (+1260bps). Continued outperformance is expected in stable to positive markets.



DISCUSSION SHEET

ITEM #C9

Topic: **Second Quarter 2021 Investment Performance Analysis and First Quarter 2021 Private Markets & Real Assets Review**

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.

Attendees: Leandro Festino, Managing Principal - Meketa Investment Group
Aaron Lally, Principal - Meketa Investment Group

Discussion: Meketa and Investment Staff will review investment performance.

Regular Board Meeting – Thursday, September 9, 2021



Dallas Police & Fire Pension System

June 30, 2021

Fund Evaluation Report



Dallas Police & Fire Pension System

Agenda

Agenda

1. Executive Summary
2. Performance Update As of June 30, 2021
3. Disclaimer, Glossary, and Notes

Executive Summary

As of June 30, 2021



Dallas Police and Fire Pension System

Executive Summary

DPFP 2Q21 Flash Summary

Category	Results	Notes
Total Fund Performance Return	Positive	3.4%
Performance vs. Policy Index	Underperformed	3.4% vs. 4.6%
Performance vs. Peers ¹	Underperformed	3.4% vs. 5.2% median (99th percentile in peer group)
Asset Allocation vs. Targets	Detractive	Underweight Global Equity and overweight Real Estate hurt
Safety Reserve Exposure	Sufficient	\$303 million (approximately 15%)
Public Active Management	Positive	6/10 public managers beat benchmarks
DPFP Public Markets vs. 60/40 ²	Underperformed	4.7% vs. 4.8%
DPFP Public Markets vs. Peers	Underperformed	4.7% vs. 5.2% median (75th percentile in peer group)
Compliance with Targets	Yes	All asset classes within ranges ³

¹ InvestorForce Public DB \$1-5 billion net.

² Performance of Total Fund excluding private market investments relative to a 60% MSCI ACWI IMI Net/40% Barclays Global Aggregate Index.

³ Global bond allocation of zero previously approved by Board. Target to Global Bonds was being eliminated as of 6/30/2021.



Dallas Police and Fire Pension System

Executive Summary

DPFP Trailing One-Year Flash Summary

Category	Results	Notes
Total Fund Performance Return	Positive	9.0%
Performance vs. Policy Index	Underperformed	9.0% vs. 24.2%
Performance vs. Peers ¹	Underperformed	9.0% vs. 27.0% median (99th percentile in peer group)
Asset Allocation vs. Targets	Detracted	Overweight Real Estate and underweight Public Equities hurt
Public Active Management	Positive	5/9 public managers beat benchmarks
DPFP Public Markets vs. 60/40 ²	Underperformed	24.1% vs. 24.5%
DPFP Public Markets vs. Peers	Underperformed	24.1% vs. 27.0% median (88th percentile in peer group)

¹ InvestorForce Public DB \$1-5 billion net.

² Performance of Total Fund excluding private market investments relative to a 60% MSCI ACWI IMI Net/40% Barclays Global Aggregate Index.



Dallas Police and Fire Pension System

Executive Summary

DPFP Trailing Three-Year Flash Summary

Category	Results	Notes
Total Fund Performance Return	Positive	5.4%
Performance vs. Policy Index	Underperformed	5.4% vs. 9.5%
Performance vs. Peers ¹	Underperformed	5.4% vs. 10.4% median (99th percentile in peer group)
Public Active Management	Detractive	3 of 8 public managers beat their benchmarks
DPFP Public Markets vs. 60/40 ²	Underperformed	10.4% vs. 10.5%
DPFP Public Markets vs. Peers	Matched	10.4% vs. 10.4% median (60th percentile in peer group)

¹ InvestorForce Public DB \$1-5 billion net.

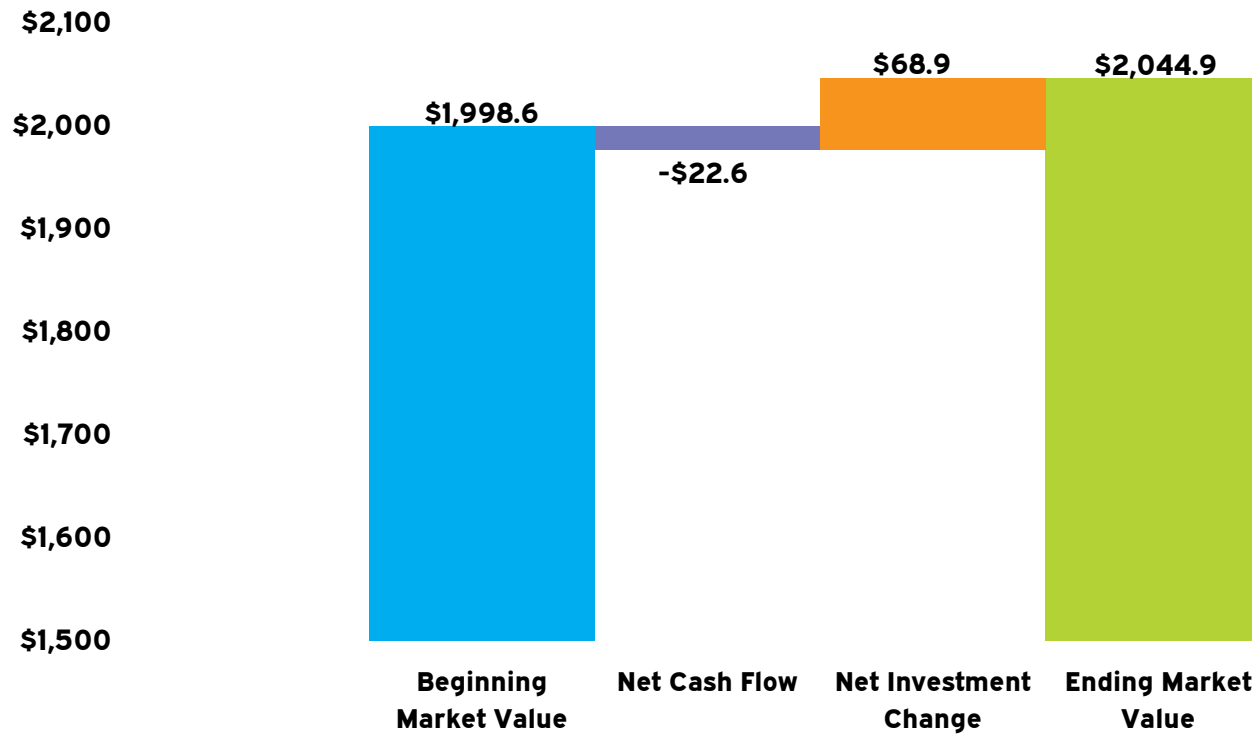
² Performance of Total Fund excluding private market investments relative to a 60% MSCI ACWI IMI Net/40% Barclays Global Aggregate Index.



Dallas Police and Fire Pension System

Executive Summary

Quarterly Change in Market Value

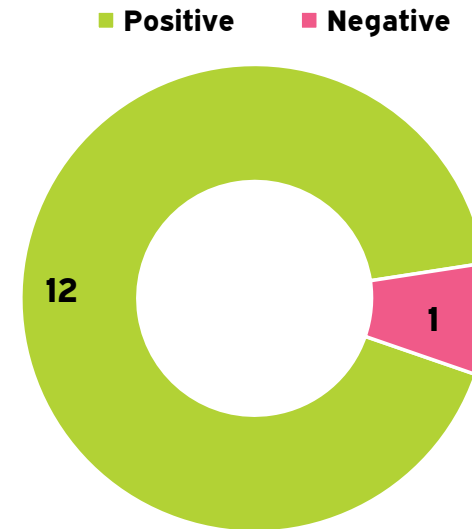


- Total market value increased due to positive investment performance.



Quarterly Absolute Performance

Asset Classes Dollar Gain/ Loss¹ Top Three and Bottom Three Asset Class Absolute Performance



- In absolute terms, Global Equity appreciated the most, gaining approximately \$52.7 million in market value.
- Natural Resources was the only asset class that produced a negative return in the quarter.

¹ Estimated Gain/ Loss calculated by multiplying beginning market value by quarterly performance.



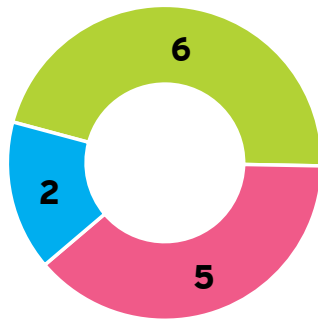
Dallas Police and Fire Pension System

Executive Summary

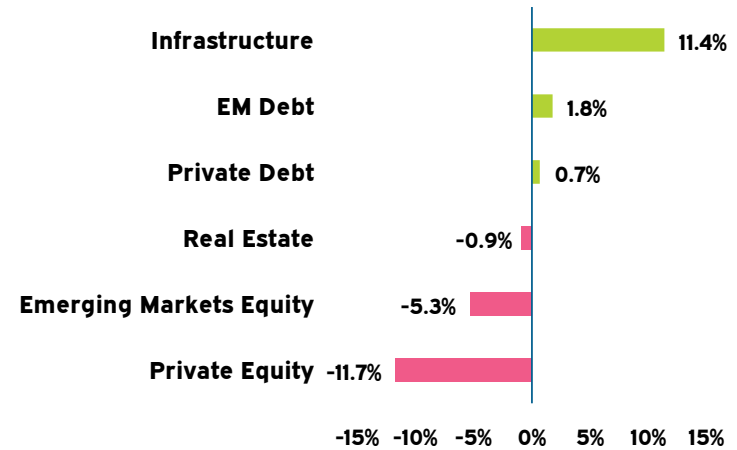
Quarterly Relative Performance

Asset Classes vs Benchmarks

■ Beat ■ Trailed ■ Matched



Asset Classes vs Benchmarks
Top Three and Bottom Three



- Six of thirteen asset classes delivered positive relative performance versus respective benchmarks.
- Infrastructure, EM Debt, and Private Debt had the best relative performance for the quarter.
- Over the quarter, Private Equity had the worst relative performance.

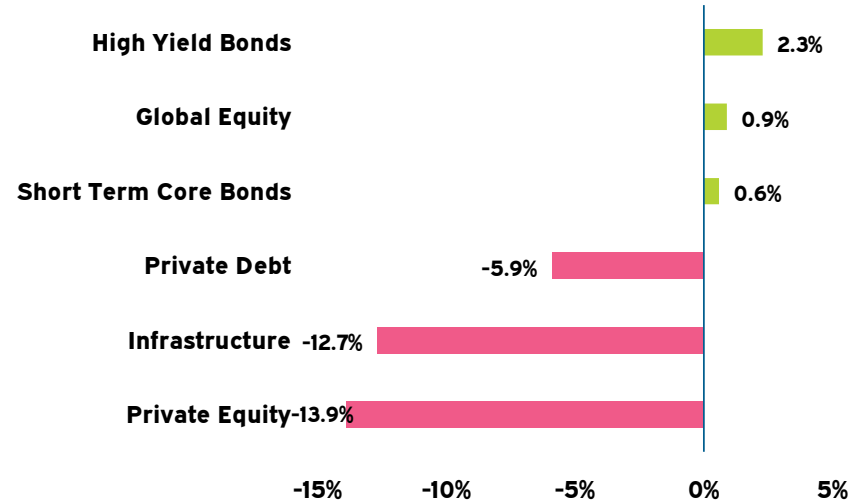
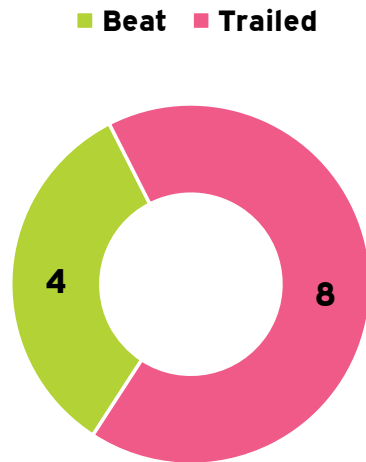


Dallas Police and Fire Pension System

Executive Summary

Trailing 3 Year Relative Performance

Asset Classes vs Benchmarks¹ Asset Classes vs Benchmarks
Top Three and Bottom Three



- Four of the twelve asset classes with trailing three-year return history delivered positive relative performance versus respective benchmarks.
- Private Equity, Infrastructure, and Private Debt had the worst relative performance over the trailing three-year period.

¹ Analysis excludes asset classes with a performance history of less than three years.

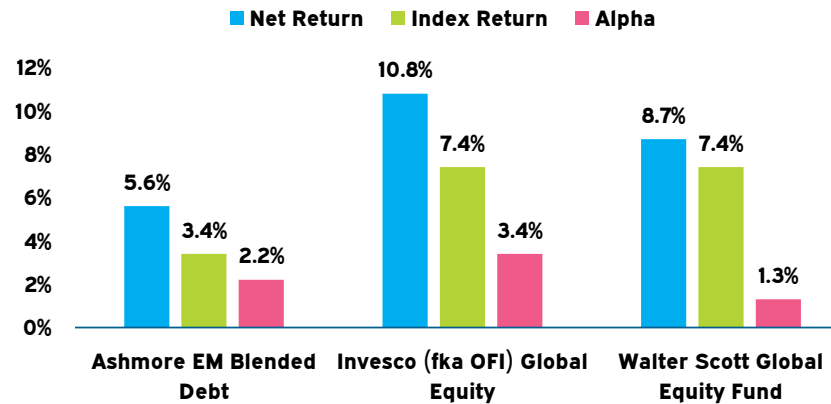


Dallas Police and Fire Pension System

Executive Summary

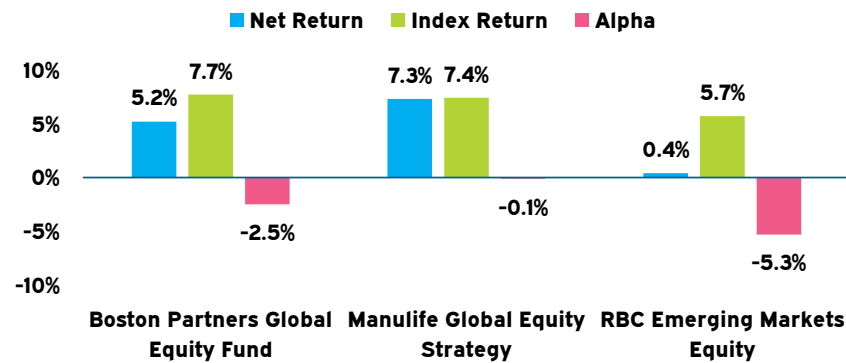
Public Manager Alpha

Top Three
Outperformers in
Quarter



\$313 million
Combined exposure

Bottom Three
Underperformers in
Quarter



\$352 million
Combined exposure



Dallas Police and Fire Pension System

Executive Summary

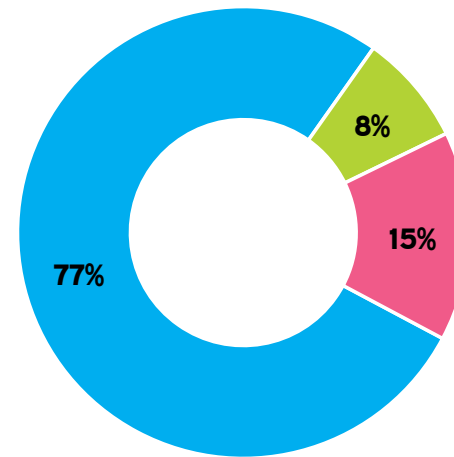
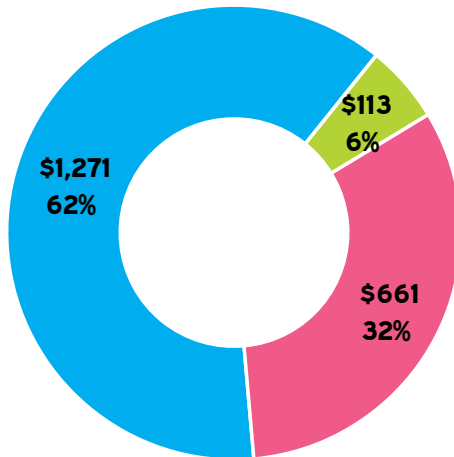
Liquidity Exposure

As of June 30, 2021

Exposure (\$ mm)	Targets
------------------	---------

■ Daily or Weekly ■ Monthly ■ Illiquid

■ Daily or Weekly ■ Monthly ■ Illiquid



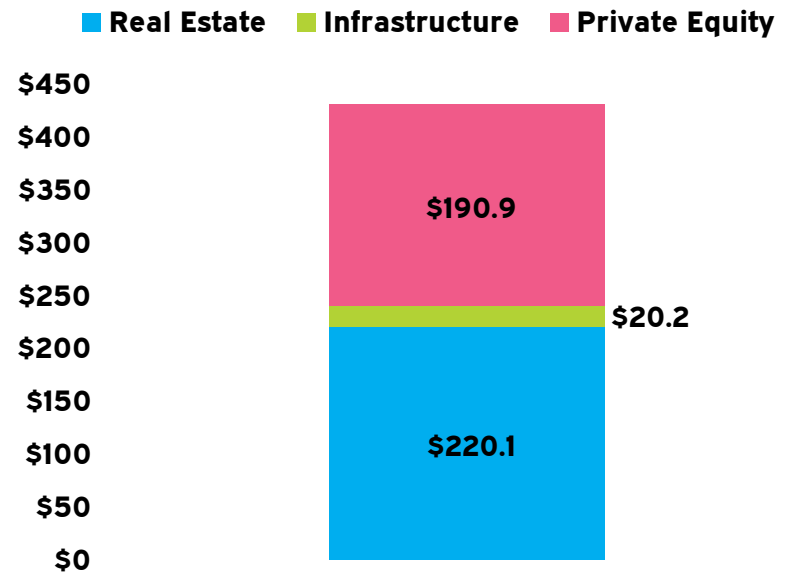
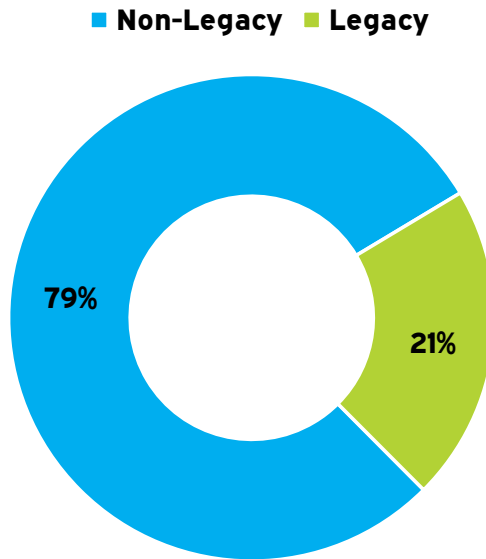
- Approximately 32% of the System’s assets are illiquid versus 15% of the target allocation.



