AGENDA



Date: <u>March 2, 2018</u>

The regular meeting of the Dallas Police and Fire Pension System Board of Trustees will be held at 1:00 p.m. on Thursday, March 8, 2018, in the Second Floor Board Room at 4100 Harry Hines Boulevard, Dallas, Texas. 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 February 8, 2018

2. Approval of Refunds of Contributions for the Month of February 2018

1 of 5

- **3.** Approval of Activity in the Deferred Retirement Option Plan (DROP) for March 2018
- 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 DROP Revocation Contributions
- 9. Denial of Hardship Request

C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

- 1. NEPC: Fourth Quarter 2017 Investment Performance Analysis and Third Quarter 2017 Private Markets & Real Assets Review
- 2. Private asset briefing

 $2 \ \mathrm{of} \ 5$

3. Legal issues

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.071 of the Texas Government Code.

- **a.** Potential claims involving fiduciaries and advisors
- **b.** DPFP v. The Townsend Group and Gary Lawson

4. Confirmation of Chief Legal Officer

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.074 of the Texas Government Code.

5. Executive Director Evaluation Process

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.074 of the Texas Government Code.

6. Investment Consultant Search

- 7. Committee Policy and Procedure
- 8. Appointment of an Audit Committee
- 9. Quarterly financial reports

10. Board approval of Trustee education and travel

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

11. Board Members' reports on meetings, seminars and/or conferences attended

Harvard Business School: HBX Leading with Finance

12. Hardship Requests from DROP Members

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.

D. BRIEFING ITEMS

1. Reports and concerns of active members and pensioners of the Dallas Police and Fire Pension System

2. Executive Director's report

- a. Associations' newsletters
 - NCPERS Monitor (February 2018)
- **b.** Employee recognition Fourth Quarter 2017
 - Employee of the Quarter award
 - Employee of the Year
- **c.** Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting
- d. DROP revocation update
- e. Chief Investment Officer recruitment update
- f. Chief Financial Officer recruitment update
- g. April Board Meeting start time

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.



ITEM #A

MOMENT OF SILENCE

In memory of our Members and Pensioners who recently passed away

(February 7, 2018 – February 25, 2018)

NAME	ACTIVE/ RETIRED	DEPARTMENT	DATE OF DEATH
Jeff D. Chappell	Retired	Police	Feb. 7, 2018
William W. Stanley	Retired	Police	Feb. 10, 2018
Robert O. Kirkpatrick	Retired	Police	Feb. 16, 2018
Billy J. Lawrence	Retired	Police	Feb. 22, 2018
Milton J. French	Retired	Fire	Feb. 24, 2018
Richard C. Harding	Active	Police	Feb. 25, 2018
John M. Mays	Retired	Police	Feb. 25, 2018

Regular Board Meeting – Thursday, March 8, 2018

Dallas Police and Fire Pension System Thursday, February 8, 2018 1:00 p.m. 4100 Harry Hines Blvd., Suite 100 Second Floor Board Room Dallas, TX

Regular meeting, William F. Quinn, Chairman, presiding:

ROLL CALL

Board Members

Present at 1:00 p.m. William F. Quinn, Nicholas A. Merrick, Samuel L. Friar, Blaine Dickens, Ray Nixon, Gilbert A. Garcia, Frederick E. Rowe, Tina Hernandez Patterson, Robert C. Walters (by telephone), Joseph P. Schutz

Present at 1:15 p.m. Kneeland Youngblood (by telephone)

Absent: None

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

Others Chuck Campbell, Ron Pastore, Mark Morrison, Robin McElligott, Chris Levell, Mark Cintolo, Rhett Humphreys, Iva Giddiens (by telephone), James Martinez (by telephone), James Elliston, Janis Elliston, James Freeman, Lloyd D. Brown, Kenneth Sprecher, Larry Williams, Joe Thompson, Mark Leitch, Julian Bernal, Frank Ruspoli, Darryl Wachsman, Jerry M. Rhodes, Keith Allen, Joe Alexander, Zaman Hemani

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The meeting was called to order at 1:00 p.m.

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1 of 7

A. MOMENT OF SILENCE

The Board observed a moment of silence in memory of active police officer Steven R. Brown, retired police officers Billy L. Stroud, Gregory D. Epley, Milton O. Johns, Thomas A. Hutson, Charles H. Wesson, and retired firefighters Howard L. Morgan, J. F. Salter, B. D. McCarley, James C. Young, Virgil E. Wall, H. H. Stockton.

No motion was made.

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B. CONSENT AGENDA

1. Approval of Minutes

Regular meeting of January 11, 2018

- 2. Approval of Refunds of Contributions for the Month of January 2018
- 3. Approval of Activity in the Deferred Retirement Option Plan (DROP) for February 2018
- 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 DROP Revocation Contributions
- 9. Spouse Wed After Retirement (SWAR)

After discussion, Mr. Friar made a motion to approve the minutes of the meeting of January 11, 2018. Mr. Garcia seconded the motion, which was unanimously approved by the Board. Mr. Youngblood was not present for the vote.

After discussion, Mr. Garcia made a motion to approve the remaining items on the Consent Agenda, subject to the final approval of the staff. Mr. Friar seconded the motion, which was unanimously approved by the Board. Mr. Youngblood was not present for the vote.

2 of 7

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C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. AEW Capital Management portfolio review

Ron Pastore, Senior Portfolio Manager; Mark Morrison, Assistant Portfolio Manager; and Robin McElligott, Portfolio Controller, with AEW, were present for the discussion.

The Board went into a closed executive session - real estate at 1:32 p.m.

The meeting was reopened at 3:15 p.m.

AEW updated the Board on the status and plans for DPFP's investments in RED Consolidated Holdings and Camel Square, an office development in Phoenix. AEW took over management of these investments in February of 2015. AEW last presented a portfolio review to the Board in April 2017.

No motion was made.

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2. Real estate portfolio briefing

The Board went into a closed executive session - real estate at 1:32 p.m.

The meeting was reopened at 3:15 p.m.

Staff discussed the current composition of the real estate portfolio, including a review and strategy for each real estate asset.

No motion was made.

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3. Illiquid assets and asset allocation considerations

Chris Levell, Partner, Mark Cintolo, Senior Consultant, and Rhett Humphreys, Partner, with NEPC, were present for the discussion.

Staff provided an overview of projected cash flow pacing and specific return assumptions for DPFP's illiquid assets, including outlining the expected time frame to reduce DPFP's exposure to illiquid assets. Staff also discussed how the composition of the illiquid asset portfolio should be considered in assessing changes to asset allocation targets.

NEPC discussed their asset allocation framework and possible scenarios for DPFP to transition its illiquid assets into target asset allocation mixes.

No motion was made.

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Robert C. Walters (by telephone) left the meeting at 3:14 p.m.

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4. Fiduciary liability insurance

Iva Giddiens and James Martinez, of Arthur J. Gallagher, were present by telephone.

DPFP currently carries \$50 million in fiduciary insurance coverage. Staff proposed reducing this coverage to reduce premium expense.

After discussion, Mr. Garcia made a motion to maintain the current fiduciary insurance coverage level of \$50 million. Mr. Merrick seconded the motion. The motion was approved by the Board with Mr. Nixon opposed. Mr. Walters was not present for the vote.

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5. Board of Trustees Governance and Conduct Policy

Staff proposed changes to the Governance and Conduct Policy relating to 1) the basis for excusing Trustee absences from Board meetings and 2) the method by which Trustees may request that items be placed on the Board meeting agenda.

After discussion, Mr. Garcia made a motion to approve the proposed changes to the Board of Trustees Governance and Conduct Policy. Mr. Merrick seconded the motion, which was unanimously approved by the Board. Mr. Walters was not present for the vote.

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6. Status of RFP for Investment Consultant

Staff provided an update on the RFP process and timeline.

No motion was made.

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Tina Hernandez Patterson left the meeting at 4:31 p.m.

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7. Chief Investment Officer

The Executive Director discussed the Chief Investment Officer recruitment.

After discussion, Mr. Garcia made a motion to approve starting the Chief Investment Officer search. Mr. Friar seconded the motion, which was unanimously approved by the Board. Mr. Walters and Ms. Hernandez Patterson were not present for the vote.

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8. Legal issues

- a. DPFP v. The Townsend Group and Gary Lawson
- b. Rawlings v. DPFP

No discussion was held and no motion was made regarding legal issues.

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9. Board approval of Trustee education and travel

The Board and staff discussed approval of future education and business-related travel. There was no future investment-related travel.

No motion was made.

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10. Unforeseeable Emergency Requests from DROP Members

No discussion was held regarding Unforeseeable Emergency Requests from DROP members.

No motion was made.

D. BRIEFING ITEMS

1. Reports and concerns of active members and pensioners of the Dallas Police and Fire Pension System

The Board heard member and pensioner comments.

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Gilbert Garcia left the meeting at 5:05 p.m.

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6 of 7

2. Executive Director's report

- a. Associations' newsletters
 - NCPERS Monitor (January 2018)
 - NCPERS PERSist (Winter 2018)
- **b.** Employee recognition Fourth Quarter 2017
 - Employee Service Award
 - Employee of the Quarter award
 - Employee of the Year
- **c.** DROP revocation
- **d.** USERRA
- e. Chief Financial Officer

The Executive Director's report was presented. No motion was made.

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Ms. Gottschalk stated that there was no further business to come before the Board. On a motion by Mr. Friar and a second by Mr. Merrick, the meeting was adjourned at 5:08 p.m.

William F. Quinn Chairman

ATTEST:

Kelly Gottschalk Secretary



DISCUSSION SHEET

ITEM #C1

Topic:	NEPC: Fourth Quarter 2017 Investment Performance Analysis and Third Quarter 2017 Private Markets & Real Assets Review							
Attendees:	Rhett Humphreys, CFA – Partner Keith Stronkowsky, CFA – Senior Consultant							
Discussion:	NEPC will present the above reports.							

Regular Board Meeting – Thursday, March 8, 2018

INVESTMENT SUMMARY: *QUARTER ENDING DECEMBER 31, 2017*

DALLAS POLICE & FIRE PENSION SYSTEM

March 8, 2018

Rhett Humphreys, CFA, Partner Keith Stronkowsky, CFA, Senior Consultant





BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

Q4 2017 PERFORMANCE & ASSET ALLOCATION

December 31, 2017

INDEX PERFORMANCE SUMMARY AS OF 12/31/2017

	2010	2011	2012	2013	2014	2015	2016	Q1	Q2	Q3	Oct	Nov	Dec	Q4	YTD
MSCI EM	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	11.4%	6.3%	7.9%	3.5%	0.2%	3.6%	7.4%	37.3%
MSCI EAFE	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	7.2%	6.1%	5.4%	1.5%	1.0%	1.6%	4.2%	25.0%
MSCI ACWI	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	6.9%	4.3%	5.2%	2.1%	1.9%	1.6%	5.7%	24.0%
S&P 500	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	6.1%	3.1%	4.5%	2.3%	3.1%	1.1%	6.6%	21.8%
Russell 1000	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	6.0%	3.1%	4.5%	2.3%	3.0%	1.1%	6.6%	21.7%
Russell 2500	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	3.8%	2.1%	4.7%	1.5%	3.3%	0.3%	5.2%	16.8%
JPM GBI-EM Glob Div	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	6.5%	3.6%	3.6%	-2.8%	1.7%	2.0%	0.8%	15.2%
Russell 2000	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	2.5%	2.5%	5.7%	0.9%	2.9%	-0.4%	3.3%	14.6%
BC US STRIPS 20+ Yr	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	1.8%	6.1%	0.7%	0.1%	1.5%	2.8%	4.5%	13.7%
BC US Long Credit	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	1.7%	4.7%	2.2%	0.7%	0.4%	2.0%	3.2%	12.2%
BC US Govt/Cred Long	10.2%	22.5%	8.8%	-8.8%	19.3%	-3.3%	6.7%	1.6%	4.4%	1.5%	0.4%	0.5%	1.9%	2.8%	10.7%
JPM EMBI Glob Div	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	3.9%	2.2%	2.6%	0.4%	0.1%	0.7%	1.2%	10.3%
BC Muni High Yield	7.8%	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	4.1%	2.0%	1.5%	0.3%	0.3%	1.3%	1.8%	9.7%
BC US Corporate HY	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	2.7%	2.2%	2.0%	0.4%	-0.3%	0.3%	0.5%	7.5%
BC Global Agg	-5.3%	-5.3%	-4.1%	2.7%	-0.6%	3.3%	2.1%	1.8%	2.6%	1.8%	-0.4%	1.1%	0.3%	1.1%	7.4%
CS Hedge Fund	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	1.2%	2.1%	0.8%	1.8%	1.3%	0.1%	-	1.4%	6.2%
BC Municipal	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	1.6%	2.0%	1.1%	0.2%	-0.5%	1.0%	0.7%	5.4%
FTSE NAREIT Eqy REITs	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	1.2%	1.5%	0.9%	-1.0%	2.7%	-0.2%	1.5%	5.2%
CS Leveraged Loan	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	9.9%	1.2%	0.8%	1.1%	0.7%	0.1%	0.4%	1.2%	4.2%
BC US Agg Bond	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	0.8%	1.4%	0.8%	0.1%	-0.1%	0.5%	0.4%	3.5%
BC TIPS	6.3%	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	1.3%	-0.4%	0.9%	0.2%	0.1%	0.9%	1.3%	3.0%
BBG Commodity	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	-2.3%	-3.2%	2.5%	2.1%	-0.5%	3.0%	4.7%	1.7%
BC US Govt/Cred 1-3	2.8%	1.6%	1.3%	0.6%	0.8%	0.7%	1.3%	0.4%	0.3%	0.3%	0.0%	-0.2%	0.0%	-0.2%	0.8%
Alerian MLP	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	3.9%	-6.4%	-3.0%	-4.1%	-1.4%	4.7%	-0.9%	-6.5%



Source: Bloomberg, Barclays, Alerian, Nareit, MSCI, JP Morgan, Credit Suisse

Dallas Police & Fire Pension

TRAILING RETURNS: BY BROAD COMPOSITE

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
DPFP	2,099,918,772	100.0	1.2	99	5.1	99	-1.8	99	1.2	99	1.9	99	0.9	99	6.0	Jun-96
Policy Index			3.3	62	15.2	37	9.8	1	10.0	6	9.1	6	6.2	17		Jun-96
Total Equity	710,171,843	33.8	3.8		-5.0		-1.3		4.6		4.6				4.6	Dec-10
Total Equity Policy Index			6.3		26.8											Dec-10
Total Fixed Income	340,069,071	16.2	0.6	69	3.7	91	2.6	65	3.1	46	5.4	21	5.1	40	5.7	Jul-06
Total Fixed Income Policy Index			1.1	29	8.5	35										Jul-06
Total Real Assets	788,167,344	37.5	-0.8		11.2		-5.7		-2.9		-2.8				-2.8	Dec-10
Total Real Assets Policy Index			3.2		12.6											Dec-10
Total GAA	144,927,028	6.9	3.8	31	8.4	81	5.3	44	4.8	56	5.7	53	4.1	61	4.2	Jul-07
Total GAA Policy Index			3.1	55	14.2	48	8.1	11	7.3	29	7.4	19	7.1	9	7.2	Jul-07
Cash Equivalents	116,583,486	5.6	0.2		0.9										1.0	Apr-15
91 Day T-Bills			0.3		0.9		0.4		0.3		0.2		0.3		0.5	Apr-15

Policy Indexes are calculated using policy benchmarks and policy weights of the underlying sub composites.



Dallas Police & Fire Pension TRAILING RETURNS: BY ASSET CLASS

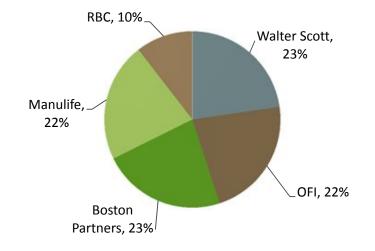
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
DPFP	2,099,918,772	100.0	1.2	99	5.1	99	-1.8	99	1.2	99	1.9	99	0.9	99	6.0	Jun-96
Policy Index			3.3	62	15.2	37	9.8	1	10.0	6	9.1	6	6.2	17		Jun-96
Global Equity	430,846,971	20.5	5.7	37	27.3	25	10.6	28	11.9	42	9.6	50	5.5	49	6.7	Jul-06
Global Equity Weighted Index			5.8	34	24.6	42	9.4	44	11.4	49	9.3	55	5.6	47	6.7	Jul-06
Emerging Markets Equity	50,246,350	2.4														Jan-18
MSCI Emerging Markets Gross			7.5		37.8		9.5		4.7		2.9		2.0			Jan-18
Private Equity	229,078,522	10.9	0.6		-27.3		-16.9		-8.5		-5.4		-4.2		-0.7	Oct-05
Russell 3000 + 3%			7.1		24.7		14.4		19.0		16.9		11.8		12.1	Oct-05
Short Term Core Bonds	50,106,025	2.4	-0.1												0.2	Jun-17
BBgBarc US Treasury 1-3 Yr TR			-0.3		0.4		0.6		0.6		0.7		1.4		0.0	Jun-17
Global Bonds	66,210,329	3.2	0.0	91	11.6	7	2.8	60	1.5	70	3.2	63			3.2	Dec-10
BBgBarc Global Aggregate TR			1.1	30	7.4	53	2.0	78	0.8	82	2.0	83	3.1	82	2.0	Dec-10
High Yield	81,894,067	3.9	0.9	24	11.4	6	5.8	65	5.3	46	7.2	12			7.2	Dec-10
BBgBarc Global High Yield TR			0.9	25	10.4	6	7.1	9	5.7	34	7.2	12	8.1	1	7.2	Dec-10
Bank Loans	110,220,703	5.2	1.5	14	5.4	81	4.9	23							4.2	Jan-14
S&P/LSTA U.S. Leveraged Loan			1.1	28	4.1	89	4.4	30	4.0	31	4.5	38	4.9	48	3.7	Jan-14
Emerging Markets Debt	20,319,725	1.0	0.1	91	14.8	23	7.2	21	1.9	57	4.3	57			4.3	Dec-10
50% JPM EMBI/50% JPM GBI-EM			1.0	44	12.7	47	4.9	64	1.2	60	3.7	58			3.7	Dec-10
Private Debt	11,318,223	0.5	-1.7		-22.9										-10.5	Jan-16
Barclays Global High Yield +2%			1.4		12.6		9.2								14.6	Jan-16
Natural Resources	210,173,800	10.0	-2.2		-2.8		3.6		5.4		5.6				5.6	Dec-10
S&P Global Natural Resources			8.5		22.0		6.6		1.9		-0.1		-0.9		-0.1	Dec-10
Infrastructure	60,732,477	2.9	-0.1		72.5		16.1		11.4						10.9	Jul-12
S&P Global Infrastructure Index			1.9		20.1		6.1		9.2		8.2		3.4		9.7	Jul-12
Real Estate	517,261,067	24.6	-0.2		2.4		-12.1		-7.2		-6.0		-4.7		3.6	Mar-85
NCREIF Property Index			1.8		7.0		9.4		10.2		10.8		6.1		8.0	Mar-85
Risk Parity	85,114,847	4.1	4.5	16	13.4	52	5.6	39	4.4	61	7.4	19			7.4	Dec-10
60% MSCI ACWI/40% Barclays Global Agg			3.9	31	17.1	29	6.5	20	6.8	38	6.1	44	4.3	57	6.1	Dec-10
GTAA	23,494,387	1.1	3.3	53	14.8	45	5.2	44	5.7	48	6.2	44			6.2	Dec-10
60% MSCI ACWI/40% Barclays Global Agg			3.9	31	17.1	29	6.5	20	6.8	38	6.1	44	4.3	57	6.1	Dec-10
Absolute Return	36,317,793	1.7	2.7	50	-5.0	84	5.8	18	5.8	23					6.0	Aug-11
HFRX Absolute Return Index			0.1	75	3.4	47	2.2	39	2.2	54	1.1	54	-1.0	86	1.6	Aug-11
Cash Equivalents	116,583,486	5.6	0.2		0.9										1.0	Apr-15
91 Day T-Bills			0.3		0.9		0.4		0.3		0.2		0.3		0.5	Apr-15



PUBLIC EQUITY: COMPOSITE OVERVIEW

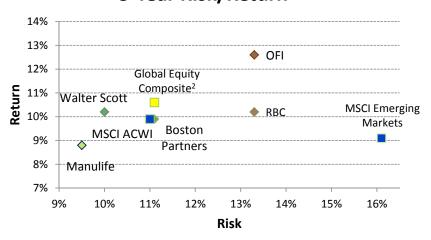
Manager	Benchmark	Asset Class	Descriptions
Boston Partners	MSCI ACWI	Global Equity	Fundamental Value
Manulife	MSCI ACWI	Global Equity	Value; Bottom Up
OFI	MSCI ACWI	Global Equity	Fundamental Growth
Walter Scott	MSCI ACWI	Global Equity	Growth; Bottom Up
RBC	MSCI Emerging Markets	Emerging Market Equity	Top Down / Bottom up Blend

Public Equity Managers



*May not add to 100% due to rounding.

3-Year Risk/Return¹



¹Boston Partners and Manulife 3-year risk/reward obtained from manager separate account composites. RBC 3-year risk/reward obtained from eVestment separate account composite. ²Global Equity Composite consists of Boston Partners, Manulife, OFI, and Walter Scott performance.

