AGENDA

DALLAS POLICE & FIRE PENSION SYSTEM

Date: August 2, 2019

The regular meeting of the Dallas Police and Fire Pension System Board of Trustees will be held at **8:30 a.m. on Thursday, August 8, 2019, 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 July 11, 2019

2. **Approval of Refunds of Contributions for the Month of July 2019**

3. **Approval of Estate Settlements**

4. **Approval of Survivor Benefits**

5. **Approval of Service Retirements**

6. **Approval of Alternate Payee Benefits**

7. **Approval of Payment of Military Leave Contributions**

C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. **Certification of Non-member Trustee Election Results**

2. **Chairman's Discussion Items**

   Thank Outgoing Trustees

3. **Monthly Contribution Report**

4. **Quarterly Financial Reports**

5. **2019 Mid-Year Budget Review**

6. **Audit Status**

7. Board approval of Trustee education and travel

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

8. Portfolio Update

9. Treatment of Final Month Payment for DROP Participants

- **a.** Possible Overpayment to DROP Participants subject to 10-year Limitation
- **b.** DROP Policy Amendment

10. Potential Waiver of Disability Recall Requirement

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.

11. Hearthstone Sale Update

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

12. Lone Star Investment Advisors Update

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.

13. **Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation, including collection of amounts due from the City of Dallas relating to USERRA or any other legal matter in which the duty of the attorneys to DPFP and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.**

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 (July 2019)
   - NCPERS PERSist (Summer 2019)

   b. Open Records
   c. Member Education Update
   d. City Payroll Errors Update

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.

DALLAS POLICE & FIRE PENSION SYSTEM

ITEM #A

MOMENT OF SILENCE

In memory of our Members and Pensioners who recently passed away

NAME	ACTIVE/ RETIRED	DEPARTMENT	DATE OF DEATH
Verlon R. Bryant	Retired	Police	June 14, 2019
T. D. Gibson, Jr.	Retired	Fire	June 28, 2019
John F. Reynolds	Retired	Fire	July 19, 2019

Regular Board Meeting – Thursday, August 8, 2019

Dallas Police and Fire Pension System
Thursday, July 11, 2019
8:30 a.m.
4100 Harry Hines Blvd., Suite 100
Second Floor Board Room
Dallas, TX

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

ROLL CALL

Board Members

Present at 8:31 a.m.	Nicholas A. Merrick, William F. Quinn (by phone), Armando Garza, Gilbert A. Garcia, Susan M. Byrne, Joseph P. Schutz, Kneeland Youngblood
Present at 8:33 a.m.	Robert C. Walters,
Present at 8:35 a.m.	Ray Nixon
Absent:	Tina Hernandez Patterson, Blaine Dickens
Staff	Kelly Gottschalk, Josh Mond, Kent Custer, Brenda Barnes, John Holt, Damion Hervey, Cynthia Thomas, Ryan Wagner, Greg Irlbeck, Milissa Romero
Others	Matthew McCue, Sandy Alexander

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The meeting was called to order at 8:31 a.m.

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A. TRUSTEES

The Board welcomed Armando Garza to serve as the Fire Fighter Trustee for the remaining vacated Fire Fighter Trustee term.

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Regular Board Meeting
Thursday, July 11, 2019

B. MOMENT OF SILENCE

The Board observed a moment of silence in memory of retired police officer Thomas G. Gartrell, Jerry Raz, and retired firefighters Jerry T. Minter, J. A. Landess, W. W. Carter, L. H. Abercrombie, James R. Bates.

No motion was made.

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C. CONSENT AGENDA

1. **Approval of Minutes**

   Regular meeting of June 13, 2019

2. **Approval of Refunds of Contributions for the Month of June 2019**

3. **Approval of Activity in the Deferred Retirement Option Plan (DROP) for July 2019**

4. **Approval of Estate Settlements**

5. **Approval of Survivor Benefits**

6. **Approval of Service Retirements**

7. **Approval of Alternate Payee Benefits**

8. **Approval of Earnings Test**

After discussion, Mr. Youngblood made a motion to approve the minutes of the meeting of June 13, 2019. Mr. Garcia seconded the motion, which was unanimously approved by the Board.

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

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Regular Board Meeting
Thursday, July 11, 2019

D. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. Portfolio Update

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

No motion was made.

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2. Report on Investment Advisory Committee

Investment Staff briefed the Board on the observations and advice of two of the Investment Advisory Committee members when they met with staff on June 24, 2019.

No motion was made.

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3. Lone Star Investment Advisors Update

Investment Staff updated the Board on recent performance, operational, and administrative developments with respect to DPFP investments in funds managed by Lone Star Investment Advisors.

The Board went into closed session executive session – Legal at 8:43 a.m.

The meeting was reopened at 9:48 a.m.

No motion was made.

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Regular Board Meeting
Thursday, July 11, 2019

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

The Board went into closed session executive session – Legal at 8:43 a.m.

The meeting was reopened at 9:48 a.m.

No motion was made.

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5. Private Asset Cash Flow Projection Update

Staff provided the quarterly update on the private asset cash flow projection model first discussed at the February 2018 Board meeting. The cash flow model projects estimated contributions to, and distributions from, private assets through the end of 2022. These estimates are intended to assist the Board in evaluating the expected time frame to reduce DPFP's exposure to these assets and the implications for the overall asset allocation and expected portfolio risk and return.

No motion was made.

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6. Infrastructure Portfolio Review

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

No motion was made.

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Regular Board Meeting
Thursday, July 11, 2019

7. Audit Status

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

No motion was made.

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8. Monthly Contribution Report

Staff presented the Monthly Contribution Report.

No motion was made.

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9. Board approval of Trustee education and travel

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

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

After discussion, Mr. Garcia made a motion to approve Mr. Garza's request to attend the TEXPERS Basic Trustee Training. Mr. Walters seconded the motion, which was unanimously approved by the Board.

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E. BRIEFING ITEMS

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

No active member or pensioner requested to address the Board with concerns.

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Regular Board Meeting
Thursday, July 11, 2019

E. BRIEFING ITEMS (continued)

2. Executive Director's report

a. Associations' newsletters
- NCPERS Monitor (June 2019)

b. Open Records
c. Nominations Committee Update
d. Employee Service Award

The Executive Director's report was presented.

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Mr. Walters left the meeting at 10:28 a.m.

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Ms. Gottschalk stated that there was no further business to come before the Board. On a motion by Mr. Youngblood and a second by Ms. Byrne, the meeting was adjourned at 10:29 a.m.

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Nicholas A. Merrick
Vice Chairman

ATTEST:

____
Kelly Gottschalk
Secretary

DISCUSSION SHEET

ITEM #C1

Topic: **Certification of Non-member Trustee Election Results**

Discussion: The terms of the three Non-member Trustees (Blaine Dickens, Gilbert Garcia and Tina Hernandez Patterson) expire on August 31, 2019.

Pursuant to the election rules adopted by the Board, three trustees have been elected by the members and pensioners from a slate of nominees selected and vetted by the nominations committee as required by Article 6243a-1 of the Texas Statutes. The terms of the three Non-member Trustees will run from September 1, 2019 to August 31, 2022.

The election process was conducted in accordance with the Board's election policy by an independent third-party election company. The election company, YesElections, provided a report of the results of the election, a copy of which is in the agenda materials.

Recommendation: **Certify** the election of Robert French, Gilbert Garcia and Tina Hernandez Patterson as Non-member Trustees to serve from September 1, 2019 until August 31, 2022.

Election-America
In the business of perfection

Election-America, Inc.
1775 Eye Street NW, Suite 1150
Washington, DC 20006
Phone: (202) 360-4420
Toll Free: (866) 514-2995
services@election-america.com

August 2, 2019

Dallas Police and Fire Pension System
4100 Harry Hines Boulevard, Ste. 100
Dallas, TX 75219

Dear Kelly Gottschalk:

The attached report contains the results from the 2019 Non-Member Trustee election for the Dallas Police and Fire Pension System.

Thank you. It has been a pleasure working with you.

Sincerely yours,

Chris Backert
CEO
Election-America, Inc.

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services@election-america.com

Results – 2019 Non-Member Trustee

Candidate	Choice	Votes	% Voted
Robert B. French	Yes, I approve	882	77.64%
	No, I do not approve	254	22.36%
Gilbert Andrew Garcia, CFA	Yes, I approve	845	74.38%
	No, I do not approve	291	25.62%
Tina Hernandez Patterson	Yes, I approve	1,001	88.12%
	No, I do not approve	135	11.88%

Turnout by Division

Division	Voted	Electorate	% Electorate	% Total Voted
Fire	496	3,417	14.52%	43.66%
Police	640	5,319	12.03%	56.34%
Total	**1,136**	**8,736**	**13.00%**	**100.00%**

DISCUSSION SHEET

ITEM #C2

Topic: **Chairman's Discussion Items**

Thank Outgoing Trustees

Discussion: The Chairman will brief the Board on the status of these items.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

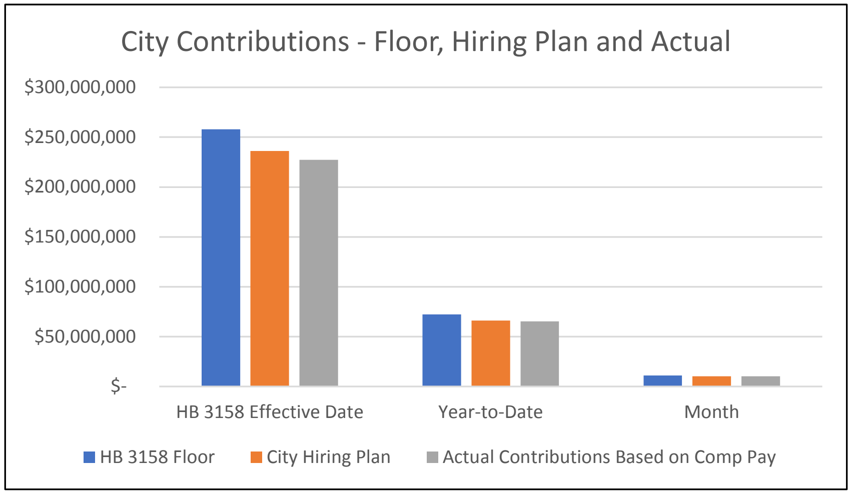
ITEM #C3

Topic: **Monthly Contribution Report**

Discussion: Staff will review the Monthly Contribution Report.

Regular Board Meeting – Thursday, August 8, 2019

Contribution Tracking Summary - August 2019 (June 2019 Data)



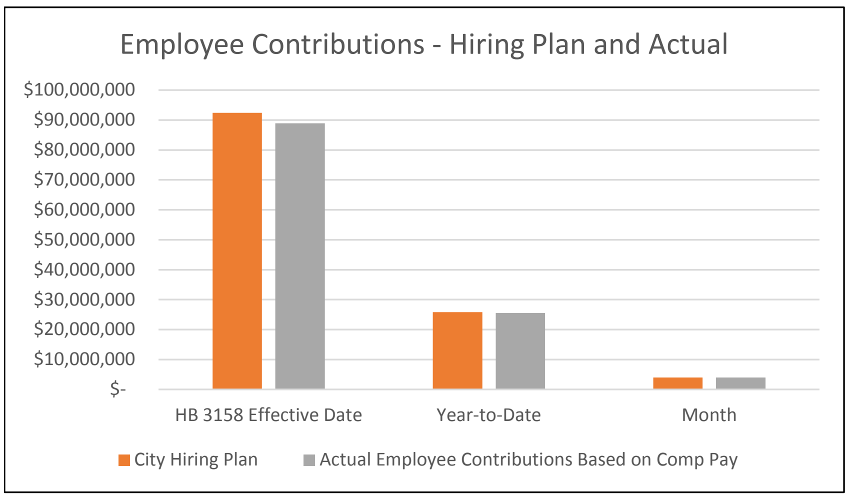
Actual Comp Pay was 96% of the Hiring Plan estimate since the effective date of HB 3158.

In the most recent month Actual Comp Pay was 100% of the Hiring Plan estimate and 91% of the floor amount.

The Hiring Plan Comp Pay estimate increased by 5.22% in 2019.

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

Combined actual hiring is below the Hiring Plan estimate by 100 people. Fire is over the estimate by 29 people and Police is under by 129 officers.



Since the effective date of HB 3158 actual employee contributions have been $3.4 million less than the Hiring Plan estimate. Potential earnings loss due to the contribution shortfall is $307k at the Assumed Rate of Return.

There is no Floor on employee contributions.

Contribution Summary Data

City Contributions

Jun-19	Number of Pay Periods Beginning in the Month	HB 3158 Floor	City Hiring Plan	Actual Contributions Based on Comp Pay	Additional Contributions to Meet Floor Minimum	Comp Pay Contributions as a % of Floor Contributions	Comp Pay Contributions as a % of Hiring Plan Contributions
Month	2	$ 11,142,000	$ 10,164,231	$ 10,116,343	$ 1,025,657	91%	100%
Year-to-Date		$ 72,423,000	$ 66,067,500	$ 65,387,498	$ 7,035,502	90%	99%
HB 3158 Effective Date		$ 257,924,000	$ 236,072,885	$ 227,268,711	$ 30,655,289	88%	96%

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

Employee Contributions

Jun-19	Number of Pay Periods Beginning in the Month	City Hiring Plan	Actual Employee Contributions Based on Comp Pay	Actual Contribution Shortfall Compared to Hiring Plan	Actuarial Valuation Contribution Assumption	Actual Contributions as a % of Hiring Plan Contributions	Actual Contributions as a % of Actuarial Val Assumption
Month	2	$ 3,977,308	$ 3,958,301	$ (19,007)	$ 3,692,278	100%	107%
Year-to-Date		$ 25,852,500	$ 25,582,991	$ (269,509)	$ 23,999,807	99%	107%
HB 3158 Effective Date		$ 92,376,346	$ 88,937,051	$ (3,439,295)	$ 88,098,603	96%	101%
Potential Earnings Loss from the Shortfall based on Assumed Rate of Return				$ (306,569)			

Does not include Supplemental Plan Contributions.

Reference Information

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

Employee Contributions: City Hiring Plan and Actuarial Val. Converted to Bi-weekly Contributions				
		City Hiring Plan Converted to Bi-weekly Employee Contributions	**Actuarial Valuation Assumption Converted to Bi-weekly Employee contributions**	**Actuarial Valuation as a % of Hiring Plan**
2017		$ 1,931,538	$ 1,931,538	100%
2018		$ 1,890,000	$ 1,796,729	95%
2019		$ 1,988,654	$ 1,846,139	93%
2020		$ 2,056,154	**$ 2,056,154**	100%
2021		$ 2,118,462	**$ 2,118,462**	100%
2022		$ 2,191,154	**$ 2,191,154**	100%
2023		$ 2,274,231	**$ 2,274,231**	100%
2024		$ 2,357,308	**$ 2,357,308**	100%

The information on this page is for reference. The only numbers on this page that may change before 2025 are the Actuarial Valuation Employee Contributions Assumptions for the years 2019-2024 and the associated percentage.