Dallas Police and Fire Pension System

Executive Summary

Legacy Assets



\$431 million
Net Asset Value of Legacy Assets



Dallas Police and Fire Pension System

Executive Summary

Quarterly Manager Scorecard

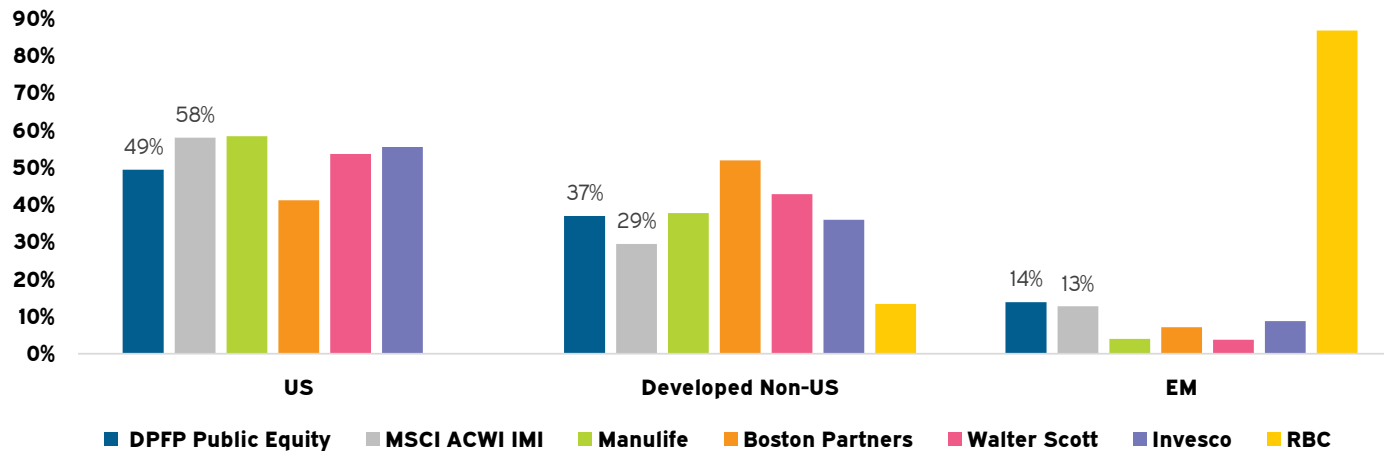
	1 Yr Outperformance vs. Benchmark	3 Yr Outperformance vs. Benchmark	5 Yr Outperformance vs. Benchmark
Boston Partners Global Equity Fund	Yes	No	NA
Manulife Global Equity Strategy	No	No	NA
Invesco (fka OFI) Global Equity	Yes	Yes	Yes
Walter Scott Global Equity Fund	No	Yes	Yes
NT ACWI Index IMI	NA	NA	NA
RBC Emerging Markets Equity	No	No	NA
IR&M 1-3 Year Strategy	Yes	Yes	NA
Longfellow Core Fixed Income	Yes	NA	NA
Pacific Asset Management Corporate (Bank) Loans	No	No	NA
Loomis US High Yield Fund	NA	NA	NA
Ashmore EM Blended Debt	Yes	No	NA



Dallas Police and Fire Pension System

Executive Summary

	Market Value (\$)	% of DPFP Public Equity (%)	US (%)	Developed Non-US (%)	EM (%)
NT MSCI ACWI IMI	188,182,895.00	23	58	29	13
Manulife	144,335,988.00	18	58	38	4
Boston Partners	143,396,719.00	18	41	52	7
Walter Scott	140,469,894.00	17	54	43	4
Invesco	134,823,095.00	17	55	36	9
RBC	64,047,656.00	8	0	13	87
Total DPFP Public Equity	815,256,247.00	100	49	37	14
<i>MSCI ACWI IMI</i>			<i>58</i>	<i>29</i>	<i>13</i>



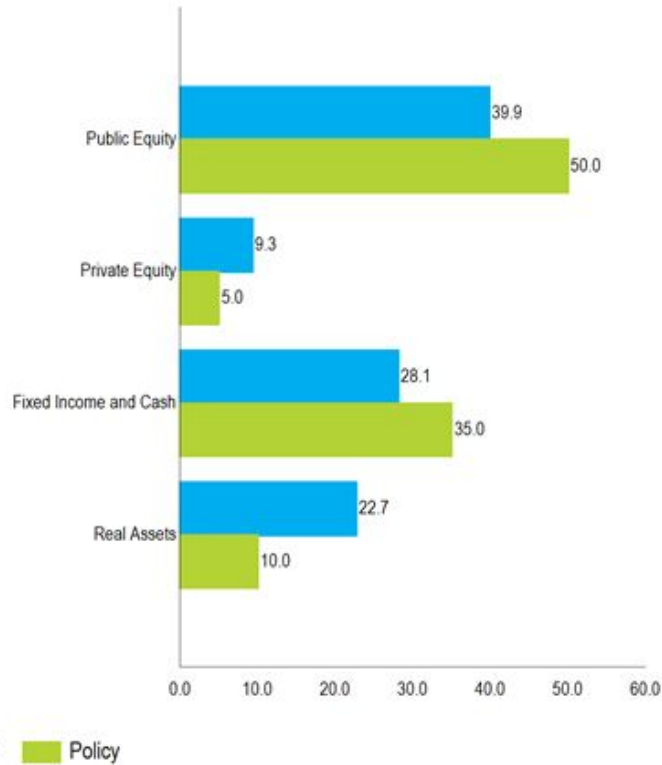
Performance Update **As of June 30, 2021**



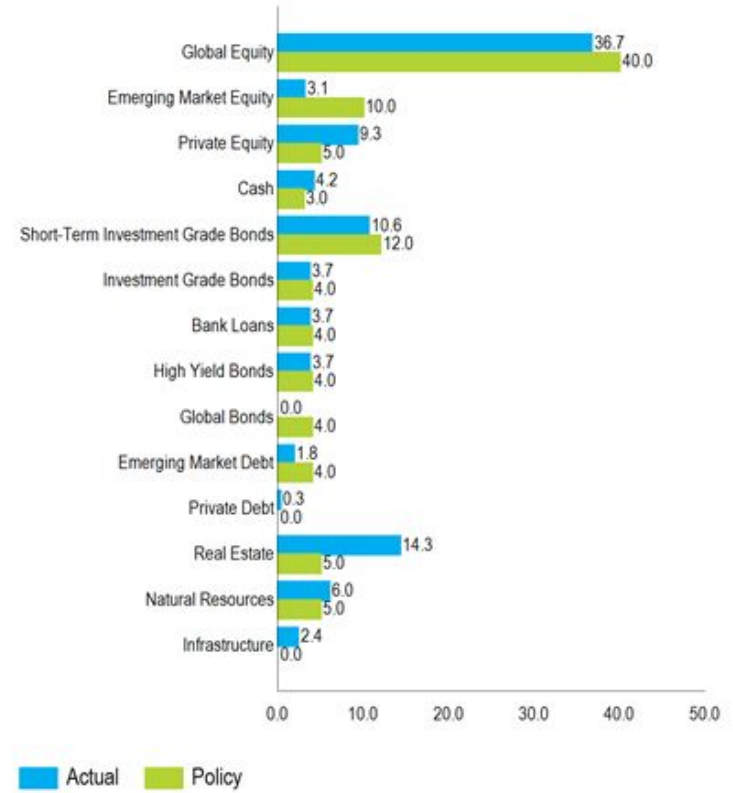
Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

**Asset Category
Actual vs Target Allocation (%)
As of June 30, 2021**



**Asset Classes Actual vs Target Allocation (%)
As of June 30, 2021**





Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Allocation vs. Targets and Policy					
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
Equity	\$1,005,940,490	49%	55%		
Global Equity	\$751,208,591	37%	40%	22% - 48%	Yes
Emerging Market Equity	\$64,047,656	3%	10%	3% - 12%	Yes
Private Equity	\$190,684,243	9%	5%		
Fixed Income and Cash	\$574,943,750	28%	35%		
Cash	\$85,752,047	4%	3%	0% - 5%	Yes
Short-Term Investment Grade Bonds	\$217,387,027	11%	12%	5% - 15%	Yes
Investment Grade Bonds	\$76,066,817	4%	4%	2% - 6%	Yes
Global Bonds	--	--	4%	2% - 6%	No
Bank Loans	\$75,478,019	4%	4%	2% - 6%	Yes
High Yield Bonds	\$76,597,771	4%	4%	2% - 6%	Yes
Emerging Market Debt	\$37,829,747	2%	4%	0% - 6%	Yes
Private Debt	\$5,832,322	0%	0%		
Real Assets	\$464,063,682	23%	10%		
Real Estate	\$292,123,825	14%	5%		
Natural Resources	\$123,326,613	6%	5%		
Infrastructure	\$48,613,244	2%	0%		
Total	\$2,044,947,922	100%	100%		

As of 6/30/2021 the Safety Reserve exposure was approximately \$303.1 million (15%).

Global equity consists of 20% US, 14% developed non-US, and 3% emerging markets.

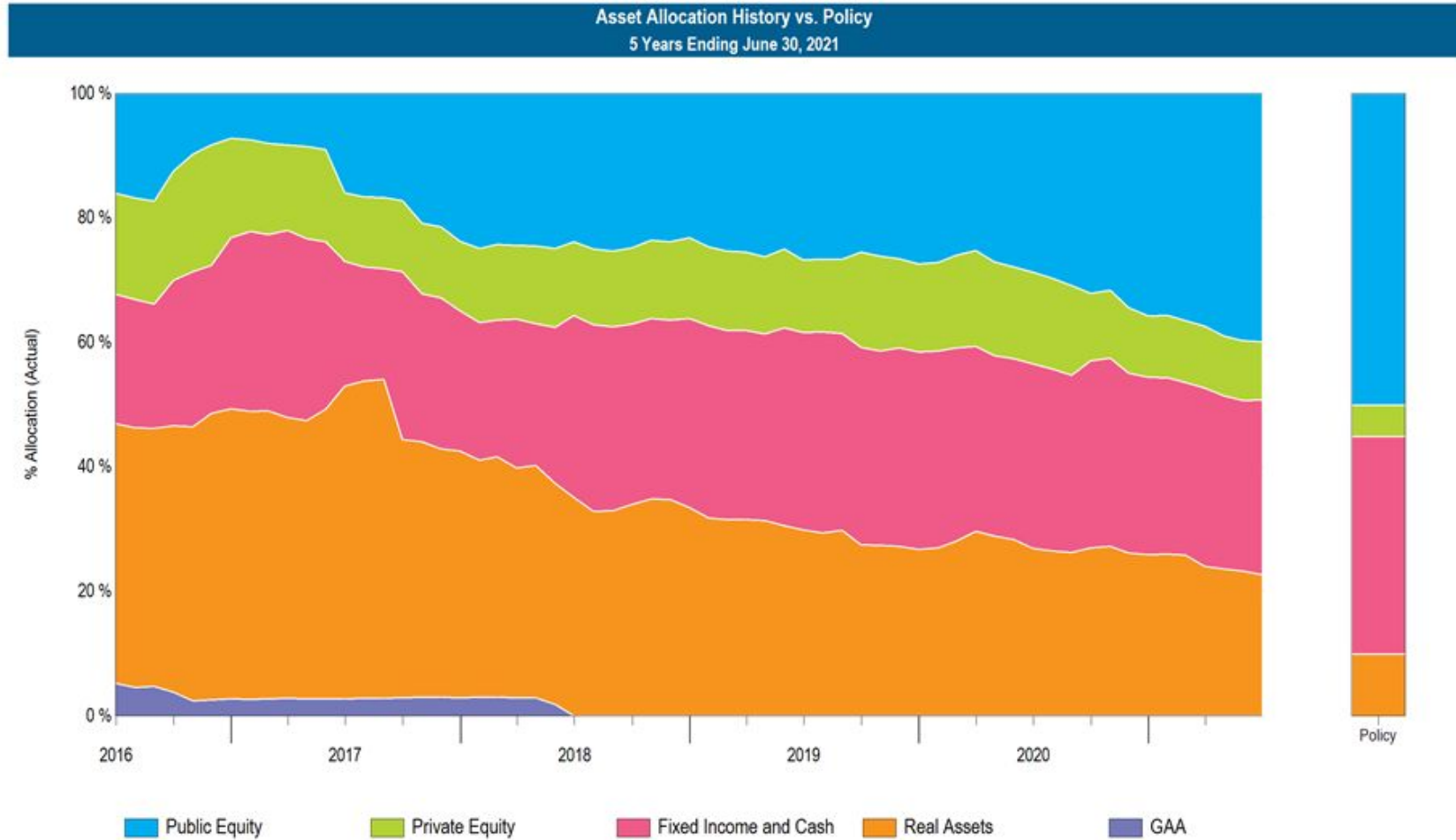
Allocation of zero previously approved by Board. Target to Global Bonds is being eliminated.

Rebalancing ranges are not established for illiquid assets (Private Equity, Private Debt, Natural Resources, Infrastructure and Real Estate).



Dallas Police & Fire Pension System

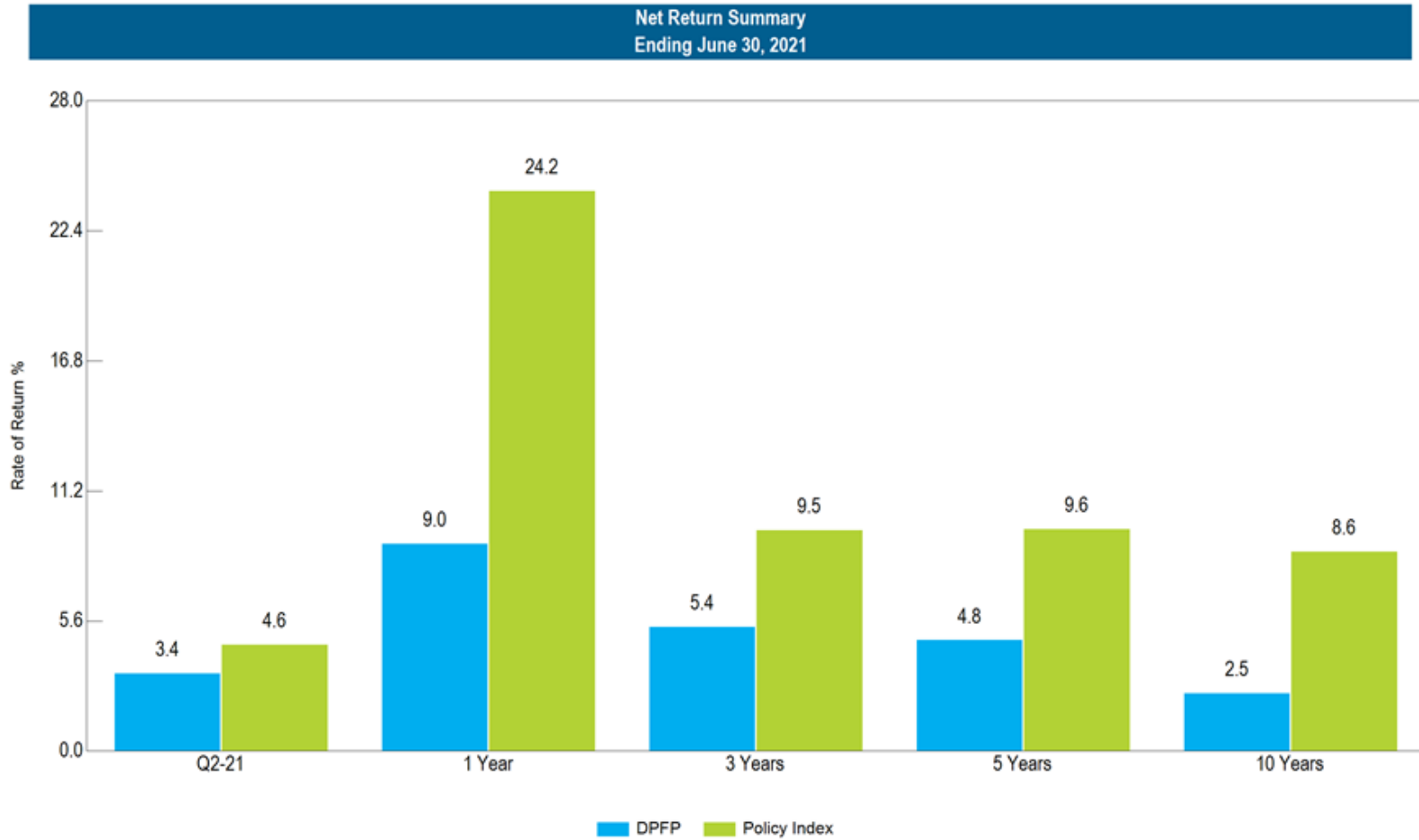
DPFP | As of June 30, 2021





Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

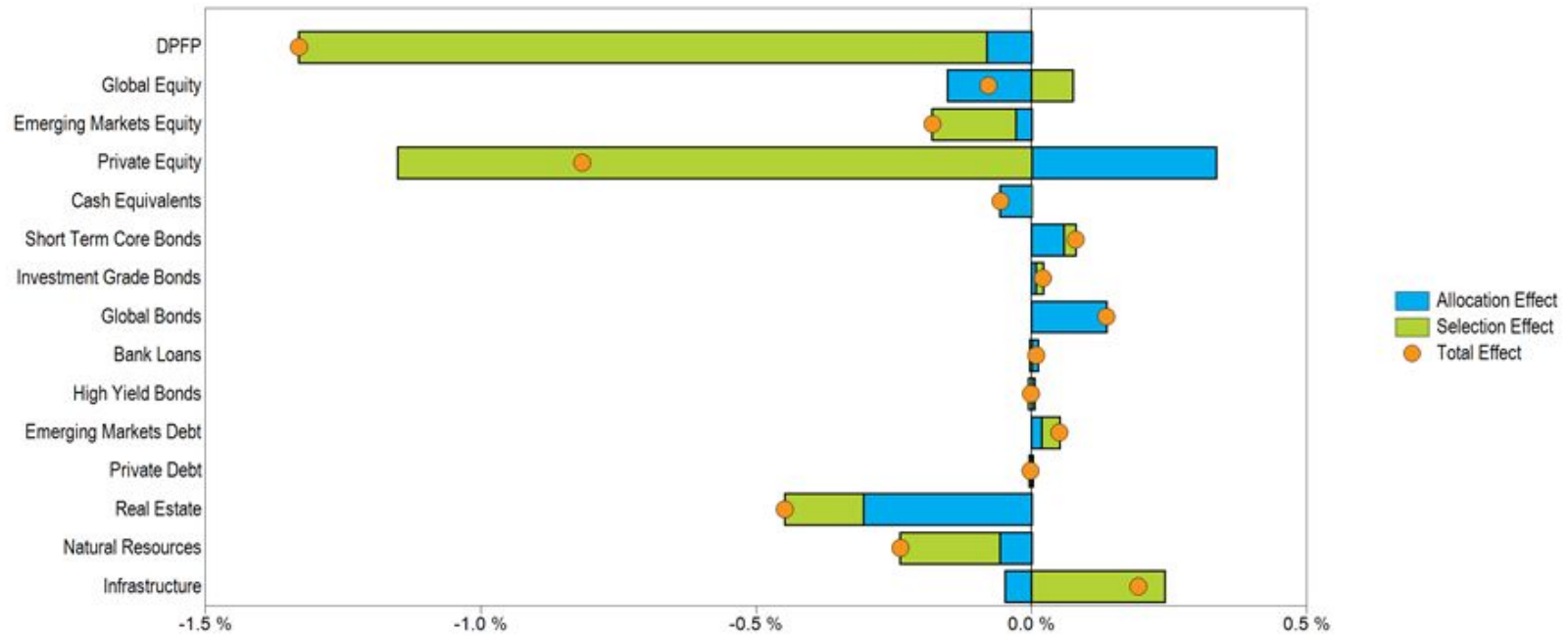




Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Attribution Effects vs. Policy Benchmark
3 Months Ending June 30, 2021



Attribution Summary 3 Months Ending June 30, 2021						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total	3.4%	4.7%	-1.3%	-1.2%	-0.1%	-1.3%