Dallas Police & Fire Pension

PUBLIC EQUITY: TRAILING MANAGER RETURNS

	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Return (%)	Since
DPFP	2,099,918,772	100.0	1.2	5.1	-1.8	1.2	1.9	0.9	6.0	Jun-96
Policy Index			3.3	15.2	9.8	10.0	9.1	6.2		Jun-96
InvestorForce Public DB Net Rank			99	99	99	99	99	99	76	Jun-96
Public Equity	481,093,321	22.9	5.7	27.3	10.6	11.9	9.6	5.5	6.7	Jul-06
Public Equity Weighted Index			5.8	24.6	9.4	11.4	9.3	5.6	6.7	Jul-06
Global Equity	430,846,971	20.5	5.7	27.3	10.6	11.9	9.6	5.5	6.7	Jul-06
Global Equity Weighted Index			5.8	24.6	9.4	11.4	9.3	5.6	6.7	Jul-06
eV All Global Equity Net Rank			37	25	28	42	50	49	41	Jul-06
Boston Partners Global Investors Inc	108,842,709	5.2	6.1						10.0	Jul-17
MSCI ACWI Gross			5.8	24.6	9.9	11.4	9.3	5.2	11.5	Jul-17
eV Global Large Cap Value Eq Net Rank			12						36	Jul-17
Manulife Asset Management LLC	105,126,247	5.0	3.9						6.1	Jul-17
MSCI ACWI Gross			5.8	24.6	9.9	11.4	9.3	5.2	11.5	Jul-17
eV Global Large Cap Value Eq Net Rank			75						90	Jul-17
OFI	108,045,254	5.1	6.3	35.3	12.6	13.3	11.0	7.3	6.6	Oct-07
MSCI ACWI Gross			5.8	24.6	9.9	11.4	9.3	5.2	4.9	Oct-07
eV Global Large Cap Growth Eq Net Rank			41	35	28	42	39	22	30	Oct-07
Walter Scott	108,782,217	5.2	6.1	24.2	10.2	10.6	9.6		9.7	Dec-09
MSCI ACWI Gross			5.8	24.6	9.9	11.4	9.3	5.2	10.0	Dec-09
eV Global Large Cap Growth Eq Net Rank			47	87	58	92	79		77	Dec-09
RREEF Global REIT	50,544	0.0								
eV Global REIT Net Rank										
Emerging Markets Equity	50,246,350	2.4								Jan-18
MSCI Emerging Markets Gross			7.5	37.8	9.5	4.7	2.9	2.0		Jan-18
eV Emg Mkts Equity Net Rank										Jan-18
RBC	50,246,350	2.4								Jan-18
MSCI Emerging Markets			7.4	37.3	9.1	4.3	2.6	1.7		Jan-18
eV Emg Mkts Equity Net Rank										Jan-18

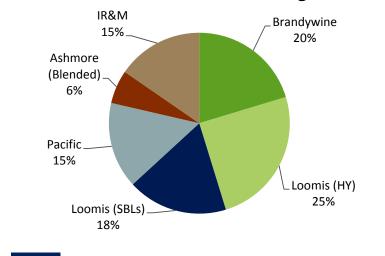
December 31, 2017

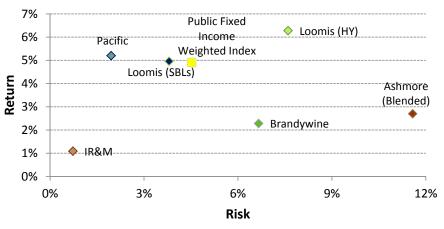
PUBLIC FIXED INCOME: COMPOSITE OVERVIEW

Manager	Benchmark	Asset Class	Descriptions
Brandywine	Barclays Global Aggregate	Global Bonds	Aggressive, but diversified
Loomis (HY)	Barclays Global High Yield	High Yield	Aggressive
Loomis (BLs)	S&P/LSTA US Levered	Bank Loans	Bank Loans (min 65% of portfolio)
Pacific Asset Management	Credit Suisse Leveraged Loan	Bank Loans	Focus on largest, most liquid credits
Ashmore (Blended Currency)	50% JPM EMBI GD/25% JPM ELMI+/25% JPM GBI EM GD	Emerging Market Debt	Blended Currency EMD
IR&M	Barclays 1-3 Yr treasury	Short Term Core Bonds	Short Term Liquidity

Public Fixed Income Managers







*Pacific Asset Management and IR&M 3-year risk/return obtained from manager composites.

Dallas Police & Fire Pension

PUBLIC FIXED INCOME: TRAILING MANAGER RETURNS

	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Return (%)	Since
DPFP	2,099,918,772	100.0	1.2	5.1	-1.8	1.2	1.9	0.9	6.0	Jun-96
Policy Index InvestorForce Public DB Net Rank			3.3 99	15.2 99	9.8 99	10.0 99	9.1 99	6.2 99	 76	Jun-96 Jun-96
Public Fixed Income	328,750,848	15.7	0.7	9.6	4.8	3.6	5.8		5.8	Dec-10
Public Fixed Income Weighted Index			0.9	7.9	4.9	4.0	5.4		5.4	Dec-10
Short Term Core Bonds	50,106,025	2.4	-0.1						0.2	Jun-17
BBgBarc US Treasury 1-3 Yr TR			-0.3	0.4	0.6	0.6	0.7	1.4	0.0	Jun-17
IR&M	50,106,025	2.4	-0.1						0.2	Jul-17
BBgBarc US Treasury 1-3 Yr TR			-0.3	0.4	0.6	0.6	0.7	1.4	0.0	Jul-17
eV US Short Duration Fixed Inc Net Rank			68						77	Jul-17
Global Bonds	66,210,329	3.2	0.0	11.6	2.8	1.5	3.2		3.2	Dec-10
BBgBarc Global Aggregate TR			1.1	7.4	2.0	0.8	2.0	3.1	2.0	Dec-10
eV All Global Fixed Inc Net Rank			91	7	60	70	63		63	Dec-10
Brandywine	66,210,329	3.2	0.0	11.6	2.3	1.7	4.1	5.4	5.1	Oct-04
BBgBarc Global Aggregate TR			1.1	7.4	2.0	0.8	2.0	3.1	3.7	Oct-04
eV All Global Fixed Inc Net Rank			91	7	73	68	45	35	49	Oct-04
High Yield	81,894,067	3.9	0.9	11.4	5.8	5.3	7.2		7.2	Dec-10
BBgBarc Global High Yield TR			0.9	10.4	7.1	5.7	7.2	8.1	7.2	Dec-10
eV Global High Yield Fixed Inc Net Rank			24	6	65	46	12		12	Dec-10
Loomis Sayles	81,894,067	3.9	0.9	11.5	6.3	6.6	7.6	8.5	9.9	Oct-98
BBgBarc Global High Yield TR			0.9	10.4	7.1	5.7	7.2	8.1	8.7	Oct-98
eV Global High Yield Fixed Inc Net Rank			24	6	35	12	1	1	1	Oct-98



Dallas Police & Fire Pension

PUBLIC FIXED INCOME: TRAILING MANAGER RETURNS

	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Return (%)	Since
Bank Loans	110,220,703	5.2	1.5	5.4	4.9				4.2	Jan-14
S&P/LSTA U.S. Leveraged Loan eV All Global Fixed Inc Net Rank			1.1 14	4.1 81	4.4 23	4.0	4.5	4.9 	3.7 33	Jan-14 Jan-14
Loomis Sayles Senior Rate and Fixed Income	59,314,339	2.8	1.6	5.6	5.0				4.3	Jan-14
S&P/LSTA U.S. Leveraged Loan			1.1	4.1	4.4	4.0	4.5	4.9	3.7	Jan-14
eV Float-Rate Bank Loan Net Rank			5	7	17				13	Jan-14
Pacific Asset Management	50,906,364	2.4	1.3						1.8	Aug-17
Credit Suisse Leveraged Loan			1.2	4.2	4.5	4.3	4.7	4.6	1.4	Aug-17
eV Float-Rate Bank Loan Net Rank			18						11	Aug-17
Emerging Markets Debt	20,319,725	1.0	0.1	14.8	7.2	1.9	4.3		4.3	Dec-10
50% JPM EMBI/50% JPM GBI-EM			1.0	12.7	4.9	1.2	3.7		3.7	Dec-10
eV All Emg Mkts Fixed Inc Net Rank			91	23	21	57	57		57	Dec-10
Ashmore EM Blended Debt	20,318,294	1.0							1.7	Dec-17
Ashmore Blended Debt Benchmark			1.3	11.8					1.1	Dec-17
eV All Emg Mkts Fixed Inc Net Rank									19	Dec-17
Ashmore AEMLCB	1,430	0.0								
eV All Emg Mkts Fixed Inc Net Rank										



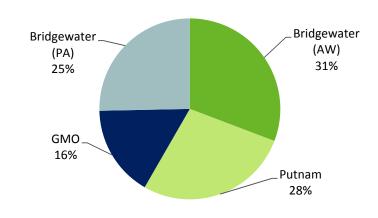
*Ashmore Blended Debt Benchmark consists of 50% JPM EMBI / 50% JPM GBI-EM

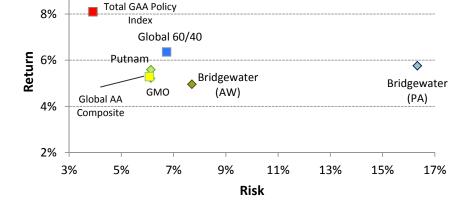
GLOBAL ASSET ALLOCATION: COMPOSITE OVERVIEW

Manager	Benchmark	Asset Class	Descriptions
Bridgewater (All Weather)	91 Day T-bill +7%	Risk Parity	Passive approach
Bridgewater (PAMM)	HFRX Absolute Return	Absolute Return	Global Macro Hedge Fund
GMO	CPI +5%	GTAA	Unconstrained
Putnam	Global 60/40	Risk Parity	Active approach

GAA Managers

3-Year Risk/Return





December 31, 2017

Dallas Police & Fire Pension

GLOBAL ASSET ALLOCATION: TRAILING RETURNS

	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Return (%)	Since
DPFP	2,099,918,772	100.0	1.2	5.1	-1.8	1.2	1.9	0.9	6.0	Jun-96
Policy Index InvestorForce Public DB Net Rank			3.3 99	15.2 99	9.8 99	10.0 99	9.1 99	6.2 99	 76	Jun-96 Jun-96
Total GAA	144,927,028	6.9	3.8	8.4	5.3	4.8	5.7	4.1	4.2	Jul-07
Total GAA Policy Index eV All Global Balanced / TAA Net Rank			3.1 31	14.2 81	8.1 44	7.3 56	7.4 53	7.1 61	7.2 73	Jul-07 Jul-07
Risk Parity	85,114,847	4.1	4.5	13.4	5.6	4.4	7.4		7.4	Dec-10
60% MSCI ACWI/40% Barclays Global Agg eV All Global Balanced / TAA Net Rank			3.9 16	17.1 52	6.5 39	6.8 61	6.1 19	4.3 	6.1 19	Dec-10 Dec-10
Bridgewater All Weather	44,861,428	2.1	4.4	13.1	5.0	3.6	7.6	5.5	6.1	Sep-07
91 Day T-Bill + 7% eV All Global Balanced / TAA Net Rank			2.0 17	8.0 53	7.4 49	7.3 67	7.2 16	7.3 25	7.4 19	Sep-07 Sep-07
Putnam	40,253,419	1.9	4.6	13.7	5.6	4.7	5.6		6.6	Dec-09
60% MSCI World (Net) / 40% CITI WGBI eV All Global Balanced / TAA Net Rank			3.7 13	16.2 51	6.4 39	7.0 59	6.3 54	4.4	6.5 44	Dec-09 Dec-09
GTAA	23,494,387	1.1	3.3	14.8	5.2	5.7	6.2		6.2	Dec-10
60% MSCI ACWI/40% Barclays Global Agg eV All Global Balanced / TAA Net Rank			3.9 53	17.1 45	6.5 44	6.8 48	6.1 44	4.3	6.1 44	Dec-10 Dec-10
GMO	23,494,387	1.1	3.3	14.8	5.2	5.7	6.2	4.9	5.0	Sep-07
CPI + 5% (Seasonally Adjusted) eV All Global Balanced / TAA Net Rank			1.9 53	7.2 45	6.7 44	6.5 48	6.8 44	6.7 46	6.8 44	Sep-07 Sep-07
Absolute Return	36,317,793	1.7	2.7	-5.0	5.8	5.8			6.0	Aug-11
HFRX Absolute Return Index eV Alt All Macro Rank			0.1 50	3.4 84	2.2 18	2.2 23	1.1 	-1.0 	1.6 16	Aug-11 Aug-11
Bridgewater PAMM	36,317,793	1.7	2.7	-5.0	5.8	5.8			6.0	Aug-11
HFRX Absolute Return Index			0.1	3.4	2.2	2.2	1.1	-1.0	1.6	Aug-11
eV Alt All Macro Rank			50	84	18	23			16	Aug-11



RISK/RETURN & COMPLIANCE ANALYSIS

NEPC, LLC -

December 31, 2017

Dallas Police & Fire Pension

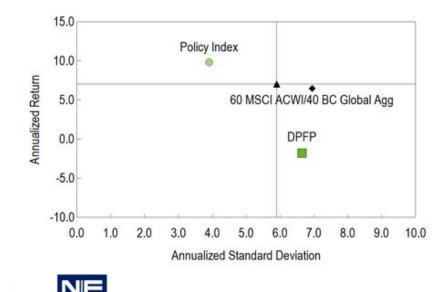
TOTAL FUND RISK/RETURN

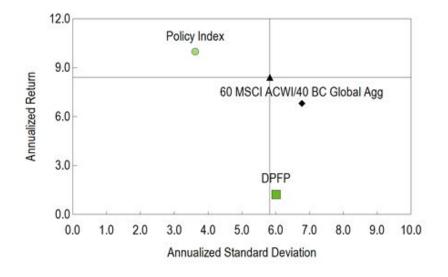
3 Years Ending December 31, 2017							
	Anlzd Ret	Rank	Anlzd Std Dev	Rank			
DPFP	-1.8%	99	6.7%	84			
Policy Index	9.8%	1	3.9%	3			
60 MSCI ACWI/40 BC Global Agg	6.5%	75	6.9%	90			
InvestorForce Public DB Net Median	7.1%		5.9%				

	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
DPFP	-0.3	99	-0.3	99
Policy Index	2.4	1	4.8	1
60 MSCI ACWI/40 BC Global Agg	0.9	92	1.6	44
InvestorForce Public DB Net Median	1.1		1.5	

5 Years Ending December 31, 2017						
	Anlzd Ret	Rank	Anlzd Std Dev	Rank		
DPFP	1.2%	99	6.0%	62		
Policy Index	10.0%	6	3.6%	1		
60 MSCI ACWI/40 BC Global Agg	6.8%	89	6.8%	89		
InvestorForce Public DB Net Median	8.4%		5.8%			

	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
DPFP	0.2	99	0.1	99
Policy Index	2.7	1	5.9	1
60 MSCI ACWI/40 BC Global Agg	1.0	98	1.9	80
InvestorForce Public DB Net Median	1.4		2.2	





December 31, 2017

POLICY COMPLIANCE TEST: TRADITIONAL MANAGERS

3 Year Rolling Excess Return Violations:

3 Year Rolling Risk-Adjusted **Excess Return Violations:**

Qualitative Concerns:

Manager	Return Rank	NEPC Recommendation
Global Equity		
Walter Scott	58	HOLD
Public Fixed Income		
Brandywine	73	HOLD

	Sharpe Ratio	NEPC
Manager	Rank	Recommendation
Public Fixed Income		
IR&M	52	HOLD
Brandywine	80	HOLD
Loomis Sayles HY	88	HOLD
Loomis Sayles SBL	83	HOLD
GAA		
Bridgewater AW	60	HOLD

		NEPC
n	Manager	Status
		HOLD (No
	GMO ¹	Searches)

¹NEPC no longer has concerns regarding the overall stability of GMO and assets under management for the asset allocation team. During the time NEPC has had GMO on HOLD, Ben Inker has remained the sole head of the asset allocation team, and there have been no major changes to the group. NEPC remains confident in the investment process and personnel on the asset allocation strategies. Effective 2/12/18, NEPC has upgraded the strategies from HOLD to NO ACTION.

Note: 'N/A' denotes that the Board has voted to terminate the manager in guestion. However, market exposure will be maintained with managers that have previously been approved for liquidation and to rebalance if additional cash is needed.



ASSET ALLOCATION

NEPC, LLC —

December 31, 2017

ASSET ALLOCATION: BROAD COMPOSITES

	Market Value \$	% of Portfolio	Policy %
Total Equity	710,171,843	33.8%	30%
Total Fixed Income	340,069,071	16.2%	33%
Total Real Assets	788,167,344	37.5%	25%
Total GAA	144,927,028	6.9%	10%
Cash	116,583,486	5.6%	2%
Total DPFP	2,099,918,772	100%	100%



ASSET ALLOCATION: BY ASSET CLASS

	Current Allocation \$	Current Allocation %	Policy %
Global Equity	430,846,971	20.5%	20%
Emerging Market Equity	50,246,350	2.4%	5%
Private Equity	229,078,522	10.9%	5%
Total Equity	710,171,843	33.8%	30%
Short-Term Core Bonds	50,106,025	2.4%	2%
High Yield	81,894,067	3.9%	5%
Bank Loans	110,220,703	5.2%	6%
Emerging Market Debt	20,319,725	1.0%	6%
Global Bonds	66,210,329	3.2%	3%
Structured & AR Credit		0.0%	6%
Private Debt	11,318,223	0.5%	5%
Total Fixed Income	340,069,071	16.2%	33%
Natural Resources	210,173,800	10.0%	5%
Infrastructure	60,732,477	2.9%	5%
Real Estate	517,261,067	24.6%	12%
Real Assets – Liquid		0.0%	3%
Total Real Assets	788,167,344	37.5%	25%
Risk Parity	85,114,847	4.1%	5%
GTAA	23,494,387	1.1%	3%
Absolute Return	36,317,793	1.7%	2%
Total GAA	144,927,028	6.9%	10%
Cash	116,583,486	5.6%	2%
Total	2,099,918,772	100%	100%

ASSET ALLOCATION: PORTFOLIO LOOKTHROUGH

	Lookthrough %	Actual %	Policy %
US Equity	10.0%		
International Equity	9.8%		
Emerging Markets Eq	3.6%	2.4%	5%
Global Equity		20.5%	20%
Private Equity	10.9%	10.9%	5%
Total Equity	34.3%	33.8%	30%
Short-Term Core Bonds	2.4%	2.4%	2%
High Yield	3.9%	3.9%	5%
Bank Loans	5.3%	5.3%	6%
Emerging Market Debt	1.2%	1.0%	6%
Global Bonds	5.8%	3.1%	3%
Structured & AR Credit			6%
Private Debt	0.5%	0.5%	5%
Total Fixed Income	19.1%	16.2%	33.0%

	Lookthrough %	Actual %	Policy %
Natural Resources	10.0%	10.0%	5%
Infrastructure	2.9%	2.9%	5%
Real Estate	25.2%	24.6%	12%
Real Assets – Liquid			3%
Total Real Assets	38.1%	37.5%	25%
Risk Parity		4.1%	5%
GTAA		1.1%	3%
Absolute Return		1.7%	2%
Hedge Funds*	2.6%		
Total GAA	2.6%	6.9%	10%
Cash	5.5%	5.6%	2%

*Hedge Fund lookthrough exposure due to GMO and Bridgewater Pure Alpha Major Markets allocations.



ATTRIBUTION*

Selection Effect

- Contribution to excess return due to the over/under weighting of managers within asset classes
 - The Selection Effect of -0.029% is due to the underperformance of the DPFP Global Equity return vs. the Global Equity Index return. Based on policy, DPFP selected underperforming managers vs. the index.
 - Policy Weight*(Global Equity Return Global Equity Index) = Selection Effect

Allocation Effect

- Contribution to excess return due to the over/under weighting of asset classes
 - The Allocation Effect of -0.042% is due to the underweighting of the Global Equity allocation vs. the Global Equity Policy Allocation in October and also the out performance of the Global Equity Index, 2.0991% vs. the Total Plan Index, 1.0186% for October. DPFP was underweight to an outperforming sector in October resulting in a negative Allocation Effect for the quarter.
 - (Current Allocation Policy Allocation)*(Global Equity Index Total Policy Index)= Allocation Index

• Interaction Effect

- Is the resulting combination of the allocation and selection effects
 - (Global Equity Weight Policy Weight)*(Global Equity Return Global Equity Index Return)= Interaction Effect

	Portfolio Weights		Retu	urns	Attribution Effects By			
	DPFP	Policy	DPFP	Index	Selection	Allocation	Interaction	Total*
Global Equity	20.5%	20.0%	5.680%	5.836%	-0.029%	-0.042%	-0.015%	-0.086%
Total*	100.0%	100.0%	1.173%	3.349%	-1.868%	0.255%	-0.564%	-2.177%



*The attribution effects shown are for the quarter. To get the quarterly attribution effects the effects are first calculated monthly then linked using the Mencharo linking method to get the quarterly effects.

ATTRIBUTION ANALYSIS: BY ASSET CLASS – 3 MONTHS ENDING DECEMBER 31, 2017

	Portfolio Weights		Returns		Attribution Effects By			
	DPFP	Policy	DPFP	Index	Selection	Allocation	Interaction	Total*
Global Equity	20.5%	20.0%	5.680%	5.836%	-0.029%	-0.042%	-0.015%	-0.086%
Emerging Markets Equity	2.4%	5.0%	0.493%	7.503%	-0.349%	-0.205%	0.349%	-0.205%
Private Equity	10.9%	5.0%	0.630%	7.110%	-0.321%	0.216%	-0.375%	-0.481%
Short Term Core Bonds	2.4%	2.0%	-0.136%	-0.277%	0.003%	-0.014%	0.001%	-0.010%
Global Bonds	3.2%	3.0%	0.008%	1.076%	-0.031%	-0.003%	-0.002%	-0.036%
High Yield	3.9%	5.0%	0.883%	0.866%	0.001%	0.028%	0.000%	0.029%
Bank Loans	5.2%	6.0%	1.463%	1.114%	0.021%	0.018%	-0.003%	0.036%
Structured & A/R Credit	0.0%	6.0%	0.000%	1.536%	-0.093%	0.109%	0.093%	0.109%
Emerging Markets Debt	1.0%	6.0%	0.122%	1.006%	-0.051%	0.118%	0.044%	0.112%
Private Debt	0.5%	5.0%	-1.684%	1.366%	-0.152%	0.083%	0.127%	0.059%
Natural Resources	10.0%	5.0%	-2.217%	8.472%	-0.533%	0.267%	-0.602%	-0.868%
Infrastructure	2.9%	5.0%	-0.089%	1.864%	-0.100%	0.031%	0.042%	-0.026%
Real Estate	24.6%	12.0%	-0.217%	1.800%	-0.245%	-0.207%	-0.271%	-0.724%
Liquid Real Assets	0.0%	3.0%	0.000%	1.878%	-0.057%	0.044%	0.057%	0.044%
Risk Parity	4.1%	5.0%	4.519%	3.853%	0.033%	-0.006%	-0.007%	0.020%
GTAA	1.1%	3.0%	3.261%	3.853%	-0.017%	-0.010%	0.011%	-0.016%
Absolute Return	1.7%	2.0%	2.680%	0.125%	0.053%	0.009%	-0.009%	0.053%
Cash Equivalents	5.6%	2.0%	0.229%	0.298%	-0.001%	-0.181%	-0.003%	-0.185%
Total*	100.0%	100.0%	1.173%	3.349%	-1.868%	0.255%	-0.564%	-2.177%

*Total column may not add up due to rounding.