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

Actuarial Assumptions Used in the Most Recent Actuarial Valuation - These assumptions will be reevaluated annually and may change.
City Contributions are based on the Floor through 2024, the Hiring Plan from 2025 to 2037, after 2037 an annual growth rate of 2.75% is assumed
Employee Contributions for 2018 are based on the 2017 actual employee contributions inflated by the growth rate of 2.75% and the Hiring Plan for subsequent years until 2038, when the 2037 Hiring Plan is increased by the 2.75 growth rate for the next 10 years

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

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

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

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

Comp Pay by Month - 2019	**Annual Divided by 26 Pay Periods**	**Actual**	**Difference**	**2019 Cumulative Difference**	**Number of Employees - EOM**	**Difference**
January	$ 29,461,538	$ 29,084,185	$ (377,354)	$ (377,354)	4963	(75)
February	$ 29,461,538	$ 29,067,129	$ (394,410)	$ (771,763)	4974	(64)
March	$ 29,461,538	$ 29,092,504	$ (369,035)	$ (1,140,798)	4962	(76)
April	$ 29,461,538	$ 28,974,912	$ (486,626)	$ (1,627,424)	4955	(83)
May	$ 44,192,308	$ 43,987,516	$ (204,791)	$ (1,832,216)	4955	(83)
June	$ 29,461,538	$ 29,322,734	$ (138,804)	$ (1,971,020)	4938	(100)
July	$ 29,461,538	$ -		$ (1,971,020)		
August	$ 29,461,538	$ -		$ (1,971,020)		
September	$ 29,461,538	$ -		$ (1,971,020)		
October	$ 44,192,308	$ -		$ (1,971,020)		
November	$ 29,461,538	$ -		$ (1,971,020)		
December	$ 29,461,538	$ -		$ (1,971,020)		

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

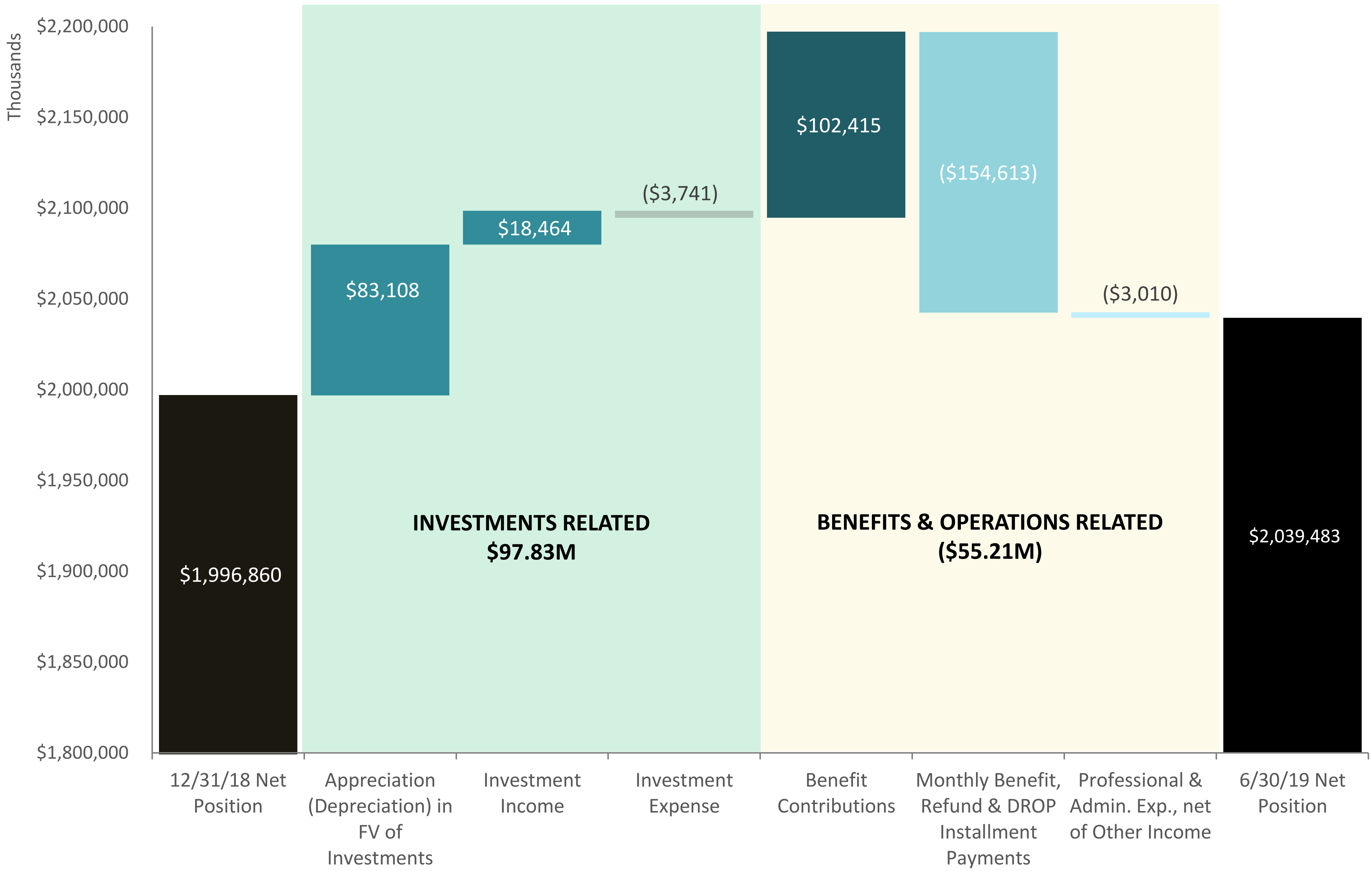
ITEM #C4

Topic: **Quarterly Financial Reports**

Discussion: The Chief Financial Officer will present the second quarter 2019 financial statements.

Change in Net Fiduciary Position

December 31, 2018 – June 30, 2019 - **PRELIMINARY**



Components may not sum exactly due to rounding.

DALLAS POLICE & FIRE PENSION SYSTEM
Combined Statements of Fiduciary Net Position

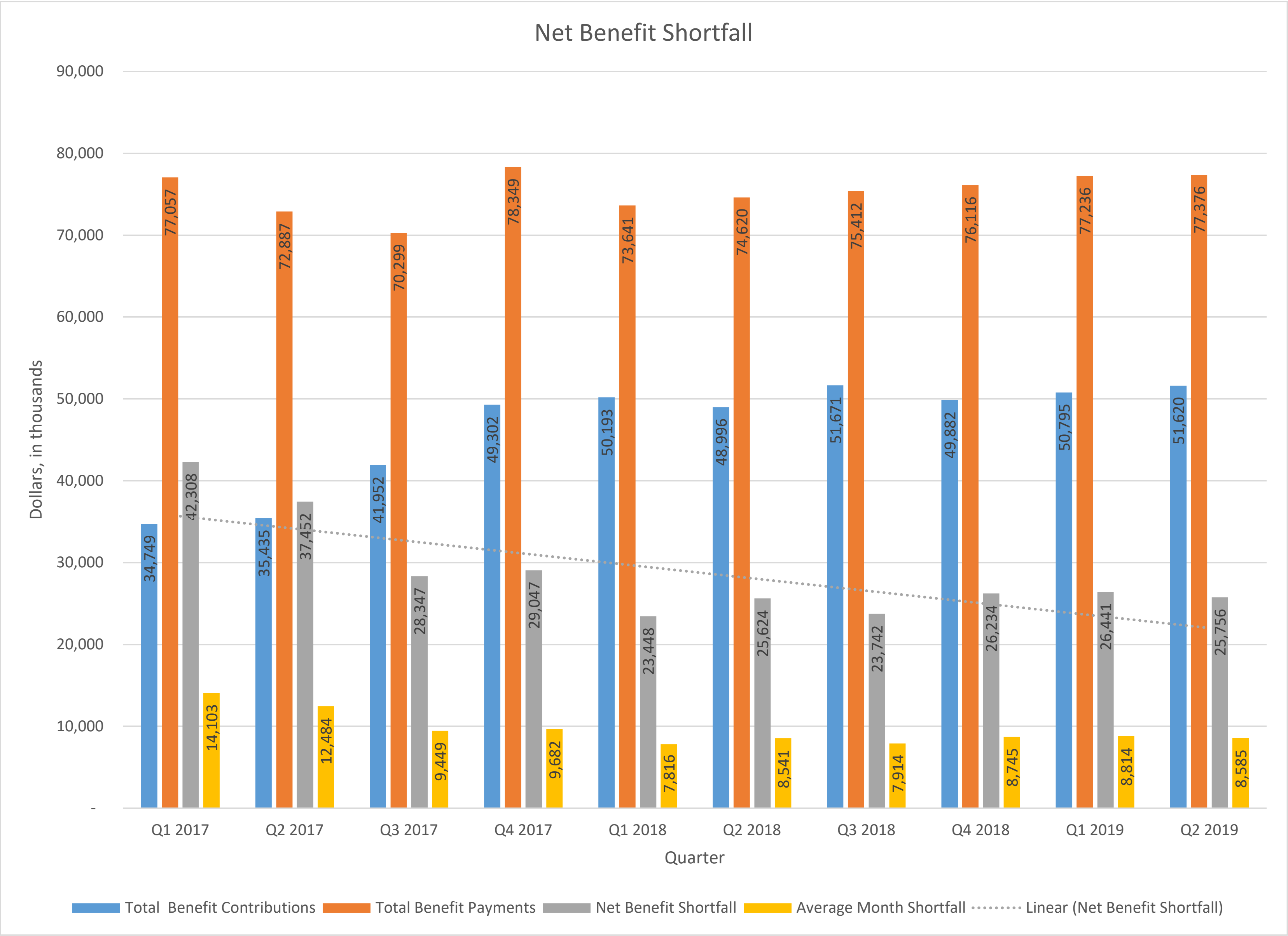
	June 30, 2019 (unaudited)	PRELIMINARY December 31, 2018 (unaudited)	Change	Change
Assets				
Investments, at fair value (NOTE)				
Short-term investments	$ 40,653,681	$ 41,316,915	$ (663,234)	-2%
Fixed income securities	535,504,563	515,774,800	19,729,763	4%
Equity securities	513,152,517	435,935,015	77,217,502	18%
Real assets	626,118,937	701,405,197	(75,286,260)	-11%
Private equity	249,910,332	249,502,189	408,143	0%
Alternative investments		-	-	0%
Forward currency contracts	120,665.00	(270,709)	391,374	-145%
Total investments (NOTE)	1,965,460,695	1,943,663,407	21,797,288	1%
Invested securities lending collateral	36,134,198	20,559,431	15,574,767	76%
Receivables				
City	2,168,214	2,504,571	(336,357)	-13%
Members	707,580	803,245	(95,665)	-12%
Interest and dividends	4,970,776	4,802,419	168,357	4%
Investment sales proceeds	46,107,935	34,231,149	11,876,786	35%
Other receivables	226,475	292,776	(66,301)	-23%
Total receivables	54,180,980	42,634,160	11,546,820	27%
Cash and cash equivalents	63,127,141	50,137,929	12,989,212	26%
Prepaid expenses	856,842	365,515	491,327	134%
Capital assets, net	12,375,813	12,488,943	(113,130)	-1%
Total assets	$ 2,132,135,669	$ 2,069,849,385	$ 62,286,284	3%
Liabilities				
Payables				
Securities lending obligations	36,134,198	20,559,431	15,574,767	76%
Securities purchased	52,923,310	48,598,173	4,325,137	9%
Accounts payable and other accrued liabilities	3,595,276	3,832,048	(236,772)	-6%
Total liabilities	92,652,784	72,989,652	19,663,132	27%
Net position				
Net investment in capital assets	12,375,813	12,488,943	(113,130)	-1%
Unrestricted	2,027,107,072	1,984,370,790	42,736,282	2%
Net position held in trust - restricted for position benefits	$ 2,039,482,885	$ 1,996,859,733	$ 42,623,152	2%

(NOTE) Some Private asset values have not yet been reported for Q4 18. Values will be updated as final reporting is received.

DALLAS POLICE & FIRE PENSION SYSTEM
Combined Statements of Changes in Fiduciary Net Position

	6 Months Ended 6/30/2019 (unaudited)	PRELIMINARY 6 Months Ended 6/30/2018 (unaudited)	Change	Change
Contributions				
City	$ 76,939,630	$ 73,998,001	$ 2,941,629	4%
Members	25,475,275	25,190,844	284,431	1%
Total Contributions	102,414,905	99,188,845	3,226,060	3%
Investment income				
investments **(NOTE)**	83,107,902	(18,887,584)	101,995,486	540%
Interest and dividends	18,394,328	25,923,861	(7,529,533)	-29%
Total gross investment income	101,502,230	7,036,277	94,465,953	1343%
less: investment expense	(3,741,280)	(4,036,850)	295,570	7%
Net investment income	97,760,950	2,999,427	94,761,523	3159%
Securities lending income				
Securities lending income	521,546	133,028	388,518	292%
Securities lending expense	(451,762)	(99,323)	(352,439)	355%
Net securities lending income	69,784	33,705	36,079	107%
Other income	180,220	173,496	6,724	4%
Total additions	200,425,859	102,395,473	98,030,386	96%
Deductions				
Benefits paid to members	153,394,262	147,179,703	6,214,559	4%
Refunds to members	1,218,475	1,080,753	137,722	13%
Interest expense		-	-	0%
Legal expense	273,994	217,202	56,792	26%
Legal expense reimbursement	-	-	-	0%
Legal expense, net of reimbursement	273,994	217,202	56,792	26%
Staff Salaries and Benefits	1,677,534	1,414,855	262,679	19%
Professional and administrative expenses	1,238,442	1,325,948	(87,506)	-7%
Total deductions	157,802,707	151,218,461	6,584,246	4%
Net increase (decrease) in net position	42,623,152	(48,822,988)		
Beginning of period	1,996,859,733	2,121,150,623		
End of period	$ 2,039,482,885	$ 2,072,327,635		

(NOTE) Some Private asset values have not yet been reported for Q4 18. Values will be updated as final reporting is received.


Net Benefit Shortfall
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
-
Dollars, in thousands
Q1 2017
Q2 2017
Q3 2017
Q4 2017
Q1 2018
Q2 2018
Q3 2018
Q4 2018
Q1 2019
Q2 2019
Quarter
34,749
77,057
42,308
14,103
35,435
72,887
37,452
12,484
41,952
70,299
28,347
9,449
49,302
78,349
29,047
9,682
50,193
73,641
23,448
7,816
48,996
74,620
25,624
8,541
51,671
75,412
23,742
7,914
49,882
76,116
26,234
8,745
50,795
77,236
26,441
8,814
51,620
77,376
25,756
8,585
Total Benefit Contributions
Total Benefit Payments
Net Benefit Shortfall
Average Month Shortfall
Linear (Net Benefit Shortfall)

D A L L A S POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C5

Topic: **2019 Mid-Year Budget Review**

Discussion: Attached is a review of the 2019 Operating Expense Budget detailing expenses for the first six months of the calendar year.

Expense items which are greater than the prorated budget by more than 5% and $10,000 as of June 30, 2019 are discussed in the attached review.