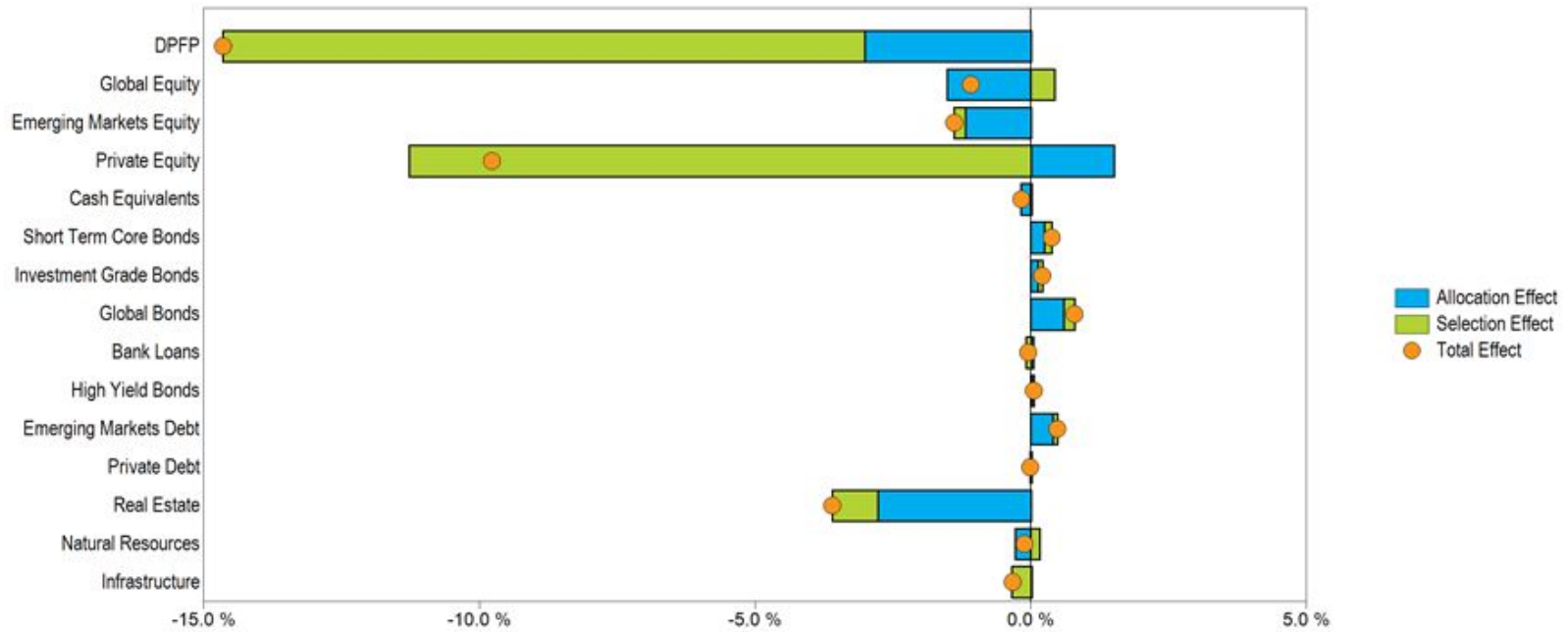
The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Attribution Effects vs. Policy Benchmark
1 Year Ending June 30, 2021



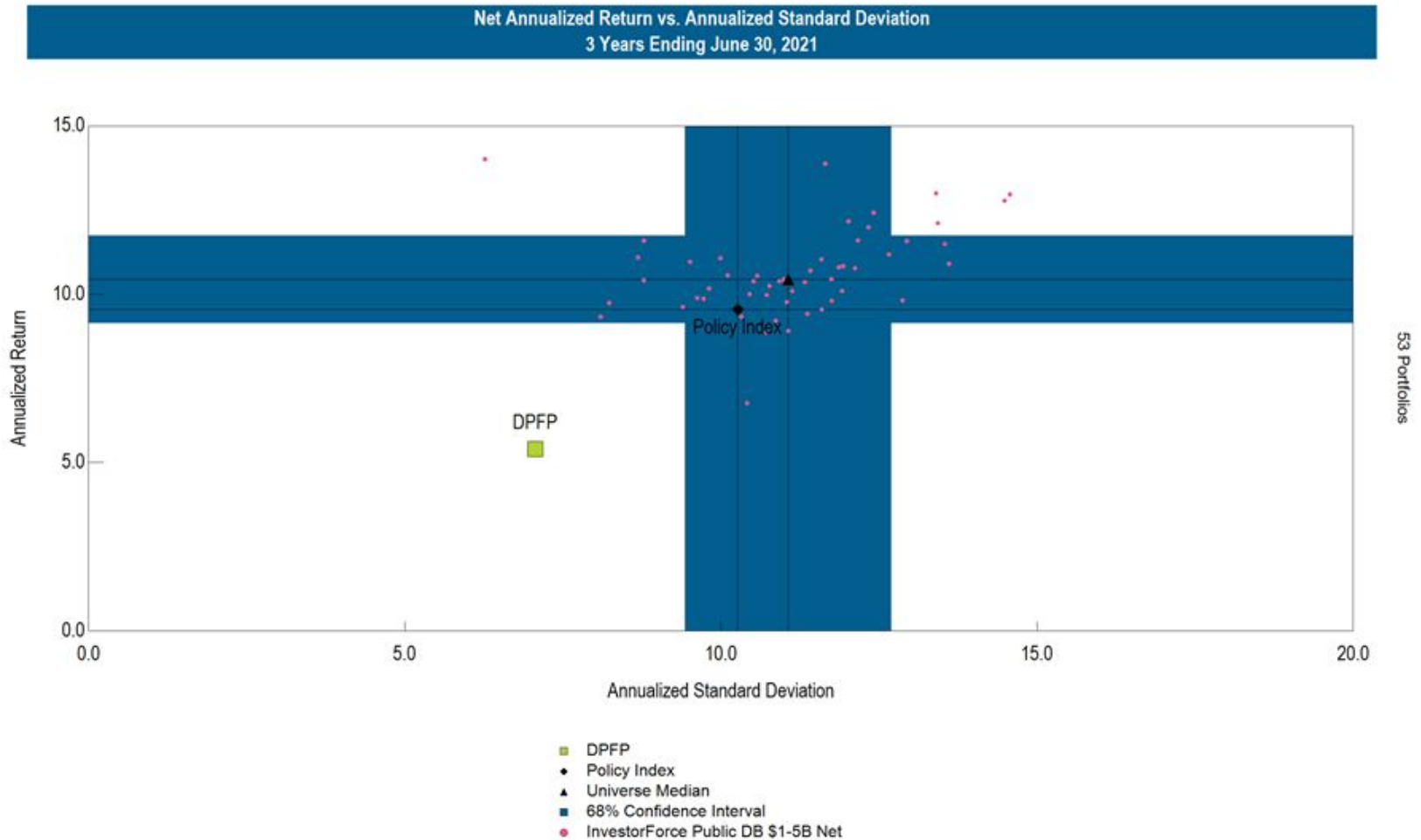
Attribution Summary 1 Year Ending June 30, 2021						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total	9.0%	23.6%	-14.6%	-11.6%	-3.0%	-14.6%

The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021





Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Total Fund Correlation Matrix
1 Year Ending June 30, 2021

	DPFP	Policy Index	60% MSCI ACWI/40% Barclays Global Agg
DPFP	1.00	-	-
Policy Index	0.85	1.00	-
60% MSCI ACWI/40% Barclays Global Agg	0.85	0.98	1.00

Total Fund Correlation Matrix
3 Years Ending June 30, 2021

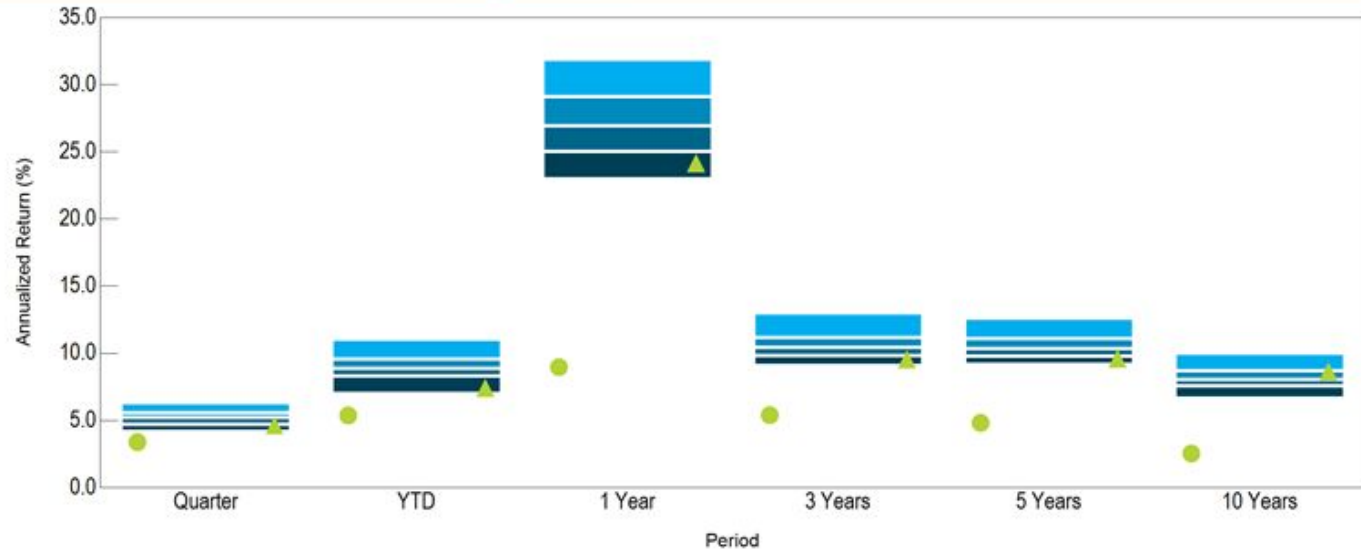
	DPFP	Policy Index	60% MSCI ACWI/40% Barclays Global Agg
DPFP	1.00	-	-
Policy Index	0.81	1.00	-
60% MSCI ACWI/40% Barclays Global Agg	0.82	0.99	1.00



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Total Plan vs. InvestorForce Public DB \$1-5B Net Accounts
Ending June 30, 2021



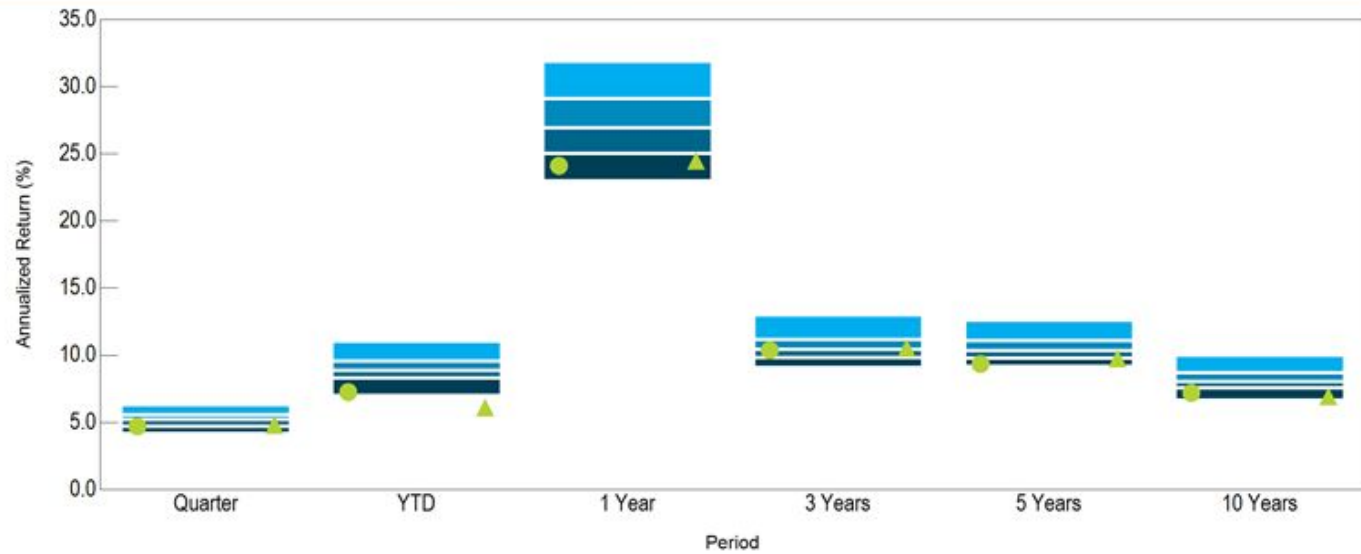
	Return (Rank)													
	Quarter		YTD		1 Year		3 Years		5 Years		10 Years			
5th Percentile	6.3		11.0		31.9		13.0		12.6		10.0			
25th Percentile	5.6		9.6		29.1		11.2		11.1		8.7			
Median	5.2		8.9		27.0		10.4		10.4		8.1			
75th Percentile	4.7		8.3		25.1		9.9		9.8		7.6			
95th Percentile	4.2		7.0		23.0		9.1		9.2		6.7			
# of Portfolios	53		53		53		53		53		49			
● DPFP	3.4	(99)	5.4	(99)	9.0	(99)	5.4	(99)	4.8	(99)	2.5	(99)		
▲ Policy Index	4.6	(80)	7.4	(91)	24.2	(87)	9.5	(87)	9.6	(86)	8.6	(27)		



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Total Plan ex Privates vs. InvestorForce Public DB \$1-5B Net Accounts
As of June 30, 2021



	Return (Rank)													
	Quarter		YTD		1 Year		3 Years		5 Years		10 Years			
5th Percentile	6.3		11.0		31.9		13.0		12.6		10.0			
25th Percentile	5.6		9.6		29.1		11.2		11.1		8.7			
Median	5.2		8.9		27.0		10.4		10.4		8.1			
75th Percentile	4.7		8.3		25.1		9.9		9.8		7.6			
95th Percentile	4.2		7.0		23.0		9.1		9.2		6.7			
# of Portfolios	53		53		53		53		53		49			
● Total Fund ex Privates	4.7	(76)	7.3	(93)	24.1	(88)	10.4	(60)	9.3	(93)	7.2	(87)		
▲ 60% MSCI ACWI IMI Net/40% Barclays Global	4.8	(74)	6.1	(99)	24.5	(83)	10.5	(47)	9.8	(80)	6.9	(94)		



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Asset Class Performance Summary (Net)										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
DPFP	2,044,947,922	100.0	3.4	5.4	9.0	5.4	4.8	2.5	5.9	Jun-96
<i>Policy Index</i>			4.6	7.4	24.2	9.5	9.6	8.6	--	Jun-96
<i>Allocation Index</i>			4.8	8.5	21.6	9.0	9.0	8.3	7.6	Jun-96
<i>Total Fund Ex Private Markets</i>			4.7	7.3	24.1	10.4	9.3	7.2	6.1	Jun-96
<i>60% MSCI ACWI IMI Net/40% Barclays Global Aggregate Index</i>			4.8	6.1	24.5	10.5	9.8	6.9	6.6	Jun-96
Global Equity	751,208,591	36.7	7.7	13.1	41.2	15.1	15.6	10.8	8.1	Jul-06
<i>MSCI ACWI IMI Net USD</i>			7.2	12.7	40.9	14.2	14.5	9.9	7.7	Jul-06
Emerging Markets Equity	64,047,656	3.1	0.4	3.5	34.0	11.2	--	--	7.2	Jan-18
<i>MSCI Emerging Market IMI Net</i>			5.7	8.7	43.2	11.4	12.9	4.3	7.5	Jan-18
Private Equity	190,684,243	9.3	0.2	0.2	-33.1	-5.4	-10.5	-6.0	-1.8	Oct-05
<i>Cambridge Associates US All PE (1 Qtr Lag)</i>			11.9	26.6	53.8	19.3	18.2	14.7	14.0	Oct-05
Cash Equivalents	85,752,047	4.2	0.0	0.1	0.2	1.4	1.2	--	1.2	Apr-15
<i>91 Day T-Bills</i>			0.0	0.0	0.1	1.2	1.1	0.6	0.9	Apr-15
Short Term Core Bonds	217,387,027	10.6	0.2	0.2	1.4	3.5	--	--	2.7	Jun-17
<i>Bloomberg US Aggregate 1-3 Yr TR</i>			0.1	0.0	0.4	2.9	1.8	1.5	2.2	Jun-17
Investment Grade Bonds	76,066,817	3.7	2.2	-0.8	1.4	--	--	--	4.4	Oct-19
<i>Bloomberg US Aggregate TR</i>			1.8	-1.6	-0.3	5.3	3.0	3.4	3.4	Oct-19
Bank Loans	75,478,019	3.7	1.4	2.9	9.5	4.4	5.4	--	4.3	Jan-14
<i>Credit Suisse Leveraged Loan</i>			1.4	3.5	11.7	4.4	5.0	--	4.1	Jan-14
High Yield Bonds	76,597,771	3.7	2.6	2.8	16.2	5.1	7.4	5.7	6.3	Dec-10
<i>Bloomberg US Corporate High Yield TR</i>			2.7	3.6	15.4	7.4	7.5	6.7	6.8	Dec-10
Emerging Markets Debt	37,829,747	1.8	5.6	-1.3	12.3	4.1	4.1	2.6	3.3	Dec-10
<i>50% JPM EMBI/50% JPM GBI-EM</i>			3.8	-2.0	7.1	5.5	4.1	3.0	3.5	Dec-10
Private Debt	5,832,322	0.3	3.9	27.8	22.1	3.7	-0.5	--	-0.2	Jan-16
<i>BBgBarc US High Yield+2%</i>			3.2	4.6	17.6	9.6	9.6	8.8	10.6	Jan-16



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Asset Class Performance Summary (Net)										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Real Estate	292,123,825	14.3	0.8	0.2	-1.6	1.0	2.9	-3.4	3.5	Mar-85
<i>NCREIF Property (1-quarter lagged)</i>			1.7	2.9	2.6	4.9	5.8	8.8	7.8	Mar-85
Natural Resources	123,326,613	6.0	-1.9	4.6	6.2	1.2	-0.2	2.8	3.7	Dec-10
<i>NCREIF Farmland Total Return Index 1Q Lag</i>			0.9	2.5	4.1	4.7	5.5	10.2	10.6	Dec-10
Infrastructure	48,613,244	2.4	13.7	15.5	9.1	-7.1	6.6	--	4.1	Jul-12
<i>S&P Global Infrastructure TR USD</i>			2.3	5.4	23.2	5.6	6.2	6.2	7.4	Jul-12

¹ Please see the Appendix for composition of the Custom Benchmarks. ² As of 6/30/2021, the Safety Reserve exposure was approximately \$303.1 million (15%).

³ All private market data is one quarter lagged, unless otherwise noted. ⁴ Lone Star Funds 12/31/2019 valuation used ⁵ Huff Alternative Fund and Huff Energy Fund 9/30/2020 valuation used. ⁶ Museum Tower 12/31/2020 valuation used.



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Trailing Net Performance											
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
DPFP	2,044,947,922	100.0	--	3.4	5.4	9.0	5.4	4.8	2.5	5.9	Jun-96
<i>Policy Index</i>				4.6	7.4	24.2	9.5	9.6	8.6	--	Jun-96
<i>Allocation Index</i>				4.8	8.5	21.6	9.0	9.0	8.3	7.6	Jun-96
<i>Total Fund Ex Private Markets</i>				4.7	7.3	24.1	10.4	9.3	7.2	6.1	Jun-96
<i>60% MSCI ACWI IMI Net/40% Barclays Global Aggregate Index</i>				4.8	6.1	24.5	10.5	9.8	6.9	6.6	Jun-96
<i>InvestorForce Public DB \$1-5B Net Rank</i>				99	99	99	99	99	99	97	Jun-96
Total Equity	1,005,940,490	49.2	49.2	5.7	9.6	15.5	9.8	4.5	5.6	5.7	Dec-10
<i>MSCI ACWI IMI Net USD</i>				7.2	12.7	40.9	14.2	14.5	9.9	9.9	Dec-10
Public Equity	815,256,247	39.9	81.0	7.1	12.2	40.6	15.1	15.4	10.7	8.1	Jul-06
<i>MSCI ACWI IMI Net USD</i>				7.2	12.7	40.9	14.2	14.5	9.9	7.7	Jul-06
<i>eV All Global Equity Net Rank</i>				52	57	47	45	38	41	41	Jul-06
Global Equity	751,208,591	36.7	92.1	7.7	13.1	41.2	15.1	15.6	10.8	8.1	Jul-06
<i>MSCI ACWI IMI Net USD</i>				7.2	12.7	40.9	14.2	14.5	9.9	7.7	Jul-06
<i>eV All Global Equity Net Rank</i>				42	46	45	45	35	39	39	Jul-06
<i>Boston Partners Global Equity Fund</i>	143,396,719	7.0	19.1	5.2	18.9	51.0	10.4	--	--	9.7	Jul-17
<i>MSCI World Net</i>				7.7	13.0	39.0	15.0	14.8	10.7	14.0	Jul-17
<i>MSCI World Value</i>				4.7	14.7	37.9	8.4	9.8	7.6	7.7	Jul-17
<i>eV Global Large Cap Value Eq Net Rank</i>				40	19	25	42	--	--	42	Jul-17
<i>Manulife Global Equity Strategy</i>	144,335,988	7.1	19.2	7.3	14.0	36.2	14.3	--	--	11.2	Jul-17
<i>MSCI ACWI Net</i>				7.4	12.3	39.3	14.6	14.6	9.9	13.6	Jul-17
<i>MSCI ACWI Value NR USD</i>				4.8	14.1	38.4	8.4	9.8	7.0	7.6	Jul-17
<i>eV Global Large Cap Value Eq Net Rank</i>				4	61	73	13	--	--	19	Jul-17

¹ All Private Equity market values are one quarter lagged unless otherwise noted.