ATTRIBUTION ANALYSIS: BY ASSET CLASS – 12 MONTHS ENDING DECEMBER 31, 2017

	Portfolio Weights		Returns		Attribution Effects By			
	DPFP	Policy	DPFP	Index	Selection	Allocation	Interaction	Total*
Global Equity	20.5%	20.0%	27.277%	24.624%	0.474%	-0.678%	-0.405%	-0.610%
Emerging Markets Equity	2.4%	5.0%	0.493%	37.752%	-1.755%	-1.004%	1.755%	-1.004%
Private Equity	10.9%	5.0%	-27.332%	24.706%	-2.734%	0.621%	-4.627%	-6.740%
Short Term Core Bonds	2.4%	2.0%	0.167%	0.425%	-0.006%	0.120%	0.012%	0.126%
Global Bonds	3.2%	3.0%	11.568%	7.396%	0.127%	0.003%	-0.012%	0.118%
High Yield	3.9%	5.0%	11.408%	10.433%	0.050%	0.058%	-0.024%	0.084%
Bank Loans	5.2%	6.0%	5.412%	4.118%	0.081%	0.282%	-0.036%	0.328%
Structured & A/R Credit	0.0%	6.0%	0.000%	7.263%	-0.461%	0.472%	0.461%	0.472%
Emerging Markets Debt	1.0%	6.0%	14.811%	12.738%	0.127%	0.122%	-0.107%	0.142%
Private Debt	0.5%	5.0%	-22.885%	12.624%	-1.984%	0.093%	1.224%	-0.668%
Natural Resources	10.0%	5.0%	-2.808%	21.976%	-1.263%	0.349%	-1.569%	-2.483%
Infrastructure	2.9%	5.0%	72.463%	20.127%	2.767%	0.174%	0.771%	3.711%
Real Estate	24.6%	12.0%	2.424%	6.975%	-0.565%	-1.021%	-0.647%	-2.232%
Liquid Real Assets	0.0%	3.0%	0.000%	7.214%	-0.229%	0.238%	0.229%	0.238%
Risk Parity	4.1%	5.0%	13.356%	17.093%	-0.178%	-0.027%	0.057%	-0.148%
GTAA	1.1%	3.0%	14.835%	17.093%	-0.064%	-0.036%	0.041%	-0.059%
Absolute Return	1.7%	2.0%	-4.974%	3.385%	-0.176%	0.038%	0.027%	-0.111%
Cash Equivalents	5.6%	2.0%	0.866%	0.922%	-0.001%	-1.356%	-0.004%	-1.361%
Total*	100 .0%	100.0%	5.008%	15.204%	-5.790%	-1.552%	-2.855%	-10.197%

*Total column may not add up due to rounding.



2018 03 08 Board Meeting - REGULAR AGENDA 2018 03 08





December 31, 2017

22

FOOTNOTES

1. **Sustainable Asset Management** was included in the Global Natural Resources composite from 11/1/2008 to 3/31/2015 and included in the Global Equity composite from 4/1/2015 to present.

2. **Hudson Clean Energy** was included in the Global Natural Resources composite from 1/1/2010 to 3/31/2015 and included in the Private Markets composite from 4/1/2015 to 12/31/2015 and the Private Equity composite from 1/1/2016 to present.

3. **RREEF** was included in the Real Estate composite from 2/1/1999 to 12/31/2009 and included in the Global Equity composite from 1/1/2010 to present.

4. **Highland Crusader** was included in the Global Fixed Income composite from 7/1/2003 to 12/31/2015 and included in the Private Credit composite from 1/1/2016 to present.

5. **Highland Capital Management** was included in the Global Fixed Income composite from 1/1/2007 to 12/31/2015 and included in the Private Credit composite from 1/1/2016 to present.

6. **Oaktree Fund IV** was included in the Global Fixed Income composite from 1/1/2002 to 3/31/2015 and included in the Private Markets composite from 4/1/2015 to 12/31/2015 and included in the Private Credit composite from 1/1/2016 to present.

7. Global Infrastructure composite was included in the Private Markets composite history until 6/30/2012.

8. **Private Equity composite** includes Private Credit managers until 12/31/2015. From 01/01/2016 to present the Private Equity and Credit managers are now in separate composites.

9. **Policy index** changed on 4/1/2016 from 20% MSCI ACWI, 15% S&P 500+2%, 10% Global Natural Resources Benchmark, 15% Barclays Global Agg, 20% CPI+5%, 10% CPI +5%, 15% NCREIF PI to 20% MSCI ACWI (gross), 5% MSCI EM Equity (gross), 5% Russell 3000 +3%, 2% Barclays UST 1-3 Yr, 3% Barclays Global Agg, 5% Barclays Global HY, 6% S&P Leveraged Loan Index, 6% HFRI RV: FI (50/50- Abs/Corp), 6%50% JPM EMBI/50% JPM GBI-EM, 5% Barclays Global HY +2%, 5% S&P Global Nat Res, 5% S&P Global Infra, 12% NCREIF, 3% CPI +5%, 5% 60% MSCI ACWI/40% Barclays Global Agg, 3% 60% MSCI ACWI/40% Barclays Global Agg, 2% HFRX Abs Ret Index, 2% 90 Day T-Bill.

10. **Natural Resources** benchmark changed from the Global Natural Resources benchmark from 12/1/2010 to 12/31/2015 to the S&P Global Natural Resources benchmark 1/1/2016 to present.

11. Infrastructure benchmark changed from CPI +5% from 7/1/2012 to 12/31/2015 to S&P Global Infrastructure benchmark 1/1/2016 to present.

12. Total Asset Allocation benchmark changed from CPI+ 5% from 7/1/2007 to 12/31/2015 to 80% 60/40 MSCI ACWI & Barclays Global Agg and 20% HFRX

• Absolute Return Index 1/1/2016 to present.



23

Alpha - Measures the relationship between the fund performance and the performance of another fund or benchmark index and equals the excess return while the other fund or benchmark index is zero.

Alpha Jensen - The average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. Also known as the abnormal return or the risk adjusted excess return.

Annualized Excess Return over Benchmark - Annualized fund return minus the annualized benchmark return for the calculated return.

Annualized Return - A statistical technique whereby returns covering periods greater than one year are converted to cover a 12 month time span.

Beta - Measures the volatility or systematic risk and is equal to the change in the fund's performance in relation to the change in the assigned index's performance.

Information Ratio - A measure of the risk adjusted return of a financial security, asset, or portfolio.

Formula:

(Annualized Return of Portfolio - Annualized Return of Benchmark)/Annualized Standard Deviation(Period Portfolio Return – Period Benchmark Return). To annualize standard deviation, multiply the deviation by the square root of the number of periods per year where monthly returns per year equals 12 and quarterly returns is four periods per year.

R-Squared – Represents the percentage of a fund's movements that can be explained by movements in an index. R-Squared values range from 0 to 100. An R-Squared of 100 denotes that all movements of a fund are completely explained by movements in the index.

Sharpe Ratio - A measure of the excess return or risk premium per unit of risk in an investment asset or trading strategy.

Sortino Ratio - A method to differentiate between good and bad volatility in the Sharpe Ratio. The differentiation of up and down volatility allows the calculation to provide a risk adjusted measure of a security or fund's performance without upward price change penalties.

Formula:

Calculation Average (X-Y)/Downside Deviation (X-Y) * 2 Where X=Return Series X Y = Return Series Y which is the risk free return (91 day T-bills) Standard Deviation - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

Formula:

(Annualized Return of Portfolio – Annualized Return of Risk Free) / Annualized Standard Deviation (Portfolio Returns)

Tracking Error - Tracking error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

Formula:

Tracking Error = Standard Deviation $(X-Y) * \sqrt{(\# of periods per year)}$ Where X = periods portfolio return and Y = the period's benchmark return For monthly returns, the periods per year = 12 For guarterly returns, the periods per year = 4

Treynor Ratio - A risk-adjusted measure of return based on systematic risk. Similar to the Sharpe ratio with the difference being the Treynor ratio uses beta as the measurement of volatility.

Formula:

(Portfolio Average Return - Average Return of Risk-Free Rate)/Portfolio Beta

Up/Down Capture Ratio - A measure of what percentage of a market's returns is "captured" by a portfolio. For example, if the market declines 10% over some period, and the manager declines only 9%, then his or her capture ratio is 90%. In down markets, it is advantageous for a manager to have as low a capture ratio as possible. For up markets, the higher the capture ratio the better. Looking at capture ratios can provide insight into how a manager achieves excess returns. A value manager might typically have a lower capture ratio in both up and down markets, achieving excess returns by protecting on the downside, whereas a growth manager might fall more than the overall market in down markets, but achieve above-market returns in a rising market.

UpsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Period Benchmark Return is > = 0

 $\label{eq:constraint} DownsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) \ when Benchmark \ <0$



Of Portfolios/Observations1 – The total number of data points that make up a specified universe

Allocation Index³ - The allocation index measures the value added (or subtracted) to each portfolio by active management. It is calculated monthly: The portfolio asset allocation to each category from the prior month-end is multiplied by a specified market index.

Asset Allocation Effect² - Measures an investment manager's ability to effectively allocate their portfolio's assets to various sectors. The allocation effect determines whether the overweighting or underweighting of sectors relative to a benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is over weighted in a sector that outperforms the benchmark and underweighted in a sector that underperforms the benchmark. Negative allocation occurs when the portfolio is over weighted in a sector that underperforms the benchmark and under weighted in a sector that outperforms the benchmark.

Agency Bonds (Agencies)³ - The full faith and credit of the United States government is normally not pledged to payment of principal and interest on the majority of government agencies issuing these bonds, with maturities of up to ten years. Their yields, therefore, are normally higher than government and their marketability is good, thereby qualifying them as a low risk-high liquidity type of investment. They are eligible as security for advances to the member banks by the Federal Reserve, which attests to their standing.

Asset Backed Securities (ABS)³ - Bonds which are similar to mortgagebacked securities but are collateralized by assets other than mortgages; commonly backed by credit card receivables, auto loans, or other types of consumer financing.

Attribution³ - Attribution is an analytical technique that allows us to evaluate the performance of the portfolio relative to the benchmark. A proper attribution tells us where value was added or subtracted as a result of the manager's decisions. Average Effective Maturity⁴ - For a single bond, it is a measure of maturity that takes into account the possibility that a bond might be called back to the issuer.

For a portfolio of bonds, average effective maturity is the weighted average of the maturities of the underlying bonds. The measure is computed by weighing each bond's maturity by its market value with respect to the portfolio and the likelihood of any of the bonds being called. In a pool of mortgages, this would also account for the likelihood of prepayments on the mortgages.

Batting Average¹ - A measurement representing an investment manager's ability to meet or beat an index.

Formula: Divide the number of days (or months, quarters, etc.) in which the manager beats or matches the index by the total number of days (or months, quarters, etc.) in the period of question and multiply that factor by 100.

Brinson Fachler (BF) Attribution¹ - The BF methodology is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance. The main advantage of the BF methodology is that rather than using the overall return of the benchmark, it goes a level deeper than BHB and measures whether the benchmark sector, country, etc. outperformed/or underperformed the overall benchmark.

Brinson Hood Beebower (BHB) Attribution¹ - The BHB methodology shows that excess return must be equal to the sum of all other factors (i.e., allocation effect, selection effect, interaction effect, etc.). The advantage to using the BHB methodology is that it is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance.

Corporate Bond (Corp) ⁴ - A debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.

Correlation¹ - A range of statistical relationships between two or more random variables or observed data values. A correlation is a single number that describes the degree of relationship between variables.

Data Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net

Source: InvestorForce

25

Coupon⁴ – The interest rate stated on a bond when it is issued. The coupon is typically paid semiannually. This is also referred to as the "coupon rate" or "coupon percent rate."

Currency Effect¹ - Is the effect that changes in currency exchange rates over time affect excess performance.

Derivative Instrument³ - A financial obligation that derives its precise value from the value of one or more other instruments (or assets) at the same point of time. For example, the relationship between the value of an S&P 500 futures contract (the derivative instrument in this case) is determined by the value of the S&P 500 Index and the value of a U.S. Treasury bill that matures at the expiration of the futures contract.

Downside Deviation¹ - Equals the standard deviation of negative return or the measure of downside risk focusing on the standard deviation of negative returns.

Formula:

Annualized Standard Deviation (Fund Return - Average Fund Return) where average fund return is greater than individual fund returns, monthly or quarterly.

Duration³ - Duration is a measure of interest rate risk. The greater the duration of a bond, or a portfolio of bonds, the greater its price volatility will be in response to a change in interest rates. A bond's duration is inversely related to interest rates and directly related to time to maturity.

Equity/Debt/Cash Ratio¹ – The percentage of an investment or portfolio that is in Equity, Debt, and/or Cash (i.e. A 7/89/4 ratio represents an investment that is made up of 7% Equity, 89% Debt, and 4% Cash).

Foreign Bond³ - A bond that is issued in a domestic market by a foreign entity, in the domestic market's currency. A foreign bond is most often issued by a foreign firm to raise capital in a domestic market that would be most interested in purchasing the firm's debt. For foreign firms doing a large amount of business in the domestic market, issuing foreign bonds is a common practice.

Hard Hurdle⁵ – is a hurdle rate that once beaten allows a fund manager to charge a performance fee on only the funds above the specified hurdle rate.

High-Water Mark⁴ - The highest peak in value that an investment fund/ account has reached. This term is often used in the context of fund manager compensation, which is performance based. Some performance-based fees only get paid when fund performance exceeds the high-water mark. The high-water mark ensures that the manager does not get paid large sums for poor performance.

Hurdle Rate⁴ - The minimum rate of return on an investment required, in order for a manager to collect incentive fees from the investor, which is usually tied to a benchmark.

Interaction Effects² - The interaction effect measures the combined impact of an investment manager's selection and allocation decisions within a sector. For example, if an investment manager had superior selection and over weighted that particular sector, the interaction effect is positive. If an investment manager had superior selection, but underweighted that sector, the interaction effect is negative. In this case, the investment manager did not take advantage of the superior selection by allocating more assets to that sector. Since many investment managers consider the interaction effect to be part of the selection or the allocation, it is often combined with the either effect.

Median³ - The value (rate of return, market sensitivity, etc.) that exceeds onehalf of the values in the population and that is exceeded by one-half of the values. The median has a percentile rank of 50.

Modified Duration³ - The percentage change in the price of a fixed income security that results from a change in yield.

Mortgage Backed Securities (MBS)³ - Bonds which are a general obligation of the issuing institution but are also collateralized by a pool of mortgages.

Municipal Bond (Muni)⁴ - A debt security issued by a state, municipality or county to finance its capital expenditures.

Net Investment Change¹ – Is the change in an investment after accounting for all Net Cash Flows.

Performance Fee⁴ - A payment made to a fund manager for generating positive returns. The performance fee is generally calculated as a percentage of investment profits, often both realized and unrealized.

Data Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



26

Policy Index³ - A custom benchmark designed to indicate the returns that a passive investor would earn by consistently following the asset allocation targets set forth in this investment policy statement.

Price to Book (P/B)⁴ - A ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share, also known as the "price-equity ratio".

Price to Earnings (P/E)³ - The weighted equity P/E is based on current price and trailing 12 months earnings per share (EPS).

Price to Sales (P/S)⁴ - A ratio for valuing a stock relative to its own past performance, other companies, or the market itself. Price to sales is calculated by dividing a stock's current price by its revenue per share for the trailing 12 months.

Return on Equity (ROE)⁴ - The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

Selection (or Manager) Effect² - Measures the investment manager's ability to select securities within a given sector relative to a benchmark. The over or underperformance of the portfolio is weighted by the benchmark weight, therefore, selection is not affected by the manager's allocation to the sector. The weight of the sector in the portfolio determines the size of the effect—the larger the sector, the larger the effect is, positive or negative.

Soft Hurdle rate⁵ – is a hurdle rate that once beaten allows a fund manager to charge a performance fee based on the entire annualized return.

Tiered Fee¹ – A fee structure that is paid to fund managers based on the size of the investment (i.e. 1.00% fee on the first \$10M invested, 0.90% on the next \$10M, and 0.80% on the remaining balance).

Total Effects² - The active management (total) effect is the sum of the selection, allocation, and interaction effects. It is also the difference between the total portfolio return and the total benchmark return. You can use the active management effect to determine the amount the investment manager has added to a portfolio's return. **Total Return¹** - The actual rate of return of an investment over a specified time period. Total return includes interest, capital gains, dividends, and distributions realized over a defined time period.

Universe³ - The list of all assets eligible for inclusion in a portfolio.

Upside Deviation¹ - Standard Deviation of Positive Returns

Weighted Avg. Market Cap.⁴ - A stock market index weighted by the market capitalization of each stock in the index. In such a weighting scheme, larger companies account for a greater portion of the index. Most indexes are constructed in this manner, with the best example being the S&P 500.

Yield (%)³ - The current yield of a security is the current indicated annual dividend rate divided by current price.

Yield to ${\rm Maturity^3}$ -The discount rate that equates the present value of cash flows, both principal and interest, to market price.

Data Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



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- NEPC uses, as its data source, the plan's custodian bank or fund service company, and NEPC relies on those sources for security pricing, calculation of accruals, and all transactions, including income payments, splits, and distributions. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
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28

PRIVATE MARKETS REVIEW (Abbreviated Report)

DALLAS POLICE & FIRE PENSION SYSTEM

Third Quarter, 2017

Rhett Humphreys, CFA, Partner Keith Stronkowsky, CFA, Senior Consultant Jeff Roberts, Principal, Director of Private Equity Research



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

Summary by Asset Class	11
Real Assets Portfolio Summary	12
Benchmarking Reports	13

III. Appendix

Table of Contents

Information Disclosure

- NEPC, LLC uses, as its data source, the plan's fund manager and custodian bank or fund service company, and NEPC, LLC relies on those sources for all transactions, including capital calls, distributions, income/expense and reported values. While NEPC, LLC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
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Page

1

5

6

7

8

10

16



February, 2018

Trustees Dallas Police & Fire Pension System 4100 Harry Hines Blvd – Suite 100 Dallas, TX 75219

RE: Private Markets Strategy – 3rd Quarter 2017

Dear Trustees:

\$143,038,061

We are pleased to present the September 30, 2017 Private Markets Report for Dallas Police & Fire Pension System, (DPFP). The report provides a variety of performance analysis for the private markets portfolio. The reports include trailing performance, performance by investment stage and vintage year performance.

The DPFP experienced a negative quarter with a nominal IRR of -1.30%. The annualized IRR of the private markets portfolio since inception was 1.02% at quarter end. Since inception, the Total Value to Paid In multiple (current valuation plus cumulative distributions, divided by total capital calls) was 1.05.

The following table presents the status of the DPFP private markets portfolio as of September 30, 2017:

\$1,207,813,239

Since Inception Commitments	Terminated Commitments	Amount Funded	Amount Distributed	Reported Value	Call Ratio	Distribution Ratio
\$3,474,367,728	\$154,014,236	\$3,163,209,463	\$2,271,939,467	\$1,064,775,178	91.04%	71.82%
	Market	Exposure	Total Fund		Reported	Market
Unfunded (Report		d Value +	Composite	Private Markets Target	Value	Exposure
Commitment Unfunded Commitment)		as of		of Total	as a %	

Total Value	Total Value	Internal Rate of Return
(Reported Value + Distributions)	То	IRR, Since Inception
	Capital Call Ratio	(October 13, 1994)
\$3,336,714,645	1.05	1.02%

9/30/2017

\$2,107,885,009

Total Fund

57.30%

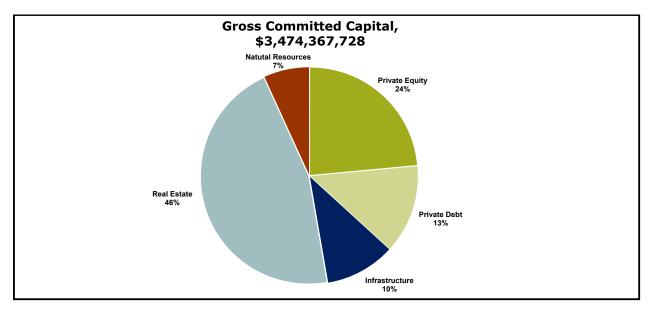
Fund

50.51%

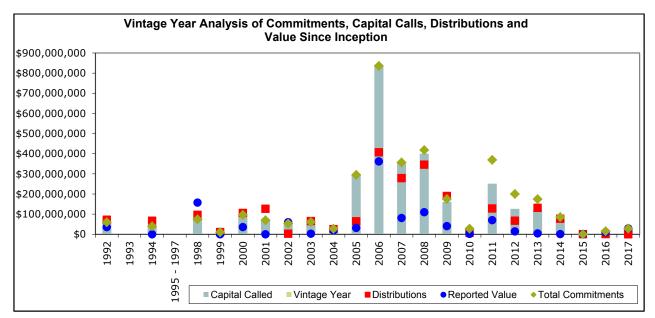
Varies By Category



As of September 30, 2017, the DPFP has made commitments totaling \$3,474.37 million to 87 private markets assets.



The following chart provides an analysis of the vintage year performance comparing the capital calls to the distributions and reported value for the private markets program:

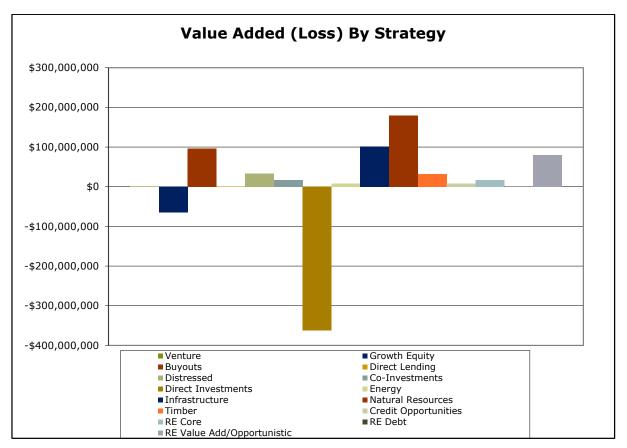




During the quarter-ended September 30, 2017, the DPFP private markets portfolio funded 18 investments and received 10 distributions from its funds. The summary of the cash flows follows:

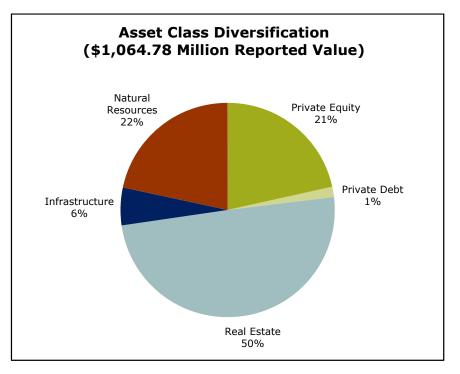
Amount	Number of Funds	Distributions	Number of	Net Cash/Stock
Funded for the	Calling Capital	for the	Funds Making	Flows for the
Quarter		Quarter	Distributions	Quarter
\$2,929,052	18	\$200,231,237	10	\$197,302,185

Since inception the DPFP private markets portfolio added \$147.33 million in value to the DPFP. Investment strategies adding value include Venture \$0.23 million, Buyouts \$96.29 million, Direct Lending \$1.01 million, Distressed \$33.44 million, Co-investments \$17.48 million, Energy \$8.68 million, Infrastructure \$101.70 million, Natural Resources \$179.37 million, Timber \$32.48 million, Credit Opportunities \$7.89 million, RE Core \$17.07 million, RE Value Add/Opportunistic \$79.92 million. Strategies losing value include Growth Equity (\$65.16) million, Direct Investments (\$362.18) million, and RE Debt (\$0.89) million.