Supplemental Plan expenses are deducted from total expenses in arriving at total Regular Plan expenses. Expenses are allocated to the two plans on a pro-rata basis, according to the ratio of each plan's assets to the total Group Trust assets. The ratio is derived from the Unitization Report prepared by JPMorgan as of June 30, 2019. The ratio is 99.19% Regular Plan to .81% Supplemental Plan.

BUDGET REVIEW
2019 MID -YEAR REVIEW

	Description	2019 6 mos Actual	2019 6 mos Budget	2018 6 mos Actual	Budget vs Actual Variance $ Over/(Under)	Budget vs Actual Variance % Over/(Under)
1	Legislative consultants	94,252	79,500	63,000	14,752	18.6%
2	Information technology projects	45,144	35,000	65,232	10,144	29.0%
3	Independent audit	100,000	90,000	100,000	10,000	11.1%
4	Communications (phone/internet)	33,663	27,800	27,380	5,863	21.1%
5	Pension administration software & WMS	139,614	136,500	158,992	3,114	2.3%
6	Memberships and dues	12,478	9,591	11,190	2,887	30.1%
7	Actuarial services	62,703	60,000	67,006	2,703	4.5%
8	Business continuity	9,354	7,750	7,046	1,604	20.7%
9	Network security	8,791	7,500	1,205	1,291	17.2%
10	Records storage	696	660	639	36	5.5%
11	Accounting services	29,500	29,500	29,500	0	0.0%
12	Bad debt expense - members	-	-	(175)	-	100.0%
13	Building expenses, incl depreciation	295,580	295,800	281,842	(219)	-0.1%
14	Bank Fees	1,272	1,500	395	(228)	-15.2%
15	Staff meetings	-	500	176	(500)	-100.0%
16	IT software/hardware	7,934	8,500	6,271	(566)	-6.7%
17	Subscriptions	384	1,070	297	(686)	-64.1%
18	Leased equipment	11,240	11,950	12,025	(710)	-5.9%
19	Postage	12,483	13,500	5,745	(1,017)	-7.5%
20	Member educational programs	-	1,250	-	(1,250)	-100.0%
21	Printing	1,174	2,555	1,192	(1,381)	-54.1%
22	Employee service recognition	957	2,500	399	(1,543)	-61.7%
23	Board meetings	2,211	3,800	1,299	(1,589)	-41.8%
24	Miscellaneous professional services	8,365	12,238	9,709	(3,872)	-31.6%
25	Office supplies	12,167	16,550	12,686	(4,383)	-26.5%
26	Conference registration/materials - board	1,710	7,450	1,940	(5,740)	-77.0%
27	Miscellaneous expense	182	6,000	920	(5,818)	-97.0%
28	Elections	600	7,500	-	(6,900)	-92.0%
29	Repairs and maintenance	46,132	54,125	43,725	(7,993)	-14.8%
30	Travel - staff	9,068	18,750	6,682	(9,682)	-51.6%
31	Depreciation exp - IT hardware	-	11,000	-	(11,000)	-100.0%
32	Travel - board	2,538	16,310	-	(13,772)	-84.4%
33	Disability medical evaluations	-	14,500	-	(14,500)	-100.0%
34	Conference/training registration/materials - staff	2,921	18,750	2,117	(15,829)	-84.4%
35	IT subscriptions/services/licenses	50,601	73,920	53,319	(23,319)	-31.5%
36	Employment expenses	729	26,138	93,236	(25,409)	-97.2%
37	Liability insurance	233,998	302,277	260,957	(68,278)	-22.6%
38	Salaries and benefits	1,677,534	1,915,945	1,414,855	(238,410)	-12.4%
	Legal fees, excluding insurance reimbursements	273,994	650,000	217,201	(376,006)	-57.8%
	Legal fee insurance reimbursements	-	-	-	-	100.0%
39	Legal fees, net of insurance reimbursements	273,994	650,000	217,201	(376,006)	-57.8%
	Gross Total	3,189,970	3,978,176	2,958,003	(788,206)	**-19.8%**
	Less: Allocation to Supplemental Plan Budget*	25,761	96,936	23,888	(71,175)	-73.4%
	Total Regular Plan Budget	**$ 3,164,209**	**$ 3,881,240**	**$ 2,934,115**	**$ (717,031)**	**-18.5%**

** Unitization split to Supplemental is based on unitization*

40	Custodian fees	110,671	118,500	54,351	(7,829)	-6.6%
41	Investment due diligence	-	24,000	-	(24,000)	-100.0%
42	Investment consultant and reporting	163,542	215,000	256,051	(51,458)	-23.9%
43	Investment portfolio operating expenses	469,774	847,000	273,319	(377,226)	-44.5%
44	Fund management fees	2,997,293	3,455,000	3,453,129	(457,707)	-13.2%
	Total Investment Fees	**3,741,280**	**4,659,500**	**4,036,850**	**(918,220)**	**-19.7%**

BUDGET
2019 MID-YEAR REVIEW

Budget Changes (>5% and $10K)

	Item	2019 6 mos Actual	2019 6 mos Budget	Budget vs Actual Variance $ Over/(Under)	Budget vs Actual Variance % Over/(Under)	Explanation
	INCREASES:					
1	Legislative consultants	94,252	79,500	14,752	18.6%	Variance is related to the timing of expenses. The legislature was in session through June and expenses are higher during the legislative session. Budget is straight lined over the year. Expect to be within budget by the end of the year.
2	Information technology projects	45,144	35,000	10,144	29.0%	Variance is related to the timing of projects. Some projects, for example the imaging project, were completed or near completion by the end of June. Variance by the end of July is down to $5,300.
3	Independent audit	100,000	90,000	10,000	11.1%	Variance is related to the timing of expenses. Budget is straight lined over the year. Expect to be within budget by the end of the year.
	REDUCTIONS:					
4	Legal fees, net of insurance reimbursements	273,994	650,000	(376,006)	-57.8%	Variance is related in part to the timing of expenses along with fewer case expenses than forecasted.
5	Salaries and benefits	1,677,534	1,915,945	(238,410)	-12.4%	Lower than forecasted expenses due to vacant staff positions.
6	Liability insurance	233,998	302,277	(68,278)	-22.6%	Actual expenses are less than forecasted due to a favorable renewal and the timing of expenses. To expense the premium over the correct time period, YTD 2019 has only five months of expense. One month of 2019 expense is $47,312.
7	Employment expenses	729	26,138	(25,409)	-97.2%	Several staff positions remain unfilled at this time and the budgeted amount has not been utilized.
8	IT subscriptions/services/licenses	50,601	73,920	(23,319)	-31.5%	Timing of the expenses along with lower than forecasted expenses for some items have led to a positive budget variance.
9	Conference/training registration/materials - staff	2,921	18,750	(15,829)	-84.4%	Variance is related in part to the timing of expenses along with fewer conferences / training expenses for staff than forecasted.
10	Disability medical evaluations	-	14,500	(14,500)	-100.0%	No disability or recall claims YTD in 2019. Budgeted for 10 disability or recall claims at $2,500 each and 2 child disability claims at $2,000 each in 2019.
11	Travel - board	2,538	16,310	(13,772)	-84.4%	Limited Board travel so far in 2019.
12	Depreciation exp - IT hardware	-	11,000	(11,000)	-100.0%	Switch project just completed. Depreciation will begin in July 2019.

INVESTMENT EXPENSES

	Item	2019 6 mos Actual	2019 6 mos Budget	Budget vs Actual Variance $ Over/(Under)	Budget vs Actual Variance % Over/(Under)	Explanation
13	Investment due diligence	-	24,000	(24,000)	-100.0%	Variance is related to the timing of expenses. Planned investment due diligence travel and the purchase of an investment software have not yet occurred.
14	Investment consultant and reporting	163,542	215,000	(51,458)	-23.9%	Budget includes $50k for private market services that has not yet been utilized.
15	Investment portfolio operating expenses	469,774	847,000	(377,226)	-44.5%	Variance is related in part to the timing of expenses for audits and appraisals. Additionally, some expenses for investment contracts review, advisors and legal fees have been less than forecast.
16	Fund management fees	2,997,293	3,455,000	(457,707)	-13.2%	Budget and Actual are for direct fees only. Variance is due in part to the timing of expenses. Some performance fees are due and paid at year end.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C6

Topic: **Audit Status**

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

Regular Board Meeting – Thursday, August 8, 2019

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C7

Topic: **Board approval of Trustee education and travel**

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

Discussion:

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

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

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

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

Future Education and Business Related Travel
Regular Board Meeting – August 8, 2019

			ATTENDING	**APPROVED**
1.	**Conference:**	**TEXPERS Basic Trustee Training**	**AG**	**7/11/2019**
	Dates:	August 17, 2019		
	Location:	Frisco, TX		
	Est. Cost:	$225		
2.	**Conference:**	**TEXPERS Advance Trustee Training**		
	Dates:	August 17, 2019		
	Location:	Frisco, TX		
	Est. Cost:	$150		
3.	**Conference:**	**TEXPERS Summer Educational Forum**		
	Dates:	August 18-20, 2019		
	Location:	Frisco, TX		
	Est. Cost:	$25		
4.	**Conference:**	**NCPERS Public Pension Forum**		
	Dates:	September 11-13, 2019		
	Location:	New York, NY		
	Est. Cost:	TBD		

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C8

Topic: **Portfolio Update**

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

Regular Board Meeting – Thursday, August 8, 2019

DALLAS POLICE & FIRE PENSION SYSTEM

Portfolio Update

August 8, 2019

Asset Allocation

DPFP Asset Allocation	% weight				$ millions		
	7/31/19	Target	Variance		7/31/19	Target	Variance
Equity	**38.5%**	**55.0%**	**-16.5%**		**775**	**1,108**	**-333**
Global Equity	23.6%	40.0%	-16.4%		475	806	-331
Emerging Markets	2.5%	10.0%	-7.5%		51	201	-151
Private Equity*	12.4%	5.0%	7.4%		250	101	149
Fixed Income	**31.5%**	**35.0%**	**-3.5%**		**635**	**705**	**-70**
Safety Reserve - Cash	3.7%	3.0%	0.7%		75	60	14
Safety Reserve - ST IG Bonds	12.9%	12.0%	0.9%		260	242	18
Investment Grade Bonds	0.0%	4.0%	-4.0%		0	81	-81
Global Bonds	3.3%	4.0%	-0.7%		67	81	-13
High Yield Bonds	4.2%	4.0%	0.2%		84	81	4
Bank Loans	5.8%	4.0%	1.8%		117	81	36
Emerging Mkt Debt	1.0%	4.0%	-3.0%		21	81	-59
Private Debt*	0.5%	0.0%	0.5%		11	0	11
Real Assets*	**30.0%**	**10.0%**	**20.0%**		**604**	**201**	**403**
Real Estate*	20.3%	5.0%	15.3%		409	101	308
Natural Resources*	6.9%	5.0%	1.9%		140	101	39
Infrastructure*	2.8%	0.0%	2.8%		56	0	56
Total	**100.0%**	**100.0%**	**0.0%**		**2,015**	**2,015**	**0**
Safety Reserve	16.6%	15.0%	1.6%		334	302	32
*Private Market Assets	43.0%	15.0%	28.0%		865	302	563

Source: JP Morgan Custodial Data, Staff Calculations

Preliminary data

6/30/19 Public Market Performance Preview

Public Markets Performance Summary	Last Quarter				Year to Date		
Net of fees	Manager	Index	Excess		Manager	Index	Excess
Global Equity	3.75%	2.70%	1.05%		18.37%	14.76%	3.61%
Boston Partners	1.97%	3.36%	-1.39%		11.26%	15.63%	-4.37%
Manulife	4.56%	2.93%	1.63%		19.83%	14.87%	4.96%
OFI	4.37%	2.93%	1.44%		21.85%	14.87%	6.98%
Walter Scott	3.93%	2.93%	1.00%		20.16%	14.87%	5.29%
RBC, EM Equity	3.27%	0.43%	2.85%		12.90%	10.15%	2.75%
Fixed Income	1.78%	3.31%	-1.53%		4.58%	5.79%	-1.21%
IR+M, short term debt	1.47%	1.47%	0.01%		2.88%	2.47%	0.41%
Brandywine, global bonds	3.65%	3.29%	0.36%		6.81%	5.57%	1.24%
Loomis, High Yield	0.85%	2.97%	-2.12%		6.30%	9.49%	-3.18%
Loomis, Bank Loans	1.49%	1.68%	-0.19%		4.38%	5.74%	-1.36%
Pacific Asset Mgt., Bank Loans	1.77%	1.58%	0.19%		5.63%	5.42%	0.21%
Ashmore, EMD	4.38%	3.96%	0.42%		10.20%	8.71%	1.49%

Source: JPM Morgan custody data, manager reports, Investment Staff estimates and calculations

6/30/19 Public Market Impact Estimate

This table estimates the gain/loss contribution from public market investments including: market contribution (equity and fixed income composite index returns), structural implementation (manager benchmark vs. composite benchmark), and the active contribution for each investment manager (manager relative performance vs. their benchmark).

- The negative "Structure" impact is primarily driven by short-term debt which reflects DPFP's prudent implementation of a safety reserve to provide liquidity during market drawdowns.
- Emerging Markets equity is expected to outperform long term, but has also had a modest negative impact in 2019.

Public Markets Impact Estimate	Last Quarter					Year to Date			
$ millions	Market	Structure	Active	Total		Market	Structure	Active	Total
Public Markets	$31.6	($6.4)	$3.3	$28.4		$96.2	($6.1)	$13.4	$103.5
Public Equity (GE+EM)	$13.7	$0.4	$4.7	$18.8		$65.9	($0.9)	$14.6	$79.5
Global Equity (excludes EM)	$12.4	$1.5	$3.3	$17.2		$59.2	$1.2	$13.3	$73.7
Boston Partners	$3.5	$0.7	($1.4)	$2.0		$14.8	$0.8	($4.1)	$10.7
Manulife	$3.5	$0.3	$1.9	$5.4		$15.4	$0.1	$5.1	$20.5
OFI	$3.2	$0.3	$1.6	$4.8		$14.1	$0.1	$6.6	$20.7
Walter Scott	$3.7	$0.3	$1.2	$4.9		$16.1	$0.1	$5.7	$21.8
RBC, EM Equity	$0.2	($1.1)	$1.4	$1.6		$4.6	($2.1)	$1.2	$5.8
Fixed Income	$17.9	($6.8)	($1.4)	$9.6		$30.4	($5.2)	($1.1)	$24.0
IR+M, short term debt	$3.8	($4.7)	$0.0	$3.8		$6.2	($8.4)	$1.0	$7.3
Brandywine, global bonds	$2.2	($0.0)	$0.2	$2.4		$3.5	($0.1)	$0.8	$4.3
Loomis, High Yield	$2.5	($0.3)	($1.8)	$0.7		$7.5	$2.9	($2.5)	$5.0
Loomis, Bank Loans	$1.0	($1.0)	($0.1)	$0.9		$3.4	($0.0)	($0.8)	$2.6
Pacific Asset Mgt., Bank Loans	$0.8	($0.9)	$0.1	$0.9		$2.8	($0.2)	$0.1	$2.9
Ashmore, EMD	$0.8	$0.1	$0.1	$0.9		$1.7	$0.6	$0.3	$2.0

Source: JPM Morgan custody data, manager reports, Investment Staff estimates and calculations

DALLAS POLICE & FIRE PENSION SYSTEM

2019 Investment Review Calendar*

1Q19 ✓	• Real Estate Reviews: Vista 7, King's Harbor, & Museum Tower • Real Estate Presentations: Clarion, AEW • Global Equity Structure Review (Staff/Meketa)
2Q19 ✓	• Staff Timber Portfolio Review (FIA & BTG) • Natural Resources: Hancock Presentation • Real Estate: Hearthstone Presentation
July ✓	• Infrastructure: Staff review of AIRRO and JPM Maritime
2H19	• Private Equity: Staff review of Lone Star, Huff, Hudson, and Industry Ventures • Private Debt: Staff Reviews of Highland and Riverstone • Global Equity Manager Reviews • Fixed Income Manager Reviews

*Future presentation schedule is subject to change.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C9

Topic: **Treatment of Final Month Payment for DROP Participants**

a. Possible Overpayment to DROP Participants subject to 10-year Limitation
b. DROP Policy Amendment

Discussion:

a. Staff will brief the Board on the status of monthly annuity payments to DROP participants subject to the 10-year limitation on remaining in DROP. In the month such DROP participants retire, staff has been paying a full monthly benefit to such members. Staff believes the payment in the retirement month to such members should have started with the date of retirement. Staff is recommending that the Board authorize staff to collect these overpayments.

b. Staff is presenting an amendment to the DROP Policy to provide for clarity of the treatment of the payment of the monthly benefit in the month of retirement for DROP participants.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C9
(continued)

Staff Recommendation:

a. **Authorize** collection of overpayments to DROP participants who were subject to the 10-year limitation for the month such members retired.

b. **Approve** the DROP Policy as amended.