² 60% MSCI ACWI IMI Net/40% Barclays Global Aggregate Index composed of 60% MSCI ACWI (Net)/ 40% Barclays Global Aggregate in periods before 2/1/1997.



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Invesco (fka OFI) Global Equity	134,823,095	6.6	17.9	10.8	11.2	44.8	17.4	20.0	12.4	8.9	Oct-07
<i>MSCI ACWI Net</i>				7.4	12.3	39.3	14.6	14.6	9.9	6.3	Oct-07
<i>MSCI ACWI Growth</i>				10.0	10.3	39.7	20.4	19.2	12.7	8.6	Oct-07
<i>eV Global Large Cap Growth Eq Net Rank</i>				23	56	29	84	46	88	55	Oct-07
Walter Scott Global Equity Fund	140,469,894	6.9	18.7	8.7	8.7	33.1	17.1	16.3	11.9	11.5	Dec-09
<i>MSCI ACWI Net</i>				7.4	12.3	39.3	14.6	14.6	9.9	10.2	Dec-09
<i>MSCI ACWI Growth</i>				10.0	10.3	39.7	20.4	19.2	12.7	12.9	Dec-09
<i>eV Global Large Cap Growth Eq Net Rank</i>				57	78	85	85	90	91	89	Dec-09
NT ACWI Index IMI	188,182,895	9.2	25.1	6.8	--	--	--	--	--	6.8	Apr-21
<i>MSCI ACWI IMI Net USD</i>				7.2	12.7	40.9	14.2	14.5	9.9	7.2	Apr-21
Emerging Markets Equity	64,047,656	3.1	7.9	0.4	3.5	34.0	11.2	--	--	7.2	Jan-18
<i>MSCI Emerging Market IMI Net</i>				5.7	8.7	43.2	11.4	12.9	4.3	7.5	Jan-18
<i>eV Emg Mkts Equity Net Rank</i>				98	90	90	52	--	--	55	Jan-18
RBC Emerging Markets Equity	64,047,656	3.1	100.0	0.4	3.5	34.0	11.2	--	--	7.2	Jan-18
<i>MSCI Emerging Market IMI Net</i>				5.7	8.7	43.2	11.4	12.9	4.3	7.5	Jan-18
<i>eV Emg Mkts Equity Net Rank</i>				98	90	90	52	--	--	55	Jan-18
Private Equity	190,684,243	9.3	19.0	0.2	0.2	-33.1	-5.4	-10.5	-6.0	-1.8	Oct-05
<i>Cambridge Associates US All PE (1 Qtr Lag)</i>				11.9	26.6	53.8	19.3	18.2	14.7	14.0	Oct-05

¹ All Private Equity market values are one quarter lagged unless otherwise noted.

² Lone Star Funds 12/31/2019 valuation used.



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Total Fixed Income and Cash	574,943,750	28.1	28.1	1.3	0.8	5.6	3.8	3.8	4.1	5.1	Jul-06
<i>Bloomberg Multiverse TR</i>				1.4	-3.0	3.2	4.3	2.6	2.2	3.9	Jul-06
<i>eV All Global Fixed Inc Net Rank</i>				71	41	62	86	64	41	39	Jul-06
Cash Equivalents	85,752,047	4.2	14.9	0.0	0.1	0.2	1.4	1.2	--	1.2	Apr-15
<i>91 Day T-Bills</i>				0.0	0.0	0.1	1.2	1.1	0.6	0.9	Apr-15
Public Fixed Income	483,359,381	23.6	84.1	1.5	0.7	6.3	4.2	5.3	4.6	5.1	Dec-10
<i>Bloomberg Multiverse TR</i>				1.4	-3.0	3.2	4.3	2.6	2.2	2.5	Dec-10
<i>eV All Global Fixed Inc Net Rank</i>				67	41	56	78	35	35	26	Dec-10
Short Term Core Bonds	217,387,027	10.6	45.0	0.2	0.2	1.4	3.5	--	--	2.7	Jun-17
<i>Bloomberg US Aggregate 1-3 Yr TR</i>				0.1	0.0	0.4	2.9	1.8	1.5	2.2	Jun-17
<i>IR&M 1-3 Year Strategy</i>	217,387,027	10.6	100.0	0.2	0.2	1.4	3.5	--	--	2.7	Jul-17
<i>Bloomberg US Aggregate 1-3 Yr TR</i>				0.1	0.0	0.4	2.9	1.8	1.5	2.2	Jul-17
<i>eV US Short Duration Fixed Inc Net Rank</i>				51	27	33	29	--	--	30	Jul-17
Investment Grade Bonds	76,066,817	3.7	15.7	2.2	-0.8	1.4	--	--	--	4.4	Oct-19
<i>Bloomberg US Aggregate TR</i>				1.8	-1.6	-0.3	5.3	3.0	3.4	3.4	Oct-19
<i>eV US Core Fixed Inc Net Rank</i>				33	21	32	--	--	--	25	Oct-19
<i>Longfellow Core Fixed Income</i>	76,066,817	3.7	100.0	2.2	-0.8	1.2	--	--	--	1.2	Jul-20
<i>Bloomberg US Aggregate TR</i>				1.8	-1.6	-0.3	5.3	3.0	3.4	-0.3	Jul-20
<i>eV US Core Fixed Inc Net Rank</i>				33	21	34	--	--	--	34	Jul-20



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Bank Loans	75,478,019	3.7	15.6	1.4	2.9	9.5	4.4	5.4	--	4.3	Jan-14
<i>Credit Suisse Leveraged Loan</i>				1.4	3.5	11.7	4.4	5.0	--	4.1	Jan-14
<i>eV US Float-Rate Bank Loan Fixed Inc Net Rank</i>				61	60	69	18	9	--	16	Jan-14
Pacific Asset Management Corporate (Bank) Loans	75,478,019	3.7	100.0	1.5	3.1	9.4	4.3	--	--	4.3	Aug-17
<i>Credit Suisse Leveraged Loan</i>				1.4	3.5	11.7	4.4	5.0	--	4.3	Aug-17
<i>eV US Float-Rate Bank Loan Fixed Inc Net Rank</i>				36	45	70	26	--	--	21	Aug-17
High Yield Bonds	76,597,771	3.7	15.8	2.6	2.8	16.2	5.1	7.4	5.7	6.3	Dec-10
<i>Bloomberg US Corporate High Yield TR</i>				2.7	3.6	15.4	7.4	7.5	6.7	6.8	Dec-10
<i>eV Global High Yield Fixed Inc Net Rank</i>				43	75	33	95	24	89	48	Dec-10
Loomis US High Yield Fund	76,597,771	3.7	100.0	2.6	3.0	--	--	--	--	3.0	Jan-21
<i>Bloomberg US High Yield 2% Issuer Cap TR</i>				2.7	3.6	15.3	7.4	7.5	6.6	3.6	Jan-21
<i>eV US High Yield Fixed Inc Net Rank</i>				53	67	--	--	--	--	67	Jan-21
Emerging Markets Debt	37,829,747	1.8	7.8	5.6	-1.3	12.3	4.1	4.1	2.6	3.3	Dec-10
<i>50% JPM EMBI/50% JPM GBI-EM</i>				3.8	-2.0	7.1	5.5	4.1	3.0	3.5	Dec-10
<i>eV All Emg Mkts Fixed Inc Net Rank</i>				3	65	15	83	68	67	67	Dec-10
Ashmore EM Blended Debt	37,829,747	1.8	100.0	5.6	-1.3	12.3	4.1	--	--	1.9	Dec-17
<i>Ashmore Blended Debt Benchmark</i>				3.4	-1.3	7.1	5.0	3.9	2.9	3.0	Dec-17
<i>eV All Emg Mkts Fixed Inc Net Rank</i>				3	65	15	83	--	--	83	Dec-17
Private Debt	5,832,322	0.3	1.0	3.9	27.8	22.1	3.7	-0.5	--	-0.2	Jan-16
<i>BBgBarc US High Yield+2%</i>				3.2	4.6	17.6	9.6	9.6	8.8	10.6	Jan-16



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Total Real Assets	464,063,682	22.7	22.7	1.2	2.7	1.3	0.4	3.4	-1.6	-1.5	Dec-10
<i>Total Real Assets Policy Index</i>				<i>1.3</i>	<i>2.7</i>	<i>3.4</i>	<i>4.8</i>	<i>5.6</i>	<i>9.6</i>	<i>9.9</i>	<i>Dec-10</i>
Real Estate	292,123,825	14.3	62.9	0.8	0.2	-1.6	1.0	2.9	-3.4	3.5	Mar-85
<i>NCREIF Property (1-quarter lagged)</i>				<i>1.7</i>	<i>2.9</i>	<i>2.6</i>	<i>4.9</i>	<i>5.8</i>	<i>8.8</i>	<i>7.8</i>	<i>Mar-85</i>
Natural Resources	123,326,613	6.0	26.6	-1.9	4.6	6.2	1.2	-0.2	2.8	3.7	Dec-10
<i>NCREIF Farmland Total Return Index 1Q Lag</i>				<i>0.9</i>	<i>2.5</i>	<i>4.1</i>	<i>4.7</i>	<i>5.5</i>	<i>10.2</i>	<i>10.6</i>	<i>Dec-10</i>
Infrastructure	48,613,244	2.4	10.5	13.7	15.5	9.1	-7.1	6.6	--	4.1	Jul-12
<i>S&P Global Infrastructure TR USD</i>				<i>2.3</i>	<i>5.4</i>	<i>23.2</i>	<i>5.6</i>	<i>6.2</i>	<i>6.2</i>	<i>7.4</i>	<i>Jul-12</i>

¹ All Private Market market values are one quarter lagged unless otherwise noted.



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Statistics Summary						
5 Years Ending June 30, 2021						
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
DPFP	4.8%	5.6%	-0.9	0.5	0.7	5.1%
Policy Index	9.6%	8.3%	--	1.0	1.0	0.0%
Public Equity	15.4%	14.6%	0.4	1.0	1.0	2.2%
MSCI ACWI IMI Net USD	14.5%	14.9%	--	1.0	0.9	0.0%
Global Equity	15.6%	15.0%	0.5	1.0	1.0	2.2%
MSCI ACWI IMI Net USD	14.5%	14.9%	--	1.0	0.9	0.0%
Private Equity	-10.5%	24.7%	-1.0	-0.4	-0.5	29.7%
Cambridge Associates US All PE (1 Qtr Lag)	18.2%	12.1%	--	1.0	1.4	0.0%
Global Bonds	3.5%	45.6%	0.0	2.3	0.1	44.8%
Bloomberg Global Aggregate TR	2.3%	4.6%	--	1.0	0.3	0.0%
Bank Loans	5.4%	4.4%	0.1	0.6	1.0	2.8%
Credit Suisse Leveraged Loan	5.0%	6.8%	--	1.0	0.6	0.0%
High Yield Bonds	7.4%	8.4%	-0.1	1.1	0.7	2.1%
Bloomberg US Corporate High Yield TR	7.5%	7.4%	--	1.0	0.9	0.0%
Emerging Markets Debt	4.1%	12.6%	0.0	1.3	0.2	4.2%
50% JPM EMBI/50% JPM GBI-EM	4.1%	9.4%	--	1.0	0.3	0.0%



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Statistics Summary						
5 Years Ending June 30, 2021						
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Real Estate	2.9%	3.2%	-1.0	0.6	0.6	2.9%
NCREIF Property (1-quarter lagged)	5.8%	2.7%	--	1.0	1.8	0.0%
Natural Resources	-0.2%	6.7%	-0.9	0.9	-0.2	6.3%
NCREIF Farmland Total Return Index 1Q Lag	5.5%	2.8%	--	1.0	1.6	0.0%
Infrastructure	6.6%	30.7%	0.0	0.0	0.2	34.6%
S&P Global Infrastructure TR USD	6.2%	16.4%	--	1.0	0.3	0.0%



Dallas Police & Fire Pension System

DPFP | As of June 30, 2021

Benchmark History

As of June 30, 2021

DPFP

DPFP Policy Benchmark is based upon the asset class target weight multiplied by its respective benchmark for every period and was updated when benchmark or asset allocation targets changed. The most recent Policy Benchmark changes are shown below.

1/1/2019	Present	S&P/LSTA Leveraged Loan / 4% 50% JPM EMBI/50% JPM GBI-EM / 5% NCREIF Farmland Total Return Index 1Q Lag / 5% NCREIF Property (1-quarter lagged) / 3% 91 Day T-Bills
10/1/2018	12/31/2018	40% MSCI ACWI Gross / 10% MSCI Emerging Markets Gross / 5% Private Equity Custom Benchmark / 12% BBgBarc US Aggregate 1-3 Yr TR / 4% BBgBarc Global Aggregate TR / 4% BBgBarc US High Yield 2% Issuer Cap TR / 4% S&P/LSTA Leveraged Loan / 4% BBgBarc US Aggregate TR / 4% 50% JPM EMBI/50% JPM GBI-EM / 5% Natural Resources Benchmark (Linked) / 5% NCREIF Property Index / 3% 91 Day T-Bills
4/1/2016	9/30/2018	20% MSCI ACWI Gross / 5% MSCI Emerging Markets Gross / 5% Private Equity Custom Benchmark / 2% BBgBarc US Aggregate 1-3 Yr TR / 3% BBgBarc Global Aggregate TR / 5% BBgBarc Global High Yield TR / 6% S&P/LSTA Leveraged Loan / 6% HFRI RV: FI (50/50-ABS/Corp) / 6% 50% JPM EMBI/50% JPM GBI-EM / 5% Barclays Global High Yield +2% / 5% 60% MSCI ACWI/40% Barclays Global Agg / 3% 60% MSCI ACWI/40% Barclays Global Agg / 2% HFRX Absolute Return Index / 5% Natural Resources Benchmark (Linked) / 5% S&P Global Infrastructure TR USD / 12% NCREIF Property Index / 3% CPI + 5% (Seasonally Adjusted) / 2% 91 Day T-Bills
4/1/2014	3/31/2016	15% MSCI ACWI / 15% S&P 500 + 2% / 10% Total Global Natural Resources Custom Benchmark / 15% BBgBarc Global Aggregate TR / 20% CPI + 5% (Seasonally Adjusted) / 10% CPI + 5% (Seasonally Adjusted) / 15% NCREIF Property Index
1/1/2014	3/31/2014	15% MSCI ACWI / 15% Private Markets / 10% Total Global Natural Resources Custom Benchmark / 15% BBgBarc Global Aggregate TR / 20% CPI + 5% (Seasonally Adjusted) / 10% Infrastructure / 15% Real Estate

Ashmore EM Blended Debt

12/1/2017	Present	50% JP Morgan EMBI Global Diversified / 25% JPM ELMI+ TR USD / 25% JP Morgan GBI EM Global Diversified TR USD
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Total Real Assets

12/31/2010	Present	50% NCREIF Property (1-quarter lagged) / 50% NCREIF Farmland Total Return Index 1Q Lag
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Disclaimer, Glossary, and Notes



Disclaimer, Glossary, and Notes

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.



Disclaimer, Glossary, and Notes

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security).

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} \times (\text{market return} - \text{Risk Free Rate})]$.

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.



Disclaimer, Glossary, and Notes

Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about its future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.



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Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a “basis book.” For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

NCREIF Property Index (NPI): Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: [Investment Terminology](#), International Foundation of Employee Benefit Plans, 1999.
[The Handbook of Fixed Income Securities](#), Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.



Dallas Police & Fire Pension System

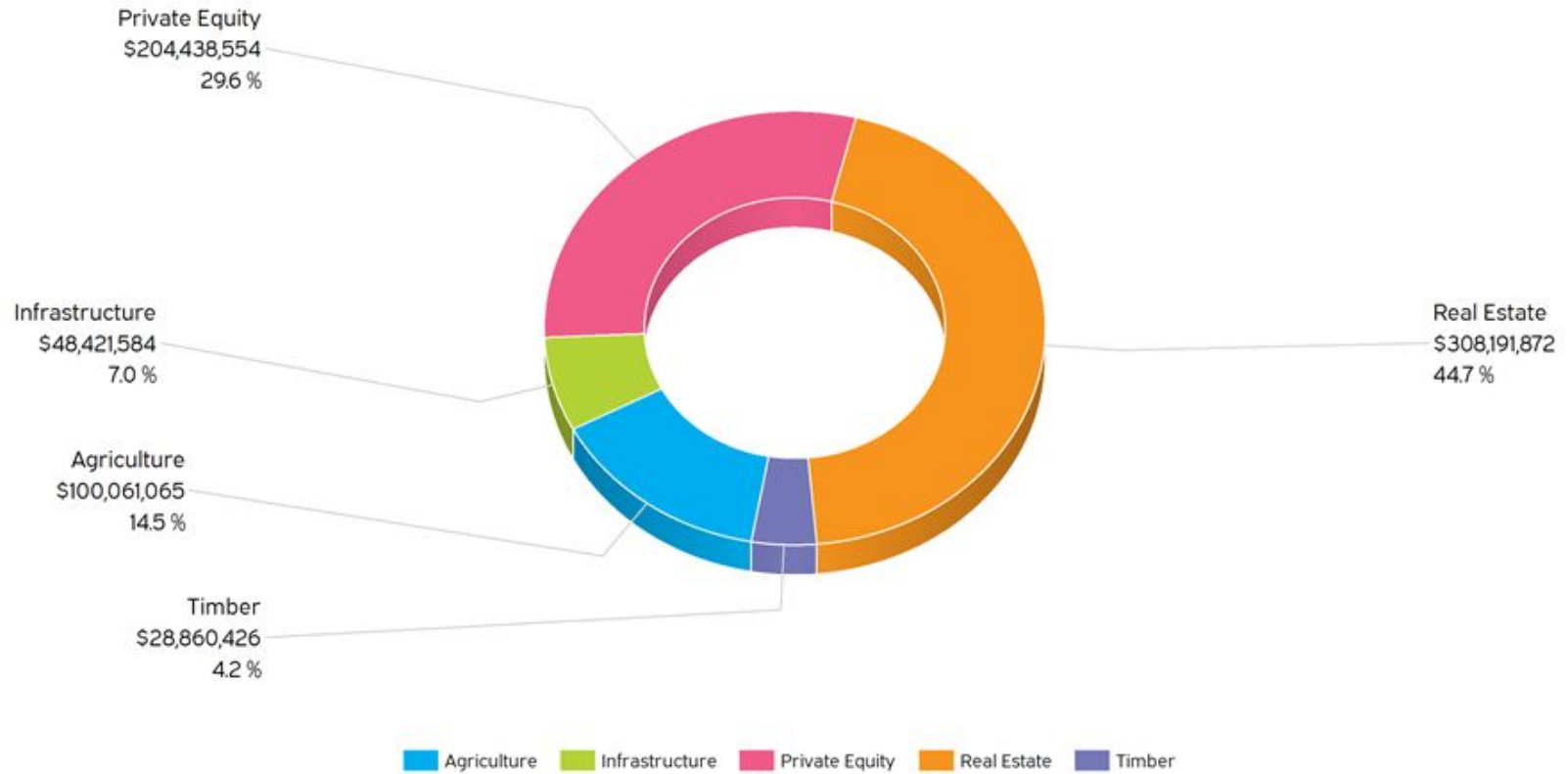
As of March 31, 2021

Private Markets Review



Dallas Police & Fire Pension System Private Markets Review | As of March 31, 2021

Private Market Investments as of March 31, 2021 Market Value Allocation by Asset Class