As of September 30, 2017, the private markets funds in the DPFP portfolio had the following investment strategy diversification based on the investment fund's reported value:



We thank you for the opportunity to work with the DPFP and look forward to continued success in the future.

2018 03 08 Board Meeting - REGULAR AGENDA 2018 03 08

Dallas Police & Fire Pension System Performance Analysis - Total Private Markets Program

				9/30/2017							
Investment Name	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR (SI)
Private Equity / Debt	\$ 1,278,364,612	\$ 1,175,512,531	\$ 40,378,043	\$ 1,054,216,953	\$ 245,528,226	\$ 1,299,745,179	\$ 98,138,052	92%	0.88	1.08	2.13%
Real Assets	\$ 2,196,003,116	\$ 1,987,696,931	\$ 102,660,018	\$ 1,217,722,514	\$ 819,246,951	\$ 2,036,969,466	\$ 49,189,190	91%	0.61	1.02	0.50%
Total	\$ 3,474,367,728	\$ 3,163,209,463	\$ 143,038,061	\$ 2,271,939,467	\$ 1,064,775,178	\$ 3,336,714,645	\$ 147,327,242	91%	0.71	1.05	1.02%

Performance Analysis - Private Markets Subsectors

Investment Name	Commitment Amount	I	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR (SI) ¹
Private Equity	\$ 817,061,050	\$	737,842,323	\$ 38,490,926	\$ 579,570,663	\$ 229,036,702	\$ 808,607,365	\$ 55,798,075	90%	0.77	1.07	1.82%
Private Debt	\$ 461,303,562	\$	437,670,209	\$ 1,887,117	\$ 474,646,290	\$ 16,491,524	\$ 491,137,815	\$ 42,339,977	95%	1.06	1.09	2.73%
Natural Resources	\$ 236,406,706	\$	236,406,706	\$ -	\$ 218,004,999	\$ 230,252,516	\$ 448,257,515	\$ 211,850,809	100%	0.92	1.90	9.36%
Real Estate	\$ 1,595,596,410	\$	1,461,608,245	\$ 67,575,612	\$ 668,726,694	\$ 528,519,601	\$ 1,197,246,295	\$ (264,361,950)	92%	0.46	0.82	-4.05%
Infrastructure	\$ 364,000,000	\$	289,681,980	\$ 35,084,406	\$ 330,990,822	\$ 60,474,834	\$ 391,465,656	\$ 101,700,331	80%	1.14	1.35	7.64%
Total	\$ 3,474,367,728	\$	3,163,209,463	\$ 143,038,061	\$ 2,271,939,467	\$ 1,064,775,178	\$ 3,336,714,645	\$ 147,327,242	91%	0.71	1.05	1.02%

Notes:

1. IRR's are since inception as of the following dates: Private Equity (10.13.94), Private Debt (12.20.01), Real Estate (3.31.99), Natural Resources (3.12.99), Infrastructure (10.3.07)

PRIVATE EQUITY & DEBT REVIEW

DALLAS POLICE & FIRE PENSION SYSTEM

Third Quarter, 2017



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

Private Equity and Private Debt

The following table presents the status of the DPFP **PRIVATE EQUITY** portfolio as of September 30, 2017:

Since Inception Commitments	Terminated Commitments	Amount Funded	Amount Distributed	Reported Value	Call Ratio	Distribution Ratio
\$817,061,050	\$40,727,801	\$737,842,323	\$579,570,663	\$229,036,702	90.30%	78.55%

Unfunded Commitment	Market Exposure (Reported Value + Unfunded Commitment)	Total Fund Composite as of 9/30/2017	Private Equity Target	Reported Value of Total Fund	Market Exposure as a % Total Fund
\$38,490,926	\$267,527,628	\$2,107,885,009	5%	10.87%	12.69%

Total Value	Total Value	Internal Rate of Return
(Reported Value + Distributions)	То	IRR, Since Inception
	Capital Call Ratio	
\$808,607,365	1.07	1.82%

The following table presents the status of the DPFP **PRIVATE DEBT** portfolio as of September 30, 2017:

Since Inception Commitments	Terminated Commitments	Amount Funded	Amount Distributed	Reported Value	Call Ratio	Distribution Ratio
\$461,303,562	\$21,746,236	\$437,670,209	\$474,646,290	\$16,491,524	94.88%	108.45%

	Market Exposure	Total Fund	Brivete Debt Terret	Reported	Market
Unfunded	(Reported Value +	Composite	Private Debt Target	Value	Exposure
Commitment	Unfunded Commitment)	as of		of Total	as a %
		9/30/2017		Fund	Total Fund
\$1,887,117	\$18,378,641	\$2,107,885,009	5%	0.78%	0.87%

Total Value	Total Value	Internal Rate of Return
(Reported Value + Distributions)	То	IRR, Since Inception
	Capital Call Ratio	
\$491,137,814	1.09	2.73%

Dallas Police & Fire Pension System

Private Equity & Debt Funds - Executive IRR Summary

Investment	Vintage	Commitment	QTD	YTD	1 Year	3 Year	5 Year	Incepti
	Year	Amount						
ve Funds:								
1 BankCap Partners Fund I	2007	20,000,000	3.56	11.38	76.80	16.06	8.32	2
2 Highland Credit Ops	2006	35,348,165	0.00	0.00	5.14	0.39	14.40	-2
3 Highland Crusader Fund	2003	50,955,397	-22.47	-23.15	-22.94	-10.80	-0.10	4
4 Hudson Clean Energy Partners	2009	25,000,000	-2.28	-23.02	-38.92	-23.43	-20.69	-13
5 Huff Alternative Fund	2000	66,795,718	0.15	-1.18	16.25	5.22	7.59	:
6 Huff Energy Fund	2006	100,000,000	-0.03	0.80	-8.99	-6.73	-4.51	
7 Industry Ventures Partnership Holdings IV	2016	5,000,000	13.92	31.15	33.72			2
8 Lone Star CRA Fund	2008	50,000,000	-0.22	-34.40	-39.24	-38.32	-30.10	-1
9 Lone Star Growth Capital	2006	16,000,000	0.00	-84.40	-85.21	-47.13	-32.44	
10 Lone Star Opportunities Fund V, LP	2012	75,000,000	0.00	-75.66	-78.32	-70.52	-69.78	-6
11 Miscellaneous Private Equity Expenses	2016	179,486						
12 North Texas Opportunity Fund	2000	10,000,000	0.17	0.07	-53.29	-39.09	-23.73	
13 OCM Opportunities Fund IV	2001	50,000,000	-6.06	-9.21	-8.34	8.60	12.73	2
14 Riverstone Credit Partners	2016	10,000,000	0.28	5.69	11.59			1
15 Yellowstone Energy Ventures II, L.P.	2008	5,283,254	0.01	-6.75	-5.68	-31.35	-34.97	-2
Total: Active Funds	-	519,562,020	-0.16	-22.42	-24.71	-15.16	-8.23	
	-							
pleted Funds:								
¹ Ashmore Global Special Situations Fund IV ¹	2007	70,000,000		-4.23	-92.95	-20.16	-16.67	-1
2 BankCap Partners Opportunity Fund, LP ²	2013	20,000,000			-29.61	-4.43		-
3 CDK Southern Cross	2008	1,535,316				-99.99	-40.63	-2
4 HM Capital Sector Performance Fund	2008	47,300,000					-18.52	-
5 Huff Alternative Income Fund	1994	40,000,000						1
6 Kainos Capital Partners, L.P. ²	2013	35,000,000			-3.95	27.07		2
7 Levine Leichtman Capital Partners IV ²	2008	50,000,000			104.65	18.26	15.10	2
8 Levine Leichtman Capital Partners V, L.P. ²	2013	25,000,000			38.71	18.54		1
9 Levine Leichtman Deep Value Fund	2006	75,000,000			0.64	9.02	-7.97	
10 Levine Leichtman Private Capital Solutions II, L.P. ²	2012	25,000,000			31.84	-0.98	1.98	
11 Lone Star Fund IX (U.S.), L.P.1	2014	35,000,000		-1.75	-36.97			-
¹² Lone Star Fund VII (U.S.), L.P. ¹	2011	25,000,000		-1.52	-31.23	-0.93	61.68	4
¹³ Lone Star Fund VIII (U.S.), L.P. ¹	2013	25,000,000		-1.88	-16.95	3.81		1
4 Merit Energy Partners E-I ¹	2004	7,018,930		-15.83	-48.47	-30.60	-2.79	1
L5 Merit Energy Partners F-I ¹	2005	8,748,346		-15.83	-59.91	-34.10	-23.26	-1
L6 Merit Energy Partners G, LP ¹	2008	39,200,000		-15.83	-42.70	-25.84	-15.05	-
L7 Merit Energy Partners H, LP ¹	2010	10,000,000		-15.83	-58.54	-21.04	-13.33	-1
8 Oaktree Loan Fund 2X ¹	2007	60,000,000		-5.02	-92.54	-39.94	-7.82	
9 Oaktree Power Fund III ¹	2011	30,000,000		-5.02	9.23	11.05	15.24	1
20 Pharos Capital Co-Investment, LLC	2007	20,000,000				-100.00	28.13	-
21 Pharos Capital Co-Investments, LP	2008	40,000,000		-21.28	-99.58	-7.63	26.64	
22 Pharos Capital Partners IIA, L.P. ¹	2005	20,000,000		-	-95.75	-37.13	-19.61	-
23 Pharos Capital Partners III, LP ¹	2012	50,000,000			-78.09	-19.63		-1
Total: Completed Funds	-	758,802,592		-8.96	-37.30	-3.61	3.11	
•	-							
	_	1,278,364,612			-27.12	-10.76		

1. Funds sold in Evercore secondary sale during Q1 2017

2. Funds sold in Evercore secondary sale during Q4 2016

2018 03 08 Board Meeting - REGULAR AGENDA 2018 03 08

Dallas Police & Fire Pension System

Private Equity & Debt Funds - Performance Analysis by Investment Strategy

9/30/2017

Subtati: Venture 5,000,000 1,550,000 3,450,000 0 1,776,338 1,776,338 1,776,338 1,776,338 1,776,338 226,3 I BankCap Pathers Fund 1 2007 20,000,000 0 0 15,348,386 8,729,900 4,078,38 1,076,338 1,076,338 1,076,338 1,076,338 1,076,338 1,076,338 1,076,338 1,076,338 1,002,800 1,002,100 0 0 15,348,396 8,072,900 4,078,44 1,196,530 1,002,400 1,000,000 12,002,000 0 1,593,400 1,593,400 1,593,400 1,593,400 1,593,400 1,593,400 1,593,400 1,593,400 1,593,400 1,593,400 1,593,400 1,593,500 0 0 1,593,400 1,593,500 0 0 1,593,400 1,593,500 0 0 1,593,400 1,593,500 0 0 1,593,400 1,512,513 1,512,513 1,512,513 1,512,513 1,512,513 1,514,513 1,523,517,51 0 12,022,676 56,245,197 33,574,857 89,820,	Call Ratio	Net Benefit	nefit				DPI Ratio	TVPI Ratio	IRR
Subtorsit: Venture 5,000,000 1,550,000 3,450,000 0 0 1,776,338 1,776,338 226,338 Scouth Equity 1 5,000,000 20,000,000 0 0 1,548,386 6,729,000 24,097,338 1,776,338 1,776,338 24,078,286 4,078,338 2 1 1 2007 20,000,000 24,094,470 0 0 1,564,386 6,304,644 11,966,540 -1,027,338 3,215,538 52,144,295 -5,374,43 3 Lone Star CAR-Fund 2000 15,000,000 12,200,000 0 1,298,468 3,594,482 1,49,0362 14,930,420 1,599,430 14,930,420 1,599,430 14,930,420 14,930,420 14,930,420 14,920,420 14,920,420 14,920,420 14,920,420 14,920,420 14,920,420 14,920,420 14,920,420 14,920,420 14,920,420 14,925,460 14,920,420 14,925,460 14,920,420 14,925,460 14,920,420 14,925,460 14,920,420 14,925,460 14,920,420 14,925,460 14,925,460								- ratio	
Srowth Equity 1 2007 20,000,000 20,000,000 0 0 15,348,346 8,729,900 24,078,286 4,078,2 2 Huiden Chain Energy Partners 2009 25,000,000 24,994,470 0 0 3,661,856 8,304,544 11,965,540 -13,027,350 3 Lone Star Chark A Find 2008 50,000,000 57,519,550 0 12,298,640 14,499,420 14,499,420 14,902,400	38 31%	226,338	226,338	226,338	31	1%	0.00	1.15	29.90%
1 BankCap farmers Fund 1 2007 20,000,000 20,000,000 0 0 15,348,386 8,729,000 24,078,286 4,078,286 2 Hudson Clean Energy Partners 2009 25,000,000 24,994,470 0 0 3,661,896 8,304,644 11,966,540 -13,027,4 3 Lone Star CRA Fund 2008 50,000,000 75,519,550 0 0 12,202,000 3,594,464 11,966,540 -15,90,420 4 Lone Star CRA Fund 2000 15,000,000 16,000,000 0 8,798,464 2,133,483 10,931,947 931,47 6 Horb Taxes Opportunities Fund V, LP 2010 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtoal: Suports 1 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtoal: Suports 1 0,000,000 6,112,883 1,887,117 102,142 1,077,390 6,148,559 9,225,949 1,010,6 </td <td>38 31%</td> <td>226,338</td> <td>226,338</td> <td>226,338</td> <td>31</td> <td>۱%</td> <td>0.00</td> <td>1.15</td> <td>29.90%</td>	38 31%	226,338	226,338	226,338	31	۱%	0.00	1.15	29.90%
2 Hudson Clean Energy Partners 2009 25,000,000 24,934,470 0 0 3,661,896 8,304,644 11,966,540 -13,027,13 3 Lone Star CRA Fund 2006 15,000,000 57,519,050 0 0 12,280,090 15,92,142,25 55,374,3 4 Lone Star Coportunities Fund V, UP 2012 75,000,000 15,60,000 0 17,80,000 15,027,12 14,123,420 14,324,20 14,324,20 14,324,20 14,324,20 14,324,20 14,324,20 14,324,22 14,725,66 41,324,20 15,000,000 15,000,000 16,050,000 0 53,144 14,194,022 14,725,66 41,324,20 15,000,000 18,1563,520 34,750,000 0 53,144 14,194,022 14,725,66 41,324,20 10,001,000 181,563,520 34,750,000 0 53,144,4 14,154,022 163,256,05 10,001,000 53,144,83 12,022,676 55,245,197 33,574,857 89,820,054 11,001,01 Subtotal: Buyouts 1 16,6795,718 0 12,022,676 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>									
3 Lone Star CRA Fund 2008 50,000,000 57,519,050 0 1,2926,698 39,215,558 52,144,256 -5,374,33 4 Lone Star Growth Capital 2006 16,000,000 11,2800,000 11,2800,000 11,2800,000 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 11,2800,200 12,202,676 56,245,197 33,574,857 11,2833 10,931,947 931,4 Subtotal: Growth Equity 2000 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtotal: Buyouts 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtotal: Buyouts 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtotal: Buyouts 10,000,000 8,112,883 1,887,117 102,142	86 100%	4,078,286	,078,286	4,078,286	100	0%	0.77	1.20	2.20%
4 Lone Star Growth Capital 2006 15,000,000 12,800,000 1,2800,000 1,2800,000 1,2800,000 1,2800,000 1,2800,000 1,2800,000 1,2800,000 1,2800,000 1,2800,000 1,2800,000 1,2800,000 1,2800,000 0 5,11,441 1,194,022 1,472,54,66 41,524,453 6 North Fexas Opportunity Fund 2000 181,553,520 34,750,000 0 8,788,464 2,113,483 10,01,027 128,238,912 -53,326,6 Buyouts 1 196,000,000 181,553,520 34,750,000 0 5,045,197 33,574,857 89,820,054 11,001,6 Subtatal: Buyouts 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtatal: Buyouts 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtatal: Direct Lending 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,6 32,517,434 32,517,434	30 100%	-13,027,930	,027,930	-13,027,930	100	0%	0.15	0.48	-13.549
5 Lone Star Opportunities Fund V, LP 2012 75,000,000 56,250,000 18,750,000 0 531,444 14,194,022 14,725,466 -41,524,5 6 North Texas Opportunity Fund 2000 10,000,000 10,000,000 0 6,796,648 2,133,483 10,031,947 931,5 Subtati: Growth Equity 196,000,000 181,563,520 34,750,000 0 5,766,869 74,168,027 12,823,6,916 -53,226,916 Subtati: Buyouts 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtati: Buyouts 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 13,001,6 Oirect Lending 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,1 Subtati: Direct Lending 50,000,000 50,000,000 0 0 82,584,50 8,984 82,517,434 32,517,4 1 0CM Opportunities Fund IV 2001 50,000,000 50,000,000 0	94 115%	-5,374,794	,374,794	-5,374,794	115	5%	0.22	0.91	-15.019
6 North Texas Opportunity Fund 2000 10,000,000 10,000,000 0 6,798,464 2,133,483 10,931,947 931,4 Subtotal: Growth Equity 196,000,000 181,563,520 34,750,000 0 54,066,889 74,166,027 126,236,915 -53,326,6 Buyouts 1 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtotal: Buyouts 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtotal: Buyouts 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtotal: Direct Lending 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,6 Subtotal: Direct Lending 10,000,000 50,000,000 0 0 82,508,450 8,984 82,517,434 32,517,4 Subtotal: Direct Lending 10,000,000 50,000,000 0 0 <	20 80%	1,590,420	,590,420	1,590,420	80	0%	1.00	1.12	1.95%
Subtotal: Growth Equity 196,000,000 181,563,520 34,750,000 0 54,068,889 74,168,027 128,236,916 -53,326,6 Buyouts 1 Huff Alternative Fund 2000 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,4 Subtotal: Buyouts 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,4 Subtotal: Buyouts 0 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,4 Subtotal: Direct Lending 0 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,4 Subtotal: Direct Lending 0 0 0 8,148,559 9,225,949 1,010,6 Subtotal: Direct Lending 10,000,000 50,000,000 0 0 0 0 0 0 1,72,734 32,517,434 32,517,434 32,517,434 32,517,434 32,517,434	34 75%	-41,524,534	,524,534	-41,524,534	75	5%	0.01	0.26	-69.76%
Buyouts Initial and the second s	47 100%	931,947	931,947	931,947	100	0%	0.88	1.09	1.02%
1 Huff Alternative Fund 200 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Direct Lending 66,795,718 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Direct Lending 1 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,6 Subtoal: Direct Lending 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,6 Subtoal: Direct Lending 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,6 Subtoal: Direct Lending 201 50,000,000 50,000,000 0 0 8,984 82,517,434 32,517,434 Direct Investment 201 50,000,000 50,000,000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	04 84%	-53,326,604	326,604	-53,326,604	84	1%	0.30	0.71	-16.43%
Subtola: Buyouts 66,795,718 66,795,718 0 12,022,676 56,245,197 33,574,857 89,820,054 11,001,000 Direct Lending 1 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,6 Subtola: Direct Lending 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,6 Distressed 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,6 Distressed 50,000,000 50,000,000 0 0 82,508,450 8,984 82,517,434 32,517,4 Direct Investment 50,000,000 50,000,000 0 0 0 0 -179,4 1 Miscellaneous Private Equity Expenses 2016 179,486 179,486 0 0 0 0 -179,4 1 Huff Energy Fund 2006 100,000,000 99,880,021 119,979 -947,331 5,935,966 119,517,480 125,453,446 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Direct Lending Internet Internet Internet Internet Internet 1 Riverstone Credit Partners 2016 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,9 Subtotal: Direct Lending 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,9 Distressed 1 0CM Opportunities Fund IV 2001 50,000,000 50,000,000 0 0 82,508,450 8,984 82,517,434 32,517,4 Subtotal: Distressed 50,000,000 50,000,000 0 0 0 0 -179,48 1 Miscellaneous Private Equity Expenses 2016 179,486 179,486 0 0 0 0 -179,486 1 Huff Energy Fund 2006 100,000,000 99,880,021 119,979 -947,331 4,477,394 119,410,510 123,887,904 24,955,42 -3,546,7 Subtotal: Energy 1 105,283,254 104,992,328 290,926 -947,331	60 100%	11,001,660	,001,660	11,001,660	100	0%	0.71	1.14	1.779
1 Newstone Credit Partners 2016 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,6 Subtotal: Direct Lending 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,9 Distressed 10,000,000 50,000,000 0 0 82,508,450 8,984 82,517,434 32,517,433 32,517,434 3	50 100%	11,001,660	001,660	11,001,660 1	100	0%	0.71	1.14	1.77%
Subtotal: Direct Lending 10,000,000 8,112,883 1,887,117 102,142 1,077,390 8,148,559 9,225,949 1,010,9 Distressed 1 0CM Opportunities Fund IV 2001 50,000,000 50,000,000 0 0 82,508,450 8,984 82,517,434 32,517,4 Subtotal: Distressed 50,000,000 50,000,000 0 0 82,508,450 8,984 82,517,434 32,517,4 Direct Investment 50,000,000 50,000,000 0 0 82,508,450 8,984 82,517,434 32,517,4 1 Miscellaneous Private Equity Expenses 2016 179,486 179,486 0 0 0 0 -179,4 Subtotal: Direct Investment 179,486 179,486 0 0 0 0 -179,4 1 Huff Energy Fund 2006 100,000,000 99,880,021 119,979 -947,331 4,477,394 119,410,510 123,887,904 24,955,72 2 Yellowstone Energy Ventures II, LP. 2008 5,283,254 5,112,307 170,947									
Distressed 1 <th1< td=""><td>23 81%</td><td>1,010,923</td><td>,010,923</td><td>1,010,923</td><td>81</td><td>1%</td><td>0.13</td><td>1.12</td><td>13.929</td></th1<>	23 81%	1,010,923	,010,923	1,010,923	81	1%	0.13	1.12	13.929
1 OCM Opportunities Fund IV 201 50,000,000 50,000,000 0 0 82,508,450 8,984 82,517,434 32,517,434 Subtotal: Distressed 50,000,000 50,000,000 0 0 82,508,450 8,984 82,517,434 32,517,434 Direct Investment 1 Miscellaneous Private Equity Expenses 2016 179,486 179,486 0 0 0 0 0 -179,486 Subtotal: Direct Investment 179,486 179,486 0 0 0 0 0 0 -179,486 I Huff Energy Fund 2006 100,000,000 99,880,021 119,979 -947,331 4,477,394 119,410,510 123,887,904 24,955,2 2 Yellowstone Energy Ventures II, L.P. 2006 5,283,254 5,112,307 170,947 0 1,458,572 106,970 1,555,542 -3,546,7 Subtotal: Energy 105,283,254 104,992,328 290,926 -947,331 5,935,966 119,517,480 125,453,446 21,408,44 Credit Opportunities 1 Highland Credit Ops 2006 35,348,165 35,348,165 0	23 81%	1,010,923	010,923	1,010,923	81	۱%	0.13	1.12	13.92%
Subtotal: Diversion Diversion <thdiversion< th=""> <thdiversion< th=""> <thd< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thd<></thdiversion<></thdiversion<>									
Direct Investment Investhall Investment <th< td=""><td>34 100%</td><td>32,517,434</td><td>,517,434</td><td>32,517,434</td><td>100</td><td>0%</td><td>1.65</td><td>1.65</td><td>28.36%</td></th<>	34 100%	32,517,434	,517,434	32,517,434	100	0%	1.65	1.65	28.36%
1 Miscellaneous Private Equity Expenses 2016 179,486 179,486 0 0 0 0 0 0 0 -179,486 Subtotal: Direct Investment 179,486 179,486 0 179,486 179,486 0 0 0 0 0 0 179,486 179,486 199,917,486 109,90 0 123,887,904 24,955,72 106,970 1,565,542 13,546,75 35,346,75 35,348,165 0 0 14,458,572 106,970 1,565,542 23,466,75 35,346,75 24,955,75 14,408,47 125,453,446 21,408,47 14,408,47 14,458,572 106,970	34 100%	32,517,434	517,434	32,517,434 1	100	0%	1.65	1.65	28.36%
Subtotal: Direct Investment 179,486 179,486 179,486 0 0 0 0 0 0 -179,486 Energy 1 Huff Energy Fund 2006 100,000,000 99,880,021 119,979 -947,331 4,477,394 119,410,510 123,887,904 24,955,72 2 Yellowstone Energy Ventures II, L.P. 2008 5,283,254 5,112,307 170,947 0 1,458,572 106,970 1,565,542 -3,546,7 Subtotal: Energy 105,283,254 104,992,328 290,926 -947,331 5,935,966 119,517,480 125,453,446 21,408,44 Credit Opportunities 1 Highland Credit Ops 2006 35,348,165 35,348,165 0 0 23,595,921 6,215,935 29,811,856 -5,536,36,32 1 Highland Crusader Fund 2003 50,955,397 0 0 62,263,032 2,118,046 64,381,078 13,425,66 Subtotal: Credit Opportunities 86,303,562 0 0 85,858,953 8,333,981 94,192,934									
Energy 1 Huff Energy Fund 2006 100,000,000 99,880,021 119,979 -947,331 4,477,394 119,410,510 123,887,904 24,955,324 2 Yellowstone Energy Ventures II, L.P. 2008 5,283,254 5,112,307 170,947 0 1,458,572 106,970 1,565,542 -3,546,7 Subtotal: Energy 105,283,254 104,992,328 290,926 -947,331 5,935,966 119,517,480 125,453,446 21,408,47 Credit Opportunities 105,283,254 104,992,328 290,926 -947,331 5,935,966 119,517,480 125,453,446 21,408,48 1 Highland Credit Ops 2006 35,348,165 35,348,165 0 0 23,595,921 6,215,935 29,811,856 -5,536,32 2 Highland Crusader Fund 2003 50,955,397 50,955,397 0 0 62,263,032 2,118,046 64,381,078 13,425,66 Subtotal: Credit Opportunities 86,303,562 0 0 85,858,953 8,333,981 94,192,934 7,889,33	86 100%	-179,486	179,486	-179,486	100	0%	0.00	0.00	N/
1 Huff Energy Fund 2006 100,000,000 99,880,021 119,979 -947,331 4,477,394 119,410,510 123,887,904 24,955,22 2 Yellowstone Energy Ventures II, L.P. 2008 5,283,254 5,112,307 170,947 0 1,458,572 106,970 1,565,542 -3,546,7 Subtotal: Energy 105,283,254 104,992,328 290,926 -947,331 5,935,966 119,517,480 125,453,446 21,408,40 Credit Opportunities 119,910 2006 35,348,165 35,348,165 0 0 23,595,921 6,215,935 29,811,856 -5,536,73 1 Highland Credit Ops 2003 50,955,397 50,955,397 0 0 62,263,032 2,118,046 64,381,078 13,425,68 Subtotal: Credit Opportunities 86,303,562 86,303,562 0 0 85,858,953 8,333,981 94,192,934 7,889,33	36 100%	-179,486	L79,486	-179,486 1	100	0%	0.00	0.00	N//
2 Yellowstone Energy Ventures II, L.P. 2008 5,283,254 5,112,307 170,947 0 1,458,572 106,970 1,565,542 3,546,7 Subtotal: Energy 105,283,254 104,992,328 290,926 -947,331 5,935,966 119,517,480 125,453,446 21,408,4 Credit Opportunities 1 Highland Credit Ops 2006 35,348,165 35,348,165 0 0 23,595,921 6,215,935 29,811,856 -5,536,5 2 Highland Crusader Fund 2003 50,955,397 50,955,397 0 0 85,858,953 8,333,981 94,192,934 7,889,3									
Subtotal: Energy 105,283,254 104,992,328 290,926 -947,331 5,935,966 119,517,480 125,453,446 21,408,4 Credit Opportunities 1 Highland Credit Ops 2006 35,348,165 35,348,165 0 0 23,595,921 6,215,935 29,811,856 -5,536,33 2 Highland Crusader Fund 2003 50,955,397 0 0 62,263,032 2,118,046 64,381,078 13,425,6 Subtotal: Credit Opportunities 86,303,562 86,303,562 0 0 85,858,953 8,333,981 94,192,934 7,889,33	14 100%	24,955,214	,955,214	24,955,214	100	0%	0.05	1.25	2.99%
Credit Opportunities 1 Highland Credit Ops 2006 35,348,165 35,348,165 0 0 23,595,921 6,215,935 29,811,856 -5,536,33 2 Highland Crusader Fund 2003 50,955,397 50,955,397 0 0 62,263,032 2,118,046 64,381,078 13,425,6 Subtotal: Credit Opportunities 86,303,562 86,303,562 0 0 85,858,953 8,333,981 94,192,934 7,889,33	65 97%	-3,546,765	,546,765	-3,546,765	97	7%	0.29	0.31	-28.029
1 Highland Credit Ops 2006 35,348,165 35,348,165 0 0 23,595,921 6,215,935 29,811,856 -5,536,2 2 Highland Crusader Fund 2003 50,955,397 50,955,397 0 0 62,263,032 2,118,046 64,381,078 13,425,6 Subtotal: Credit Opportunities 86,303,562 86,303,562 0 85,858,953 8,333,981 94,192,934 7,889,33	100%	21,408,449	108,449	21,408,449 1	100	0%	0.06	1.21	2.51%
2 Highland Crusader Fund 2003 50,955,397 50,955,397 0 0 62,263,032 2,118,046 64,381,078 13,425,6 Subtotal: Credit Opportunities 86,303,562 86,303,562 0 0 85,858,953 8,333,981 94,192,934 7,889,33									
Subtotal: Credit Opportunities 86,303,562 86,303,562 0 0 85,858,953 8,333,981 94,192,934 7,889,3	09 100%	-5,536,309	,536,309	-5,536,309	100	0%	0.67	0.84	-2.15%
	81 100%	13,425,681	,425,681	13,425,681	100	0%	1.22	1.26	4.16%
Total: Active Funds 519,562,020 499,497,497 40,378,043 11,177,487 285,694,844 245,528,226 531,223,071 20,548,0	72 100%	7,889,372	389,372	7,889,372 1	100	0%	0.99	1.09	1.42%
	37 96%	20,548,087	548,087	20,548,087	96	5%	0.56	1.04	0.92%
	57 50%	20,540,007	,007	20,340,007	50		0.50	1.04	