Illustration of Two Members going from Active DROP to Retirement. **This Illustration reflects the Benefit Accrual to DROP and the Retirement Payment Only. The DROP Annuity is not illustrated.**

Member 1 has less than 10 years in DROP at Retirement - the illustration below shows the correct treatment for members with less than 10 years in DROP

Member 2 reached 10 years in DROP on March 31st - the illustrations below shows the incorrect and correct treatment of the retirement payment at retirement.

Facts for Both Member Examples:

Member leaves active service (LAS) June 14th

Retirement effective June 15th

Board approves retirement July 11th

First retirement payment July 31st

The monthly amount of the Benefit Accrual to DROP and Retirement Payment are each $5,000

General Rules:

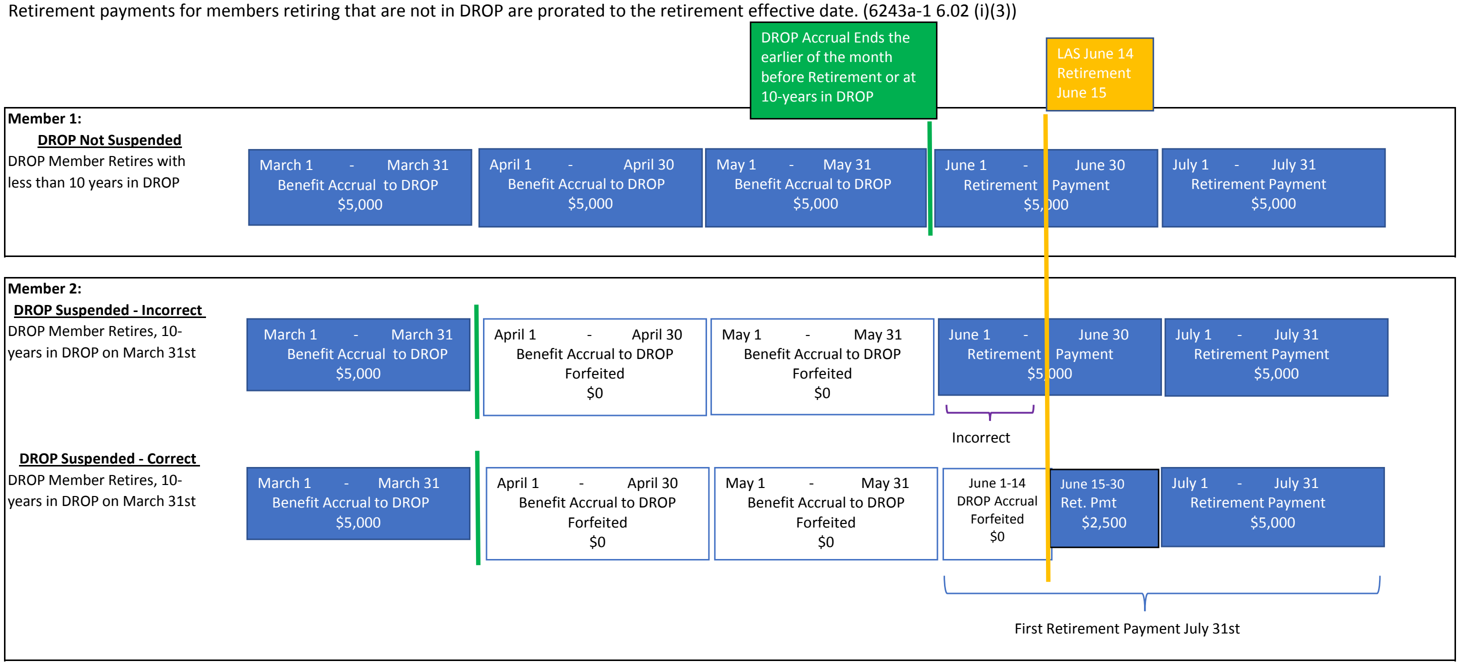
DROP begins the first day of the month the member makes the election to join DROP. (6243a-1 6.14 (b))

The Benefit Accrual to the DROP balance continues through the month before the member leaves active service. (6243a-1 6.14 (c))

A member who has 10 or more years in DROP shall no longer have amounts credited to their DROP accounts while in active service. (6243a-1 6.14 (c))

Retirement pensions for active members in DROP are effective the first of the month of retirement so there is no gap or loss between DROP & Retirement (long standing practice)

Retirement payments for members retiring that are not in DROP are prorated to the retirement effective date. (6243a-1 6.02 (i)(3))



NOTE: This information relates only to the monthly Retirement Benefit not the DROP annuity payment. The DROP annuity payment is effective the beginning of the month the member leaves active service.

DALLAS POLICE & FIRE PENSION SYSTEM

DEFERRED RETIREMENT OPTION PLAN POLICY

As Amended Through August 8, 2019~~December 13, 2018~~

DEFERRED RETIREMENT OPTION PLAN POLICY

Table of Contents

DEFERRED RETIREMENT OPTION PLAN POLICY

Adopted December 10, 1992
Amended through ~~December 13, 2018~~ August 8, 2019

A. PURPOSE

1. This policy provides rules governing the Deferred Retirement Option Plan of the Dallas Police and Fire Pension System ("DPFP"), as contemplated by Section 6.14 of Article 6243a-1 of Revised Statutes (the "Plan") and the Supplemental Pension Plan for the Police and Fire Departments of the City of Dallas, Texas (the "Supplemental Plan") where applicable. It is intended that DROP and the terms of this policy allow for the continued qualification of the Plan under Section 401 of the Internal Revenue Code ("Code").

2. Any reference in this policy to a provision of the Plan shall also be considered a reference to the comparable provision of the Supplemental Plan if the applicant is a member of the Supplemental Plan.

3. The Executive Director may, if necessary, develop written procedures to implement this policy.

4. This policy may be amended at any time by the Board of Trustees ("Board"), consistent with the terms of the Plan.

5. Any capitalized terms not defined in this policy shall have the meaning ascribed to them in the Plan.

B. DEFINITIONS

1. **DROP -** The program whereby a Member while still in Active Service may elect to have an amount equal to the pension benefit that the Member would otherwise be eligible to receive be credited to a notional account on the Member's behalf. A Member, as of his or her intended date of participation in DROP, must be eligible to retire and receive an immediate pension benefit. An election to enter DROP is irrevocable except for the one-time revocation window for certain Members that is described in Section D.

2. **DROP Account -** The notional account of a Member, retiree, beneficiary or Alternate Payee created pursuant to Section 6.14 of the Plan which existed or exists prior to any annuitization required under the Plan and in conformity with this policy.

B. DEFINITIONS (continued)

3. **DROP Annuitant** – The holder of a DROP Annuity.

4. **DROP Annuity** – The series of equal payments created when a DROP Account is annuitized as required under the Plan and in conformity with this policy.

C. ENTRY INTO DROP

1. The application of any Member applying for DROP participation will be placed on the agenda for a Board meeting as soon as administratively practicable following the date the application is received for consideration and approval.

2. If the Board approves a DROP application, the application will become effective on the first day of the month in which the Board approves the application.

3. At the time of entry into DROP, the Member must irrevocably select the Plan benefit he or she will receive at the time his or her pension benefit will commence upon retirement with the Member's pension benefit calculated as of the effective date of entering DROP. While on Active Service, these benefit amounts that the Member would have otherwise received if he or she would have retired on his or her effective date of DROP participation will be credited to the DROP Account.

4. Once a Member has elected to participate in DROP, that election is irrevocable except as further described in Section D.

5. A Group B Member who obtains a rank that is higher than the highest Civil Service Rank for the City of Dallas after the effective date of his or her participation in DROP will not participate in the Supplemental Plan.

6. As of the effective date of his or her participation in DROP, the Member will no longer be entitled to obtain additional Pension Service by repaying previously withdrawn contributions or paying for any Pension Service that could have been purchased under the Plan prior to DROP entry. However, a Member who is entitled, under Section 5.08 of the Plan, to purchase credit for Pension Service for any period he or she was on a military leave of absence may still purchase that Pension Service after entering DROP so long as the required contributions are made no later than the time provided by the Uniformed Services Employment and Reemployment Rights Act ("USERRA").

7. The Board shall interpret the Plan and this policy to ensure that Members' rights are fully protected as required by USERRA.

D. DROP REVOCATION

1. A Member who was a DROP participant on or before June 1, 2017, has a one-time opportunity to revoke his or her DROP election. The revocation must be made before the earlier of February 28, 2018, or the date that the Member terminates Active Service. The revocation must be made by filing with the Executive Director a completed DROP revocation election form that has been approved by the Executive Director.

2. A DROP revocation eliminates the balance in a Member's DROP Account. The Member's benefit will then be established at the earlier of when the Member either (a) reenters DROP or (b) retires with DPFP, and will be calculated at that time under the Plan based upon the Member's total Pension Service and historic Computation Pay (highest 36 consecutive months for Pension Service prior to September 1, 2017 and highest 60 consecutive months for Pension Service on or after September 1, 2017.)

3. Any revocation of DROP participation described in this Section shall be for the entire period that the Member participated in DROP. No partial revocation of DROP participation shall be accepted.

4. No Member shall be entitled to revoke his or her DROP participation if any amount has been transferred out of such Member's DROP Account, except for any transfers related to corrections to DROP Accounts.

5. A Member will be credited with Pension Service for all or a portion (one-half) of the period relating to the revoked DROP participation if the Member who revoked the DROP participation purchases such Pension Service in an amount equal to the sum of: (a) the Member contributions that would have been made if the Member had not been a DROP participant during such period of DROP participation and (b) interest on such Member contributions, calculated on the contributions for the period from the dates the contributions would have been made if the Member had not been a DROP participant through the date of purchase. Interest will be calculated (a) through February 28, 2018 at the monthly rate of change of the U.S. City Average All Items Consumer Price Index (unadjusted) for All Urban Wage Earners and Clerical Workers for the applicable periods and (b) after February 28, 2018 at the interest rate used from time to time in DPFP's actuarial rate of return assumptions, compounded annually. Periods where the monthly rate of change was negative shall be computed as zero interest for such periods. DPFP staff shall be authorized to establish procedures for implementing the interest calculation required in this Section.

D. DROP REVOCATION (continued)

6. A Member may purchase Pension Service relating to the period of revoked DROP participation in increments of one-half of his or her total Pension Service during DROP participation. If a Member elects to purchase one-half of his or her total Pension Service available to be purchased following the DROP revocation, (a) a Member may not elect to purchase Pension Service relating to specific time periods during his or her DROP participation and (b) the amount of the Member contributions for purposes of such purchase will be one-half of the total amount required to be paid pursuant to Section D.5. above.

7. If a Member elects to purchase one-half of his or her Pension Service available to be purchased following the DROP revocation, the Member may subsequently purchase the remaining one-half of the Pension Service available, but must complete such purchase prior to any election to reenter DROP or terminating Active Service. The amount to be paid for the remaining Pension Service to be purchased will be calculated pursuant to subsections 4 and 5 above, with interest continuing to accrue on the portion that has not yet been paid at the rate used from time to time in DPFP's actuarial rate of return assumptions, compounded annually, calculated from the date of the original Pension Service purchase through the date of the purchase of the remaining Pension Service.

8. Only full payment will be accepted for the amount of any Pension Service elected to be purchased under this Section. No partial payment will be accepted. Direct rollovers from other tax-qualified plans or similar employer plans, including governmental Section 401(k) (including the City of Dallas 401(k) Retirement Savings Plan) and 457(b) deferred compensation plans and Section 403(b) annuity arrangements will be accepted for payment to the extent such plans permit such rollovers. Payment is not permitted from the Member's DROP account.

9. For the purposes of calculating a Member's pension benefit in the case where a Member purchases only one-half of the total Pension Service available for the period relating to a DROP revocation, the purchased Pension Service attributable to time prior to September 1, 2017 shall be equal to the product of: (a) the amount of Pension Service purchased, multiplied by (b) a fraction of which the numerator equals the Pension Service available for purchase representing periods prior to September 1, 2017, and the denominator equals the total Pension Service available for purchase in connection with the DROP revocation.

10. All DROP revocation election forms must be received by DPFP in proper order by February 28, 2018 and will be considered effective as of September 6, 2017 after approval by DPFP staff that the form is in proper order. Approval of the Board shall not be required for a DROP revocation to become effective.

E. ANNUITIZATION OF DROP ACCOUNTS

1. **Methodology.**

   DPFP staff, with the assistance of DPFP's Qualified Actuary, shall determine the annuitization of all DROP Accounts as required by the Plan and consistent with this policy.

2. **Interest Rates.**

   To reflect the accrual of interest over the annuitization period of a DROP Annuity as required under the Plan, the accrual of interest for all DROP Annuities shall be calculated utilizing an interest rate based on the published United States Department of Commerce Daily Treasury Yield Curve Rates ("Treasury Rates") for durations between 5 and 30 years, rounded to two decimal places. If an annuitization period for a DROP Annuity is between the years for which Treasury Rates are established, then a straight-line linear interpolation shall be used to determine the interest rate. The interest rates for purposes of this subsection E.2. will be set on the first business day of each quarter (January, April, July and October) and will based upon the average of the Treasury Rates as published on the 15th day of the three prior months, or the next business day after the 15th day of a month if the 15th day falls upon a day when rates are not published. Based upon advice from DPFP's Qualified Actuary upon implementation of this policy, interest rates to be used in calculating DROP Annuities with an annuitization period that exceeds thirty years will be the Treasury Rate published for the 30-year duration as Treasury Rates beyond thirty years do not exist. The initial interest rates effective as of October 1, 2017, are attached to this policy as Exhibit 1.