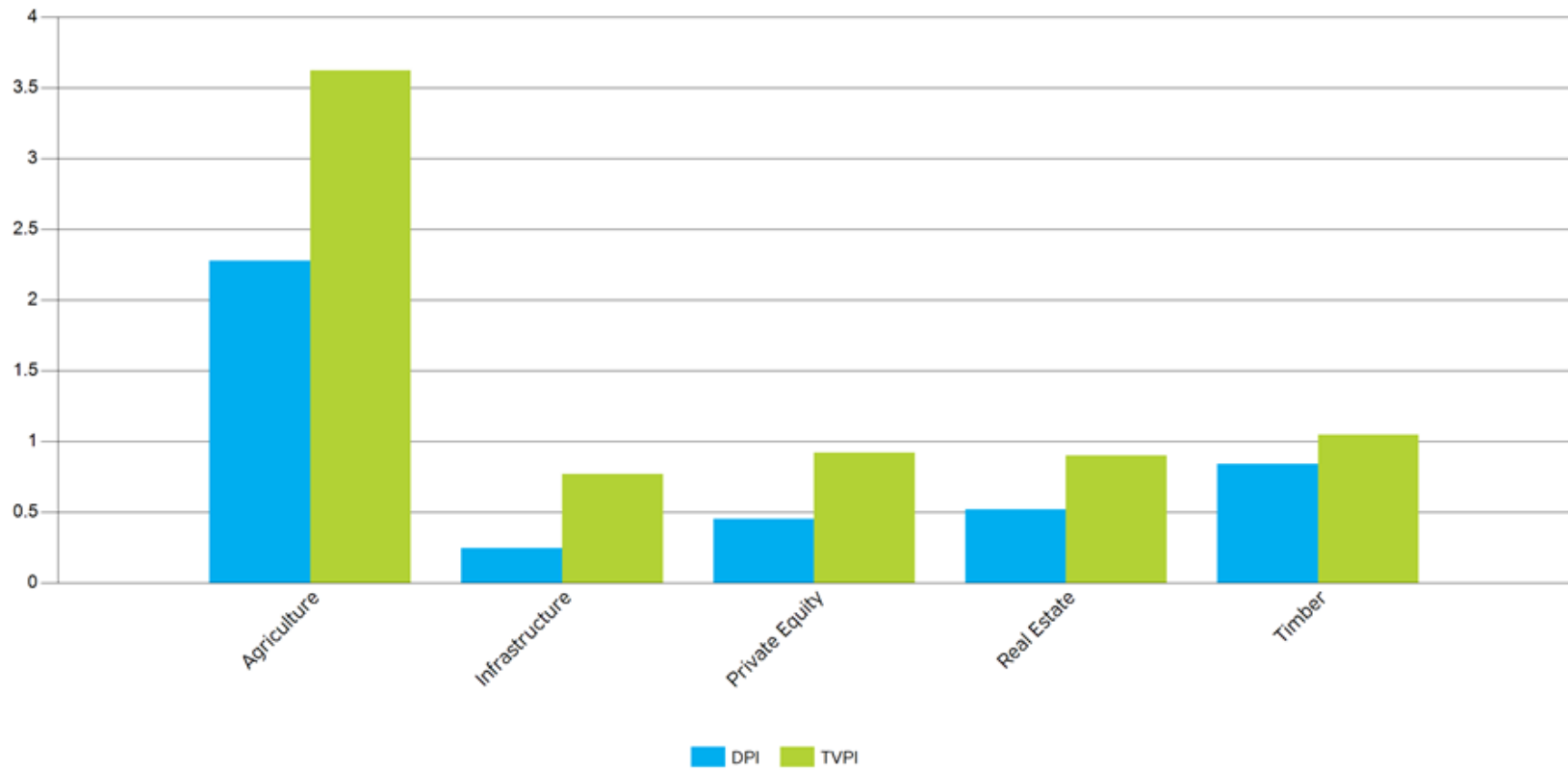
1. Private Equity is composed of Private Equity and Private Debt.



Dallas Police & Fire Pension System

Private Markets Review | As of March 31, 2021

Private Market Investments as of March 31, 2021
DPI and TVPI by Asset Class



- 1. Private Equity is composed of Private Equity and Private Debt.
- 2. Private markets performance reflected is composed of active investments only.



Dallas Police & Fire Pension System

Private Markets Review | As of March 31, 2021

Private Market Investments Overview										
Active Funds	Commitments		Distributions & Valuations				Performance			
Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Total Value (\$)	Gain/Loss (\$)	Call Ratio	DPI	TVPI	IRR (%)
Total Agriculture	74,420,001	74,420,001	169,592,840	100,061,065	269,653,905	195,233,904	1.00	2.28	3.62	14.87
Total Infrastructure	97,000,000	93,370,822	21,669,031	48,421,584	70,090,615	-23,280,207	0.96	0.23	0.75	-4.13
Total Private Equity	414,534,369	446,749,380	195,281,044	204,438,554	399,719,597	-47,029,782	1.08	0.44	0.89	-1.81
Total Real Estate	825,762,598	815,125,653	421,367,717	308,191,872	729,559,588	-85,566,065	0.99	0.52	0.90	-1.50
Total Timber	142,589,149	142,589,149	119,730,209	28,860,426	148,590,635	6,001,486	1.00	0.84	1.04	0.77
Total	1,554,306,117	1,572,255,005	927,640,840	689,973,500	1,617,614,340	45,359,336	1.01	0.59	1.03	0.45

1. Private Equity is composed of Private Equity and Private Debt.

2. Private markets performance reflected is composed of active investments only.

3. Commitment value is equal to paid in capital for direct investments made outside of a traditional limited partnership fund structure.



Dallas Police & Fire Pension System

Active Funds with Unfunded Commitments Overview | As of March 31, 2021

Active Funds with Unfunded Commitments				
Active Funds		Commitments		
Investment Name	Vintage Year	Commitment (\$)	Paid In Capital (\$)	Unfunded Commitment (\$)
Infrastructure				
TRG AIRRO	2008	37,000,000	37,566,772	2,760,659
TRG AIRRO II	2013	10,000,000	7,219,074	2,368,615
JPM Maritime Fund, LP	2009	50,000,000	48,584,975	1,365,941
Total Infrastructure		97,000,000	93,370,822	6,495,215
Private Equity				
Huff Energy Fund LP	2006	100,000,000	99,130,258	119,979
Industry Ventures Partnership IV	2016	5,000,000	3,754,985	1,005,000
Lone Star Growth Capital	2006	16,000,000	26,679,375	2,240,000
Riverstone Credit Partners LP	2016	10,000,000	12,242,390	514,296
Yellowstone Capital	2008	5,283,254	5,112,307	170,947
Total Private Equity		136,283,254	146,919,315	4,050,222
Real Estate				
Hearthstone MS II Homebuilding Investors	1999	10,000,000	7,973,058	1,008,131
Hearthstone MS III Homebuilding Investors	2003	10,000,000	1,221,446	1,997,675
Total Real Estate		20,000,000	9,194,504	3,005,806
Total		253,283,254	249,484,640	13,551,243

1. Private markets performance reflected is composed of active investments only.

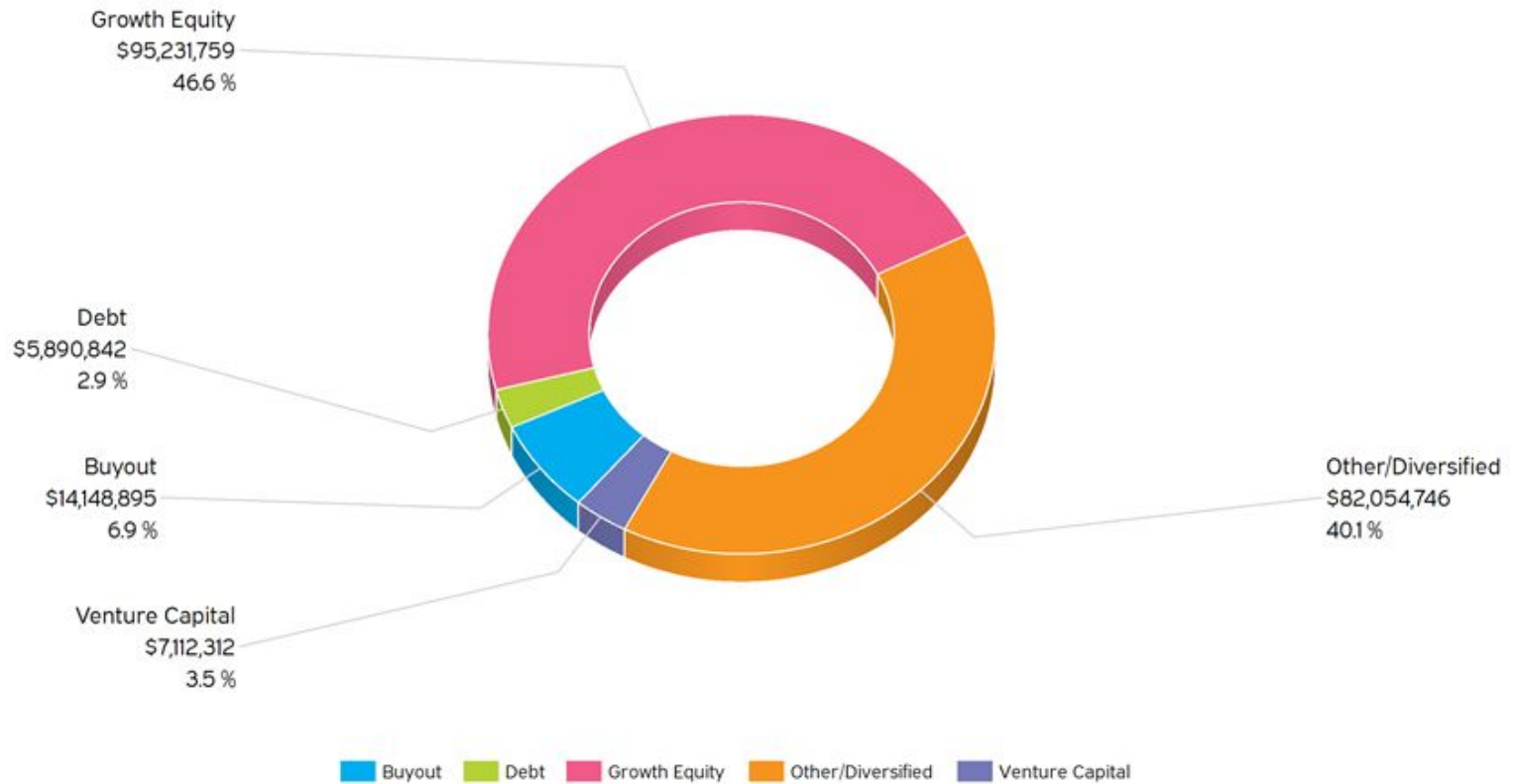
2. The funds and figures above represent investments with unfunded capital commitments.



Dallas Police & Fire Pension System

Private Equity and Debt | As of March 31, 2021

Private Equity and Debt Investments as of March 31, 2021
Market Value Allocation by Strategy

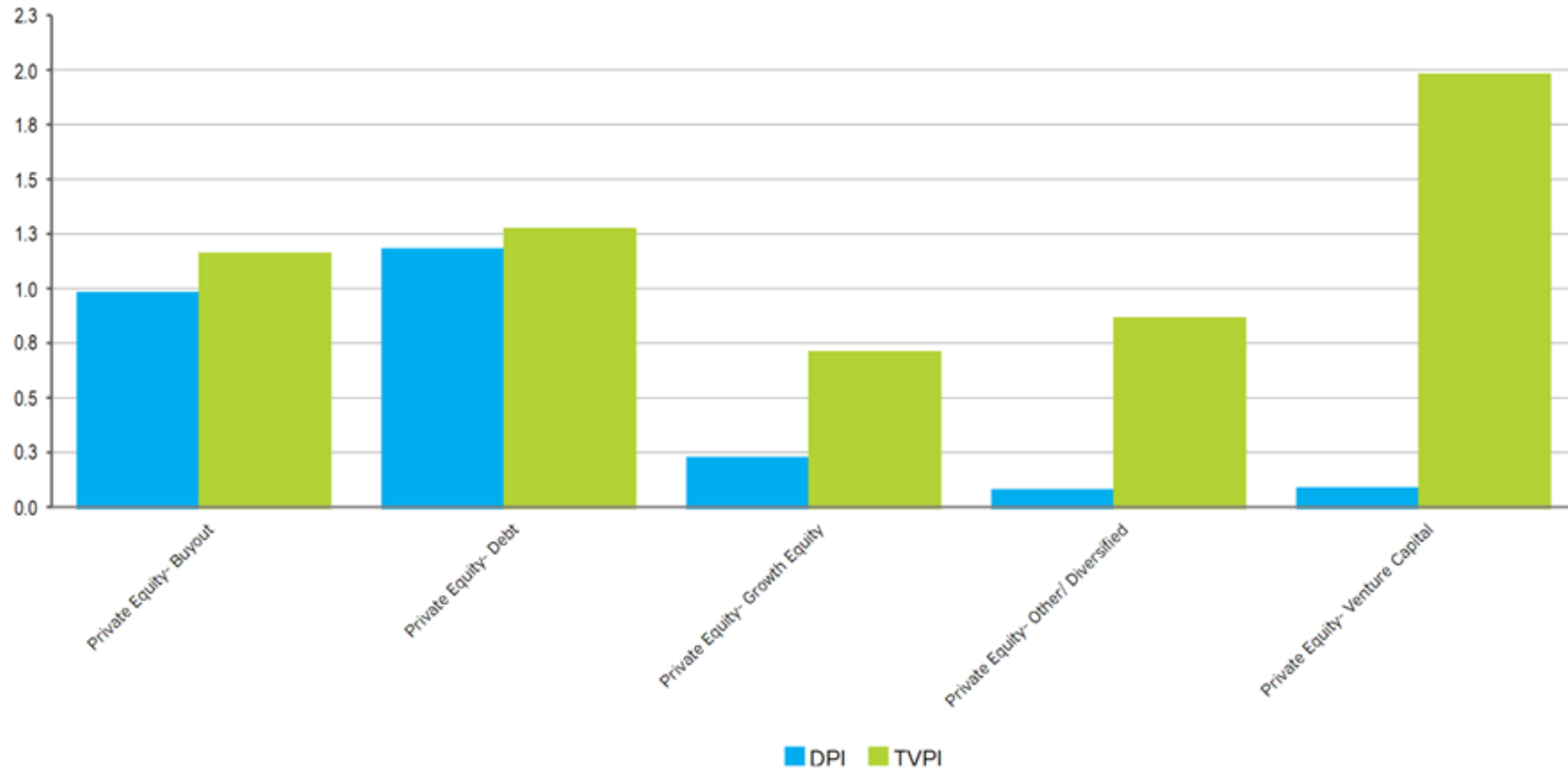




Dallas Police & Fire Pension System

Private Equity and Debt | As of March 31, 2021

Private Equity and Debt Investments as of March 31, 2021
DPI and TVPI by Strategy



1. Private markets performance reflected is composed of active investments only.



Dallas Police & Fire Pension System

Private Equity and Debt | As of March 31, 2021

Private Equity and Debt Investments Overview											
Active Funds		Commitments		Distributions & Valuations				Performance			
Investment Name	Vintage Year	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Total Value (\$)	Gain/Loss (\$)	Call Ratio	DPI	TVPI	IRR (%)
Buyout											
Huff Alternative Fund	2000	66,795,718	78,833,017	75,678,933	14,148,895	89,827,828	10,994,811	1.18	0.96	1.14	1.57
Total Buyout		66,795,718	78,833,017	75,678,933	14,148,895	89,827,828	10,994,811	1.18	0.96	1.14	1.57
Debt											
Highland Crusader Fund	2003	50,955,397	50,955,397	64,514,016	1,363,341	65,877,357	14,921,960	1.00	1.27	1.29	4.38
Riverstone Credit Partners LP	2016	10,000,000	12,242,390	8,735,122	4,527,501	13,262,623	1,020,233	1.22	0.71	1.08	4.15
Total Debt		60,955,397	63,197,787	73,249,138	5,890,842	79,139,980	15,942,193	1.04	1.16	1.25	4.37
Growth Equity											
Hudson Clean Energy	2009	25,000,000	24,994,470	4,732,352	1,002,871	5,735,223	-19,259,247	1.00	0.19	0.23	-21.81
Lone Star CRA	2008	50,000,000	59,191,160	12,928,698	78,230,000	91,158,698	31,967,538	1.18	0.22	1.54	10.30
Lone Star Growth Capital	2006	16,000,000	26,679,375	12,800,000	9,995,307	22,795,307	-3,884,068	1.67	0.48	0.85	-4.76
Lone Star Opportunities V	2012	75,000,000	75,153,125	531,444	3,839,000	4,370,444	-70,782,681	1.00	0.01	0.06	-51.38
Lone Star Bridge Loan	2020	500,000	500,000	0	568,369	568,369	68,369	1.00	0.00	1.14	3.34
North Texas Opportunity Fund	2000	10,000,000	10,000,000	9,127,239	1,596,212	10,723,451	723,451	1.00	0.91	1.07	0.77
Total Growth Equity		176,500,000	196,518,130	40,119,733	95,231,759	135,351,492	-61,166,638	1.11	0.20	0.69	-8.68
Other/Diversified											
Huff Energy Fund LP	2006	100,000,000	99,130,258	4,477,394	82,054,746	86,532,140	-12,598,118	0.99	0.05	0.87	-1.25
Yellowstone Capital	2008	5,283,254	5,112,307	1,465,725	0	1,465,725	-3,646,582	0.97	0.29	0.29	-31.26
Total Other/Diversified		105,283,254	104,242,565	5,943,119	82,054,746	87,997,865	-16,244,700	0.99	0.06	0.84	-1.60
Venture Capital											
Industry Ventures Partnership IV	2016	5,000,000	3,754,985	244,921	7,112,312	7,357,233	3,602,248	0.75	0.07	1.96	25.73
Total Venture Capital		5,000,000	3,754,985	244,921	7,112,312	7,357,233	3,602,248	0.75	0.07	1.96	25.73
Unclassified											
Miscellaneous Private Equity Expenses	2016		202,896	45,200							
Total Unclassified			202,896	45,200							
Total		414,534,369	446,749,380	195,281,044	204,438,554	399,719,597	-47,029,782	1.08	0.44	0.89	-1.81

1. Private Markets performance reflected is composed of active investments only.

2. LSGC valuation from LSGC 12/31/19 audited financials. Other Lone Star valuations are as of 12/31/19, provided by Conway Mackenzie.