2018 03 08 Board Meeting - REGULAR AGENDA 2018 03 08

Dallas Police & Fire Pension System

Private Equity & Debt Funds - Performance Analysis by Investment Strategy

9/30/2017

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR
Completed													
1 Ashmore Global Special Situations Fund IV^1	2007	70,000,000	70,012,300	(0	39,652,711	0	39,652,711	-30,359,589	100%	0.57	0.57	-10.12%
² BankCap Partners Opportunity Fund, LP ²	2013	20,000,000	19,587,052	(0	18,266,454	0	18,266,454	-1,320,597	100%	0.93	0.93	-5.69%
3 CDK Southern Cross	2008	1,535,316	1,535,316	(0	0	0	0	-1,535,316	100%	0.00	0.00	-20.08%
4 HM Capital Sector Performance Fund	2008	47,300,000	44,354,248	(1,933,378	39,792,545	0	39,792,545	-6,495,081	100%	0.86	0.86	-4.01%
5 Huff Alternative Income Fund	1994	40,000,000	40,000,000	(2,018,676	66,940,198	0	66,940,198	24,921,522	100%	1.59	1.59	17.82%
6 Kainos Capital Partners, L.P. ²	2013	35,000,000	30,316,015	(0	43,263,688	0	43,263,688	12,947,673	100%	1.43	1.43	24.76%
7 Levine Leichtman Capital Partners IV ²	2008	50,000,000	38,009,085	(0	78,916,788	0	78,916,788	40,907,703	100%	2.08	2.08	20.12%
⁸ Levine Leichtman Capital Partners V, L.P. ²	2013	25,000,000	19,181,272	(-4,405	24,506,336	0	24,506,336	5,329,470	100%	1.28	1.28	15.26%
9 Levine Leichtman Deep Value Fund	2006	75,000,000	75,000,000	(11,025,662	88,688,224	0	88,688,224	2,662,562	100%	1.03	1.03	0.73%
10 Levine Leichtman Private Capital Solutions II,	2012	25,000,000	17,961,807	(-175	18,691,764	0	18,691,764	730,132	100%	1.04	1.04	1.30%
11 Lone Star Fund IX (U.S.), L.P. ¹	2014	35,000,000	24,241,467	(0	23,459,730	0	23,459,730	-781,738	100%	0.97	0.97	-3.28%
12 Lone Star Fund VII (U.S.), L.P. ¹	2011	25,000,000	23,469,024	(0	41,624,566	0	41,624,566	18,155,542	100%	1.77	1.77	47.54%
13 Lone Star Fund VIII (U.S.), L.P. ¹	2013	25,000,000	22,564,537	(0	28,017,551	0	28,017,551	5,453,014	100%	1.24	1.24	16.26%
14 Merit Energy Partners E-I ¹	2004	7,018,930	7,031,052	(-1,741	14,975,776	0	14,975,776	7,946,464	100%	2.13	2.13	14.48%
15 Merit Energy Partners F-I ¹	2005	8,748,346	8,749,275	(0	3,801,206	0	3,801,206	-4,948,069	100%	0.43	0.43	-17.19%
16 Merit Energy Partners G, LP ¹	2008	39,200,000	39,320,050	(0	26,756,651	0	26,756,651	-12,563,399	100%	0.68	0.68	-9.96%
17 Merit Energy Partners H, LP ¹	2010	10,000,000	10,033,415	(0	6,870,451	0	6,870,451	-3,162,964	100%	0.68	0.68	-13.78%
18 Oaktree Loan Fund 2X ¹	2007	60,000,000	60,004,628	(0	65,066,951	0	65,066,951	5,062,323	100%	1.08	1.08	2.24%
19 Oaktree Power Fund III ¹	2011	30,000,000	16,167,147	(0	23,839,959	0	23,839,959	7,672,812	100%	1.47	1.47	12.35%
20 Pharos Capital Co-Investment, LLC	2007	20,000,000	20,000,000	(0	10,019,157	0	10,019,157	-9,980,843	100%	0.50	0.50	-9.92%
21 Pharos Capital Co-Investments, LP	2008	40,000,000	40,000,000	(0	67,459,271	0	67,459,271	27,459,271	100%	1.69	1.69	8.42%
22 Pharos Capital Partners IIA, L.P. ²	2005	20,000,000	20,080,306	(0	17,715,199	0	17,715,199	-2,365,108	100%	0.88	0.88	-2.39%
23 Pharos Capital Partners III, LP ²	2012	50,000,000	28,397,038	(-54,286	20,196,932	0	20,196,932	-8,145,820	100%	0.71	0.71	-19.95%
Subtotal: Completed		758,802,592	676,015,035	C	14,917,109	768,522,109	0	768,522,109	77,589,965	96%	1.11	1.11	3.30%
Total: Dallas Police & Fire Pension System		1,278,364,612	1,175,512,531	40,378,043	26,094,596	1,054,216,953	245,528,226	1,299,745,179	98,138,052	92%	0.88	1.08	2.13%

1. Funds sold in Evercore secondary sale during Q1 2017

2. Funds sold in Evercore secondary sale during Q4 2016

Dallas Police & Fire Pension System As of 9/30/2017

Growth Equity				IRF	ર			DI	PI			TV	PI		(Quartile Ra	nk	
	Vintage	Sample		1st		3rd		1st		3rd		1st		3rd				-
Fund Name	Year	Size	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	IRR	DPI	TVPI	Benchmark
BankCap Partners Fund I	2007	18	2.20%	15.11%	10.17%	2.64%	0.77x	1.60x	1.07x	0.56x	1.20x	2.38x	1.55x	1.13x	4	3	3	U.S. Growth Equity
Hudson Clean Energy Partners	2009	7	-13.54%		10.40%		0.15x		0.66x		0.48x		1.65x		NA	NA	NA	U.S. Growth Equity
Lone Star CRA Fund	2008	7	-15.01%		10.47%		0.22x		1.14x		0.91x		1.62x		NA	NA	NA	U.S. Growth Equity
Lone Star Growth Capital	2006	12	1.95%	13.82%	6.49%	4.54%	1.00x	1.53x	1.30x	1.11x	1.12x	1.98x	1.35x	1.24x	4	4	4	U.S. Growth Equity
Lone Star Opportunities Fund V, LP	2012	12	-69.76%	16.59%	13.37%	11.56%	0.01x	0.42x	0.19x	0.05x	0.26x	1.58x	1.46x	1.36x	4	4	4	U.S. Growth Equity
North Texas Opportunity Fund	2000	13	1.02%	9.70%	4.40%	-4.42%	0.88x	1.61x	1.33x	0.76x	1.09x	1.69x	1.33x	0.76x	3	3	3	U.S. Growth Equity

Buyouts				IR	2			DF	Ы			TV	PI		Q	uartile Ra	nk	
	Vintage	Sample		1st		3rd		1st		3rd		1st		3rd				
Fund Name	Year	Size	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	IRR	DPI	TVPI	Benchmark
Huff Alternative Fund	2000	54	1.77%	22.18%	14.30%	10.39%	0.71x	2.25x	1.85x	1.52x	1.14x	2.41x	1.93x	1.53x	4	4	4	U.S. Buyout

Direct Lending				IRF	2			DF	PI			TV	PI		Q	uartile Ra	nk	
	Vintage	Sample		1st		3rd		1st		3rd		1st		3rd				
Fund Name	Year	Size	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	IRR	DPI	TVPI	Benchmark
Riverstone Credit Partners	2016	120	13.92%	13.24%	2.31%	-11.99%	0.13x	0.00x	0.00x	0.00x	1.12x	1.10x	1.01x	0.92x	1	1	1	U.S. All PE

Distressed				IR	R			DI	Ы			TV	PI	1	Q	uartile Ra	nk	
	Vintage	Sample		1st		3rd		1st		3rd		1st		3rd			T) (D1	
Fund Name	Year	Size	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	IRR	DPI	TVPI	Benchmark
OCM Opportunities Fund IV	2001	2	28.36%				1.65x				1.65x				NA	NA	NA	U.S. Distressed

Energy				IRF	2			DI	Ы			TV	PI		Ç	Quartile Ra	ink	
	Vintage	Sample		1st		3rd]	1st		3rd		1st		3rd				
Fund Name	Year	Size	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	IRR	DPI	TVPI	Benchmark
Huff Energy Fund	2006	11	2.99%	12.00%	3.08%	-4.21%	0.05x	1.28x	0.99x	0.57x	1.25x	1.57x	1.15x	0.85x	3	4	2	U.S. Energy
Yellowstone Energy Ventures II, L.P.	2008	13	-28.02%	8.71%	5.80%	0.27%	0.29x	0.81x	0.67x	0.44x	0.31x	1.48x	1.34x	1.01x	4	4	4	U.S. Energy

Credit Opportunities				IRF	2			DI	PI			TV	PI		Q	uartile Ra	nk	
	Vintage	Sample		1st		3rd		1st		3rd		1st		3rd				
Fund Name	Year	Size	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	IRR	DPI	TVPI	Benchmark
Highland Credit Ops	2006	18	-2.15%	11.67%	8.73%	6.18%	0.67x	1.76x	1.29x	1.07x	0.84x	1.87x	1.75x	1.32x	4	4	4	Global Distressed
Highland Crusader Fund	2003	6	4.16%		12.62%		1.22x		1.60x		1.26x		1.64x		NA	NA	NA	Global Distressed

Venture				IRF	ર			DI	Ы			TV	PI		Q	uartile Ra	nk	
	Vintage	Sample		1st		3rd		1st		3rd		1st		3rd	100	0.07	T (07	
Fund Name	Year	Size	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	IKK	DPI	TVPI	Benchmark
Industry Ventures Partnership Holdings IV	2016	47	29.90%	7.43%	-0.29%	-17.39%	0.00x	0.00x	0.00x	0.00x	1.15x	1.05x	1.00x	0.89x	1	NA	1	U.S. Venture

Benchmark data from Cambridge Associates/ThomsonOne as of 9.30.2017 Data only includes active funds.

PRIVATE REAL ASSETS REVIEW

(Real Estate, Infrastructure, Natural Resources)

DALLAS POLICE & FIRE PENSION SYSTEM

Third Quarter, 2017



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

Real Estate and Real Assets

The following table presents the status of the DPFP **<u>REAL ESTATE</u>** portfolio as of September 30, 2017:

Since Inception Commitments	Terminated Commitments	Amount Funded	Amount Distributed	Reported Value	Call Ratio	Distribution Ratio
\$1,595,596,410	\$66,412,553	\$1,461,608,245	\$668,726,694	\$528,519,601	91.60%	45.75%

Unfunded	Market Exposure (Reported Value +	Total Fund Composite	Real Estate Target	Reported Value	Market Exposure
Commitment	Unfunded Commitment)	as of		of Total	as a %
		9/30/2017		Fund	Total Fund
\$67,575,612	\$596,095,213	\$2,107,885,009	12%	25.07%	28.28%

Total Value	Total Value	Internal Rate of Return
(Reported Value + Distributions)	То	IRR, Since Inception
	Capital Call Ratio	
\$1,197,246,295	0.82	-4.05%

The following table presents the status of the DPFP **<u>NATURAL RESOURCES</u>** portfolio as of September 30, 2017:

Since Inception Commitments	Terminated Commitments	Amount Funded	Amount Distributed	Reported Value	Call Ratio	Distribution Ratio
\$236,406,706	\$0	\$236,406,706	\$218,004,999	\$230,252,516	100.00%	92.22%

Unfunded Commitment	Market Exposure (Reported Value + Unfunded Commitment)	Total Fund Composite as of 9/30/2017	Natural Resources Target	Reported Value of Total Fund	Market Exposure as a % Total Fund
\$0	\$230,252,516	\$2,107,885,009	3%	10.92%	10.92%

Total Value (Reported Value + Distributions)	Total Value To Capital Call Ratio	Internal Rate of Return IRR, Since Inception
\$448,257,515	1.90	9.36%

The following table presents the status of the DPFP **INFRASTRUCTURE** portfolio as of September 30, 2017:

Since	Terminated	Amount	Amount	Reported	Call	Distribution
Inception	Commitments	Funded	Distributed	Value	Ratio	Ratio
Commitments						
\$364,000,000	\$39,233,614	\$289,681,980	\$330,990,822	\$60,474,834	79.58%	114.26%

Unfunded Commitment	Market Exposure (Reported Value + Unfunded Commitment)	Total Fund Composite as of 9/30/2017	Infrastructure Target	Reported Value of Total Fund	Market Exposure as a % Total Fund
\$35,084,406	\$95,559,240	\$2,107,885,009	5%	2.87%	4.53%

Total Value (Reported Value + Distributions)	Total Value To Capital Call Ratio	Internal Rate of Return IRR, Since Inception
\$391,465,656	1.35	7.64%

Dallas Police & Fire Pension System

Investment Strategy Performance Analysis

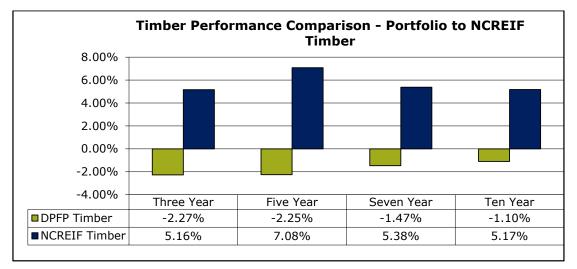
9/30/2017

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR
RE Direct Investments ¹		1,036,202,720	936,377,609	65,300,001	0	217,372,698	499,386,317	716,759,015	-219,618,594	93%	0.23	0.77	-4.55%
RE Core		72,186,676	72,186,676	0	0	61,730,119	27,529,891	89,260,010	17,073,334	100%	0.86	1.24	3.98%
RE Debt		4,500,000	4,500,000	0	0	4,084,829	945,864	5,030,693	530,693	100%	0.91	1.12	5.75%
RE Value Add/Opportun													
1 Hearthstone MS II Homebuilding Investors	1999	10,000,000	7,973,058	997,057	0	10,989,565	0	10,989,565	3,016,507	80%	1.38	1.38	26.70%
2 Hearthstone MS III Homebuilding Investors	2003	10,000,000	1,221,446	1,278,554	0	3,497,890	657,529	4,155,419	2,933,973	12%	2.86	3.40	24.67%
Subtotal: RE Value Add/Opportun		20,155,554	9,350,058	2,275,611	0	15,029,726	657,529	15,687,255	6,337,198	80%	1.61	1.68	26.04%
Infrastructure													
1 AIRRO	2008	37,000,000	35,845,534	1,154,466	-361,150	16,714,775	23,892,978	40,607,754	5,123,370	97%	0.47	1.14	2.38%
2 AIRRO II	2013	40,000,000	7,436,001	32,563,999	-401,391	58,731	4,395,208	4,453,939	-2,580,671	19%	0.01	0.63	-11.42%
3 J.P. Morgan Maritime Fund, L.P.	2009	50,000,000	48,634,059	1,365,941	-404	2,707,451	32,186,647	34,894,098	-13,739,556	97%	0.06	0.72	-11.83%
Subtotal: Infrastructure		127,000,000	91,915,594	35,084,406	-762,945	19,480,958	60,474,834	79,955,792	-11,196,858	72%	0.21	0.88	-3.35%
Natural Resources													
1 Hancock Agricultural	1998	74,420,001	74,420,001	0	0	96,696,343	157,093,145	253,789,488	179,369,487	100%	1.30	3.41	16.02%
Subtotal: Natural Resources		74,420,001	74,420,001	0	0	96,696,343	157,093,145	253,789,488	179,369,487	100%	1.30	3.41	16.02%
Timber													
1 BTG International Timberland	2006	80,107,009	80,107,009	0	0	16,000,000	37,411,801	53,411,801	-26,695,208	100%	0.20	0.67	-6.91%
2 FIA Timberland	1992	59,649,696	59,649,696	0	0	72,242,736	35,747,570	107,990,306	48,340,610	100%	1.21	1.81	7.73%
Subtotal: Timber		139,756,705	139,756,705	0	0	88,242,736	73,159,371	161,402,107	21,645,402	100%	0.63	1.15	2.76%
Total: Active Funds & Investments		1,474,221,656	1,328,506,643	102,660,018	-762,945	502,637,409	819,246,951	1,321,884,361	-5,859,338	90%	0.38	1.00	-0.08%
Total: Completed Funds & Investments:		721,781,460	659,190,288	0	846,289	715,085,105	0	715,085,105	55,048,528	97%	1.08	1.08	2.02%
Total: Dallas Police & Fire Pension System		2,196,003,116	1,987,696,931	102,660,018	83,344	1,217,722,514	819,246,951	2,036,969,466	49,189,190	91%	0.61	1.02	0.50%