3. **Mortality Table.**

   The Board shall, based upon the recommendation of DPFP's Qualified Actuary, adopt a mortality table to be utilized in determining life expectancy for purposes of calculating DROP Annuities. The mortality table shall be based on the healthy annuitant mortality tables used in the most current actuarial valuation and blended in a manner to approximate the male/female ratio of holders of DROP accounts and DROP annuities. The Board will review this table and male/female blended ratio upon the earlier of (i) the conclusion of any actuarial experience study performed by DPFP's Qualified Actuary or (ii) any change to mortality assumptions in DPFP's annual actuarial valuation. Actual ages used in calculating life expectancy will be rounded to two decimals. The life expectancy will be rounded to the nearest whole year. Life expectancy in whole years based on a 2017 annuitization date and the mortality table recommended by DPFP's Qualified Actuary is shown in Exhibit 2.

E. ANNUITIZATION OF DROP ACCOUNTS (continued)

4. **Initial Annuitization of Non-Member's DROP Accounts.**

   a. The first payment of DROP Annuities after annuitization of all DROP Accounts in existence on or after September 1, 2017, except those DROP Accounts of Members, shall commence the last business day of the month in which this policy is adopted, or as soon as practicable thereafter.

   b. The initial annuitization of all non-Member DROP Accounts existing on September 1, 2017 will be calculated and implemented on the basis of a monthly annuity. DPFP staff will send notices to the holders of such DROP Annuities to inform them that they have sixty (60) days from the date of such notice to make a one-time election to have the monthly DROP Annuity converted to an annual annuity. If a DROP Annuitant makes such an election, the monthly DROP Annuity payments will cease as soon as administratively practicable, and the first payment of the annual DROP Annuity will begin 12 months after the last monthly payment made to the DROP Annuitant.

   c. For purposes of the initial annuitization described in this subsection E.4., any DROP Account which is held by a non-Member at any time on or after September 1, 2017, but prior to the initial annuitization pursuant to subsection E.4.a. above, shall (i) be adjusted to reflect any distributions to such non-Member after September 1, 2017, but prior to the initial annuitization and (ii) accrue interest for the period from September 1, 2017 through the date of initial annuitization at the same rate as the interest rate applicable pursuant to subsection E.2. in the calculation of the initial DROP Annuity.

   d. Annuitization of any non-Member DROP Account under this subsection E.4. will be based on the age of the holder of such DROP Account as of the first day of the month when the annuitization of DROP Accounts under this subsection E.4. occurs. In the case of a DROP Account which is held by a trust, such DROP Account will be annuitized using the age of the oldest beneficiary of the trust.

5. **Annuitization of Member DROP Accounts**

   a. The DROP Annuity for a Member shall be calculated based upon the Member's age and DROP Account balance on the effective date of the Member's retirement. The interest rate applicable to the calculation of the Member's DROP Annuity will be the interest rate in effect under subsection E.2. during the month the Member terminates Active Service. Payment of the DROP Annuity shall commence effective as of the first day of the month in which the Member's retirement commences.

E. ANNUITIZATION OF DROP ACCOUNTS (continued)

5. Annuitization of Member DROP Accounts (continued)

b. Each Member as part of the retirement process shall be given the opportunity to elect either a monthly or annual DROP Annuity. If no election is made, the Member will be deemed to have elected a monthly DROP Annuity.

6. Annuitization of Alternate Payee's Account

The DROP Annuity for any Alternate Payee receiving a portion of a Member's DROP Account through a Qualified Domestic Relations Order after the date of this policy shall commence on the earlier of (i) the date the Member's DROP Annuity commences or (ii) the first day of the month the Alternate Payee reaches age 58. Calculation of the DROP Annuity of an Alternate Payee will be based on the age of the Alternate Payee and the interest rate in effect under subsection E.2 upon commencement of the DROP Annuity.

7. Annuitization and Payments to Beneficiaries

a. Upon the death of a Member, the DROP Account of such Member shall be transferred to the Member's beneficiary(ies) pursuant to Section F of this policy. Such transferred account shall be annuitized as promptly as administratively practicable utilizing the interest rate in effect under subsection E.2. and the age of the beneficiary at the time of the Member's death in calculating the beneficiary's DROP Annuity.

b. Upon the death of a DROP Annuitant, the remaining DROP Annuity shall be paid to the beneficiary designated by such DROP Annuitant and shall be divided if there are multiple beneficiaries as designated by the DROP Annuitant pursuant to Section F of this policy. DPFP shall only be responsible for payments to beneficiaries after DPFP has actual knowledge of the death of a DROP annuitant.

8. Revised Annuity in the Event of an Unforeseeable Financial Hardship Distribution

If any DROP Annuitant shall receive a distribution pursuant to Section G hereof, the DROP Annuity of such DROP Annuitant shall be re-annuitized through a calculation using (a) the interest rate utilized in the calculation of the original DROP Annuity, (b) the present value of the DROP Annuity on the date of the unforeseeable financial hardship distribution as calculated by DPFP's Qualified Actuary, and (c) the remaining number of months in the life expectancy utilized in the calculation of the original DROP Annuity.

F. DESIGNATION OF BENEFICIARIES

1. A DROP participant will have the opportunity to designate a primary beneficiary (or primary beneficiaries) and a contingent beneficiary (or contingent beneficiaries) of his or her DROP Account either when filing the application for DROP participation, or thereafter, on a beneficiary form provided by DPFP for this purpose. The named beneficiary must be a living person at the time of the filing of the beneficiary form. No trusts may be named as a beneficiary, except for a trust established for a child who is entitled to benefits pursuant to Section 6.06 (n)(1) of the Plan ("Special Needs Trust"). Existing trusts which have a DROP Account as of the date of this policy will be permitted and will be annuitized pursuant to Section E.4. and the age of the oldest beneficiary of the trust will be utilized for purposes of the annuitization. Special Needs Trusts will be annuitized based upon the age of the child.

2. In the case of a holder of DROP Annuity who dies where no living person is named as a beneficiary, the remaining DROP Annuity will be paid to the deceased DROP Annuitant's estate. In the case of a Member who dies with a DROP Account where no living person is named as a beneficiary, the DROP Account will be annuitized based upon the life of the youngest heir to the deceased Member's estate and the resulting DROP Annuity will be paid to the estate.

3. Beneficiaries of a Member's DROP Account or a DROP Annuitant's DROP Annuity are not limited to the Qualified Survivors. Upon request, DPFP will divide a deceased participant's DROP Account or DROP Annuity among the designated beneficiaries at the time of the DROP participant's death.

4. Upon the death of a DROP participant, the DROP participant's DROP Account or DROP Annuity shall become the property of the surviving spouse unless either (i) the surviving spouse has specifically waived his or her right to such funds or (ii) the surviving spouse's marriage to the DROP participant occurred after January 14, 2016 and the participant had already joined DROP and named a beneficiary other than the surviving spouse who was not the participant's spouse at the time of the beneficiary election, and will be transferred to the name of the surviving spouse or such other named beneficiary or beneficiaries. DROP Annuities shall be paid to the designated beneficiaries in accordance with the last beneficiary form on file in the DPFP administrative office upon that office's receipt of sufficient evidence of the DROP participant's death.

G. HARDSHIPS

1. Pursuant to the Plan, a DROP Annuitant who was a former Member of the Plan (a "Retiree Annuitant") may apply for a lump sum distribution relating to his or her DROP Annuity in the event that the Retiree Annuitant experiences a financial hardship that was not reasonably foreseeable. To qualify for an unforeseeable financial hardship distribution, a Retiree Annuitant (or the estate of a Retiree Annuitant in the case of subsection G.2.e.) must demonstrate that:

   a. a severe financial hardship exists at the time of the application (i.e., not one that may occur sometime in the future);

   b. the hardship cannot be relieved through any other financial means (i.e., compensation from insurance or other sources, monthly annuity benefits, or liquidation of personal assets) unless using those other sources would also cause a financial hardship; and

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

2. The Board shall only recognize the following circumstances as an unforeseeable financial hardship that is eligible for a lump sum distribution:

   a. the need to repair damage to a Retiree Annuitant's primary residence not covered by insurance as the result of a natural disaster or significant event (i.e., fire, flood, hurricane, earthquake, etc.);

   b. the need to make significant changes to a Retiree Annuitant's primary residence not covered by insurance because of medical necessity;

   c. the need to pay for medical expenses of the Retiree Annuitant, a Retiree Annuitant's spouse, or a dependent child or relative of the Retiree Annuitant as described under Code section 152(c) and (d), including non-refundable deductibles, as well as for the cost of prescription drug medication;

   d. the need to pay for the funeral expenses of a parent, child, grandchild or spouse of the Retiree Annuitant, including reasonable travel and housing costs for the Retiree Annuitant, their spouse, parent, child or grandchild;

   e. the need of the estate of a Retiree Annuitant to pay for the medical expenses or the funeral expenses of the Retiree Annuitant; or

   f. other similar extraordinary and unforeseeable circumstances arising as a result of events beyond the control of the Retiree Annuitant.

G. HARDSHIPS (continued)

3. DPFP staff will develop procedures relating to the application for an unforeseeable financial hardship distribution, which will include, at a minimum, a notarized statement by the applicant relating to the requirements for eligibility and documentation sufficient to demonstrate such eligibility. Following submission of the required financial hardship distribution application, the notarized statement, and other required documentation as stated in the application form, DPFP staff shall review the materials and inform the Retiree Annuitant within thirty (30) days whether any additional information or documentation is required or requested. Once all required and/or requested documentation has been submitted, the Retiree Annuitant shall be informed within thirty (30) days if (i) the Retiree Annuitant is eligible for an unforeseeable financial hardship distribution or (ii) the matter has been referred to the Board for consideration at the next regular meeting. After an unforeseeable financial hardship distribution has been made to a Retiree Annuitant, a Retiree Annuitant may not request an additional unforeseeable financial hardship distribution for ninety (90) days from the date of distribution of any amount under this Section.

4. The Executive Director shall have the authority to approve an application for an unforeseeable financial hardship distribution. The Executive Director shall submit to the Board for final action by the Board any recommended denial, in whole or in part, of any request for an unforeseeable financial hardship distribution. Determinations of the Board and the Executive Director on applications for unforeseeable financial hardship distributions are final and binding. Once an unforeseeable financial hardship distribution has been approved by either the Executive Director or the Board, payment of the distribution shall be made to the Retiree Annuitant as soon as administratively practicable.

5. For the purposes of this Section G, the term “dependent” shall mean any person who is claimed by a Retiree Annuitant as a dependent on the Retiree Annuitant’s federal income tax return in any year for which a distribution is sought under this Section G.

6. Distributions under this Section G shall only be available for persons who (a) entered DROP prior to June 1, 2017 and (b) who have not revoked a DROP election under Section D. of this policy.

7. No claims for hardship distributions will be accepted for any circumstances which give rise to the hardship where such circumstances occurred more than six months (nine months in the case of a filing by the estate of a Retiree Annuitant pursuant to subsection G.2.e.) prior to the date of filing of the application pursuant to subsection G.3.

H. 100% Joint and Survivor Benefit

1. Coterminous with entry into DROP, a Member shall have the right to make the election provided for under Section 6.063(a)(1) of the Plan and such an election will not be subject to the requirement set forth in Section 6.063(e) of the Plan.

2. Subsequent to a Member's entry into DROP, if the Member has not made the election provided for in Section H.1., the Member shall have the right to make the election provided for under Section 6.063(a)(1) and such an election will be subject to the requirement set forth in Section 6.063(e). If a Member shall die while on Active Service within one year after making the election under this Section H.2., then the Member's DROP Account shall be increased by the reduced benefit amount which is contemplated by Section 6.063(e) to be paid to the surviving spouse.

3. If a Member makes an election under either Section H.1. or H.2., the amount credited to the Member's DROP balance will be adjusted accordingly.

4. If a Member should remarry while on Active Service after making an election under Section H.1 or H.2, then the Member's benefit shall be recalculated and adjusted based upon the age of the new spouse, effective as of the date of marriage as if the Member had made a new election under Section 6.063(a)(1); provided however, that (i) if the Member had made the election pursuant to Section H.1., the Member shall not be subject to the requirement set forth in Section 6.063(e) for such remarriage and recalculation and (ii) if the Member had the election pursuant to Section H.2., the one year requirement under Section 6.063(e) shall be deemed to have commenced upon the original election.

5. Members who are in DROP as of the effective date of this Policy shall be afforded the opportunity through the first to occur of (i) their retirement date or (ii) October 31, 2018 to make the election provided for in Section H.1 and after October 31, 2018, such Members shall be entitled to make the election provided for in Section H.2.

6. Nothing in this DROP Policy shall affect or impair the right of a Member to make the election provided for in Section 6.063(a) upon or after the Member's retirement if the Member shall not make the election provided for in this Section H, provided, however, that any election made by a Member of Pensioner after their entry into DROP, notwithstanding any other provision of Section 6.063, shall be subject to the provisions of Section 6.063(e).

I. COMMENCEMENT OF RETIREMENT BENEFIT

For any Member retiring and commencing receipt of their monthly retirement benefit, other than Member's who have participated in DROP for ten years or more and are subject to the limitation set forth in the last sentence of Section 6.14(c) (a "10 Year Limitation DROP participant"), such Member's retirement benefit shall commence on the first day of the month such Member's retirement becomes effective. For any 10 Year Limitation DROP participant, such Member's monthly retirement benefit shall commence on the effective date of such Member's retirement.

J~~I~~. EFFECTIVE DATE

APPROVED on December 13, 2018 by the Board of Trustees of the Dallas Police and Fire Pension System.

____
William F. Quinn
Chairman

ATTEST:

____
Kelly Gottschalk
Secretary

Exhibit 1- Interest Rates

Published Rate	5 Yr	7 Yr	10 Yr	20 Yr	30 Yr
7/17/2017	1.86	2.12	2.31	2.65	2.89
8/15/2017	1.83	2.09	2.27	2.60	2.84
9/15/2017	1.81	2.04	2.20	2.52	2.77
Average	**1.83**	**2.08**	**2.26**	**2.59**	**2.83**

Exhibit 2 – Life Expectancies Based on a November 2017 DROP Annuity Commencement Date

Expected Lifetime in Years Based on a November 2017 Commencement of Annuitization

Age	Expected Lifetime (Years)	Age	Expected Lifetime (Years)
21	62	56	29
22	61	57	28
23	60	58	27
24	59	59	26
25	58	60	25
26	57	61	24
27	56	62	23
28	56	63	22
29	55	64	22
30	54	65	21
31	53	66	20
32	52	67	19
33	51	68	18
34	50	69	17
35	49	70	17
36	48	71	16
37	47	72	15
38	46	73	14
39	45	74	14
40	44	75	13
41	43	76	12
42	42	77	12
43	41	78	11
44	40	79	10
45	39	80	10
46	38	81	9
47	37	82	9
48	36	83	8
49	36	84	7
50	35	85	7
51	34	86	7
52	33	87	6
53	32	88	6
54	31	89	5
55	30	90	5

Note: The above factors are based on the sex-distinct RP-2014 Blue Collar Healthy Annuitant Mortality Tables, with the female table set forward two years, projected generationally using Scale MP-2015. The sex-distinct tables are blended 85% male and 15% female.