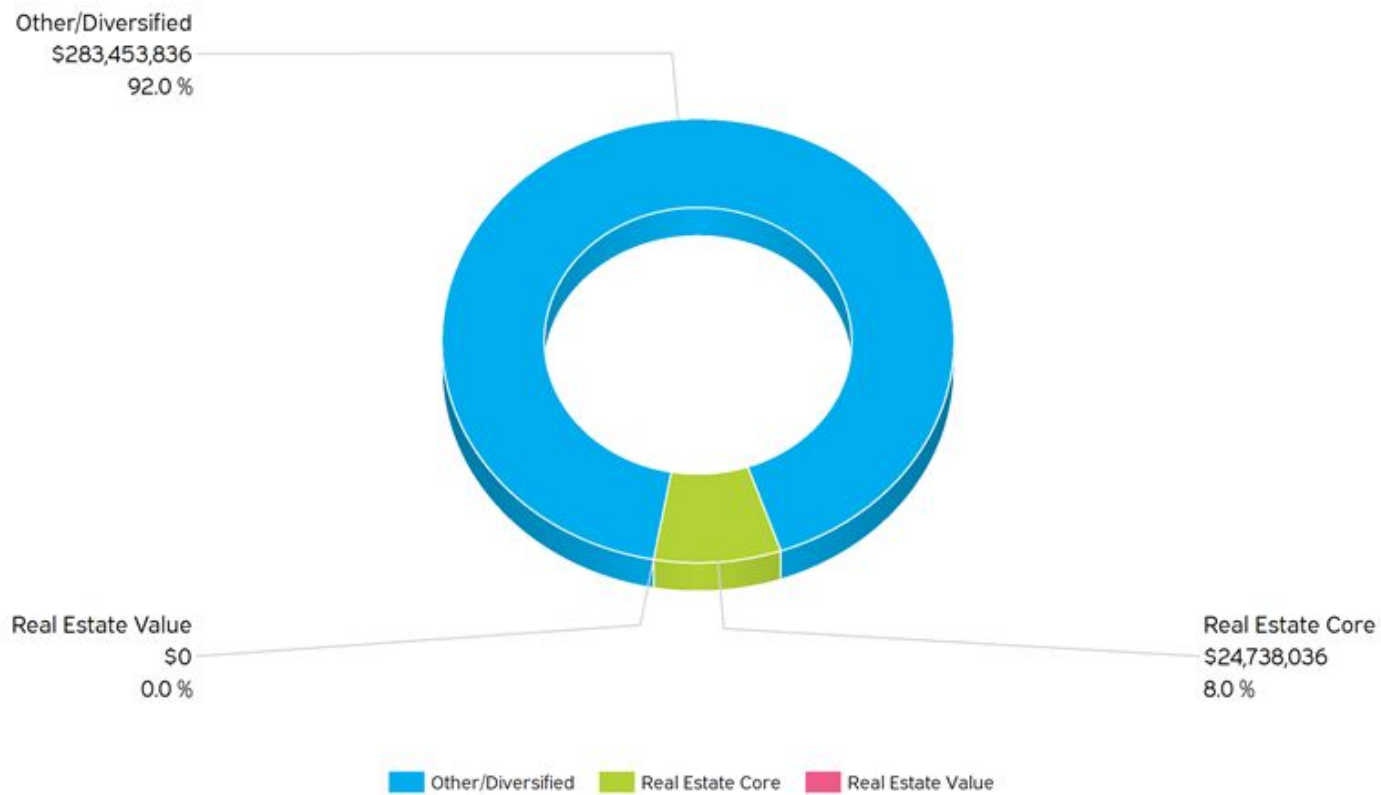
3. Huff Alternative Fund and Huff Energy Fund LP valuations are as of 9/30/2020.



Dallas Police & Fire Pension System

Real Estate | As of March 31, 2021

Real Estate Investments as of March 31, 2021 Market Value Allocation by Strategy



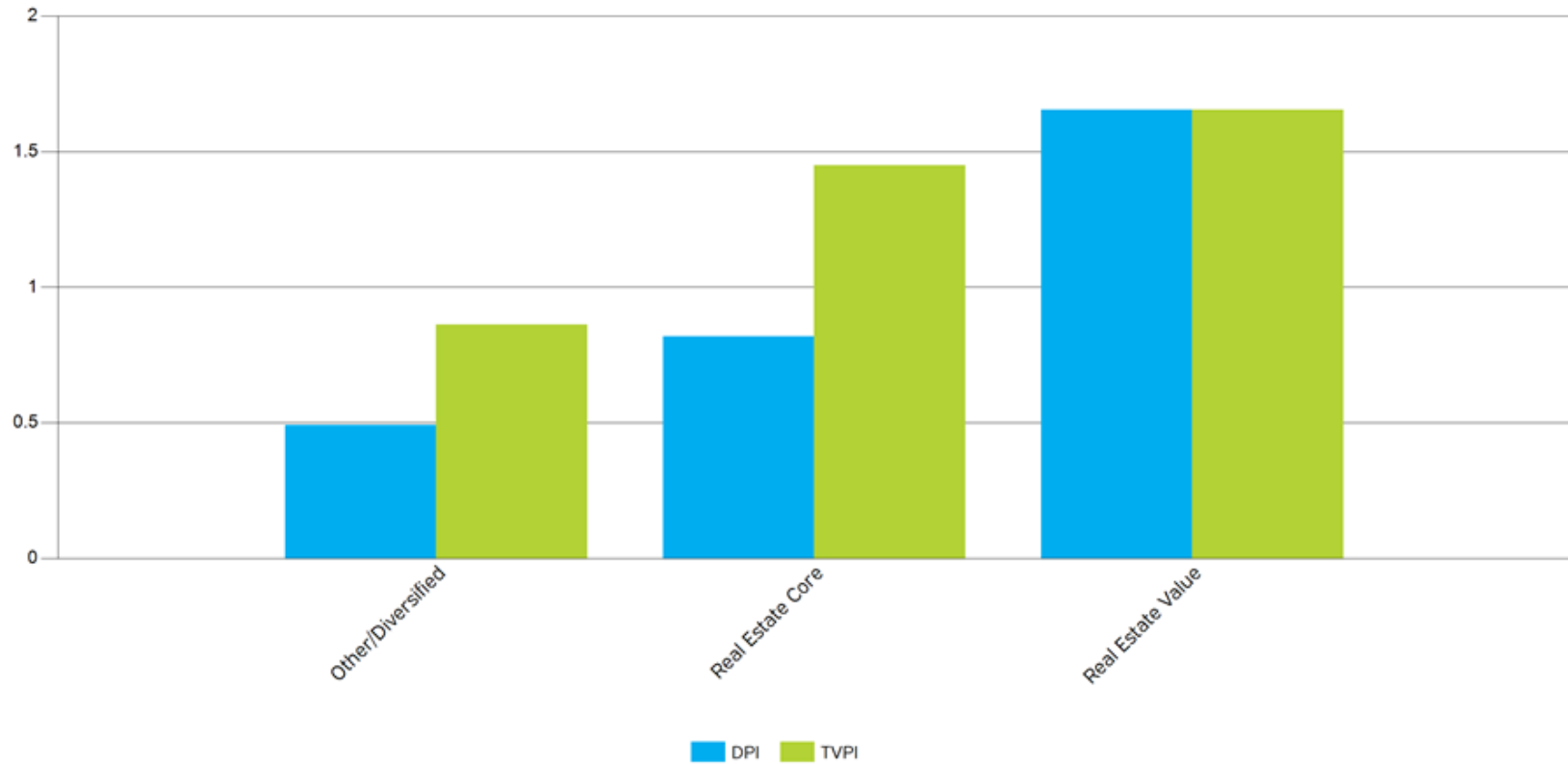
1. Other/Diversified is composed of direct real estate investments made by the fund.



Dallas Police & Fire Pension System

Real Estate | As of March 31, 2021

Real Estate Investments as of March 31, 2021
DPI and TVPI by Strategy



- 1. Other/Diversified is composed of direct real estate investments made by the fund.
- 2. Private markets performance reflected is composed of active investments only.



Dallas Police & Fire Pension System

Real Estate | As of March 31, 2021

Real Estate Investments Overview										
Active Funds	Commitments		Valuations				Performance			
Investment Name	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Total Value (\$)	Gain/Loss (\$)	Call Ratio	DPI	TVPI	IRR (%)
Total Other/Diversified	766,220,619	766,220,619	373,196,702	283,453,836	656,650,538	-109,570,081	1.00	0.49	0.86	-2.03
Real Estate Core										
Total Real Estate Core	39,541,979	39,541,979	32,212,353	24,738,036	56,950,389	17,408,410	1.00	0.81	1.44	5.00
Real Estate Value										
Total Real Estate Value	20,000,000	9,194,504	15,206,576	0	15,206,576	6,012,072	0.46	1.65	1.65	25.93
Total	825,762,598	815,125,653	421,367,717	308,191,872	729,559,588	-85,566,065	0.99	0.52	0.90	-1.50

1. Private markets performance reflected is composed of active investments only.

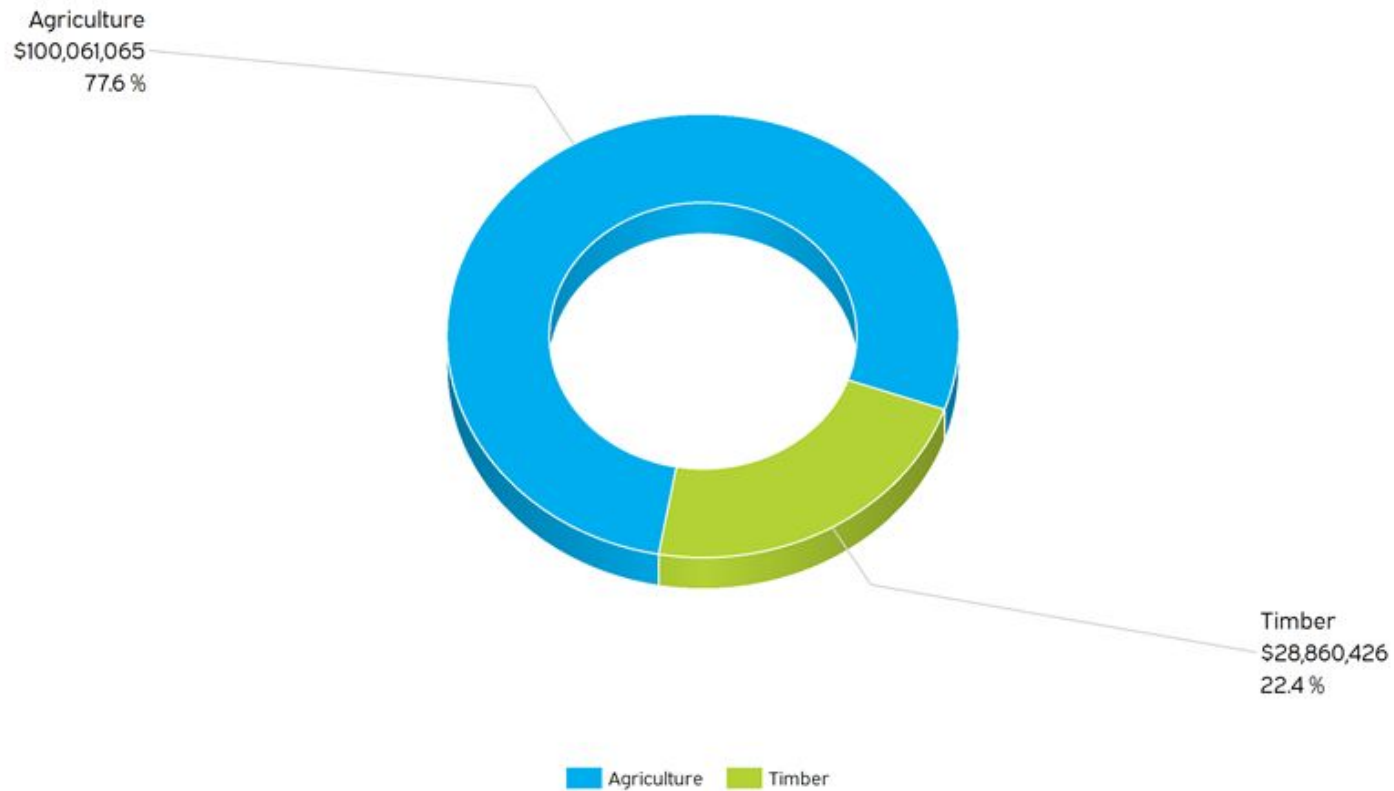
2. Commitment value is equal to paid in capital for direct investments made outside of a traditional limited partnership fund structure.



Dallas Police & Fire Pension System

Natural Resources | As of March 31, 2021

Natural Resources Investments as of March 31, 2021
Market Value Allocation by Asset Class

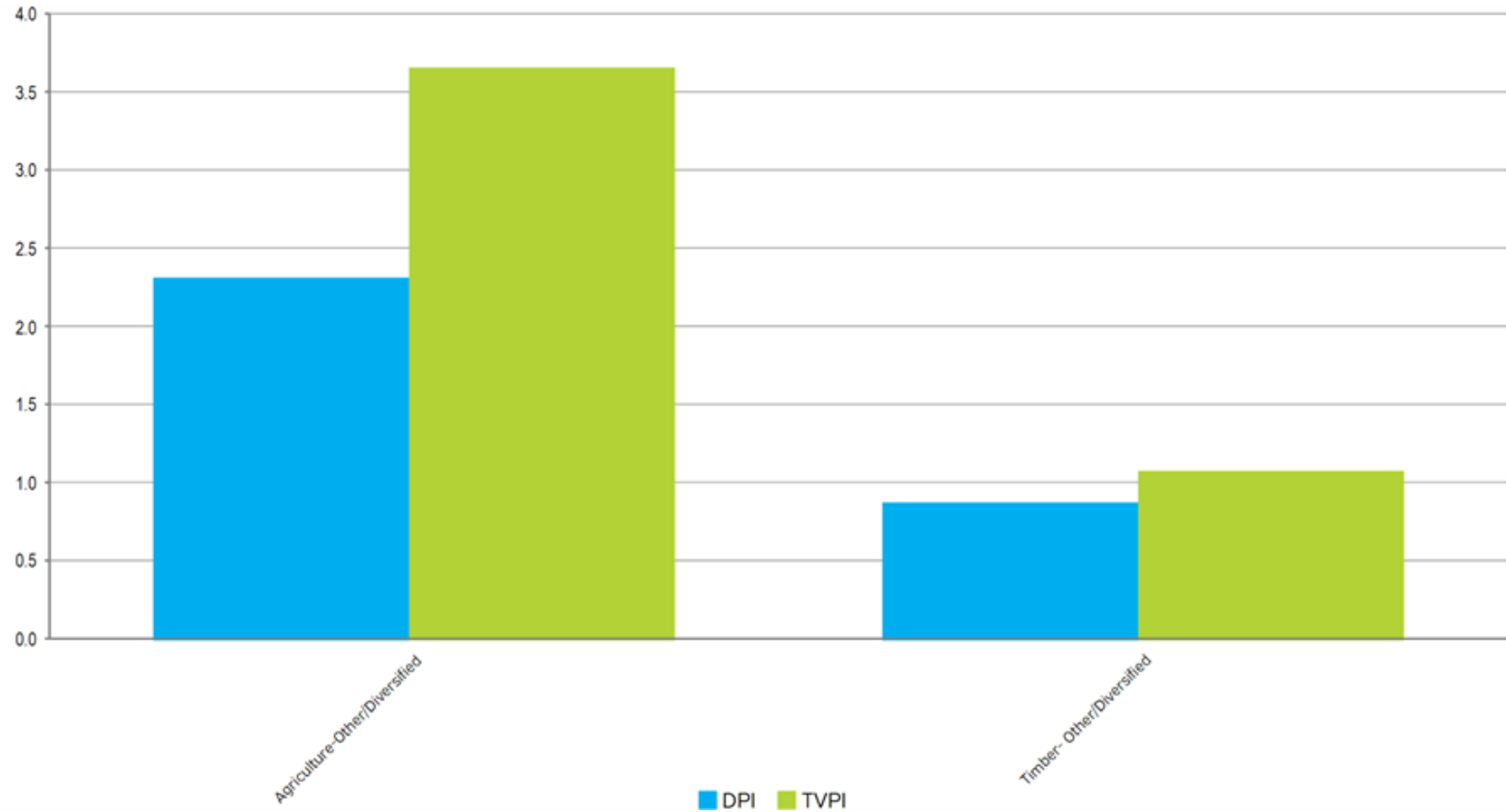




Dallas Police & Fire Pension System

Natural Resources | As of March 31, 2021

Natural Resource Investments as of March 31, 2021
DPI and TVPI by Strategy



- 1. Agriculture 'Other/Diversified' is composed of permanent and row crops exposure.
- 2. Timber 'Other/Diversified' is composed of domestic and global timber exposure.
- 3. Private markets performance reflected is composed of active investments only.



Dallas Police & Fire Pension System

Natural Resources | As of March 31, 2021

Natural Resource Investments Overview											
Active Funds		Commitments		Valuations				Performance			
Investment Name	Vintage Year	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Total Value (\$)	Unrealized Gain/Loss (\$)	Call Ratio	DPI	TVPI	IRR (%)
Agriculture											
Hancock Agricultural	1998	74,420,001	74,420,001	169,592,840	100,061,065	269,653,905	195,233,904	1.00	2.28	3.62	14.87
Total Agriculture		74,420,001	74,420,001	169,592,840	100,061,065	269,653,905	195,233,904	1.00	2.28	3.62	14.87
Timber											
BTG Pactual	2006	82,381,533	82,381,533	18,300,000	25,055,935	43,355,935	-39,583,518	1.00	0.22	0.53	-8.31
Forest Investment Associates	1992	59,649,696	59,649,696	101,430,209	3,804,491	105,234,700	45,585,004	1.00	1.70	1.76	7.43
Total Timber		142,031,229	142,031,229	119,730,209	28,860,426	148,590,635	6,001,487	1.00	0.84	1.05	0.77
Total		216,451,230	216,451,230	289,323,049	128,921,491	418,244,540	201,235,391	1.00	1.34	1.93	8.72

1. Private markets performance reflected is composed of active investments only.

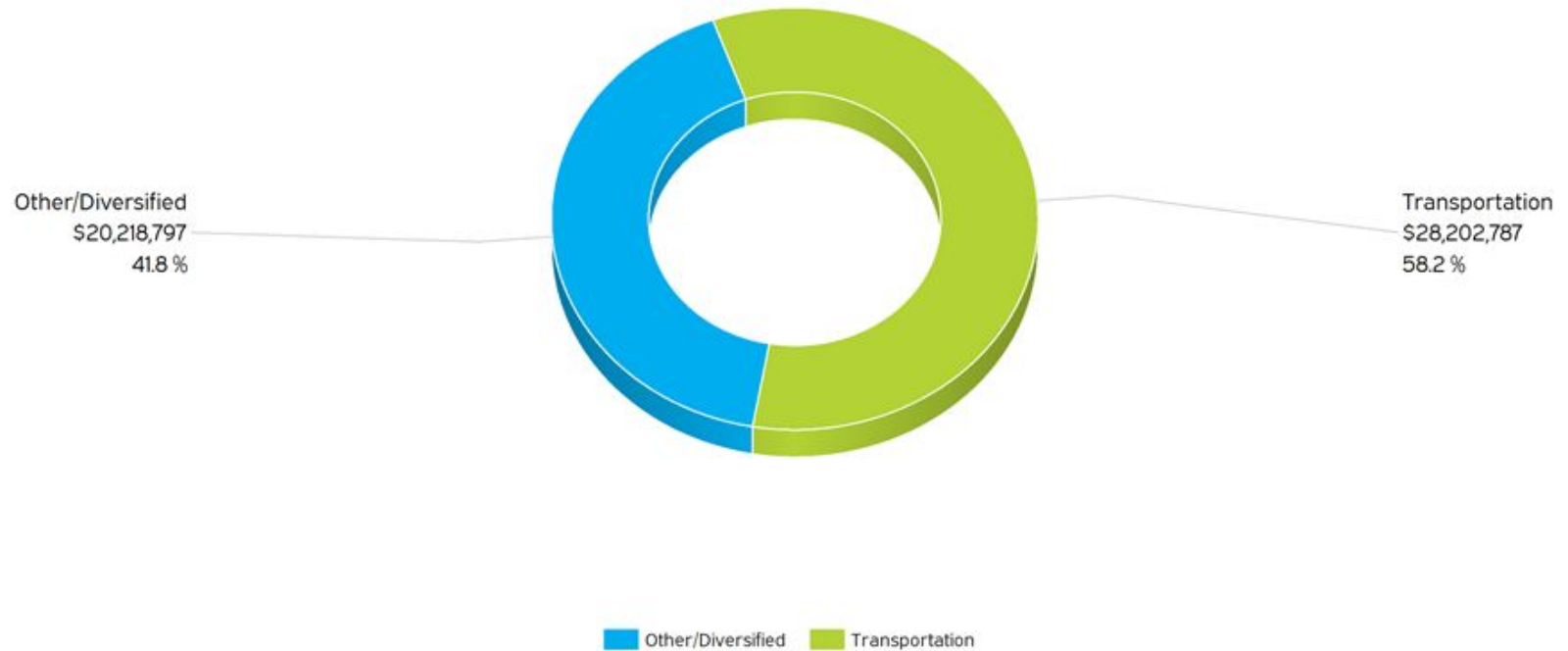
2. Commitment value is equal to paid in capital for direct investments made outside of a traditional limited partnership fund structure.