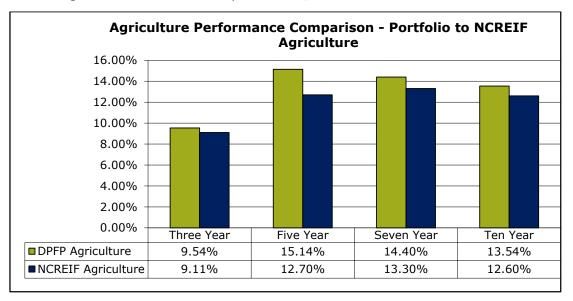
1. Unfunded commitment includes Sumitomo line of credit of \$65,300,000

Timber and Agriculture Benchmarks

The following graph shows the performance of the DPFP $\underline{\text{Timber}}$ portfolio vs. the NCREIF Timber Index* as of September 30, 2017:



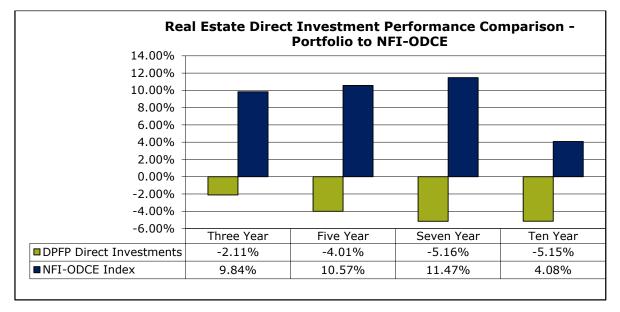
The following graph shows the performance of the DPFP <u>Agriculture</u> portfolio vs. the NCREIF Agriculture Index* as of September 30, 2017:



*NCREIF Agriculture and Timber index returns are calculated gross of fees and on a timeweighted basis, NEPC has used an assumed fee of 100 basis points. DPFP returns are calculated net of fees using a money-weighted return

Real Estate Benchmark

The following graph shows the performance of the DPFP **<u>Direct Investment Real Estate</u>** portfolio vs. the NCREIF NFI-ODCE Index** as of September 30, 2017:



**NFI-ODCE Index returns are net of fees and calculated on a time-weighted basis; DPFP returns are calculated net of fees using a money-weighted return

Dallas Police & Fire Pension System As of 9/30/2017

U.S. RE				IRR		DPI			TVPI				Quartile Rank					
	Vintage	Sample		1st		3rd		1st		3rd		1st		3rd				
Fund Name	Year	Size	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	IRR	DPI	TVPI	Benchmark
Hearthstone MS II Homebuilding Investors	1999	16	26.70%	17.81%	10.20%	9.23%	1.38x	1.78x	1.50x	1.40x	1.38x	1.80x	1.51x	1.40x	1	4	4	U.S RE
Hearthstone MS III Homebuilding Investors	2003	25	24.67%	20.10%	10.79%	-1.62%	2.86x	1.76x	1.39x	0.91x	3.40x	1.76x	1.52x	0.91x	1	1	1	U.S RE

Infrastructure				IRF	ξ			DF	Ы			TVI	Ы		Q	uartile Ra	nk	
	Vintage	Sample		1st		3rd]	1st		3rd		1st		3rd				
Fund Name	Year	Size	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	Fund	Quartile	Median	Quartile	IRR	DPI	TVPI	Benchmark
AIRRO	2008	9	2.38%	12.59%	8.40%	7.90%	0.47x	0.66x	0.59x	0.55x	1.14x	1.88x	1.57x	1.47x	4	4	4	Infrastructure
AIRRO II	2013	7	-11.42%		-0.69%		0.01x		0.03x		0.63x		0.98x		NA	NA	NA	Infrastructure
J.P. Morgan Maritime Fund, L.P.	2009	3	-11.83%				0.06x				0.72x				NA	NA	NA	Infrastructure

Benchmark data from Cambridge Associates/ThomsonOne as of 9.30.2017 Data only includes active funds.

APPENDIX

Vintage Year Performance Analysis & Transaction Summary

DALLAS POLICE & FIRE PENSION SYSTEM

Third Quarter, 2017



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

2018 03 08 Board Meeting - REGULAR AGENDA 2018 03 08

Dallas Police & Fire Pension System

Private Equity & Debt - Vintage Year Performance Analysis

9/30/2017

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be A Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR
1994		Announc		rundu		Distributions				Rutio	rtatio	rtatio	
1 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	100%	1.59	1.59	17.82%
Subtotal: 1994		40,000,000	40,000,000	0	2,018,676	66,940,198	0	66,940,198	24,921,522	100%	1.59	1.59	17.82%
2000	-												
1 Huff Alternative Fund	2000	66,795,718	66,795,718	0	12,022,676	56,245,197	33,574,857	89,820,054	11,001,660	100%	0.71	1.14	1.77%
2 North Texas Opportunity Fund	2000	10,000,000	10,000,000	0	0	8,798,464	2,133,483	10,931,947	931,947	100%	0.88	1.09	1.02%
Subtotal: 2000		76,795,718	76,795,718	0	12,022,676	65,043,661	35,708,340	100,752,001	11,933,607	100%	0.73	1.13	1.67%
2001													
1 OCM Opportunities Fund IV	2001	50,000,000	50,000,000	0	0	82,508,450	8,984	82,517,434	32,517,434	100%	1.65	1.65	28.36%
Subtotal: 2001		50,000,000	50,000,000	0	0	82,508,450	8,984	82,517,434	32,517,434	100%	1.65	1.65	28.36%
2003													
1 Highland Crusader Fund	2003	50,955,397	50,955,397	0	0	62,263,032	2,118,046	64,381,078	13,425,681	100%	1.22	1.26	4.16%
Subtotal: 2003	2005	50,955,397	50,955,397	0	0	62,263,032	2,118,046	64,381,078	13,425,681	100%	1.22	1.20	4.16%
2004					-	,,	_,,	, ,					
1 Merit Energy Partners E-I	2004	7,018,930	7,031,052	0	-1,741	14,975,776	0	14,975,776	7,946,464	100%	2.13	2.13	14.48%
Subtotal: 2004 2005		7,018,930	7,031,052	0	-1,741	14,975,776	0	14,975,776	7,946,464	100%	2.13	2.13	14.48%
2005													
1 Merit Energy Partners F-I	2005	8,748,346	8,749,275	0	0	3,801,206	0	3,801,206	-4,948,069	100%	0.43	0.43	-17.19%
2 Pharos Capital Partners IIA, L.P.	2005	20,000,000	20,080,306	0	0	17,715,199	0	17,715,199	-2,365,108	100%	0.88	0.88	-2.39%
Subtotal: 2005		28,748,346	28,829,581	0	0	21,516,405	0	21,516,405	-7,313,177	100%	0.75	0.75	-5.35%
2006													
1 Highland Credit Ops	2006	35,348,165	35,348,165	0	0	23,595,921	6,215,935	29,811,856	-5,536,309	100%	0.67	0.84	-2.15%
2 Huff Energy Fund	2006	100,000,000	99,880,021	119,979	-947,331	4,477,394	119,410,510	123,887,904	24,955,214	100%	0.05	1.25	2.99%
3 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	100%	1.03	1.03	0.73%
4 Lone Star Growth Capital	2006	16,000,000	12,800,000	16,000,000	0	12,800,000	1,590,420	14,390,420	1,590,420	80%	1.00	1.12	1.95%
Subtotal: 2006		226,348,165	223,028,186	16,119,979	10,078,331	129,561,539	127,216,865	256,778,404	23,671,887	93%	0.56	1.10	1.51%
2007													
1 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	100%	0.57	0.57	-10.12%
2 BankCap Partners Fund I	2007	20,000,000	20,000,000	0	0	15,348,386	8,729,900	24,078,286	4,078,286	100%	0.77	1.20	2.20%
3 Oaktree Loan Fund 2X	2007	60,000,000	60,004,628	0	0	65,066,951	0	65,066,951	5,062,323	100%	1.08	1.08	2.24%
4 Pharos Capital Co-Investment, LLC	2007	20,000,000	20,000,000	0	0	10,019,157	0	10,019,157	-9,980,843	100%	0.50	0.50	-9.92%
Subtotal: 2007		170,000,000	170,016,928	0	0	130,087,205	8,729,900	138,817,105	-31,199,823	100%	0.77	0.82	-3.78%
2008													
1 CDK Southern Cross	2008	1,535,316	1,535,316	0	0	0	0	0	-1,535,316	100%	0.00	0.00	-20.08%
2 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	100%	0.86	0.86	-4.01%
3 Levine Leichtman Capital Partners IV	2008	50,000,000	38,009,085	0	0	78,916,788	0	78,916,788	40,907,703	100%	2.08	2.08	20.12%
4 Lone Star CRA Fund	2008	50,000,000	57,519,050	0	0	12,928,698	39,215,558	52,144,256	-5,374,794	115%	0.22	0.91	-15.01%
5 Merit Energy Partners G, LP	2008	39,200,000	39,320,050	0	0	26,756,651	0	26,756,651	-12,563,399	100%	0.68	0.68	-9.96%
6 Pharos Capital Co-Investments, LP	2008	40,000,000	40,000,000	0	0	67,459,271	0	67,459,271	27,459,271	100%	1.69	1.69	8.42%

2018 03 08 Board Meeting - REGULAR AGENDA 2018 03 08

Dallas Police & Fire Pension System

Private Equity & Debt - Vintage Year Performance Analysis

9/30/2017

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio		TVPI Ratio	IRR
7 Yellowstone Energy Ventures II, L.P.	2008	5,283,254	5,112,307	170,947	0	1,458,572	106,970	1,565,542	-3,546,765	97%	0.29	0.31	-28.02%
Subtotal: 2008		233,318,570	225,850,056	170,947	1,933,378	227,312,525	39,322,528	266,635,053	38,851,620	100%	1.00	1.17	4.37%
2009													
1 Hudson Clean Energy Partners	2009	25,000,000	24,994,470	0	0	3,661,896	8,304,644	11,966,540	-13,027,930	100%	0.15	0.48	-13.54%
Subtotal: 2009		25,000,000	24,994,470	0	0	3,661,896	8,304,644	11,966,540	-13,027,930	100%	0.15	0.48	-13.54%
2010													
1 Merit Energy Partners H, LP	2010	10,000,000	10,033,415	0	0	6,870,451	0	6,870,451	-3,162,964	100%	0.68	0.68	-13.78%
Subtotal: 2010		10,000,000	10,033,415	0	0	6,870,451	0	6,870,451	-3,162,964	100%	0.68	0.68	-13.78%
2011													
1 Lone Star Fund VII (U.S.), L.P.	2011	25,000,000	23,469,024	0	0	41,624,566	0	41,624,566	18,155,542	100%	1.77	1.77	47.54%
2 Oaktree Power Fund III	2011	30,000,000	16,167,147	0	0	23,839,959	0	23,839,959	7,672,812	100%	1.47	1.47	12.35%
Subtotal: 2011		55,000,000	39,636,171	0	0	65,464,525	0	65,464,525	25,828,354	72%	1.65	1.65	28.09%
2012													
1 Levine Leichtman Private Capital Solutions II, L.P.	2012	25,000,000	17,961,807	0	-175	18,691,764	0	18,691,764	730,132	100%	1.04	1.04	1.30%
2 Lone Star Opportunities Fund V, LP	2012	75,000,000	56,250,000	18,750,000	0	531,444	14,194,022	14,725,466	-41,524,534	75%	0.01	0.26	-69.76%
3 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	100%	0.71	0.71	-19.95%
Subtotal: 2012		150,000,000	102,608,845	18,750,000	-54,461	39,420,140	14,194,022	53,614,162	-48,940,222	85%	0.38	0.52	-40.44%
2013													
1 BankCap Partners Opportunity Fund, LP	2013	20,000,000	19,587,052	0	0	18,266,454	0	18,266,454	-1,320,597	100%	0.93	0.93	-5.69%
2 Kainos Capital Partners, L.P.	2013	35,000,000	30,316,015	0	0	43,263,688	0	43,263,688	12,947,673	100%	1.43	1.43	24.76%
3 Levine Leichtman Capital Partners V, L.P.	2013	25,000,000	19,181,272	0	-4,405	24,506,336	0	24,506,336	5,329,470	100%	1.28	1.28	15.26%
4 Lone Star Fund VIII (U.S.), L.P.	2013	25,000,000	22,564,537	0	0	28,017,551	0	28,017,551	5,453,014	100%	1.24	1.24	16.26%
Subtotal: 2013		105,000,000	91,648,876	0	-4,405	114,054,030	0	114,054,030	22,409,559	98%	1.24	1.24	15.63%
2014													
1 Lone Star Fund IX (U.S.), L.P.	2014	35,000,000	24,241,467	0	0	23,459,730	0	23,459,730	-781,738	100%	0.97	0.97	-3.28%
Subtotal: 2014		35,000,000	24,241,467	0	0	23,459,730	0	23,459,730	-781,738	69%	0.97	0.97	-3.28%
2016													
1 Industry Ventures Partnership Holdings IV	2016	5,000,000	1,550,000	3,450,000	0	0	1,776,338	1,776,338	226,338	31%	0.00	1.15	29.90%
2 Miscellaneous Private Equity Expenses	2016	179,486	179,486	0	0	0	0	0	-179,486	100%	0.00	0.00	N/A
3 Riverstone Credit Partners	2016	10,000,000	8,112,883	1,887,117	102,142	1,077,390	8,148,559	9,225,949	1,010,923	81%	0.13	1.12	13.92%
Subtotal: 2016		15,179,486	9,842,369	5,337,117	102,142	1,077,390	9,924,897	11,002,287	1,057,776	65%	0.11	1.11	13.02%



DISCUSSION SHEET

ITEM #C2

Торіс:	Private asset briefing
Discussion:	Staff will discuss the current private asset holdings in the Private Equity, Private Debt, Infrastructure and Natural Resources asset classes. These assets account for approximately 25% of DPFP's investment portfolio. The briefing will include a review and discussion of the strategy for each asset.

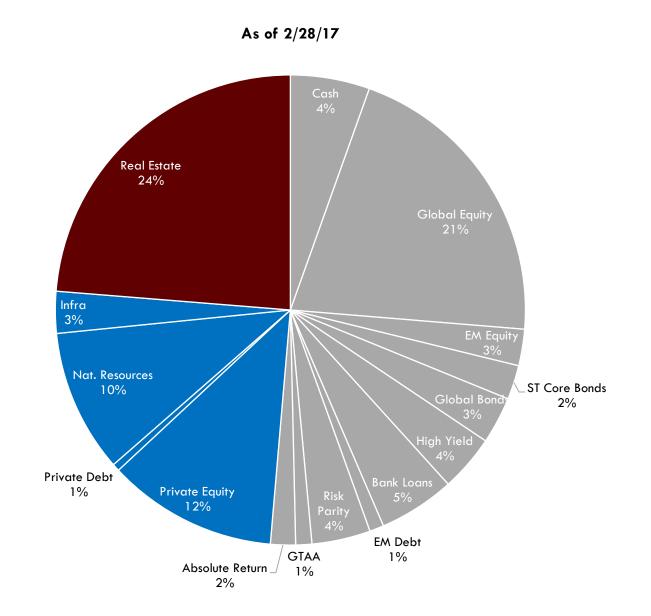
Regular Board Meeting – Thursday, March 8, 2018



Private Asset Briefing:

Private Equity, Private Debt, Infrastructure, Natural Resources March 8, 2018

Asset Allocation & Private Asset Composition



73

Private Asset Detail

As of 2/28/17

Investment	Asset Class	NAV
Huff Energy Fund	Private Equity	\$119,410,510
Lone Star CRA	Private Equity	\$39,215,558
Huff Alternative Fund	Private Equity	\$33,574,857
Lone Star Opportunities V	Private Equity	\$32,944,022
BankCap Partners	Private Equity	\$8,729,900
Hudson Clean Energy	Private Equity	\$8,304,644
North Texas Opportunity Fund	Private Equity	\$2,020,760
Industry Ventures	Private Equity	\$1,930,876
Lone Star Growth Capital	Private Equity	\$1,590,420
Yellowstone Capital	Private Equity	\$106,970
Riverstone Credit Partners	Private Debt	\$8,425,949
Highland Crusader Fund	Private Debt	\$2,325,759
JP Morgan Global Maritime	Infrastructure	\$32,186,649
JP Morgan Asian Infrastructure (AIRRO)	Infrastructure	\$24,312,506
JP Morgan Asian Infrastructure II (AIRRO II)	Infrastructure	\$4,395,222
Hancock Agricultural	Natural Resources	\$157,093,250
BTG Pactual Asset Management	Natural Resources	\$36,700,000
Forest Investment Associates	Natural Resources	\$14,600,000

Huff Energy Fund



A	sset Class:	Private Equity				Vintage Year:	2006	
		2014 / 2019, 2 GP extensions remaining			Total Fund Size: \$493			
Manage	ment Fee:	Confidentia				DPFP Commitment:		
Performance Fo	ee/Carry:	Confidential				DPFP % of Fund:	20.28%	
Investment Perf	ormance ((In Millions	;)					* - As of 9/30/17
Paid In Capital	Unfund Commitn		DPFP stributions	NA	V	Inception IRR*	TVPI*	DPI*
\$99.9	\$0.1		\$4.5	\$119	9.4	2.99%	1.25	0.13
Fund Strategy /	Portfolio							

- DPFP has received only \$4.5M in net distributions from the fund since inception, most of which was in 2009 from investments in publicly traded energy securities. The remaining portfolio is invested in illiquid oil and gas partnerships, primarily located in South Texas (oil) and Northern Louisiana (gas).
- The Huff Energy Fund focused on the thesis that high energy prices and advanced technology supported the development of previously uneconomic projects. The fund acquired properties and drilled exploratory wells.

Strategic Plan / Timeline

- The GP recently exercised an election to extend the fund for another year.
- A recent conclusion of a lawsuit allows the GP to begin price discovery and sales of the properties, a process expected to take at least another year.

Lone Star CRA



A	Asset Class:	Private	Equity		Vintage Year:	2008	
Investment Per Term			/ 2019		Total Fund Size:	\$85m	
Management Fee: Confidential			DPFP Commitment:				
Performance Fee/Carry: Confid		Confide	ential		DPFP % of Fund: 58.		
Investment Performance (In Millions)						* - As of 9/30/17	
Paid In Capital	Unfund Commitr		DPFP Distributions	NAV	Inception IRR*	TVPI*	DPI*
\$57.5	\$57.5 -		\$12.9	\$39.2	-15.01%	0.91	0.22
Fund Strategy /	Portfolio						

- Fund makes equity investments in Texas companies based in low-to-moderate income areas.
- Fund currently owns 6 portfolio companies concentrated in the energy and manufacturing sectors, 3 of which are co-owned by Lone Star Opportunity Fund V.

Strategic Plan / Timeline

- DPFP conducted third-party valuations of portfolio companies in the fund, which resulted in a write-down in the 2016 financial statements.
- One portfolio company is in a sale process, a Q2 2018 close is expected.
- No other near term exits are on the horizon.

Huff Alternative Fund

		Private Equity			Vintage Year:	2000	
Investment Peri Term I		2007 / 2016			Total Fund Size:	\$749m	
Manage	ement Fee:	Confidential			DPFP Commitment:		
Performance Fee/Carry: Confidential					DPFP % of Fund:		
Investment Performance (In Millions)							* - As of 9/30/17
Paid In Capital	Unfunde Commitm		s N/	AV	Inception IRR*	TVPI*	DPI*
\$78.8	_	\$57.4	\$3	3.6	1.77%	1.14	0.71
Fund Strategy /	Portfolio						

- Private equity fund investing in a diverse range of industries, companies, and types of investments.
- The fund term has expired and the fund is now in liquidation, the liquidation process being managed by the GP.
- Remaining fund investments: Hispanic food company, property on the Las Vegas strip, and interest in oil and gas partnership that is also owned in the Huff Energy fund.

Strategic Plan / Timeline

- The Hispanic food companies investment is being marketed.
- Efforts continue to sell the Vegas property.
- The oil and gas holdings are being marketed, but the gas holdings are considered illiquid until gas is \$5/MCF.

Lone Star Opportunities Fund V



A	sset Class:	Private Equity			Vintage Year:	2012	
Investment Peri Term I	iod / Fund End Dates:	2022 / 2022			Total Fund Size:	\$160m	
Manage	Management Fee: Confidential			DPFP Commitment:	\$75m		
Performance F	ee/Carry:	Confide	ntial		DPFP % of Fund:	46.88%	
Investment Perf	ormance	(In Milli	ons)				* - As of 9/30/17
Paid In Capital	Unfund Commitr		DPFP Distributions	NAV	Inception IRR*	TVPI*	DPI*
\$75.0	-		\$0.5	\$32.9	-69.76%	0.45	0.01
Fund Strategy /	Portfolio						

• \$160m fund that targets \$5m to \$30m mezzanine debt and equity investments in undervalued Texas companies.

• Fund currently owns 7 portfolio companies concentrated in the energy and manufacturing sectors, 3 of which are co-owned by Lone Star CRA and 1 which is co-owned by Lone Star Growth Capital.