DISCUSSION SHEET

ITEM #C10

Topic: **Potential Waiver of Disability Recall Requirement**

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: After the Board approves a disability retirement the Statute allows further evaluations periodically to determine if the member remains disabled or if the member would be able to work in any sworn position in the Department. The Statute allows medical evaluations to age 50.

If, based on the medical evaluation, it is determined that the member can return to work and the Chief of Police or the Fire Chief determines that there is an available position in the Department for the employee, the employee returns to work and the disability pension payments cease. If no position is available, then the disability pension payments would continue.

The Board may waive further disability recall evaluations as it deems appropriate. Currently, there are five police officers and one fire fighter due for a disability recall evaluation. Staff will discuss these individual cases with the Board to determine whether to proceed with the recall process or waive further disability recall evaluations.

Recommendation: To be provided at the meeting.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C11

Topic: **Hearthstone Sale Update**

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

Attendees: Bryce Brunsting, SVP & COO – Hearthstone (by phone)
Todd Rosa, Vice President – Hearthstone (by phone)

Discussion: The Board approved the sale of Spring Valley and Harris Creek at the June 2019 Board meeting. Staff and Hearthstone will provide a status update on the sale of the assets.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C12

Topic: **Lone Star Investment Advisors Update**

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.

Discussion: The Lone Star Growth Capital fund and the Lone Star CRA fund terms expire in October 2019. Investment Staff will update the Board on recent performance, operational, and administrative developments with respect to DPFP investments in funds managed by Lone Star Investment Advisors.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C13

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

Discussion: Counsel will brief the Board on these issues.

Regular Board Meeting – Thursday, August 8, 2019

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

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.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #D2

Topic: **Executive Director's report**

a. Associations' newsletters
- NCPERS (July 2019)
- NCPERS PERSist (Summer 2019)

b. Open Records
c. Member Education Update
d. City Payroll Errors Update

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

Regular Board Meeting – Thursday, August 8, 2019

THE NCPERS
MONITOR
The Latest in Legislative News
July 2019

In This Issue

Study Underscores Strong Support for Pensions Among Americans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Americans are highly positive on the role of pensions in providing retirement security and see these retirement plans as better than 401(k) plans, according to the latest research from the National Institute on Retirement Security (NIRS).

More than three-fourths of Americans have a favorable view of defined benefit pensions, and 64 percent say they are better than 401(k) plans in terms of ensuring retirement security, according to the report, "Retirement Security 2019: Americans' View of the Retirement Crisis." Additionally, 77 percent say those with pensions likely to feel more comfortable retiring than those relying on individual savings.

The report demonstrates powerful support for the traditional pensions at a time when politically motivated organizations are promoting the supposed advantages of 401(k) plans over pensions.

The report also underscored that Americans in overwhelming numbers are worried about their ability to have a financially secure retirement, and found that political opinions are barely a factor. NIRS found that 80 percent of Democrats, 75 percent of Republicans and 75 percent of Independents said the nation faces a retirement crisis.

CONTINUED ON PAGE 6

NCPERS Executive Directors Corner

It's Better in Person: Takeaways from the Chief Officers Summit

At NCPERS, we are committed to providing the educational and networking opportunities our members demand. Our program content is designed by and for members, because there is no better way to ensure that conference-goers get what they need.

Photo Illustration © 2019, NCPERS

Our recent Chief Officers Summit is a case in point. Held June 12-14 in Chicago, the program builds on the successful launch last year of our Chief Investment Officers Summit. This year, we split the program into two tracks—the CIO Summit and the CEO Summit. More than three dozen participants were on hand for these intimate and informative sessions.

The programs, consisting of a mix of presentations and small-group discussions, focused on the distinct challenges CEOs and CIOs of mid-market plans face. Much of the focus was on what might be called "soft skills"—recruitment, retention of staff, personal growth and communications. This is a departure from our more usual conference offerings, which tend to focus on public policy and on investments.

The programs, consisting of a mix of presentations and small-group discussions, focused on the distinct challenges CEOs and CIOs of mid-market plans face.

The feedback from members was excellent. David Clark, executive director of the Arkansas State Local Police & Fire Retirement System, cited the roundtable format as a big plus. "The ability to have open discussions that are limited to the chief officers seemed to foster robust dialogue," he wrote. Clark also saw benefits in limiting presentations to 60 minutes or less, saying this structure kept the pace moving ahead comfortably.

Jeffrey Weiler, who has attended numerous NCPERS conferences as executive director of Fairfax County (Va.) Retirement Systems, told us it was "one of the best educational opportunities I have participated in."

First-time NCPERS conference participant Tim Coyne, director of retirement plan services for the Milwaukee (Wis.) County Department of Human Services called it "very substantive and thoughtfully run." Coyne said he returned home with "a lot of great information, some good ideas on possible improvements we can make, and a network of peers to engage with going forward."

My own observation is that a critical component of success was the focused peer interaction that followed every general session.

CONTINUED ON PAGE 7

Key Retirement and Health Care Legislation

By Tony Roda


Photo Illustration © 2019, istock.com

This article is a snapshot of key federal retirement and health care legislation being discussed by the 116th Congress. While Congress is at near paralysis on several high profile issues, such as immigration, trade, and health care, there is activity in other areas, including retirement policy.

General Retirement Legislation

The House-passed SECURE Act, H.R. 1994, contains provisions largely aimed at defined contribution plans and IRAs. However, the bill would raise the age for triggering Required Minimum Distributions from 70 ½ to 72. In addition to 401(k) plans and IRAs, this provision affects Internal Revenue Code section 401(a) qualified retirement plans, 457(b) plans, and 403(b) plans. The legislation is pending in the Senate. NCPERS is monitoring the SECURE Act and any subsequent Senate legislation for attempts to add problematic amendments, such as the Public Employee Pension Transparency Act (PEPTA) or a provision to subject state and local governmental pension plans to the Unrelated Business Income Tax (UBIT).

Multiemployer Pension Relief Legislation

The House Education and Labor Committee recently approved H.R. 397, which would provide financial assistance to struggling multiemployer pension plans. While the plans are private sector, collectively-bargained pension plans ("Taft-Hartley") and not state or local governmental plans, NCPERS is paying close attention to this legislation because the issue of discount rates has been discussed. Some Members of Congress have specifically said that lowering the assumed rate of return should be done for both multiemployer plans and state and local governmental plans.

Specifically, at the House Ways and Means Committee's markup of the SECURE Act, Rep. David Schweikert (R-AZ) stressed that funding relief contained in the bill for another group of pensions, community-owned newspapers, was positive in only one aspect – the requirement that any pension plan taking advantage of the relief would have to calculate the funding targets and normal cost of any new benefit accruals by using the U.S. Treasury obligation yield curve. Rep. Schweikert added that this concept, once put into statute, should be applied to multiemployer and governmental pension plans. As our community knows, PEPTA's reporting requirements mandate the use of the Treasury yield curve to calculate the funded status of public pension plans.

The Pick Up Rule

Rep. Phil Roe (R-TN) recently introduced H.R. 3213, legislation that would provide greater flexibility for use by plan sponsors of the governmental pick up provision under Internal Revenue Code section 414(h)(2). It would allow the use of the pick in situations where plan participants are given an election between two alternative benefit structures with different employee contribution rates. The bill is cosponsored by all Republican Members of the Tennessee Delegation.

In the past this legislation has been opposed by some public sector unions, including AFSCME and IAFF. They believe that employee elections can be misused by governmental employers.

During the last Congress, the GOP-controlled House approved H.R. 6757, the Family Savings Act, by a vote of 240-177, with 10 Democrats supporting the bill. That legislation contained a

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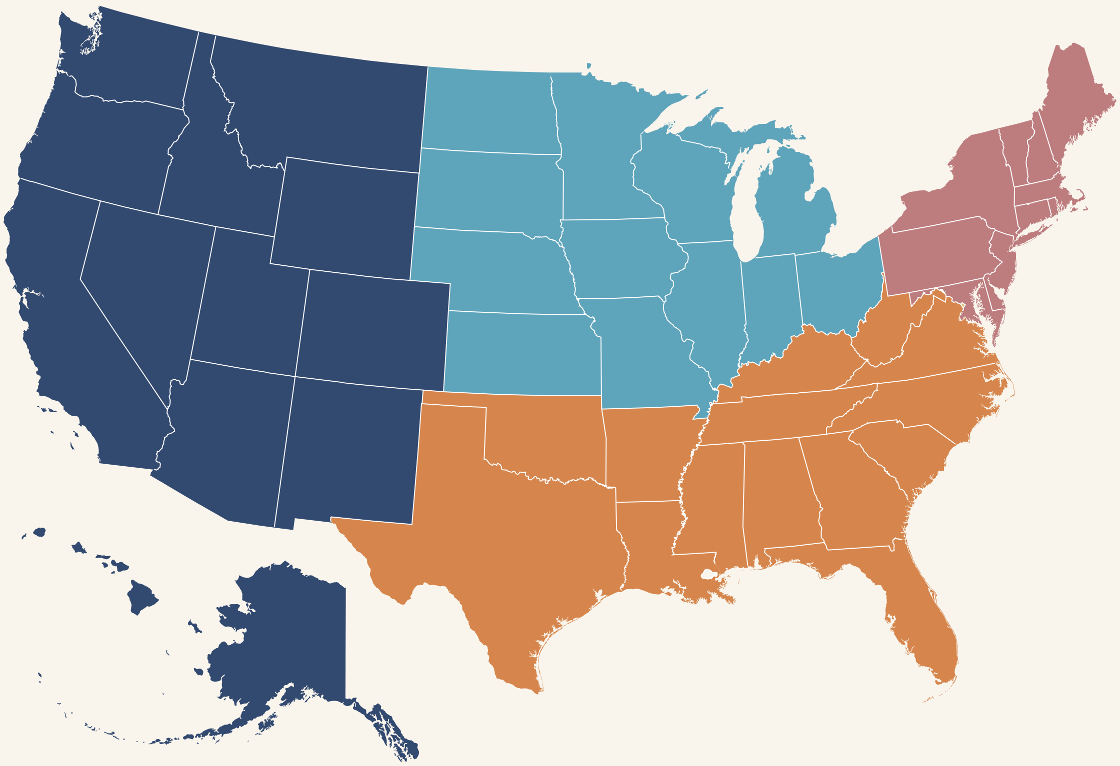
NCPERS Around the Regions

This month, we will highlight Illinois, Alabama, Rhode Island, and California



MIDWEST: Illinois

When Illinois Governor JB Pritzker signed the state's 2020 budget into law on June 5, it included a hard-won provision to keep the salary-increase threshold for teachers at 6 percent, overturning a plan to slash it in half. Then the anti-pension rhetoric started to fly.

Teachers, whose status as some of the most underpaid workers in the U.S. is an indisputable matter of record, aren't getting rich on 4, 5 or 6 percent pay hikes. That didn't stop the critics from pouring out of the woodworks to decry the practice they call "spiking," or increasing salaries as retirement draws near.

The facts, however, suggest the outcry is overblown. The financial impact of retaining the salary-increase threshold is $20 million. That's a mere 0.05% of the state's $40 billion budget, or $1 for every $2,000 in the budget.

Richard Ingram, executive director of the Teachers' Retirement System of the State of Illinois (TRS) noted that for all the hubbub, there is no change. First of all, he noted, the state has always paid the lion's share of the employer cost of teacher pensions. Secondly, despite perceptions to the contrary, there have been limits on place to deal with the impact of end-of-career raises.

Ingram, who is a new NCPERS Executive Board member, noted that has been on the books since 2005 that shift any additional pension benefit costs resulting from raises above 6 percent to the local school districts that granted the raises. Last year, that threshold was lowered to 3 percent; it was reversed this year before the 3 percent limit could take effect.

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AROUND THE REGIONS CONTINUED FROM PAGE 4

"The fiscal impact is small," Ingram said. "Had the 3 percent limit stayed in effect, the state would have paid roughly $20 million less and the local districts a correspondingly higher amount."
It's ultimately a matter of perception, Ingram added. "To those who don't like defined-benefit plans, it is an example of pension largesse," and they will use the non-change to argue their case.

SOUTH: Alabama

Alabama on May 9 enacted legislation to allow the state's cities and counties to opt into better retirement benefits for public school teachers and other public employees. Act 2019-132 provides a way for jurisdictions to offer so-called Tier I benefits to workers who have been denied access to them since 2013.

Retirement Systems of Alabama, or RSA, operates three main retirement programs: One for public school teachers, one for judicial employees, and one for other public employees such as law enforcement, firefighters, corrections officers, and state and local government workers.

In 2013, in a cost-cutting move, Alabama's legislature created a Tier II level of benefits for newly hired public employees. Unlike Tier I workers, those in Tier II can't draw retirement benefits after 25 years of service and must instead wait until they turn 62. And their benefits are less than those of Tier I employees.

Under the Act 2019-132, also known as the Local Tier I bill, government employers that participate in the RSA, such as cities and counties, have the option to offer Tier I benefits to Tier II members. Local employers have two years to make this election. The RSA said it is working with its actuaries to run cost estimates for all 874 of its local units so local governments have the information needed to make such an important decision.

Alabama also enacted the PLOP bill (Act 2019-316), which provides RSA members the option at retirement to take up to 24 months of their maximum retirement benefit as a lump sum. Their retirement benefit of retirees who choose this option would be actuarially adjusted and reduced. The benefit is to become available to members who retire on or after October 1, 2019.

NORTHEAST: Rhode Island

With one justice expressing strong reservations, the Rhode Island Supreme Court on June 3 unanimously upheld a lower court's ruling that the city of Cranston was within its rights when it suspended cost-of-living adjustments for fire and police retirees in 2013.

The lower-ranking Rhode Island Superior Court had ruled in 2016 that that the state was justified in reducing benefits to Cranston's police and firefighters. The Cranston Police Retirees Action Committee had initiated a legal challenge after the city in 2013 adopted two ordinances that included a 10-year suspension of COLAs for police and fire retirees enrolled in the city's pension system

The high court agreed with a 2016 superior court ruling that found that while police officers and firefighters in Cranston have a contractual right to their retirement benefits under both the US and Rhode Island Constitutions, a financial crisis that engulfed the city made the move necessary and legally justified.

"It is with a decided lack of enthusiasm and only after prolonged research and reflection and hesitation that I concur in the result reached in the opinion of the court in this case," Justice William Robinson, wrote in a concurring opinion. The justices upheld the lower court on a 5-0 vote.

WEST: California

CalSavers, the state-run workplace retirement program for private-sector employees, officially opened its doors July 1, 2019. The official launch caps more than three years of preparations, including a six-month pilot program that started in January.

The new program, modeled on the Secure Choice model developed by NCPERS, is expected initially to serve 250,000 to 300,000 employees by providing them with an automatic IRA savings programs using payroll deductions.