Dallas Police & Fire Pension System

Infrastructure | As of March 31, 2021

Infrastructure Investments as of March 31, 2021 Market Value Allocation by Strategy

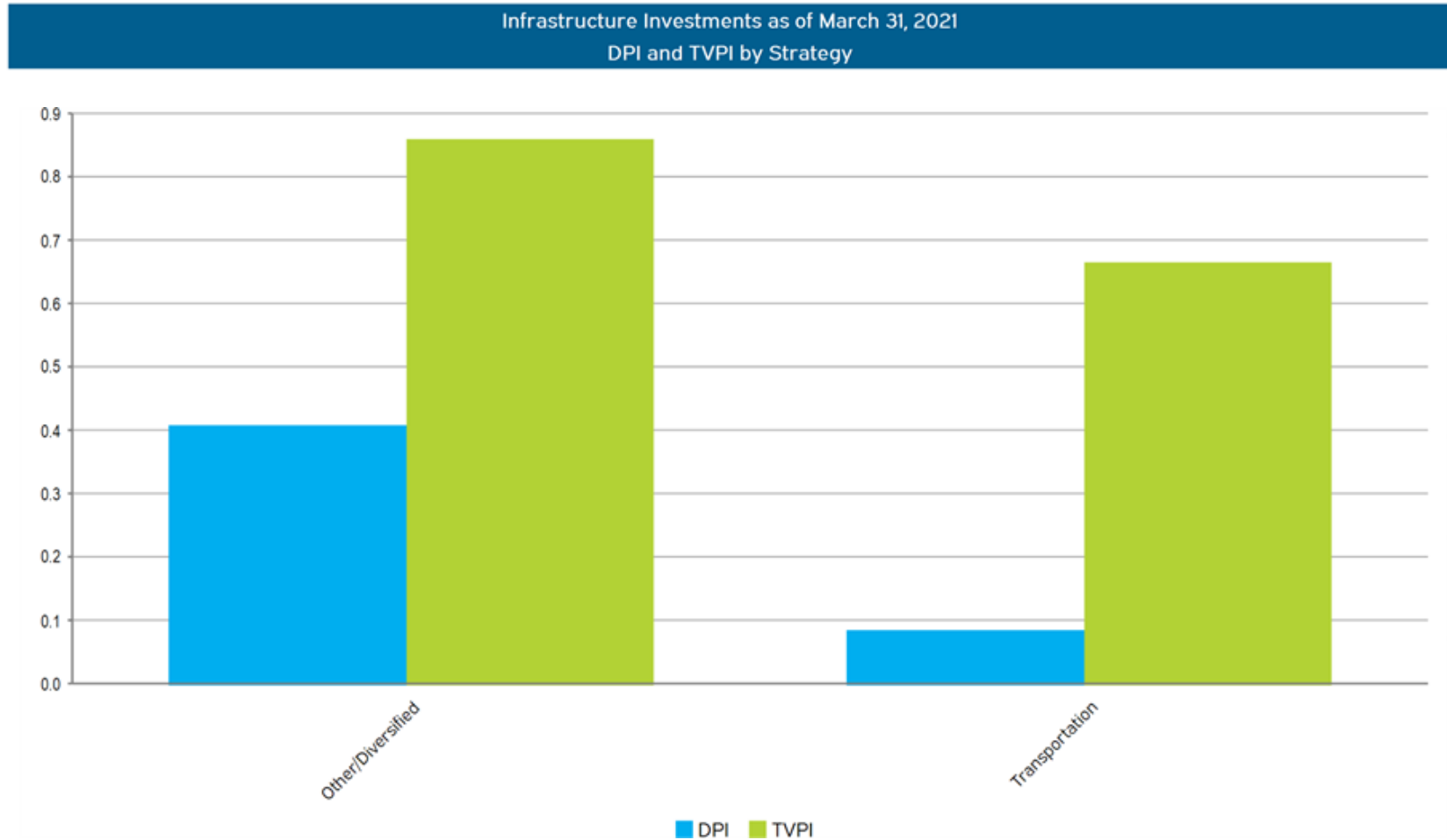


1.'Other/Diversified' is composed of various operating and developing infrastructure project exposure.



Dallas Police & Fire Pension System

Infrastructure | As of March 31, 2021



1. Other/Diversified' is composed of various operating and developing infrastructure project exposure.
2. Private markets performance reflected is composed of active investments only.



Dallas Police & Fire Pension System

Infrastructure | As of March 31, 2021

Infrastructure Investments Overview											
Active Funds		Commitments		Distributions & Valuations				Performance			
Investment Name	Vintage Year	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Total Value (\$)	Gain/Loss (\$)	Call Ratio	DPI	TVPI	IRR (%)
Infrastructure											
TRG AIRRO	2008	37,000,000	37,566,772	17,873,234	16,128,288	34,001,522	-3,565,251	1.02	0.48	0.91	-1.45
TRG AIRRO II	2013	10,000,000	7,219,074	58,731	4,090,509	4,149,240	-3,069,834	0.72	0.01	0.57	-7.56
JPM Maritime Fund, LP	2009	50,000,000	48,584,975	3,737,066	28,202,787	31,939,853	-16,645,123	0.97	0.08	0.66	-5.99
Total Infrastructure		97,000,000	93,370,822	21,669,031	48,421,584	70,090,615	-23,280,207	0.96	0.23	0.75	-4.13

1. Private markets performance reflected is composed of active investments only.

**Private Markets Review
List of Completed Funds**



Dallas Police & Fire Pension System

Private Markets Review | As of March 31, 2021

Total Real Assets Program												
Completed Funds	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Addnl Fees	Cummulative Distributions	Valuation	Total Value	Gain/Loss	DPI Ratio	TVPI Ratio	IRR
AEW Creative Holdings	2007	13,035,849	13,035,849	0	0	0	0	0	-13,035,849	0.00	0.00	N/A
Barings Lake Luciana	2006	95,025,191	95,025,191	0	0	17,872,293	0	17,872,293	-77,152,898	0.19	0.19	-19.89%
Barings Lake P&F Real Estate	2010	18,112,486	18,112,486	0	0	4,227,991	0	4,227,991	-13,884,495	0.23	0.23	-15.79%
BTG U.S. Timberland	2007	22,230,000	22,230,000	0	0	33,065,920	0	33,065,920	10,835,920	1.49	1.49	48.2%
CDK Multifamily I	2014	10,559,876	10,617,376	0	0	10,025,434	0	10,025,434	-591,942	0.94	0.94	-1.99%
Clarion 1210 South Lamar	2014	10,500,000	10,201,489	0	0	13,214,065	0	13,214,065	3,012,576	1.30	1.30	12.85%
Clarion 4100 Harry Hines Land	2006	3,088,810	3,092,788	0	0	3,641,946	0	3,641,946	549,158	1.18	1.18	1.69%
Clarion Beat Lofts	2005	8,729,783	8,730,183	0	0	1,137,817	0	1,137,817	-7,592,366	0.13	0.13	-30.76%
Clarion Bryan Street Lofts	2005	5,112,048	5,112,048	0	0	4,163,659	0	4,163,659	-948,389	0.81	0.81	-2.23%
Clarion Four Leaf	2005	16,892,767	16,892,767	0	0	3,733,148	0	3,733,148	-13,159,619	0.22	0.22	-39.69%
Clarion The Tribute	2007	29,929,676	29,929,676	0	0	47,138,778	0	47,138,778	17,209,102	1.57	1.57	48.4%
Hearthstone Dry Creek	2005	52,303,043	52,303,043	0	0	8,973,059	0	8,973,059	-43,329,984	0.17	0.17	-38.78%
Hearthstone Nampa	2006	11,666,284	11,666,284	0	0	2,562,654	0	2,562,654	-9,103,630	0.22	0.22	-31.90%
JP Morgan Infrastructure Investments Fund	2007	37,000,000	37,000,000	0	-5,658	44,302,131	0	44,302,131	7,307,789	1.20	1.20	2.48%
L&B Realty Advisors Beach Walk	2006	33,013,796	33,013,796	0	0	36,752,690	0	36,752,690	3,738,894	1.11	1.11	2.19%
L&B Realty Advisors KO Olina	2008	28,609,658	28,609,658	0	0	30,529,136	0	30,529,136	1,919,478	1.07	1.07	1.11%
L&B Realty Advisors West Bay Villas	2007	8,712,411	8,712,411	0	0	3,785,480	0	3,785,480	-4,926,931	0.43	0.43	-8.29%
LBJ Infrastructure Group Holdings, LLC (LBJ)	2009	50,000,000	44,346,229	0	0	77,892,000	0	77,892,000	33,545,771	1.76	1.76	12.77%
Lone Star Fund III (U.S.), L.P.	2000	20,000,000	19,827,576	0	0	40,701,250	0	40,701,250	20,873,674	2.05	2.05	31.88%
Lone Star Fund IV (U.S.), L.P.	2001	20,000,000	19,045,866	0	0	43,898,442	0	43,898,442	24,852,576	2.30	2.30	30.15%
Lone Star Fund V (U.S.), L.P.	2005	22,500,000	22,275,229	0	0	20,605,895	0	20,605,895	-1,669,334	0.93	0.93	-1.41%
Lone Star Fund VI (U.S.), L.P.	2008	25,000,000	20,034,018	0	0	31,712,968	0	31,712,968	11,678,950	1.58	1.58	21.76%
Lone Star Real Estate Fund (U.S.), L.P.	2008	25,000,000	20,743,769	0	0	25,403,707	0	25,403,707	4,659,938	1.22	1.22	5.15%
Lone Star Real Estate Fund II	2011	25,000,000	22,169,907	0	0	32,789,371	0	32,789,371	10,619,464	1.48	1.48	24.73%
Lone Star Real Estate Fund III	2014	25,000,000	23,490,784	0	0	26,638,028	0	26,638,028	3,147,244	1.13	1.13	8.20%
M&G Real Estate Debt Fund II	2013	29,808,841	21,523,663	0	0	17,088,107	0	17,088,107	-4,435,556	0.79	0.79	-15.04%
NTE 3a-3b	2012	50,000,000	23,794,565	0	0	28,186,978	0	28,186,978	4,392,413	1.18	1.18	16.03%
NTE Mobility Partners Holding, LLC (NTE)	2009	50,000,000	43,397,054	0	0	105,890,000	0	105,890,000	62,492,946	2.44	2.44	19.33%
Olympus II-Hyphen Solutions	2007	836,511	836,511	0	0	1,418,149	0	1,418,149	581,638	1.70	1.70	5.96%
P&F Housing IV	2006	134,015,889	134,015,889	0	0	83,179,802	0	83,179,802	-50,836,087	0.62	0.62	-8.44%
RREEF North American Infrastructure Fund	2007	50,000,000	50,000,000	0	846,289	55,238,755	0	55,238,755	4,392,466	1.09	1.09	12.59%
Sungate	2005	6,481,568	6,481,568	0	0	308,624	0	308,624	-6,172,944	0.05	0.05	-22.30%
Tucson Loan	2014	4,500,000	4,500,000	0	0	5,082,785	0	5,082,785	582,785	1.13	1.13	5.75%
Total Completed Funds		942,664,487	880,767,673	0	840,631	861,161,062	0	861,161,062	-20,447,242	0.98	0.98	



Dallas Police & Fire Pension System

Private Markets Review | As of March 31, 2021

Private Equity & Debt Funds												
Completed Funds	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Addnl Fees	Cummulative Distributions	Valuation	Total Value	Gain/Loss	DPI Ratio	TVPI Ratio	IRR
Ashmore Global Special Situations Fund IV	2007	70,000,000	70,012,300	0	0	39,652,711	0	39,652,711	-30,359,589	0.57	0.57	-10.12%
BankCap Partners Fund I	2007	20,000,000	20,000,000	0	0	24,960,986	0	24,960,986	4,960,986	1.25	1.25	2.58%
BankCap Partners Opportunity Fund, LP	2013	20,000,000	19,587,052	0	0	18,266,454	0	18,266,454	-1,320,598	0.93	0.93	-5.69%
CDK Southern Cross	2008	1,535,316	1,535,316	0	0	0	0	0	-1,535,316	0.00	0.00	-20.08%
Highland Credit Ops	2006	35,348,165	35,348,165	0	0	29,994,190	0	29,994,190	-5,353,975	0.85	0.85	-2.06%
HM Capital Sector Performance Fund	2008	47,300,000	44,354,248	0	1,933,378	39,792,545	0	39,792,545	-6,495,081	0.86	0.86	-4.01%
Huff Alternative Income Fund	1994	40,000,000	40,000,000	0	2,018,676	66,940,198	0	66,940,198	24,921,522	1.59	1.59	17.82%
Kainos Capital Partners, LP.	2013	35,000,000	30,316,015	0	0	43,263,688	0	43,263,688	12,947,673	1.43	1.43	24.76%
Levine Leichtman Capital Partners IV	2008	50,000,000	38,009,085	0	0	78,916,788	0	78,916,788	40,907,703	2.08	2.08	20.12%
Levine Leichtman Capital Partners V, LP.	2013	25,000,000	19,181,272	0	-4,405	24,506,336	0	24,506,336	5,329,469	1.28	1.28	15.26%
Levine Leichtman Deep Value Fund	2006	75,000,000	75,000,000	0	11,025,662	88,688,224	0	88,688,224	2,662,562	1.03	1.03	0.73%
Levin Leichtman Private Capital Solutions II, LP.	2012	25,000,000	17,961,807	0	-175	18,691,764	0	18,691,764	730,132	1.04	1.04	1.30%
Lone Star Fund IX (U.S.), LP.	2014	35,000,000	24,241,467	0	0	23,459,730	0	23,459,730	-781,737	0.97	0.97	-3.28%
Lone Star Fund VII (U.S.), LP.	2011	25,000,000	23,469,024	0	0	41,624,566	0	41,624,566	18,155,542	1.77	1.77	47.54%
Lone Star Fund VIII (U.S.), LP.	2013	25,000,000	22,564,537	0	0	28,017,551	0	28,017,551	5,453,014	1.24	1.24	16.26%
Merit Energy Partners E-I	2004	7,018,930	7,031,052	0	-1,741	14,975,776	0	14,975,776	7,946,465	2.13	2.13	14.48%
Merit Energy Partners F-I	2005	8,748,346	8,749,275	0	0	3,801,206	0	3,801,206	-4,948,069	0.43	0.43	-17.19%
Merit Energy Partners G, LP	2008	39,200,000	39,320,050	0	0	26,756,651	0	26,756,651	-12,563,399	0.68	0.68	-9.96%
Merit Energy Partners H, LP	2010	10,000,000	10,033,415	0	0	6,870,451	0	6,870,451	-3,162,964	0.68	0.68	-13.78%
Oaktree Fund IV	2001	50,000,000	50,000,000	0	0	82,516,590	0	82,516,590	32,516,590	1.65	1.65	28.36%
Oaktree Loan Fund 2X	2007	60,000,000	60,004,628	0	0	65,066,951	0	65,066,951	5,062,323	1.08	1.08	2.24%
Oaktree Power Fund III	2011	30,000,000	16,167,147	0	0	23,839,959	0	23,839,959	7,672,812	1.47	1.47	12.35%
Pharos Capital Co-Investment, LLC	2007	20,000,000	20,000,000	0	0	10,019,157	0	10,019,157	-9,980,843	0.50	0.50	-9.92%
Pharos Capital Co-Investment, LP	2008	40,000,000	40,000,000	0	0	67,459,271	0	67,459,271	27,459,271	1.69	1.69	8.42%
Pharos Capital Partners IIA, LP.	2005	20,000,000	20,080,306	0	0	17,715,199	0	17,715,199	-2,365,107	0.88	0.88	-2.39%
Pharos Capital Partners III, LP	2012	50,000,000	28,397,038	0	-54,286	20,196,932	0	20,196,932	-8,145,820	0.71	0.71	-19.95%
Total Completed Funds		864,150,757	781,363,199	0	14,917,109	905,993,874	0	905,993,874	109,713,566	1.14	1.14	



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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.



DISCUSSION SHEET

ITEM #C10

Topic: **Hardship Request**

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.078 of the Texas Government Code.

Discussion: Article 6243a-1 Section 6.14(e-3)(2) allows a lump-sum distribution from the DROP account in the event of a financial hardship that is not reasonably foreseeable. Section 6.14(e-4) required the Board to adopt rules related to hardship distributions. The Board's rules are contained in Section G of the DROP Policy.

A Retiree DROP Annuitant submitted an application for a lump sum distribution from his DROP balance in accordance with the DROP policy. The DROP Policy requires that:

- a.** severe financial hardship exists at the time of the application (i.e., not one that may occur sometime in the future);
- b.** the hardship cannot be relieved through any other financial means (i.e., compensation from insurance or other sources, monthly annuity benefits, or liquidation of personal assets) unless using those other sources would also cause a financial hardship; and

Regular Board Meeting – Thursday, September 9, 2021

DISCUSSION SHEET

ITEM #C10

(continued)

- c. the amount requested in the application is reasonably related to and no greater than necessary to relieve the financial hardship.

Due to the timing of when documents were received for this request, at the time of posting the agenda the Executive Director has not determined whether the Hardship request will be approved or recommended to the Board for denial.

Staff

Recommendation: To be **provided** at the meeting.

Regular Board Meeting – Thursday, September 9, 2021



DISCUSSION SHEET

ITEM #C11

Topic: Closed Session - Board serving as Medical Committee

Discussion of the following will be closed to the public under the terms of Section 551.078 of the Texas Government Code:

Application for death benefits for disabled child

Discussion: Staff will present an application for consideration by the Board of a survivor benefits for a disabled child in accordance with Section 6.06(n) of Article 6243a-1.

Regular Board Meeting – Thursday, September 9, 2021



DISCUSSION SHEET

ITEM #C12

Topic: **Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation or any other legal matter in which the duty of the attorneys to DFPF and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.**

Discussion: Counsel will brief the Board on these issues.

Regular Board Meeting – Thursday, September 9, 2021



DISCUSSION SHEET

ITEM #D1

Topic: Public Comment

Discussion: Comments from the public will be received by the Board.

Regular Board Meeting – Thursday, September 9, 2021



DISCUSSION SHEET

ITEM #D2

Topic: Executive Director's report

- a. Associations' newsletters
 - NCPERS Monitor (September 2021)
- b. Open Records
- c. Office Reopening Status
- d. CIO Recruitment

Discussion: The Executive Director will brief the Board regarding the above information.

Regular Board Meeting – Thursday, September 9, 2021

THE NCPERS

MONITOR

The Latest in Legislative News

September 2021

In This Issue

2 Budget Reconciliation



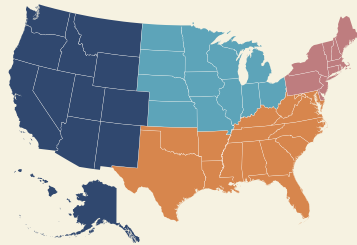
Over the next few weeks and maybe months you will be hearing a lot about infrastructure and reconciliation legislation.

3 Executive Directors Corner



Conducting research aimed at uncovering and establishing facts and principles about retirement security is an ongoing priority for NCPERS. We examine numerous topics as part of our drive to continuously expand and improve our field and the body of knowledge surrounding it.

4 Around the Regions



This month, we will highlight Vermont, North Dakota, Texas and Arizona.

NCPERS Takes Stock of Auto-IRA Movement as Developments Accelerate



What a difference five or 10 years can make. In 2011, NCPERS published an influential white paper on the Secure Choice pension model. In 2016, state-facilitated retirement savings initiatives were on the books in several states—but not a single plan was up and running.

Today, five states have amassed more than \$310 million in program assets, with more than 95% of the total coming from the three operational programs—California, Illinois, and Oregon—that mandate automatic payroll deductions, according to the Georgetown University Center for Retirement Initiatives, which tracks the state-led program. Significant growth still lies ahead, as existing program states are still onboarding employers. Nine more states are in the pipeline, and more could be added as the concept gains traction.