- The fund called all remaining unfunded capital in January 2018, with the proceeds going to pay-off the fund level subscription line.
- DPFP conducted third-party valuations of portfolio companies in the fund, which resulted in a write-down in the 2016 financial statements.
- No near term exits on the horizon.

BankCap Partners



A	sset Class:	: Private Equity			Vintage Year:	2007		
Investment Perio Term E	od / Fund ind Dates:					Total Fund Size:	\$109m	
Manage	Management Fee: Confidential					DPFP Commitment:		
Performance Fe	ee/Carry:	Confide	ential			DPFP % of Fund:	18.3%	
Investment Perf	ormance ((In Mill	ions)					* - As of 9/30/17
Paid In Capital	Unfund Commite		DPFP Distributions	NA	V	Inception IRR*	TVPI*	DPI*
\$20.0 - \$15.3		\$8.	.7	2.20%	1.20	0.77		
Fund Strategy /	Portfolio							

- Sector focused fund formed to invest in start-up (de novo) regional mid-size banks in markets with little mid-size bank competition.
- The fund will make an in-kind distribution of the publicly traded shares of the sole remaining investment in Q1 2018.

- The GP is exercising an option to extend the fund term another year to Feb 2019 to facilitate wind-down.
- The fund is anticipated to close by the end of 2018.

Hudson Clean Energy



A	Asset Class: Private Equity		Vintage Year: 2009					
Investment Peri Term I	iod / Fund End Dates:	2012 / 2018			Total Fund Size:	Total Fund Size: \$1.02 billion		
Management Fee: Confidential			DPFP Commitment:	\$25m				
Performance F	Performance Fee/Carry: Confidential				DPFP % of Fund:	2.44%		
Investment Perf	ormance (In Millior	ns)					* - As of 9/30/17
Paid In Capital	Unfund Commitm		DPFP Distributions	NA	V	Inception IRR*	TVPI*	DPI*
\$25.0	-		\$3.7	\$8	.3	-13.54%	0.48	0.15
Fund Strategy /	Portfolio							

- Sector focused growth capital investment in alternative energy companies.
- The fund has 5 remaining investments, two of which are engaged in separate sale processes.
- The remaining portfolio companies have experienced difficulty raising follow-on capital, are facing critical operating shortfalls, or are undergoing restructurings, and have no near-term exit possibilities.

Strategic Plan / Timeline

• The original fund term has expired, and the LPAC is in discussions with the GP regarding the future of the fund.

North Texas Opportunity Fund



A	sset Class:	ass: Private Equity			Vintage Year:	2000	
Investment Peri Term I	iod / Fund End Dates:	2010 / 2018			Total Fund Size:		
Management Fee: Confidential			DPFP Commitment:	\$10m			
Performance F	ee/Carry:	Confide	ential		DPFP % of Fund:	37.57%	
Investment Perf	ormance	(In Milli	ions)				* - As of 9/30/17
Paid In Capital	Unfund Commitr		DPFP Distributions	NAV	Inception IRR*	TVPI*	DPI*
\$10.0	-		\$8.8	\$2.0	1.02%	1.09	0.88
Fund Strategy /	' Portfolio						

- North Texas Opportunity Fund is past the fund life and the GP is managing the only remaining portfolio company, Dallas Yellow Checker Cab.
- The company's performance and valuation has dropped in recent years based on the emergence and competition of ride sharing services.

- In order to save costs in a fund with only one asset, there will be no fund level audit for 2017.
- The GP stated in January 2017 that they will not pursue another extension of the fund, and will be distributing the Yellow Cab interest in-kind when the fund term expires in May 2018.

Industry Ventures Partnership Holdings IV



A	sset Class:	Private Equity			Vintage Year:	2016	
		2020 / 2026			Total Fund Size:		
		Confidential			DPFP Commitment:		
Performance F		Confidential			DPFP % of Fund:		
Investment Perf	ormance (In Millions)		1		<u> </u>	* • • • • • • • • • • • • • • • • • • •
Paid In Capital	Unfunde Commitm		OPFP ributions	NAV	Inception IRR*	TVPI*	DPI*
\$1.7	\$3.3		-	\$1.9	29.90%	1.15	0.00
Fund Strategy /	Portfolio						

- Venture capital fund that makes primary fund, secondary fund, and direct investments in early and mid-stage venture backed companies primarily in the information technology sector.
- The fund targets a 40% allocation to early secondary opportunities, 40% to primary fund commitments and 20% to direct co-investments.

Strategic Plan / Timeline

• It is still early in the fund life: The first capital call was made in July 2016 and the commitment period is 4 years. Fund term is 10 years, with GP option to extend an additional 4 years.

Lone Star Growth Capital



A	sset Class:	Private Equity			Vintage Year:	2006	
Investment Peri Term F	od / Fund End Dates:	2016 / 2018			Total Fund Size:	\$25m	
Manage	Management Fee: Confidential				DPFP Commitment:	\$16m	
Performance F	ee/Carry:	Confidential			DPFP % of Fund:	64%	
Investment Perf	ormance ((In Millions)					* - As of 9/30/17
Paid In Capital	Unfund Commitn			VAV	Inception IRR*	TVPI*	DPI*
\$12.8	\$16.0	D \$1	2.8 \$	1.6	1.97%	1.00	1.12
Fund Strategy /	Portfolio						

- \$25m fund specializing in leveraged acquisitions, mezzanine financing, growth equity and recapitalizations of lower middle-market businesses based in Texas.
- Fund currently owns 5 portfolio companies concentrated in the energy and manufacturing sectors, 1 of which is co-owned by Lone Star Opportunity Fund V.

- The fund has a subscription line backed by the capital commitment of the LP's. DPFP expects the full \$16m in unfunded commitment to be called in May 2018.
- DPFP conducted third-party valuations of portfolio companies in the fund, which resulted in a write-down in the 2016 financial statements.
- No near term exits on the horizon.

Yellowstone Energy Ventures



As	Asset Class: Private Equity				Vintage Year:	2008		
Investment Period / Fund Term End Dates: 2011 / 2018; 2 GP extensions				Total Fund Size:	\$21.8m			
Management Fee: Confidential					DPFP Commitment:	\$10m		
Performance Fe	ee/Carry:	Confidential				DPFP % of Fund:	45.89%	
Investment Perf	ormance ((In Millions)						* - As of 9/30/17
Paid In Capital	Unfund Commitr		DPFP stributions	NA	V I	nception IRR*	TVPI*	DPI*
\$5.1	\$0.2	2	\$1.5	\$0.	1	-28.02%	0.31	0.29
Fund Strategy /	Portfolio							

- Sector focused fund investing in clean energy technology and renewable energy.
- The investment program was terminated in 2011, releasing DPFP from \$4.7 million of its \$10 million commitment.
- No management fee is being charged.

- Considering the low value of the remaining holding and to save fund costs, an amendment was executed in October 2017 to waive the fund level audit. The requirement for an audit will be re-evaluated on a year-by-year basis.
- The remaining holding, a UV lighting technology company, has a few business prospects and recently received a grant from the DOE, but profitability is still years away.

Riverstone Credit Partners



Fund Strategy /	Portfolio					
\$8.43	\$1.57	\$1.48	\$8.4 3	3 13.92%	1.12	0.13
Paid In Capital	Unfunded Commitme		NAV	Inception IRR*	TVPI*	DPI*
Investment Perfe	ormance (In	Millions)				* - As of 9/30/17
Performance Fe	Performance Fee/Carry: Confidential			DPFP % of Fund:	2.13%	
Manage	ment Fee: C	onfidential		DPFP Commitment:	\$10m	
Investment Perio Term E		018 / 2020		Total Fund Size:		
A		Private Debt		Vintage Year:		

Closed-end distressed energy fund that invests opportunistically in loans and bonds of energy companies both

- Closed-end distressed energy fund that invests opportunistically in loans and bonds of energy companies both directly originated and purchased in the secondary market, with target gross returns of 15%.
- With the tightening in high yield energy spreads, Riverstone has focused on its direct lending strategy resulting in 91% of the fund invested in direct lending. The remainder of the fund is invested in the other two sub-strategies; 2% in capital relief and 7% in market-based opportunities.

- Riverstone intends to extend the investment period to October 2018 to correspond with the end of fundraising Fund II. This will enable Fund I to continue to benefit from deal flow and invest on a pro-rata basis with Fund II.
- Riverstone anticipates to return a majority of capital by the end of 2019 because the term of the loans are short.

Highland Crusader Fund

HIGHLAND E CAPITAL

Asset	Asset Class: Private Debt			Vintage Year:			
Investment Period Term End	/ Fund I Dates:	2008 / 2011			Remaining Fund Size:	\$22m	
Management Fee: Confidential				DPFP Commitment:	\$51m		
Performance Fee/	Performance Fee/Carry:				DPFP % of Fund:	11%	
Investment Perform	mance (l	n Millions)					* - As of 9/30/17
Paid In Capital	Unfunde Commitm			AV	Inception IRR*	TVPI*	DPI*
\$51 -		\$62.2	26 \$2	2.1	4.16%	1.26	1.22
Fund Strategy / Pa	ortfolio						

- Invests primarily in undervalued senior secured loans and other securities of financially troubled firms.
- During 2008, in deteriorating market conditions, the fund began wind-down and investor interests were redeemed. In August 2011, a joint plan of distribution was agreed between Highland and investors.
- In July 2016, the Redeemer Committee replaced Highland as investment manager with Alvarez and Marsal.

- The Investment Manager has made progress liquidating assets, and the fund has approximately 50% in cash awaiting expiration of reps and warranty periods.
- Remaining investments include common stock in healthcare and telecom companies, bank loans, limited partnership investments, and LLC interests.

JPMorgan Global Maritime Investment Fund



A	Asset Class: Infrastructure				Vintage Y	'ear: 2009	
Investment Peri Term I	iod / Fund End Dates:	2014 / 20	020			Size: \$780m	
Management Fee: Confidential				DPFP Commitm	nent: \$50m		
Performance F	Performance Fee/Carry: Confidential		al		DPFP % of F	und: 6.4%	
Investment Perf	ormance (In Million	s)				* - As of 9/30/17
Paid In Capital	Unfund Commitn		DPFP Distributions	NAV	Inception IRR*	TVPI*	DPI*
\$48.6	\$1.4	ļ	\$2.7	\$32.2	2 -11.83%	.72	.06
Fund Strategy /	Portfolio						

- Private capital investment in the shipping industry, primarily in tankers, bulkers, and container ships. Opportunistic strategy aimed to take advantage of a historic market disruption and low cycle in shipping.
- The fund is essentially through the J-curve, with almost 90% of the fleet on water and only two newbuild deliveries expected in 2018. Future performance will therefore be a function of income from charter rates on the ships and monetizations as the fund exits holdings.

- The fund should begin making cash distributions in the next year.
- The GP forecasts that total returns over the life of the fund are expected to be in the mid single-digits.

JPMorgan Asian Infrastructure (AIRRO)



A	sset Class:	Infrastructure				Vintage Year:	2008	
Investment Peri Term I	od / Fund End Dates:	2014 / 2020				Total Fund Size:	\$858m	
Manage	Management Fee: Confidential					DPFP Commitment:	\$37m	
Performance F	Performance Fee/Carry: Confidential				DPFP % of Fund:	4.3%		
Investment Perf	ormance	(In Million	s)					* - As of 9/30/17
Paid In Capital	Unfund Commitr		DPFP Distributions	NA	V	Inception IRR*	TVPI*	DPI*
\$36.3 \$0.7 \$17.0		\$24	.3	2.38%	1.14	0.14		
Fund Strategy /	Portfolio							

- Fund invested in both operating and development infrastructure projects and related investments across Asia. Seven remaining fund investments are all located in India and include investments in tollroads, hospitals, wind power and thermal energy.
- JPMorgan is exploring various options for the Asian infrastructure platform, including a transfer of the platform to an unaffiliated successor manager and GP, bulk sale, and individual asset sales.

- LP's have monthly meetings with JPMorgan to stay abreast of developments regarding the platform and the portfolio companies.
- Most of the assets face regulatory or financial hurdles to monetization, and estimates for potential exits through normal sales processes are for two to three years.

JPMorgan Asian Infrastructure II (AIRRO II)



Asset Cl	ass: Infrastructu	ire		Vintage Year:	2008		
Investment Peric Fund Term End Dc	od / 2017 / 20 ites:)25		Total Fund Size:	\$468.8		
Management I	ee: Confidenti	al		DPFP Commitment:	Original \$40m, reduced to \$10m upon investment period termination		
Performa Fee/Ca		al		DPFP % of Fund:	7.89%		
Investment Perfo	rmance (In Mil	lions)				* - As of 9/30/17	
Paid In Capital	Unfunded Commitment	DPFP Distributions	NAV	Inception IRR	* TVPI*	DPI*	
\$7.4	\$2.6	\$0.6	\$4.4	-11.42%	0.63	0.01	
Fund Strategy / F	Portfolio						

- Fund was formed to invest in infrastructure and infrastructure-related assets across Asia.
- The Fund investment period was terminated early in May 2017 due to market conditions and a determination that there were a lack of sufficient opportunities. The fund holds only one company, a power company, that is co-owned with the JPMorgan AIRRO fund.

- The Fund reduced investors' commitments by 75% upon termination of the investment period.
- The remaining asset continues to face a challenging environment for thermal power producers, and the Fund continues to evaluate various options, including a potential sale.
- JPMorgan is exploring various options for the Asian infrastructure platform, including a transfer of the platform to an unaffiliated successor manager and GP, bulk sale, and individual asset sales.

Hancock Agricultural Investment Group



Asse	et Class:	s: Natural Resources			Vintage Year:	1998		
Base Management Fee: 50 bps of invested capit		nvested capito	1	DPFP Ownership:		Ownership in US, of Australian Fund		
Incentive Fee:		10% of distributable cash above 5% pref on prop-by-prop basis; Max total fee of 150 bps		o basis;	Crop Types:	Almonds, Apples, Macadamias, Pistachios, Walnuts, Wine Grape Row Crops (Corn, Soybeans, etc)		
Investment Performance (In Millions)							* - As of 9/30/17	
Paid In Capital		FP outions	NAV	Inception IRR*	Time Weighted Return*	TVPI*	DPI*	
\$74.4 \$100.2		0.2	\$157.1	16.02%	10.75%	3.46	1.35	
Fund Strategy /	Fund Strategy / Portfolio							

- Hancock manages a portfolio 26 permanent and row crop properties for DPFP across the US as well as minority investment in a Australian agricultural fund. The US permanent crops are concentrated in CA, OR and WA.
- As part of the hold-sell analysis conducted in 2016, DPFP directed Hancock to target an optimal portfolio size of \$85m to \$100m. Hancock is in the process of selectively selling all of the row crop assets in the portfolio, as well as certain permanent crop assets. Hancock expects the resulting portfolio to return ~ 14% gross over next 10 years, with a focus on income producing assets.

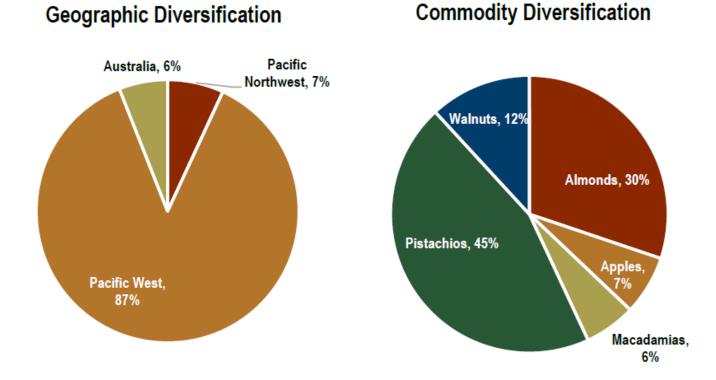
Strategic Plan / Timeline

 Hancock has closed 5 of the 14 sales outlined in their hold-sell recommendation. Though progress has been slow to date, Hancock expects to be able to reduce to DPFP portfolio to around \$120m size by the end of 2018 and \$100 by the end of 2019.





Hancock Recommended \$100m Portfolio Composition



BTG Pactual



Asset	Asset Class: Natural Resources			Vintage Year:	October 2006	
Base Management Fee: 0.95% of Brazil Ass South Africa Assets		Assets; 1.10% of ts	DPFP Ownership:	International Timber Separate Account (99% Direct Ownersh		
Incentive Fee:		20% to BTG with 13% pref		Product Type:	Eucalyptus, Pine, Wattle	
Investment Perfo	Investment Performance (In Millions)					* - As of 9/30/17
Paid In Capital	DPFP	Distributions	NAV	Inception IRR*	TVPI*	DPI*
\$102.3		\$49.1	\$36.7	-2.69%	0.85	0.48

Fund Strategy / Portfolio

- BTG manages timberland for DPFP located in the South Africa and Brazil. BTG sold investments in Texas and Uruguay in 2016 & 2017, respectively, in accordance with the hold-sell analysis presented to the Board in 2016.
- BTG launched the marketing the 68,000 acre South African portfolio in late Q3 '17 with a sale expected in 2018.
- DPFP has directed BTG to accelerate the disposition timeline for the 10,000 acre Brazilian portfolio due to high holding cost and low expected go-forward returns.

- The value of the South African assets dropped per the most recent appraisal. We expect to gain more insight into expected proceeds as the marketing progresses.
- Market conditions in Brazil continue to be challenging and the timberland transaction market is very thin.
- BTG recently agreed to a reduced fee of 1.10% on the South African portfolio, down from 1.25%.

Forest Investment Associates



Forest Investment Associates

Asset C	Class: N	Natural Resources			Vintage Year:	March 1992	
-	:	75 bps of MV or Cost depending on purchase date			Investment Structure:	Domestic Timber Separate Account (Direct Ownership)	
Incentive	Fee: L	esser of (i) 1 eal return or	5% of proceeds (ii) 1% of net pr	over 8% ice	Product Type:	Southern Pine, Hardwood	
Investment Perf	forman	ce (In Milli	ons)				* - As of 9/30/17
Paid In Capital		PFP ibutions	NAV	Inception IRR	Time Weighted Return	TVPI	DPI
\$59.6	\$9	92.3	\$14.6	7.73%	7.21%	1.79	1.55
Fund Strategy /	/ Portfo	lio					

- Forest Investments Associates (FIA) manages 10,700 acre portfolio comprised of three properties in the Georgia and Florida.
- FIA conducted a hold-sell analysis in 2016 and recommended that the entire DPFP portfolio be sold (seven properties at the time). In accordance with the disposition plan, four properties have since been sold resulting in \$28m of proceeds to DPFP.

- FIA expects that the remaining portfolio will be fully liquidated by the end of 2019. One of the properties has an offer to sell and is expected to close by the end of Q2 2018, another property is listed and expected to close by year-end.
- The plan on the final tract is to harvest some of the timber inventory on site and then sell in 2019.

DALLA POLICE & F PENSION SYST	DISCUSSION SHEET ITEM #C3
Торіс:	Legal issues
	Portions of the discussion under this topic may be closed to the public under the terms of Section 551.071 of the Texas Government Code.
	a. Potential claims involving fiduciaries and advisorsb. DPFP v. The Townsend Group and Gary Lawson
Discussion:	Counsel will brief the Board on these issues.



ITEM #C4

Topic:	Confirmation of Chief Legal Officer
	Portions of the discussion under this topic may be closed to the public under the terms of Section 551.074 of the Texas Government Code.
Discussion:	Section 3.03(c) of Article 6243a-1 states that the Executive Director has the authority to hire the Chief Legal Officer, with the confirmation of the Board.
	Although it is not clear if the existing Chief Legal Officer (General Counsel) requires Board confirmation, the Executive Director is requesting the Board confirm the existing General Counsel.
Recommendation:	Confirm Joshua Mond as the DPFP General Counsel.



ITEM #C5

Topic:Executive Director Evaluation ProcessPortions of the discussion under this topic may be closed to the public under the terms of
Section 551.074 of the Texas Government Code.Discussion:April 15, 2018 will be the third anniversary of the hiring of the Executive Director. In prior
years the Board has conducted a performance evaluation of the Executive Director in the
month of the hiring anniversary.The Chairman will discuss whether the timing of the Executive Director evaluation should be
moved due to the timing of the new Board being seated.



ITEM #C6

Topic: Investment Consultant Search

Discussion: Staff will provide an update on the RFP process, including a discussion of firms who submitted an RFP, evaluation criteria, and recommended next steps.



ITEM #C7

Торіс:	Committee Policy and Procedure				
Discussion:	The Committee Policy and Procedure establishes the formation and roles of permanent and ad hoc committees of the Board. The permanent committees include the Audit Committee, Investment Advisory Committee and the Professional Services Committee.				
	The policy was last amended in May 2016 and requires amendment to reflect the make-up of the new Board.				
Recommendation:	Adopt the revised Committee Policy and Procedure.				



COMMITTEE POLICY AND PROCEDURE

As Amended Through March 8, May 12, 20168

COMMITTEE POLICY AND PROCEDURE

Adopted August 10, 1989 As amended through Marchay <u>812</u>, 201<u>86</u>

A. PURPOSE

The Board of Trustees shall create such permanent or ad hoc committees it deems appropriate to investigate options and clarify issues on matters that must be addressed at subsequent Board meetings.

B. PERMANENT COMMITTEE GUIDELINES

- 1. Permanent committees that have been created by the Board are as follows:
 - a. Investment Advisory Committee
 - b. Audit Committee
 - c. Professional Services Committee
- 2. Any Board member may attend a committee meeting and take part in all discussions, except for such committee meetings that are specifically contemplated by this Policy not to be public meetings in accordance with the Open Meetings Law of the State of Texas.
- 3. The committees shall have the authority solely to gather information and to make recommendations to the Board. The committees shall have no authority to make binding decisions for the Board. The chair of each committee, or the chair's designee, will provide the Board a report of the committee's findings and/or recommendations for the Board's discussion and possible action.
- 4. Committee meetings involving a quorum of the Board shall be posted as public meetings. The committee may go into executive session as permitted by the laws of the State of Texas.
- 5. Minutes of all committee meetings involving a quorum of the Board will be maintained by the Secretary of the Board. These minutes will be maintained separate and apart from the minutes of the Board.
- 6. The Chair of the Board shall have the authority to nominate members to the committees, subject to Board approval. Upon Board approval of the committee members, the Chair of the Board will designate a committee chair.
- 7. The committee chair will schedule and call committee meetings.



C. INVESTMENT ADVISORY COMMITTEE

The role and responsibilities of the Investment Advisory Committee are addressed in the Investment Policy Statement.