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STRONG SUPPORT FOR PENSIONS CONTINUED FROM PAGE 1

The report, based on research conducted by Greenwald Associates, found that Americans believe government should play a role in helping workers prepare for retirement, but lawmakers in Washington aren't delivering results. Only 34 percent said the tax overhaul passed last year is helping on the retirement front, 84 percent said leaders in Washington have no idea how hard it is to prepare for retirement, and 80 percent said government should ease the way for employers to offer pensions.

Among the other highlights, the report found strong support for pension plans for state and local workers and for state-based retirement programs.

- Some 82 percent said police officers and fire fighters deserve a pension because they have risky jobs, while 74 percent said teachers deserve pensions to compensate for low pay.
- The majority (79 percent) said all workers, not just state and local workers, should have a pension.
- In all, 83 percent said pensions are a good way to recruit state and local workers.
- Americans overwhelmingly agreed (71 percent) that state-based retirement plans are a good idea, and 74 percent of Americans said they would participate in state retirement plans.
- Americans viewed key features of state-based retirement plans as highly favorable, especially portability (90 percent), monthly checks (90 percent) and higher returns (86 percent).

Millennials—the 83.2 million Americans born between 1981 and 1991 who constitute the largest generation—face an uphill climb in achieving retirement security, the report found. Two-thirds have saved nothing for retirement, and most of the rest are not saving enough. Compared to other generations, Millennials were the most likely to believe they would have to work past normal retirement age to have a secure retirement (77 percent) and most likely to see the value of pensions over 401(k) plans (71 percent). ◆

EXECUTIVE DIRECTOR'S CORNER CONTINUED FROM PAGE 2

We provided time for participants to talk among themselves in small group settings for 45 to 60 minutes. These lightly moderated sessions produced candid discussions and valuable insights. The program was highly interactive as participants in the peer groups reported back to the larger group about their reactions and takeaways.

We understand that getting out of the office for two, three, or more days for a conference can feel challenging, and this is one reasons we have continued to expand remote educational and training opportunities for this reason. But well-planned events like the Chief Officers Summit prove something we all know deep down: There's no substitute for being there. The pluses include learning in a new space, meeting peers and experts face-to-face and feeding on the energy of like-minded people. Taking time away to learn, network and invest in yourself is refreshing and invigorating, and enables you to return to work with new ideas and insights. It's better in person, and we hope to see you at the next Chief Officers Summit. ◆

RETIREMENT AND HEALTH CARE CONTINUED FROM PAGE 3

provision on the pick up rule that is similar to Rep. Roe's bill. H.R. 6757 was not considered by the Senate prior to the end of the 115th Congress.

Windfall Elimination Provision

Legislation is expected to be unveiled soon by Ways and Means Committee Chairman Richie Neal (D-MA) to repeal the Social Security penalty known as the Windfall Elimination Provision (WEP). The bill is expected to be modelled on legislation introduced in previous Congresses by Rep. Kevin Brady (R-TX), who is now the ranking Republican Member of the Committee.

The bill would set a date certain after which those with a work history that includes both Social Security-covered employment and non-covered employment would have their benefit calculated using a proportional formula. Those who are already affected by WEP and those who become eligible for Social Security prior to the date certain would be provided a monthly rebate on their WEP penalty. The latest proposal set the monthly rebate at $150.

The Ways and Means Committee recently held a hearing to discuss Members' priorities at which Ranking Member Kevin Brady (R-TX) expressed that WEP continues to be one of his top priorities.
Rep. Brady said, "Just as we passed legislation to help folks save for retirement, we must also take needed action this year to make Social Security fairer for our teachers, police officers, and firefighters. Workers pay into Social Security. And they rightly have the expectation that they will receive the benefits they've earned when they retire. But as we have known for some time, WEP, though well intentioned, has treated many of our public servants unfairly. Chairman Neal and I agree that the WEP needs to be fixed on a bipartisan basis. We need to work together to pass a bill out of this Committee that President Trump can sign into law. Fixing WEP will give our teachers, police officers, and firefighters greater certainty when planning for retirement. Let's continue our efforts to ensure that public servants are treated fairly when it comes to Social Security."

Early Medicare Buy-In for Retired First Responders

In September or October, Senator Sherrod Brown (D-OH) and Reps. Tom Malinowski (D-NJ) and Harley Rouda (D-CA) are expected to introduce the first-ever legislation to allow retired first responders who have reached age 50 to buy into Medicare. The Medicare eligibility age under current law is 65. Given that the vast majority of first responders retire in their fifties, they face a significant gap in time prior to Medicare eligibility and their health care options are shrinking because many states and municipalities are cutting back or eliminating retiree health care. This legislation recognizes the financial drain that retiree health care imposes on our nation's first responders and would provide them with a more affordable option -- enrolling in Medicare.

Please be assured that NCPERS will pay close attention to all of the issues discussed above as well as any other legislative or regulatory proposals that would affect state or local governmental pension plans. ◆

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

AROUND THE REGIONS CONTINUED FROM PAGE 5

It could ultimately reach 7.5 million California workers who lack access to a workplace retirement program.

The program is voluntary for employees, but it is mandatory for businesses with five or more employees. These businesses are required to offer employees either CalSavers or a qualified retirement plan. Failure to comply repeatedly will result in a penalty of $750 per employee.

CalSavers opens to all eligible employees July 1 and to self-employed workers September 1. Compliance deadlines are being phased in. Business with more than 100 workers must offer CalSavers by June 30, 2010. Those with 50 to 99 employees must do so by June 30, 2021. And those with five to 49 workers must offer CalSavers by June 30, 2022.

California is the third state, behind Oregon and Illinois, to launch an automatic IRA program. As the most populous state in the union, California has been closely watched as a leader in the Secure Choice movement.

The preselected payroll deduction rate is 5 percent of pay, automatically rising 1 percent each year to reach 8 percent of pay. However, savers may change the payroll deduction rate at any time. Initially, funds would be invested in a Roth IRA, which allows withdrawals without penalties or taxes. By year-end, a traditional IRA—which uses pretax dollars for investment, is expected to be available. The accounts are fully portable.

The program options include four investment funds managed by State Street and one managed by Newton. If savers don't make a fund selection, CalSavers would earmark the first $1,000 for a money market fund. Contributions above that amount would go into a target-date fund based on the saver's age. The fee charged to savers was expected to begin at 0.825 percent to 0.95 percent of assets, and to decline as the program expands. ◆

2019 Conferences

September

Public Pension Funding Forum
September 11 – 13
New York, NY

October

NCPERS Accredited Fiduciary Program (All modules)
October 26 – 27
New Orleans, LA

Public Safety Conference
October 27 – 30
New Orleans, LA

The Voice for Public Pensions

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PERSist

The Voice for Public Pensions

Summer 2019 | Volume 32 | Number 3

Message from the President

Daniel Fortuna
NCPERS President

I am excited about the robust fall educational schedule we have in store for our members. Let me begin with our sixth annual Public Pension Funding Forum (Funding Forum) September 11 – 13, 2019, in New York, New York. Then we close out the year with our Public Safety Conference (PSC) October 27 -30, 2019, in New Orleans, Louisiana.

The Funding Forum focuses on the obstacles that stand in the way of closing the public pension funding gap and explores new solutions to overcome such obstacles. It will be held over two and a half days, beginnings with a presentation on new a research from the Federal Reserve on Wednesday, September 11. Over the following days, conference attendees will learn about pension landscapes and current trends, an actuary's perspective of what can be done over public pension plan volatility, the politics of public pension assaults, and much more.

The agenda for PSC will be equally informative. This program is specifically tailored for the unique needs and demands of public safety pensions. Held over three days, PSC will begin with a discussion on effective leadership in emergency management and crisis response, on Monday, October 28. Over the following three days, attendees will learn about the current trends in asset allocation, out-of-the-box solutions for unfunded plans, technology oversight considerations affecting public safety pensions, measuring pension risk, and more.

In addition to our in-person educational conferences, NCPERS Center for Online Learning will also be active in the fall. NCPERS will unveil a number of new research f the fall. 2019 has been a banner year for NCPERS Research. NCPERS has produced 5 original research in the first half of this year. In the second half, Dr. Michael Kahn, NCPERS director of research, will author a research paper that answers the question whether public pensions really do crowd out funding for other priorities. We'll published at least two other important research papers by the end of the year.

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In This Issue

NCPERS Actuary

Actuarial Audits of Defined Benefit Plans

By Cathy Nagy

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The Actuarial Valuation

Defined benefit plans promise a series of benefit payments to plan members, typically payable for life, if members meet certain age and service requirements. To make sure this benefit promise can be kept, a periodic (often annual), actuarial valuation is prepared. The purpose of the actuarial valuation is to make sure the benefit promise is secure, funded in a systematic fashion, and to meet reporting requirements.

Plan trustees hire an independent actuarial firm to perform the actuarial valuation. Because public plans rely on tax-payer dollars to fund the plan, it is extremely important that these calculations be accurate and based on reasonable assumptions and methods.

How does a trustee know that the actuary is doing a good job?

Plan trustees are fiduciaries. Due diligence requires they exercise prudence in selecting service providers for the plan and monitor the quality of their work.

An actuarial audit is a tool that can be used by plan trustees to monitor the actuarial services provided by the plan's consulting actuary. An actuarial audit consists of hiring an independent and qualified firm to review the work of the plan's consulting actuary. While any actuarial work product can be audited, typically the actuarial valuation and the experience study are the subject of actuarial audits.

Types of Actuarial Audits

Actuarial audits can be classified depending upon the level of audit desired:

- **Full replication** – the reviewing actuary will fully replicate the actuarial valuation using the participant data, plan provisions, assumptions and methods used by the consulting actuary. This type of audit is the most comprehensive and can evaluate most of the detailed calculations done by the consulting actuary.
- **Sampling method** – the reviewing actuary selects sample people from the participant data and performs calculations for the sample people only to test the results of the valuation.
- **Review of report only** – the reviewing actuary examines the assumptions and methods for reasonability and consistency by reviewing the report. No actuarial calculations are performed.

Experience studies are often more limited in scope, typically reviewing the study and its conclusions for reasonability and consistency.

Audits culminate in a written report that generally includes an opinion regarding:

- The reasonability and accuracy of the valuation results, the actuarial assumptions and methods.
- The consistency of the valuation with generally accepted actuarial standards of practice and GASB requirements.
- The consistency of the calculations with the plan's funding objectives and requirements.

If the reviewing actuary disagrees with anything in the valuation, they will typically recommend reasonable alternatives. The report

__Cathy Nagy__ is a vice president and senior consulting actuary at CBIZ Retirement Plan Services. Cathy has been providing actuarial and consulting services to defined benefit plans for over 28 years, specializing in public sector plans for the last 18 years of her career.

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The benefits of factor diversification

By Ryan Shelby

To build a diversified portfolio, investors should look for investments—stocks, bonds, cash, or alternatives—whose returns do not tend to move in the same direction or to the same degree. This way, even if a portion of the portfolio is declining, the rest of the portfolio is likely to be growing, or at least not declining as much.

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While this strategy forms the cornerstone of modern asset allocation techniques, another important aspect of building a well-diversified portfolio is maintaining diversification within each type of investment.

Within equities, for example, it is common to use different regions and capitalization groupings to diversify the portfolio. But, does this approach offer true diversification?

Unfortunately, diversifying an equity allocation across regions and capitalization groupings only yields minor diversification improvements. Small-cap and developed markets, for example, move in near-perfect unison with a correlation of 0.96. Emerging markets (EM) offers a slightly improved but still high 0.84 correlation.

However, this improvement pales in comparison with the diversification offered by factor allocation—especially across asset classes.

Correlation between MSCI World (Net), MSCI World Small Cap (Net), and MSCI Emerging Markets (Net) Indices

MSCI Indices	MSCI World Index (Net)	MSCI World Small Cap Index (Net)	MSCI Emerging Markets Index (Net)
MSCI World Index (Net)	1		
MSCI World Small Cap Index (Net)	0.96	1	
MSCI Emerging Markets Index (Net)	0.84	0.83	1

Correlations calculated using monthly returns from July 1998 to January 2019

Source: Analytic Investors and MSCI, January 31, 2019

Asset allocation and diversification do not ensure or guarantee better performance and cannot eliminate the risk of investment losses.

__Ryan Shelby__ heads the Factor Solutions group at Analytic Investors which is responsible for developing factor-based investment solutions for institutional and retail clients. Ryan has more than 17 years of investment experience and has been with Analytic investors since 2010. Previously, Ryan was a Portfolio Manager at Northrop Grumman where he was responsible for managing over $25B in Defined Benefit and Defined Contribution equity investments. Prior to that, Ryan was responsible for conducting asset allocation and investment manager due diligence for Wilshire Associates' Funds Management's Group.

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When is Corporate Governance Important?

By Brad Kelly


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Most of you should be (figuratively or literally) familiar with Murphy's Law: "Anything that can go wrong, will go wrong," and throughout history, this saying has been validated time and time again. Therefore, if you ever wonder if or when corporate governance should be considered important, the simple answer should be "ALWAYS."

Board members can get complacent. Its easy when things are going well, flowing, fool proof. Organizations can ride positive waves for years, which can feed this sense of complacency. However, many boards have fallen prey to the sudden impact of Murphy's Law. For example, I don't think the Board at:

- Barings Bank was prepared when it discovered that a single futures trader had racked up huge unreported debts for years;
- Lehman Brothers and Bear Stearns were prepared for the impact of the subprime mortgage crisis (nor anyone else for that matter);
- Goldman Sachs was prepared when a well performing executive, Greg Smith, suddenly resigned in 2012 - penning a scathing New York Times letter and subsequent tell all book on his view that the company's culture was "toxic and destructive;" and
- Facebook was prepared to be pulled into public hearings after it discovered that their platform had been secretly used by foreign powers to influence election outcomes.
- Likewise, Boards are not always prepared when top performing executives resign for greener pastures, or data systems experience internal glitches or are breached by hackers. Nevertheless, all these examples show that numerous things can and do go wrong within organizations and Boards need to make sure they are governing properly and sufficiently prepared.

A key duty of all boards is to consistently apply and exercise prudence in all its dealings in order to mitigate or minimize risk. This is not an option; it is a fiduciary obligation. And as a result, Board members need to make sure they, first and foremost, understand what good governance is, and then ensure that they are adhering to their understood governance best practices to the best of their abilities. Naturally, Board members don' know what they don't know. Therefore, as a general check list, risk mitigation activities outside of the normal strategic oversight of finances and operational strategies, should include annual:

- Education and training initiatives;
- Reviews of charters and mandates;
- Reviews and adoption of enabling, best-in-class, technologies;
- Updates on compliance and regulatory changes;
- Review of Board effectiveness and composition (including skill inventories);
- Reviews and updates of key policies and procedures:
- Communication
- Succession
- Code of conduct
- Whistle blower
- Anti-fraud
- Discovery of errors or illegal acts
- Risk Appetite frameworks

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Brad Kelly *is a Partner at Global Governance Advisors advising Boards and senior management on Executive Compensation, HR Strategy & Governance.*

Cryptocurrencies, Custody and Third-party Access

By Tom Casteleyn

Ensuring the safekeeping of private keys and crypto-addresses is essential to institutional investors, though uncertainty surrounding the regulatory framework and the lack of safe, qualified custody are significant barriers preventing them from joining the crypto market in greater numbers.