Although the idea of auto-IRAs to spur retirement savings has been around for decades, NCPERS' 2011 white paper changed the conversation, which until then had focused on possible federal initiatives. Frustrated by the lack of action at the federal level, states decided

[CONTINUED ON PAGE 6](#)

Budget Reconciliation

By Tony Roda

Over the next few weeks and maybe months you will be hearing a lot about infrastructure and reconciliation legislation. The Congressional Democratic leadership and the Biden Administration are seeking to advance a reconciliation package and the Senate-approved Infrastructure Investment and Jobs Act (IIJA) through a two-track process.

Progressive House Democrats have indicated that they will not support the IIJA, unless it is passed in conjunction with the reconciliation package. There will be many twists and turns as these two bills wend their way through Congress.

The recently approved Budget Resolution triggers the reconciliation process by instructing House and Senate committees to provide recommendations on outlay and revenue matters within their jurisdiction to the Budget Committees by September 15. There are no penalties if this deadline is not met. However, as a clear sign of the urgency with which Congressional leaders view the reconciliation process, the House Ways and Means Committee, which has jurisdiction over tax and health care issues, just announced that it will begin its work on September 9.

The Budget Resolution provides the tax and health care committees with instructions that allow for:

- \$1.8 trillion in investments for working families, the elderly, and the environment;
- An historic tax cut for Americans making less than \$400,000 a year;
- Changes to ensure the wealthy and large corporations pay their fair share of taxes; and
- Budgetary savings through lower prescription drug costs.



Photo Illustration © 2021, iStock.com

The reconciliation framework includes a mix of policies that both increase and decrease outlays and increase and decrease revenues. In other words, the Ways and Means Committee's and Senate Finance Committee's reconciliation products will provide not only substantial portions of the investments contemplated by the \$3.5 trillion package, but also the lion's share of the revenue and spending offsets.

Given the many political and policy unknowns, it is not at all clear how large the offsets will be. Will they completely pay for the \$3.5 trillion bill? What percentage of the offsets will come from the tax code versus policy changes, particularly in the health care area? And, will any of the offsets directly affect public pension plans?

Our community's recent focus on potentially harmful revenue raisers has centered on three proposals: (1) Unrelated Business Income Tax (UBIT); (2) Rothification; and (3) Financial Transactions Tax. In 2017, the Republican-controlled House approved a provision that would have subjected certain investments of public pension plans, primarily private equity and hedge fund investments, to UBIT. NCPERS, among other stakeholders, took the lead in lobbying against this provision. Fortunately, it was not included in the final tax bill in 2017 and, because it was a Republican initiative, it is not expected to surface in the current Democratically-controlled Congress.

[CONTINUED ON PAGE 7](#)



NCPERS Illuminates the Public Pension Landscape with Fall and Winter Research Initiatives

NCPERS Illuminates the Public Pension Landscape with Fall and Winter Research Initiatives

Conducting research aimed at uncovering and establishing facts and principles about retirement security is an ongoing priority for NCPERS. We examine numerous topics as part of our drive to continuously expand and improve our field and the body of knowledge surrounding it.

The best research is careful, systematic, and—like pensions themselves—patient. That’s why we frequently return to topics we have visited previously, as we will do through this fall and winter. Between now and January, NCPERS members can expect to see research reports on four important topics.

- Sustainability.** In October, we will be publishing “Enhancing the Sustainability of Public Pensions,” a study by NCPERS Research Director Dr. Michael Kahn. This report addresses why public pensions are sustainable even though the majority of them currently have unfunded liabilities. The key is that state and local governments have steady economic capacity. Achieving 100% funding coverage has a certain appeal, but it is not necessary to reach that level in order to pay benefits, no more than it is necessary to have your full mortgage balance in the bank in order to meet your monthly payments.

- Secure Choice.** Also in the fall, we will revisit the fast-changing world of auto-IRA programs with a 10-year retrospective. Ten years ago, the idea of creating state-sponsored retirement savings programs for private sector workers was just being floated; five years ago, only Oregon had a program up and running, and it was in its infancy. Today, Oregon is going strong and California and Illinois have their own auto-IRA programs, and several more states are in the pipeline. This report will examine how the landscape has shifted and what changes are likely in the future.

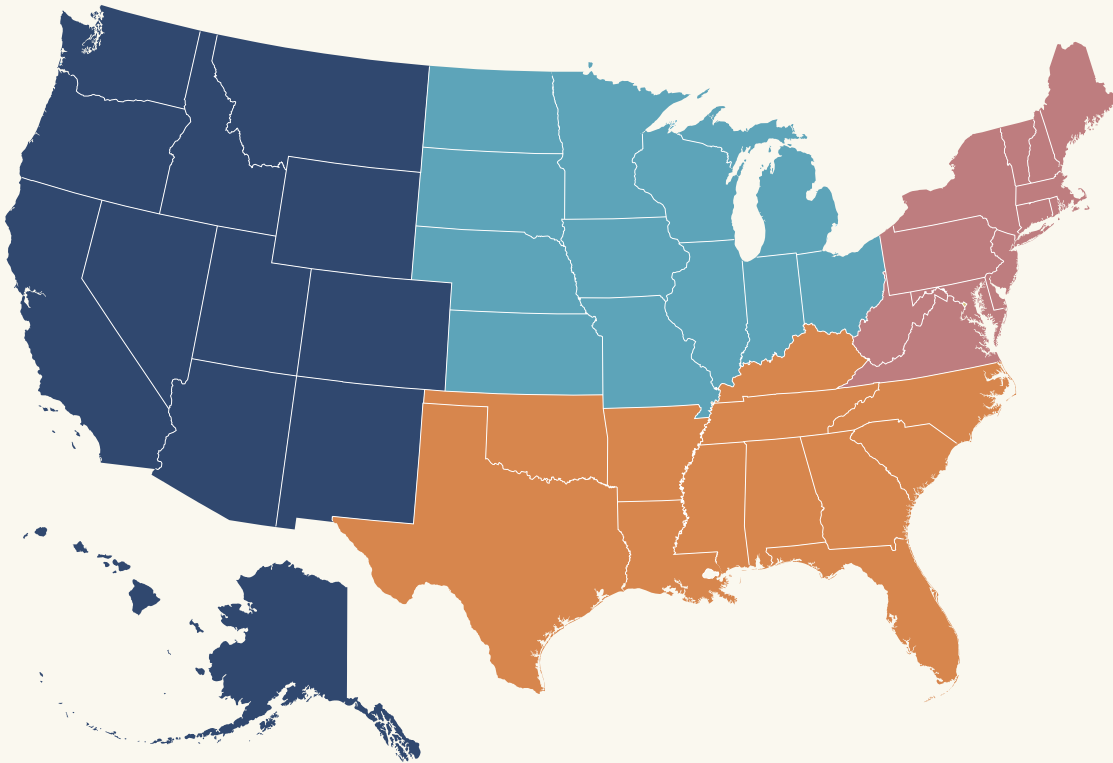


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The best research is careful, systematic, and—like pensions themselves—patient.

[CONTINUED ON PAGE 7](#)

This month, we will highlight Vermont, North Dakota, Texas and Arizona.



NORTHEAST: Vermont



Vermont's statutorily mandated Pension Benefits, Design, and Funding Task Force began work in early July and had seven meetings under its belt by the end of August.

The task force was created after lawmakers put pension reform plans on hold in April, saying there was no consensus on approaches to systemic change. It was formed with the mission of reviewing and reporting on the benefits, design, and funding of retirement and retiree health benefit plans for the Vermont State Employees' Retirement System and the Vermont State Teachers' Retirement System. Under a law enacted June 8, the task force is required to issue an interim report by October 15, and a final report including recommendations by December 2

The 13-member task force includes three representatives, two senators, the commissioner of financial regulation, a state treasury official, three educators designated by the state National Education Association chapter, two state employees designated by the Vermont State Employees' Association, and designee of the Vermont Troopers' Association.

State Treasurer Beth Pearce has advocated preserving defined benefit plans but has said asking the state to contribute more money is not viable. Her proposal, which failed to gain ground in the spring, would have required public employees to increase their contributions, stay in the workforce longer, and reduce or eliminate the cost-of-living adjustments (COLAs) they receive in retirement. Vermont's NEA has favored increasing taxes on the wealthy and on corporations to generate revenue to close the funding gap.

In April, Jill Krowinski, speaker of the Vermont House of Representatives, put pension reform plans on hold and shifted her focus to creating task force. She had convened House lawmakers to develop a plan to address funding shortfalls in the state pension system but ran into criticism from educators and state workers.

[CONTINUED ON PAGE 8](#)

FALL CONFERENCE

September 26 - 28

Westin Kierland Hotel

Scottsdale, AZ



FINANCIAL



LEGISLATIVE



ACTUARIAL



LEGAL

Early-Bird Registration Deadline Friday, September 10

Visit www.NCPERS.org or call 202-601-2445 for more information

#NCPERSFALL21

AUTO-IRA MOVEMENT CONTINUED FROM PAGE 1

to foster retirement savings with their own riffs on the Secure Choice model. Today's auto-IRAs blend elements of earlier auto-IRA plans with the state role envisioned by NCPERS.

NCPERS this fall will take stock of progress and opportunities in state-facilitated retirement initiatives in a report that marks the 10th anniversary of the Secure Choice concept. It will examine how program design is becoming more standardized, review the results of mandatory versus voluntary programs, and look at new initiatives, such as Illinois' recent decision to reduce the threshold for participation to companies with five employers, down from 25.

Although states are still experimenting with approaches, most thus far have congregated around the auto-IRA model. Under this approach, states place a mandate on employers that meet certain criteria including a threshold that is typically, but not always, five or more employees. These employers must either offer a retirement program or register in the state-led option and automatically enroll their workers to save via payroll deduction.

"The auto-IRA went from concept from reality in the last 10 years," said David Morse, a partner with the law firm K&L Gates. The states with existing plans have proved the concept, and "the legal landscape is really settling down."

The five programs that are now up and running consist of a multi-employer plan in Massachusetts; a voluntary marketplace in Washington; and the three auto-IRA programs in California, Illinois, and Oregon, according to the Center on Retirement Initiatives, which is funded by NCPERS and other private-sector sponsors.

A further nine states have enacted legislation authorizing the creation of a state-sponsored retirement savings program. Of these:

- Six are pursuing the auto-IRA model (Colorado, Connecticut, Maine, Maryland, New Jersey, Virginia).

- New York opted for a voluntary payroll-deduction IRA model.
- New Mexico chose a hybrid approach that blends a voluntary marketplace with a voluntary payroll deduction IRA.
- Vermont selected a voluntary marketplace approach.

In addition, two cities—New York City and Seattle—have authorized programs. However, New York City's program is expected to be absorbed by the state program, and Seattle's is on indefinite hold pending state legislative action, according to Angela M. Antonelli, head of the Center for Retirement Initiatives.

Some of the pioneers of the auto-IRA movement have worked for over a decade to launch their programs, because they were operating without benefit of a blueprint. In California, the initiatives date to 2008, when then-Assembly Kevin de León first introduced legislation, which failed to gain enough votes, said Katie Selenski, executive director of the CalSavers Retirement Savings Board. The state enacted legislation in 2016 and began registering its first employers and employees in 2019.

California, which had more than \$102 million in assets as of July 31, hasn't come close to reaching its potential, Selenski said. Registration deadlines have passed for employers with more than 100 and more than 50 workers, respectively. Employers with 5-50 employees will have to sign up by June 30, 2022—and they represent 92% of employers that are subject to the mandate.

In Virginia, which expects to start its program in 2023, "it's been kicking around for 14 years," said Mary Morris, CEO of Virginia 529. Three different studies were undertaken over the years, she said. It should get easier, she added, as more states come on board.

The Virginia program has some unique features—notably that it is housed in an independent agency rather than in the state treasurer's office. Even so, "we had the assistance of California, Illinois, and Oregon and the Center for Retirement Initiatives," Morris said. "The sharing of information has been vital." ♦

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BUDGET RECONCILIATION CONTINUED FROM PAGE 2

Rothification means requiring that all future contributions to defined contribution (DC) plans be made with after-tax, not pre-tax, dollars. This requirement would accelerate taxes into earlier budget years and produce a revenue increase in the 10-year budget window. Rothification has been on the table in Congress in various forms for a number of years. The proposals would affect all DC plans sponsored by state and local governments, including 457(b) and 403(b) plans. Many view this change as leading to reduced retirement savings. However, pending retirement-specific legislation, the SECURE Act 2.0 (H.R. 2954), contains a provision requiring all future, over-age-50, catch-up contributions be made under the Roth method. That provision could be imported into the reconciliation legislation or different Rothification proposals could be considered.

Finally, Senate Budget Committee Chairman Bernie Sanders (I-VT) has introduced S. 1283, which would impose a tax of 50 basis points (bps) on trading transactions related to corporate stock and 10 bps on bonds. Also, Senator Brian Schatz (D-HI), has introduced S. 817, which would impose a 10 bps tax on trading transactions of stocks and bonds. House companion bills also have been introduced. Unlike UBIT, this would not be a direct tax on public plans. Yet, some are concerned that because the new tax would make the financial marketplace more expensive overall these added costs would be spread throughout the system, including to public pensions as investors.

As you begin to hear more about the reconciliation process over the coming weeks, please be aware that this legislation is subject to the Senate's Byrd Rule, which requires that all provisions in the

bill: (a) produce a change in outlays or revenues; (b) achieve the reconciliation instructions provided to the relevant committee of jurisdiction; (c) not be "merely incidental" to the non-budgetary components of the provision; (d) not increase net outlays or decrease net revenues in any fiscal year following the 10-year budget window; and (e) not affect any aspect of the Social Security Act. Earlier this year the Byrd Rule forced Democrats to drop a provision from the American Rescue Plan to raise the federal minimum wage to \$15 per hour. Some proposed provisions of the \$3.5 trillion reconciliation package may also run afoul of the Byrd Rule, including the paid family and medical leave requirement.

Please be aware that NCPERS will monitor these important issues as events unfold, particularly any potential revenue raisers that could negatively affect state and local governmental pension plans. ♦

Tony Roda is a partner at the Washington, D.C. law and lobbying firm [Williams & Jensen](#), where he specializes in federal legislative and regulatory issues affecting state and local governmental pension plans. He represents NCPERS and statewide, county, and municipal pension plans in California, Colorado, Georgia, Kentucky, Ohio, Tennessee, and Texas. He has an undergraduate degree in government and politics from the University of Maryland, J.D. from Catholic University of America, and LL.M (tax law) from Georgetown University.

EXECUTIVE DIRECTORS CORNER CONTINUED FROM PAGE 3

- **Retiree Medical Trusts.** In January, watch for our update on RMTs. At a time when pension systems are under tremendous pressure to manage retiree healthcare costs, RMTs are a viable option. These trusts harness the power of collective investing to provide income in retirement for the specific purpose of defraying medical expenses. We've examined this topic several times since 2006, when RMTs emerged as a cost-effective option for managing rising retiree medical costs. This report examines the pros and cons of RMTs, describes their basic operation and structure of RMTs, and takes stock of recent changes and new features.

- **2021 Public Retirement Systems Study.** Each January, NCPERS publishes its annual study of public employee retirement systems, based on a detailed survey. This compendium of data and analysis serves as a benchmarking tool for public pension plans and provides granular detail on the fiscal and operational status of public pensions. Pension trustees, managers, and administrators use the survey's data to evaluate their operations and performance, and can access it via an interactive version of the study that is available at no cost to members. This login-protected "dashboard" enables public pension funds to build their own comparisons and peer groups in order to analyze their performance, assumptions, and expenses.

Research—along with education and advocacy—is a cornerstone of NCPERS' value proposition to members. We look forward to continuing to provide you with original and insightful works to help you better understand, explain, and defend public pensions. ♦

[AROUND THE REGIONS CONTINUED FROM PAGE 4](#)

At its most recent meeting on August 25, the task force called witnesses to compare Vermont pensions to other state pensions systems and other state reform efforts, to review pension funding options, and to examine the relationship between pensions and state recruitment and retention activities. Its next meeting is slated for September 9.

MIDWEST: North Dakota



The interim Retirement Committee of the North Dakota Legislative Assembly has begun work to close the state pension plan to newly hired employees effective January 1, 2024.

New hires under the North Dakota Public Employees Retirement System (NDPERS) will be transitioned to the defined contribution plan rather than the defined benefit plan.

The Bismark Tribune reported that the Legislative Assembly has already resolved to close the current system to new enrollment in 2024. It quoted Rep. Mike Lefor, a Republican who chairs the interim Retirement Committee, as saying the resolution “doesn’t give us the flexibility of saying ‘yes’ or ‘no.’” The committee is expected to hire a consultant and report its findings and recommendations to the legislature.

The debate has been driven by NDPERS’ unfunded accrued liability, which stood just shy of \$1.5 billion on July 1, 2020, yielding a 69.1% funded ratio, according to an actuarial report released in October.

Legislation mandating the shift to a defined contribution plan passed the House on a vote of 75-14 and the Senate on a vote of 34-13. Governor Doug Burgum, a Republican, signed it into law on May 7. Employees hired before January 1, 2024 are not affected by the changes.

SOUTH: Texas



The U.S. Department of Justice announced July 28 that a man who defrauded the Texas Employees Retirement System (ERS) and the Internal Revenue Service has been sentenced to eight years in prison and repayment of \$975,863 in restitution to multiple victims

The U.S. District Court for the Western District of Texas sentenced Olumide Bankole Morakinyo, 38, a Nigerian national residing in Canada, for conspiracy to commit money laundering. His co-conspirator, New Hampshire resident Lukman Aminu, was charged in a separate indictment and was sentenced to 51 months in prison in December 2019.

The fraud against the ERS was perpetrated by accessing the internet portal for plans participants by using interstate wires and participants’ personally identifiable information. This information was then used to create 30 accounts for ERS participants, 29 of whom were over the age of 60.

These plan participants did not previously have accounts in the ERS internet portal and did not give permission to create the accounts. Once the accounts were created, the fraudsters changed the bank accounts on file with ERS for 26 of the 30 participants’ retirement payments, rerouting deposit retirement payments to debit cards controlled by the perpetrators or their co-conspirators.

ERS detected the fraudulent activity, but not before ERS sustained an actual loss of \$10,605.18 with a potential loss estimated at \$131,461.64.

[CONTINUED ON PAGE 9](#)

NCPERS

Around the Regions

[AROUND THE REGIONS CONTINUED FROM PAGE 8](#)

WEST: Arizona



The Arizona Public Safety Personnel Retirement System has strengthened its operations over the past year and a half by making sweeping changes in its accounting and investment practices, according to a report in *Institutional Investor*.

The system's chief administrator, Mike Townsend, who joined in December 2019, has focused on improving the pension's funded status, reputation, and internal accounting procedures. Meanwhile, his counterpart Mark Steed, the chief investment officer, has been revamping asset allocation and improving how his team operates, *Institutional Investor* reported.

The article noted that a January 2020 audit linked problems at the fund to staff turnover, database changes, and a lack of written policies and procedures. The fund misreported certain investments and overstated net appreciation in fair value and fees.

Townsend took to the road to educate fund constituents about his initiatives to decrease unfunded liability. He also overhauled his

team; half the staff has joined since he came on board. The fund is currently implementing a new pension administration system and a new actuarial funding policy.

"It's a lot like changing your diet or exercising," Townsend told *Institutional Investor*. "The short-term change is easy; the hard part is making lasting change."

Steed, who has been at the fund since 2007, was promoted to chief investment officer in 2018. His team has "pulled apart the actuarial models" to determine what happens to contribution rates when investments have a bad year, *Institutional Investor* reported. "You don't want to create a portfolio that creates a loss so large that would result in a contribution rate change," Steed told the magazine.

The investment team pared the portfolio's 11 asset classes down to three: capital appreciation, which includes public and private equity strategies; contractual income, which includes bonds and private credit; and diversifying strategies, which were designed to broaden the fund's sources of returns, the article said.

For each individual investment decision, the team uses a graph to plot out how confident PSPRS is in an investment's expected return, *Institutional Investor* said. For example, a venture capital investment would get a "high payout," "low confidence" rating given the asset class's risk profile. ♦

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The Voice for Public Pensions



Calendar of Events 2021

September

FALL Conference (Scottsdale, AZ)

September 26 – 28

October

Chief Officers Summit (San Francisco)

October 20 –22, 2021

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