D. AUDIT COMMITTEE

- 1. The Audit Committee is composed of <u>threefour</u> members including the Board <u>Chair and one Mayoral appointed</u> Board member, <u>one Board member selected</u> by the Members (Police, Fire or non-member Trustee) and either the Chairof the <u>Board or a Board member selected by the Chair of the Board.</u> from each of the <u>three constituent Board groups: Dallas Police Department (active or retired),</u> <u>Dallas Fire Department (active or retired), and Dallas City Council.</u>
- 2. An Audit Committee meeting requires a quorum of at least twohree members.
- 3. The Audit Committee shall meet privately with the independent auditor, without DPFP staff present, at minimum on an annual basis. The purpose of such a meeting is to provide a forum for the independent auditor to provide candid comments to the Audit Committee, in addition to any comments the auditor may give to the full Board during the course of providing services. In addition, the Audit Committee is allowed an opportunity to request additional information in a candid setting. All material information received at such a meeting shall be provided by the Audit Committee to the full Board.

The Audit Committee shall:

- a. receive draft copies of independent financial statement audit reports;
- b. review such reports, identify areas that may warrant improvement, if any, and make recommendations as deemed necessary;
- c. review and monitor timely implementation of recommendations and resolution of issues reported by the independent auditor findings;
- d. recommend to the Board any appropriate actions needed as a result of the independent audit.



Page 2 of 4

E. PROFESSIONAL SERVICES COMMITTEE

- 1. The Professional Services Committee is responsible for meeting privately with the external service providers listed below, without DPFP staff present, at minimum on an annual basis. Meetings with additional service providers may be held as deemed necessary. The purpose of such a meeting is to provide a forum for the service provider to provide candid comments to the Professional Services Committee, in addition to any comments such service provider may give to the full Board during the course of providing services. In addition, the Professional Services Committee is allowed an opportunity to request additional information in a candid setting. All material information received at such a meeting shall be provided by the Professional Services Committee to the full Board.
 - a. Actuary
 - b. Investment Consultant(s)
 - c. Outside Legal Counsel
- 2. The Professional Services Committee is composed of <u>three</u> four-members including <u>one the Mayoral appointed Board member</u>, one Board member selected by the Members (Police, Fire or non-member Trustee) and either the Chair of the Board or a Board member selected by the Chair of the Board <u>Board Chair and one</u> Board member from each of the three constituent Board groups: Dallas Police Department (active or retired), Dallas Fire Department (active or retired), and Dallas City Council.
- 3. A Professional Services Committee meeting requires a quorum of at least twohree members.
- 4. The Professional Services Committee shall recommend to the Board any appropriate actions needed as a result of the meetings with service providers.

F. AD HOC COMMITTEES

The Chair of the Board shall have the authority to create ad hoc committees to address significant issues, as well as the authority to terminate such committees once it is determined by the Board their purpose has been served. The Chair of the Board shall have the authority to appoint and remove the members of such committees, including chairs for such committees. It shall be at the discretion of the ad hoc committee chair and the Chair of the Board as to whether such committee meetings shall be open to the entire Board. Any such committee meeting which may include a quorum of the Board shall be posted for a public meeting. Any committee created pursuant to this Section shall not have the authority to bind the Board. Such committee shall have the authority solely to gather information and make recommendations and it shall report all findings and/or recommendations to the Board for the Board's discussion and possible action.



APPROVED on <u>March 8, y-12, 20186</u>, by the Board of Trustees of the Dallas Police and Fire Pension System.

[signature]

William QuinnSamuel Friar Chairman

Attested:

[signature]

Kelly Gottschalk Secretary

Committee Policy as of 5/12/2016



Page 4 of 4



ITEM #C8

Topic:Appointment of an Audit CommitteeDiscussion:The Committee Policy and Procedure provides for the appointment by the Chairman and
confirmation by the Board of an Audit Committee and that the Audit Committee meet
privately with the independent auditor, without DPFP staff present, at a minimum on an annual
basis. The audit process is underway and the audit is expected to be finalized in June or July
depending on the timing of the receipt of material asset audited financial statements and the
actuarial valuation.

Recommendation: The Chairman **nominate and the Board confirm** members of the Audit Committee, including the nomination and confirmation of a Chair of the Audit Committee.



ITEM #C9

Торіс:	Quarterly financial reports
Discussion:	Staff will present the fourth quarter 2017 financial statements.



ITEM #C10

Торіс:	Board approval of Trustee education and travel					
	a. b.	Future Education and Business-related Travel 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.				

Future Education and Business Related Travel Regular Board Meeting – March 8, 2018

			<u>ATTENDING</u>	APPROVED
1.	Conference: Dates: Location: Est. Cost:	Harvard Business School: HBX CORe February 6, 2018 (12 weeks) Online course \$800	BD	01/18/2018
2.	Conference: Dates: Location: Est. Cost:	IFEBP: Wharton Investment Institute April 9-11, 2018 Naples, FL \$3,000		
3.	Conference: Dates: Location: Est. Cost:	TEXPERS – Advanced Trustee Training Class April 14, 2018 South Padre Island, TX \$400		
4.	Conference: Dates: Location: Est. Cost:	TEXPERS Annual Conference April 15-18, 2018 South Padre Island, TX \$1,000		
5.	Conference: Dates: Location:	IFEBP: Wharton Portfolio Concepts and Management April 23-26, 2018 Philadelphia, PA		

Est. Cost:

\$7,000

Page **1** of **2**

6.	Conference: Dates: Location: Est. Cost:	Harvard Business School: Leading with Finance May 9, 2018 (6 weeks) Online course \$1,500	<u>ATTENDING</u> BD	<u>APPROVED</u> 01/18/2018
7.	Conference: Dates: Location: Est. Cost:	NCPERS Trustee Educational Seminar (TEDS) May 12-13, 2018 New York, NY \$1,000		
8.	Conference: Dates: Location: Est. Cost:	NCPERS Accredited Fiduciary (NAF) Program (Recommend taking TEDS first) May 12-13, 2018 New York, NY \$1,000		
9.	Conference: Dates: Location: Est. Cost:	NCPERS Annual Conference May 13-16, 2018 New York, NY \$3,000		
10.	Conference: Dates: Location: Est. Cost:	IFEBP: Wharton Alternative Investments July 30-August 1, 2018 San Francisco, CA \$5,500		
11.	Conference: Dates: Location: Est. Cost:	TEXPERS Summer Educational Forum August 12-14, 2018 San Antonio, TX \$1,500		



ITEM #C11

Торіс:	Board Memb	ers' reports on meetings, seminars and/or conferences attended	
Discussion:	Conference: Dates: Location:	Harvard Business School: HBX Leading with Finance January 17– February 28, 2018 (6 weeks) Online course	BD



ITEM #C12

Торіс:	Hardship Requests from DROP Members
	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:	The Executive Director will review with the Board for their consideration any applications under the DROP Unforeseeable Emergency Policy that have not been approved.
Staff Recommendation:	To be provided at the meeting.

THE NCPERS

The Latest in Legislative News

FEBRUARY 2018

In This Issue

2 Around the Regions



As a new Monitor feature, we will highlight pension news in one state in each of these four regions each month.

4 Executive Directors Corner



One of the most important services NCPERS provides to our members is business intelligence in the form of a steady stream of pension-focused data and analysis.

5 Early Forecast for Congress in 2018



Election years and raw politics go well together. Congressmen and Senators who are running for re-election will be overly preoccupied with their electoral fortunes.

GASB Offers Explanatory Resources As OPEB Implementation Dates Loom





uestions are flying about new accounting and financial reporting requirements for postemployment benefits other than pensions, and the Governmental Accounting Standards Board (GASB) is offering some answers.

GASB has issued a 245-page implementation guide that walks through questions and answers about the so-called OPEB accounting standard, which stands for "other postemployment benefits." In practice, OPEB benefits are overwhelmingly health care-related, though they may include life insurance, disability, legal and other benefits.

In addition, GASB has published an 18-page communications resources kit, consisting of language that can be used to explain the effects on financial statements of the new OPEB standard. "The materials primarily focus on major changes from prior accounting standards and the new information that will be provided as a result of the new requirements," GASB noted.

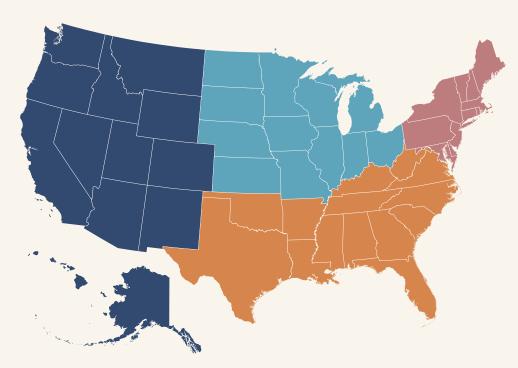
Changes are afoot in the aftermath of two GASB Statements that were adopted in June 2015. The Statements outlined a new approach to how state and local governmental plans should look at OPEB benefits. Their stated goal was to give financial statement users a more complete picture of how much state and local governments have promised in retiree benefits and how much those promises cost.

CONTINUED ON PAGE 6

NATIONAL CONFERENCE ON PUBLIC EMPLOYEE RETIREMENT SYSTEMS

NCPERS Around the Regions

As a new Monitor feature, we will highlight pension news in one state in each of these four regions each month.



MIDWEST: Missouri



Missouri has become the latest state to consider legislation creating a Secure Choice retirement program. State Rep. Kip Kendrick (D-Columbia), who is also the minority whip, introduced H.B. 1672, the Missouri Secure Choice Savings Program Act, on January 3.

The bill would require employers of 25 or more workers that don't already offer retirement plans to automatically enroll workers age 18 and older in a state-run payroll deduction IRA. It would be open to employers with fewer than 25 workers on a voluntary basis. The bill would create a five-member board to oversee the program.

Almost half of Missouri's private sector workers—nearly one million people—are employed by businesses offering no retirement plan, Kendrick noted in a press release announcing his plan to submit the bill. And most of those employees—751,000— earn less than \$40,000 a year, he added, citing AARP data.

"Retirement savings plans, such as Secure Choice, help workers achieve economic security through their own efforts," Kendrick noted. "Greater access could also help improve economic mobility and reduce wealth disparity." So far, nine states and one city have enacted new retirement savings programs for private sector workers. Since 2012, 40 states have taken steps to study, consider, or implement legislation creating such programs.

WEST: California



California Governor Edmund G. "Jerry" Brown Jr. is predicting an end to the longstanding legal precedent known as the California rule, which asserts that public agencies can't reduce pension benefits without offering workers new incentives to offset the loss in retirement benefits.

The Democratic governor has led the charge against the California rule since 2012, when he sought to overturn it in his pension reform act.

A pending court case, Cal Fire Local 2881 v. California Public Employees' Retirement System, focuses on Calpers' practice of allowing public employees to purchase additional service credits before retirement to enhance their benefits. Brown predicted that in the next recession, the governor "will have the option of considering pension cutbacks for the first time," according to news reports.

Brown argued in a brief filed in November against benefits that he deemed too lavish. "For years, self-interested parties, overly generous promises whose true costs were often shrouded by flawed actuarial analyses and failures of public leadership had caused unsustainable public pension liabilities," he wrote.

The California Supreme Court is expected to rule in the case before Brown leaves office in January 2019.

The California rule was created in 1955 when the California Supreme Court considered a challenge to a 1951 city charter amendment in Allen v. City of Long Beach (Cal. 1955). It exists in varied forms in approximately a dozen states.

NORTHEAST: New Hampshire



When New Hampshire convened its Decennial Retirement Commission in 2017, the potential for trouble was high. Anti-pension advocates were named to several of the 17 commission seats and pressure was building to renege on promises to public service workers.

By the time the commission completed an intense four months of meetings in December, however, the public pension community appeared poised to score several wins. The key to the turnaround was a concerted effort by firefighters, police officers, teachers, and other public servants to change the narrative, according to William McQuillen, president of the Professional Fire Fighters of New Hampshire and a Portsmouth fire captain.

The state's public employee groups got together, started the New Hampshire Retirement Security Coalition, and hired Executive Director Casey McCabe to manage through the pension commission, McQuillen said.

The Decennial Retirement Commission's statutory mission was to ensure the long-term viability of the New Hampshire Retirement System, and the public sector workers took those words to heart. Coordinating their efforts at weekly meetings, they focused on communicating the economic value of pensions and drew on work performed by NCPERS that demonstrates the impact of pensions in their communities.

"We made clear that 85 percent of New Hampshire Retirement System retirees live in New Hampshire and spend their money there," McQuillen said. Everything was on the table initially, including benefits, cost of living adjustments, changes in actuarial rates, and a shift in the level of employee and employer contributions.

In the end, the proposals to emerge from the committee were mostly favorable to pensions, including a plan requiring the state to make a one-time \$500 payment to all pensioners to begin correcting funding shortfalls. The coalition also favored a measure to prevent "double dipping" by pension recipients, which passed the Granite State's Senate on January 20.

The final word on the commission hasn't been written yet, McQuillen noted. For example, one commission member, a state representative, is advocating for a switch to defined contribution plans and has introduced "placeholder" legislation.

SOUTH: Georgia



Pension funds are fighting back against the Atlanta City Council's Dec. 13 vote to consolidate the governance of three public pension systems into a super board that would be disproportionately controlled by the mayor.

The Atlanta General Employees' Pension Fund and the Atlanta Police Officers' Pension Fund filed suit Dec. 27 in the Superior Court of Fulton County, claiming that the city council had rushed through procedurally flawed ordinances that exceeded its authority. The third pension system, the Atlanta Firefighters' Pension Fund, was not part of the lawsuit at press time.

According to a report in Pensions & Investments, the ordinance would create the City of Atlanta Defined Benefit Pension Plan Investment Board, consisting of 15 trustees. The selection of eight of the trustees would be under the mayor's purview. Specifically, the mayor would appoint an independent chair for a five-year term; a vice chair, who would be the mayor or a designee; three City Council members;, a participant in one of the three pension plans; and the city's chief financial officer and commissioner of the department of human resources. The remaining seven would be either elected by plan participants or appointed by other city officials.

NCPERS Executive Directors Corner

February 13 Webinar Will Guide Members Through Retirement Systems Analysis Tool



ne of the most important services NCPERS provides to our members is business intelligence in the form of a steady stream of pensionfocused data and analysis. The rich and meaningful information we produce about trends and best practices in public pensions is designed to help you comprehend and analyze challenges, benchmark your practices, and find opportunities for steady improvement.

We hope you have had an opportunity to get familiar with the <u>2017 NCPERS Public Retirement Systems</u> <u>Study</u>, the seventh annual installment of our widestranging industry analysis. Our dashboard, which is free to members and available on our website, is a dynamic and interactive tool for adapting this extensive body of data on fiscal and operational practices to your organization's analytical needs.

If you're ready to take a deep dive into the dashboard's possibilities, we have just the thing for you! On February 13 from 1 to 2 pm eastern time NCPERS is hosting a <u>free webinar</u> on how to use the dashboard. Bring your team, because this will be a chance to learn and ask questions. The most important thing you can do in advance of the session is to download the dashboard and make sure you can run the Tableau data visualization software on which it's built. We will take it from there by demonstrating how to put the dashboard to work for you.

Public pension systems administered and managed funds at a lower cost than most mutual funds, charging 55 basis points per dollar of investment, versus 63 basis points for the average equity mutual fund.

Joining me on the call will be William SaintAmour, executive director of Cobalt Community Research, which conducted the study for NCPERS.

The 2017 study draws together responses from 164 state and local government pension funds with more than 15.5 million active and retired members. Of these participants, 62 percent represent local plans while 38 percent represent state plans.



Using the dashboard, you can dig into the data to see how public retirement systems are continuing to produce solid returns and keep a lid on expenses. You can also see how many retirement systems adopted more conservative investment assumptions during 2017. We'll be able to show you how evaluate your own data against the survey's findings. Some of the highlights from this year include:

- Public pension systems administered and managed funds at a lower cost than most mutual funds, charging 55 basis points per dollar of investment, versus 63 basis points for the average equity mutual fund.
- Aggregated one-year investment returns jumped to 7.8 percent, from 1.5 percent in 2016.
- The percentage of funds receiving their full, statutory contributions from governments rose to 74 percent, from 70 percent in 2016, and employer contributions rose to 22 percent, from 18 percent.
- Most participants in the 2017 study either reduced their returnon-investment assumptions (64 percent) or planned to do so (21 percent.)
- The average investment assumption stood unchanged at 7.5 percent and the average inflation assumption ticked down to 2.9 percent, from 3 percent.
- The smoothing period for calculating investment returns continues to be shortened – down from 5.7 years to 5.0 years.
- Average funding levels—the value of the assets in the pension plan divided by an actuarial measure of the pension obligation—declined slightly for the first time in four years as pension funds tweaked investment and inflation assumptions.

Please join us for what promises to be an informative session. To register, please <u>click here</u>.

Early Forecast for Congress in 2018

By Tony Roda

lection years and raw politics go well together. Congressmen and Senators who are running for re-election will be overly preoccupied with their electoral fortunes. Elections sometimes can have a beneficial effect by forcing candidates to focus on what their constituents really want and tune out the political noise. But, let's be realistic, the 24/7 news cycle makes it very difficult to focus and almost impossible not to react off-the-cuff, instantly, and usually without all the necessary information, which is detrimental to sound policymaking.

In addition, the victory by Democrat Doug Jones in the special election in Alabama's U.S. Senate seat, which should have been a cake-walk for Republicans, colors the political landscape. Likewise, on March 13th there is a special election for a U.S. House seat in Pennsylvania. The 18th Congressional district borders Ohio and West Virginia

- Trump country - and has a +11 Republican registration. However, there are indications that the Democrat Conor Lamb, a former Assistant U.S. Attorney, is making it a competitive race. So much so that President Trump campaigned in the district recently and the pro-House GOP Congressional Leadership Fund is planning a \$1.5 million television campaign in support of the Republican candidate.

Through all this noise Congress will attempt to handle some major issues - funding federal agencies and programs for the remainder of this fiscal year and beginning action on next year's appropriations bills, legislation on Deferred Action on Childhood Arrivals (DACA) and other immigration issues, including "The Wall," raising the limit on federal borrowing authority, infrastructure



improvements, tax technical corrections and retirement savings legislation. The last item, which is the one with the most potential to impact public pensions, has been discussed by House Ways and Means Chairman Kevin Brady (R-TX) and Sen. Rob Portman (R-OH), who is the leading Republican on the Finance Committee on retirement and pension issues.

Given the enormity of this agenda, it is important to note that the Republican-controlled Congress seems to be walking away from an effort to approve a budget resolution for fiscal year 2019. This means that the protections afforded legislation considered under reconciliation procedures will not be available. The major protection, of course, is that a reconciliation bill can be approved in the Senate by a simple majority vote, as opposed to the 60-vote mar-

CONTINUED ON PAGE 8



GASB CONTINUED FROM PAGE 1

The first, GASB Statement No. 74, took effect for plans with fiscal years beginning after June 15, 2016. The second, GASB Statement No. 75, is now taking effect for plans with fiscal years beginning after June 15, 2017.

The GASB implementation guide provides covers information about the new OPEB standard in question-and-answer format. The communications resources kit covers key questions that should be addressed in financial statements:

- Did implementing the OPEB accounting standards create the liability?
- Why did the size of the government's OPEB liability change?

- Will governments in cost-sharing OPEB plans report OPEB liabilities?
- How will the new accounting standards change the way governments calculate OPEB expense?
- What information will be included in notes and required supplementary information (RSI)?
- Has the annual required contribution (ARC) disappeared?
- How does the OPEB liability affect net position?

To learn more about GASB's communications resources, join us for a webinar with the GASB team on March 13, 2018. You can register for the webinar <u>here</u>.



6 | NCPERS MONITOR | FEBRUARY 2018

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CONGRESS IN 2018 CONTINUED FROM PAGE 5

gin needed to break a filibuster. This will mean that on all matters described above, the Senate must work in a bipartisan manner to clear the 60-vote threshold. However, reality plays a role here and as the November elections draw nearer, the willingness of Members of Congress to engage in bipartisan lawmaking is likely to wane.

During consideration of tax legislation late last year, the public pension community successfully fought off an attempt to impose the unrelated business income tax (UBIT) on certain of its investments. This would have been a significant financial burden on public plans. NCPERS played a major role in this victory and is grateful that so many of its members actively engaged in the effort to defeat the UBIT provision. While this was a tremendous win for state and local governmental plans, the threat that UBIT could return is very real. The question we can't answer today is whether we will see a renewed debate on this issue in 2018, so we must remain vigilant, particularly on any tax or retirement legislation.

A two and one-half day government shutdown was recently ended by an agreement to fund federal agencies and programs through February 8. Part of the agreement is for Senators to work in a bipartisan way to resolve DACA and, if an agreement is not reached by February 8, that the Senate would move immediately to consideration of DACA legislation. A full-year spending bill is likely to carry with it some non-spending policy items. For example, the recently-enacted, short-term spending bill included a provision to push back the effective date on the excise tax on high-cost health plans (formerly known as the Cadillac Tax) to 2022. This is not only a victory for public plans, but also a reminder that we must watch the spending bills closely for any relevant provisions.

This year promises to have many twists and turns. Be assured that, as always, NCPERS will be monitoring and actively lobbying to protect the interests of its members.

Tony Roda is a partner at the Washington, D.C. law and lobbying firm Williams & Jensen, where he specializes in legislative and regulatory issues affecting state and local pension plans. He represents NCPERS and individual pension plans in California, Ohio, Tennessee and Texas.

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The Voice for Public Pensions



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2018 03 08 Board Meeting - REGULAR AGENDA 2018 03 08



2018 Conferences

May

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NCPERS Accredited Fiduciary Program (All modules) May 12 – 13 New York, NY

Trustee Educational Seminar May 12 – 13 New York, NY

Annual Conference & Exhibition May 13 – 16 New York, NY

June

CIO Summit June 14-15 Chicago, IL

September

Public Pension Funding Forum September 10 – 12 Cambridge, MA

October

NCPERS Accredited Fiduciary Program (All modules) October 27 - 28 Las Vegas, NV

Public Safety Conference October 27 – 31 Las Vegas, NV

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The Voice for Public Pensions

The Monitor is published by the National Conference on Public Employee Retirement Systems. Website: www.NCPERS.org • E-mail: legislative@NCPERS.org



ITEM #D2

 a. Associations' newsletters NCPERS Monitor (February 2018) b. Employee recognition – Fourth Quarter 2017
b. Employee recognition – Fourth Quarter 2017
• Employee of the Quarter award
• Employee of the Year
c. Government Finance Officers Association Certificate of Achievement for Excellence Financial Reporting
d. DROP revocation update
e. Chief Investment Officer recruitment update
f. Chief Financial Officer recruitment update
g. April Board Meeting start time
Discussion: The Executive Director will brief the Board regarding the above information.



ITEM #D1

Topic:Reports and concerns of active members and pensioners of the Dallas Police and Fire
Pension System

Discussion: This is a Board-approved open forum for active members and pensioners to address their concerns to the Board and staff.