Photo Illustration © 2019 Shutterstock.com

The lack of certainty regarding national regulators' treatment of digital assets is often cited as the main reason for the cautious approach of asset managers towards digital assets. However, the reality is that, apart from the uncertainty surrounding the regulatory framework, it seems that the lack of safe, qualified custody is also a significant barrier preventing institutional investors from joining the crypto market in greater numbers.

What's really at stake is ensuring the safekeeping of private keys and crypto-addresses while allowing third-party access to pertinent information stored on the wallet to provide relevant services, such as, asset servicing, delivery versus payment, audit, fund administration, etc.

Securing digital assets on the Internet is a much more far-reaching issue than just capital markets operation. The skyrocketing growth of cybercrimes is pushing this matter to the forefront of concerns. In 2017 in the US alone, 1,579 data breaches were recorded—a 50% growth compared to the previous year. Given this, a major strategic challenge for every firm across the world is ensuring the security of their data, which has become one of their key assets.

In the digital asset world, custody is often used in the sense of safekeeping, without including the additional services that custodians provide to clients. Given the sensitivity and importance of the crypto wallet private key and the numerous reported hacks and thefts of coins, this aspect of the value chain is of great strategic importance to the development of the industry.

Not surprisingly the market has been dominated by crypto-asset specialists and Fintechs, that obviously had a first mover advantage. However, this is likely to change, and traditional players, such as Fidelity which announced the launch of a crypto-custody service for March 2019, are likely to enter the space sooner than later.

The challenges in the custody of digital assets are not only the concerns around the security of the private key and transaction addresses, but also how to allow third parties, such as regulators and fund administrators, to receive the pertinent information without compromising the safety of assets.

In the traditional capital markets infrastructure, transactions are conducted through an exchange of messages that updates relevant

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__Tom Casteleyn__ is Global Head of Custody Product Management and has oversight of BNY Mellon's response to Target2 Securities. He is a member of the BNY Mellon EMEA Operating Committee and is based in Brussels. Prior to being appointed to his current role, Tom was the Regional Executive for Benelux and France in Global Client Management. He was responsible for a team of country and client executives who managed and developed enterprise-wide client relationships. Tom joined BNY Mellon in 2004 and has over 25 years' experience in the banking and securities services industry. Prior to joining BNY Mellon, Tom was with Capco, a financial markets consultancy, where he was a Principal Consultant in their market infrastructure and operations practice. Tom holds a Master's degree in International History from the London School of Economics and a Master's degree in Applied Economics from UFSIA, the University of Antwerp.

NCPERS updates Best Practices for Public Retirement Systems

By Julian M. Regan

In the wake of the financial system crisis, public retirement systems continue to implement leading edge governance and risk management practices to position their funds for long-term returns, while addressing risks related to changing markets and the global economy.

To further these outcomes, NCPERS and Segal Marco Advisors recently released a set of risk model management practices in an update to NCPERS Best Governance Practices for Public Retirement Systems.[1] NCPERS broad guidelines include recommendations in key management areas including board practices, policies, strategic planning, measurement and stakeholder communications as well as risk oversight. The Model Risk Management Framework is designed to assist public funds in enabling measurement and management of risk across exposures and investment program functions.

Changing Risk Exposures

Institutional investors' risk exposures are changing due to increasingly diverse asset allocation structures, evolving markets and external factors. Average public pension fund allocations to alternative investments and real estate, for example, now reportedly average approximately 25%, while public equity allocations are trending downward. While alternatives add diversification benefits and new sources of return, they also introduce new liquidity and operational risks that require new management tools. With regard to markets, the increase in one month historical volatility of the S&P 500 index from a historical low 7% in 2017 to 21% in 2018[2] served as a reminder that risk can escalate without notice. Moreover, according to regulators, high-frequency trading enabled by otherwise beneficial technological advances may be contributing to wider swings in asset prices.[3]

Governance and Risk Management Trends

Against this setting and following a financial crisis that at one point eliminated $4 trillion from pensions worldwide,[4] public retirement systems are adopting increasingly effective practices including;

- Enterprise risk management, particularly among larger systems,
- Integration of chief risk officer (CRO) roles or equivalents,
- Enhanced integration of asset-liability modeling,
- Enhanced risk analytics,
- Stress testing and,
- Liquidity assessment and tier analysis.

Evidence of these trends includes a report following the crisis that 89% percent of institutions had retained a chief risk officer. More recently, a 2018 survey of global public pensions found that a majority of survey respondents recently modified their investment policies to strengthen their focus on liabilities, to enhance risk analytics, and to integrate ESG.[5] Among other findings, NCPERS 2018 Public Retirement Systems Study found that 35% of respondents had adopted an ERM framework, almost double the amount reported in 2012. Regulators and GASB also continue to emphasize enhanced disclosure and assessment of risk, and the Actuarial Standards of Practice provides it.

Model Risk Management Framework

Consistent with the need to continually improve risk oversight, the model risk management framework organizes best practices and tools across four functions, risk governance, audits and assessments, measures, and reporting. The framework is designed to enable measurement and management of risk categories common to public retirement systems, including, but not limited to, market, asset/liability, liquidity, operational, credit, and reputational risks, which may result from a failure in a traditional risk category.

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__Julian M. Regan__ is the Public Sector Market Leader and a Senior Vice President in Segal Marco Advisors' Boston office. Prior to joining the firm, he served in leadership, investment and risk oversight roles in the private and public sectors.

Between 2001 and 2006, Mr. Regan served as Executive Director for the New York State Deferred Compensation Board, where he ran the state's $8 billion supplemental retirement plan and administered regulations that governed 250 local retirement plans. He also served as Vice President, Risk Governance and Strategy for Fidelity Investments, and as Assistant General Manager and Budget Director for the Massachusetts Bay Transportation Authority.

Mr. Regan is a contributing author to the International Foundation of Employee Benefit Plans (IFEBP) Trustee Handbook and co-author of the National Conference on Public Employee Retirement Systems (NCPERS) Best Governance Practices for Public Retirement Systems, among other publications.

Mr. Regan is a past recipient of the IRS Tax-Exempt and Government Entities "Commissioner's Award," a "Plan Sponsor of the Year" award recipient and serves on the IFEBP Investment Management Committee. He received his BSBA and MBA from Suffolk University and studied at Georgetown University.

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National Conference on Public Employee Retirement Systems

The Voice for Public Pensions

2019 PUBLIC PENSION FUNDING FORUM

September 11-13, 2019

Marriott New York Downtown
New York, NY

REGISTRATION NOW OPEN

WWW.NCPERS.ORG/FUNDINGFORUM

Early-Bird Registration Deadline Tuesday, August 20

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MESSAGE FROM PRESIDENT CONTINUED FROM PAGE 1

Remember to check out our weekly News Clips emails for news about the upcoming research and the webinars to present them to our members. In the meantime, please visit https://www.ncpers.org/webinars to view our summer webinars you may have missed!

You can view our webinar on the Social Security & Retirement Planning Calculator, Best Governance & Risk Oversight Practices, and our 2019 Mid-Year Federal & State Legislation Webcast.

I hope you'll be able to carve time out of your busy fall schedule to join us in either New York, New Orleans, or both! ◆

ACTUARY CONTINUED FROM PAGE 2

will also recommend possible improvements to the quality and understandability of the valuation report.

Why have an Actuarial Audit?

An actuarial audit is a second opinion for the work performed by the consulting actuary. It is common practice in state-wide retirement systems and is recommended by the GFOA. As fiduciaries, trustees need to take steps to make sure the actuarial valuation is done correctly, using appropriate assumptions and methods to ensure the benefits are secure and tax-payer dollars are used as efficiently as possible. An actuarial audit can assist the trustees in having confidence in the actuarial reports they rely on. ◆

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CORPORATE GOVERNANCE CONTINUED FROM PAGE 4

Because things can and do go wrong in organizations, and because sometimes these misfortunes can happen outside of anyone's span of control or preparedness, I suggest every board be prudent and adhere to a variation of the traditional Scout Motto:

"Always be prepared to the best of your ability."

If you always treat governance as important, consistently update your understanding of good governance and governance best practices, and always strive to assess and improve your preparedness and abilities, be assured that you are acting in the best interest of your stakeholders, following prudence, and ensuring that your Board is ALWAYS prepared to deal with anything Murphy's Law wishes to throw at you. ◆

CUSTODIAN BANK CONTINUED FROM PAGE 5

ledgers at banks, CSDs, and so on. In the digital world, it's either the asset itself or the contract right to demand delivery of an off-blockchain asset represented by the token that is transferred over the network. But it's important to acknowledge that the token itself is nothing more than just a data storage space and a line of code. Hence, if compact enough to be included within the token storage capability, any data could be represented. The digital asset infrastructure allows the transfer of any type of asset over Internet Protocol. In our hyper-connected society, in which future business models of firms are reliant on their ability to collect, analyze and enrich data, digital assets could be the instruments that are most suited to respond to future market needs. ◆

Disclosure

The views expressed herein are those of the authors only and may not reflect the views of BNY Mellon. This does not constitute Asset Servicing advice, or any other business or legal advice, and it should not be relied upon as such. ©2019 The Bank of New York Mellon Corporation. Asset Servicing Global Disclosure.

INVESTMENT CONSULTANT CONTINUED FROM PAGE 6

Looking Ahead

NCPERS's governance guidelines encompass strategic planning, fiduciary education, documentation, policy frameworks, measurement, stakeholder communications and other practices designed to position public funds for risk-adjusted performance through changing economic and market cycles.

The risk management framework is formulated to support these outcomes through an integrated set of mechanisms that form a holistic approach to managing risk, while providing a basis for continuous improvement. ◆

[1] Best Governance for Public Retirement Systems, NCPERS, Segal Marco Advisors, May 2019
[2] Reuters, December 14, 2018
[3] Bloomberg, December 18, 2018
[4] Pensions & Investments, November 13, 2018
[5] Black Rock / Economist Intelligence Unit, 2018

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ASSET MANAGER CONTINUED FROM PAGE 3

Factor returns, or fundamental drivers of stock returns such as value, quality, momentum, and small size, are driven by different economic rationale and vary over time based on the economic cycle. For example, value and small size tend to perform well early in an economic cycle, while quality and low volatility are likely to protect capital later as the economy enters a slowdown or recession.

Factor performance and the economic cycle

	Early cycle	Mid cycle	Late cycle	Recession
Value	✓	✓		✗
Quality	✗		✓	✓
Momentum	✗	✓	✓	✗
Low volatility	✗			✓
Small size	✓	✓		✗
Market	✓	✓	✓ / ✗	✗

Source: Analytic Investors

This effect is magnified at the asset class level as, in general, the lower the correlation between different asset classes, the lower the correlation between factor returns in those asset classes.

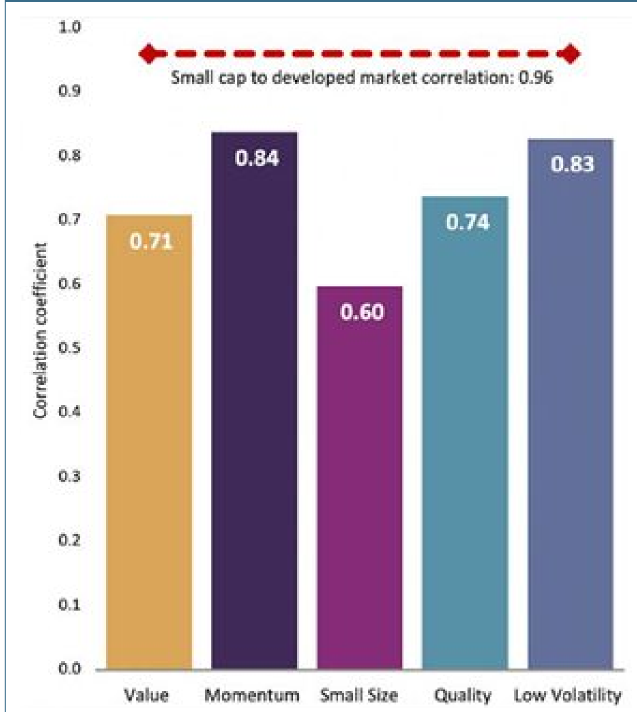
In the following chart, we show the correlations of small-cap factors to developed market (DM) factors. Both small-cap and developed market factors are built from the same geographic markets. So, not surprisingly, the correlation between their respective market returns is high (0.96), resulting in little diversification benefit.

In contrast, the correlation between the factor returns are much lower, with the small-size factor having the lowest correlation (0.60). Small-cap exposure obtained through underweighting the largest-cap stocks in the developed market universe, therefore, is clearly not the same as small-size factor exposure obtained by overweighting smaller-cap stocks within the small-cap developed market universe.

The correlation between emerging markets and developed markets is also high (0.84). But, the factor correlations are much lower than with small-cap stocks, representing the less-than-perfect linkage between emerging market and developed market economic cycles.

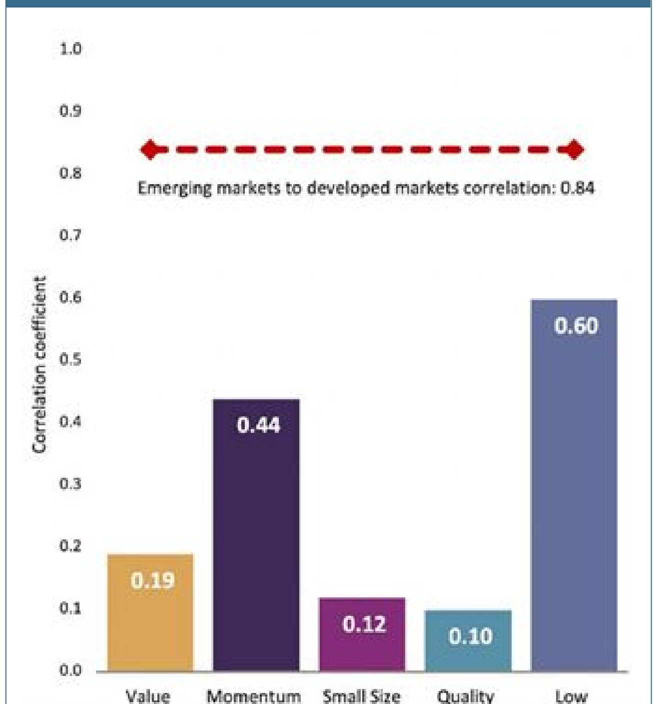
How can an investor take advantage of the low correlation between factors in different asset classes? A thoughtful combination of multiple factors across regions, where factors are budgeted in both developed market and emerging market regions individually, can provide opportunities for diversification not obtainable by simply allocating to multiple regions or capitalization groupings. That diversification can potentially result in higher risk-adjusted returns and fewer significant drawdowns. ◆

Factor correlation—small caps to developed markets



Correlations calculated using monthly returns from July 1998 to January 2019
Source: Analytic Investors, January 31, 2019

Factor correlation—emerging markets to developed markets



Source: Analytic Investors, January 31, 2019

Calendar of Events 2019

September

Public Pension Funding Forum
September 11 – 13
New York, NY

October

NCPERS Accredited Fiduciary Program (All modules)
October 26 – 27
New Orleans, LA

Public Safety Conference
October 27 – 30
New Orleans, LA

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