AGENDA

Date: February 8, 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, February 14, 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 January 10, 2019

2. Approval of Refunds of Contributions for the Month of January 2019

3. **Approval of Activity in the Deferred Retirement Option Plan (DROP) for February 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 Payment of DROP Revocation Contributions**

C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. **Monthly Contribution Report**

2. **Trustee Election Procedures**

3. **Quarterly Financial Reports**

4. **Correction of Errors in Benefit Payments Policy**

5. **Funding Policy**

6. **Chairman's Discussion Item - Review of meeting with the City about USERRA, hiring plan and payroll issues**

7. **Board approval of Trustee education and travel**

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

8. **Public Equity Structure Study**

9. **Portfolio Update**

10. **Lone Star Investment Advisors Update**

11. **Real Estate Overview – Clarion Partners Portfolio**

    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. **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 interpretation of Section 6.13 of Article 6243a-1, pending or contemplated litigation, 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 (January 2019)
   - NCPERS Monitor (February 2019)

   b. Open Records Requests

   c. Staffing 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
Jerry R. Boren	Retired	Fire	Dec. 29, 2018
J. J. Hunter	Retired	Police	Jan. 05, 2019
J. W. Goodgion	Retired	Fire	Jan. 10, 2019
Steven K. Burgess	Retired	Fire	Jan. 15, 2019
James H. Colwell	Retired	Police	Jan. 16, 2019
Winfred D. Parr	Retired	Fire	Jan. 18, 2019
Charles C. Blaylock	Retired	Fire	Jan. 21, 2019
Wayne B. Posey	Retired	Police	Jan. 24, 2019
Donald L. Lindsey	Retired	Fire	Jan. 25, 2019

Regular Board Meeting – Thursday, February 14, 2019

Dallas Police and Fire Pension System
Thursday, January 10, 2019
8:30 a.m.
4100 Harry Hines Blvd., Suite 100
Second Floor Board Room
Dallas, TX

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

ROLL CALL

Board Members

Present at 8:30 a.m. William F. Quinn, Nicholas A. Merrick, Samuel L. Friar, Blaine Dickens, Ray Nixon, Gilbert A. Garcia (by telephone), Frederick E. Rowe, Tina Hernandez Patterson, Robert C. Walters, Joseph P. Schutz, Kneeland Youngblood (by telephone)

Absent: None

Staff Kelly Gottschalk, Josh Mond, Kent Custer, Brenda Barnes, John Holt, Damion Hervey, Cynthia Thomas, Ryan Wagner, Greg Irlbeck, Carol Huffman

Others Kenneth Sprecher, Janis C. Elliston, David Elliston, Rick Salinas, Ken Haben, Darryl Wachsman, Zaman Hemani

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

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B. MOMENT OF SILENCE

The Board observed a moment of silence in memory of retired police officers Lawrence B. Harris, Stephen B. Swafford, and William L. Cannaday.

No motion was made.

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Regular Board Meeting
Thursday, January 10, 2019

B. CONSENT AGENDA

1. Approval of Minutes

Regular meeting of December 13, 2018

After discussion, Mr. Friar made a motion to approve the minutes of the meeting of December 13, 2019. Ms. Hernandez Patterson seconded the motion, which was unanimously approved by the Board. Mr. Merrick was not present at the vote.

After discussion, Mr. Walters made a motion to approve the remaining items on the Consent Agenda, subject to the final approval of the staff. Ms. Hernandez Patterson seconded the motion, which was unanimously approved by the Board. Mr. Merrick was not present at the vote.

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C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. 2019 Board Calendar

Staff presented the 2019 Board Calendar.

No motion was made.

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2. Monthly Contribution Report

Staff presented the Monthly Contribution Report.

No motion was made.

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3. Trustee Election Procedures

Section 3.01(f) of Article 6243a-1 requires that the Board adopt rules for the election of Trustees. The policy has been rewritten to reflect the changes in Article 6243a-1 and as well as changes in technology.

Regular Board Meeting
Thursday, January 10, 2019

3. Trustee Election Procedures (continued)

Board reviewed the Trustee Election Procedures. Board directed it to be brought back at the February Board meeting.

No motion was made.

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4. City of Dallas Health Savings Account Deductions

The City of Dallas offers retirees the opportunity to have a Health Savings Account (HSA) and the City communicated that contributions to the HSA would be made through deductions from the retiree's monthly pension direct deposit.

Article 6243a-1 Section 8.03(c)(5) allows deductions for health care or life insurance or similar payments from the monthly benefit payment

Staff has been working with the City of Dallas to understand the implications for DPFP staff and retirees and the cost of performing this function. All impacts to the retirees will be addressed by the City of Dallas.

After discussion, Ms. Hernandez Patterson made a motion to allow Health Savings Account contributions to be deducted on an after-tax basis from monthly benefit payments if, in the opinion of the Executive Director, the processing of such deductions (i) does not require DPFP to exercise discretion and (ii) does not place an undue burden on DPFP resources. Mr. Walters seconded the motion, which was unanimously approved by the Board.

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5. Board approval of Trustee education and travel

No discussion was held, and no motion was made regarding Trustee education and travel.

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Mr. Dickens left the meeting at 9:25 a.m.

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Regular Board Meeting
Thursday, January 10, 2019

6. Investment Policy Statement

Investment Staff and Meketa previously presented recommended changes to the Investment Policy Statement at the December 13, 2018 meeting of the Board. Staff presented a new draft of the Investment Policy Statement incorporating the Board’s comments and requested changes.

After discussion, Mr. Nixon made a motion to approve the Investment Policy Statement as amended. Mr. Walters seconded the motion, which was unanimously approved by the Board. Mr. Dickens was not present at the vote.

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7. Investment Advisory Committee

One of the appointed Investment Advisory Committee (IAC) members is no longer able to serve on the committee. The Board discussed a possible candidate to serve on the Investment Advisory Committee.

After discussion, Mr. Nixon made a motion to appoint Robert Jones as a member of the Investment Advisory Committee. Mr. Merrick seconded the motion, which was unanimously approved by the Board. Mr. Dickens was not present at the vote.

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8. Lone Star Investment Advisors Update

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

No motion was made.

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9. Portfolio Update

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

No motion was made.

Regular Board Meeting
Thursday, January 10, 2019

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Mr. Dickens returned to the meeting at 9:46 a.m.

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10. 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.

The Board requested the Investment staff to provide a private asset cash flow projection model since September 1, 2017.

No motion was made.

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11. Real Estate Overview

Staff provided an overview of the asset and a review of the strategy for Vista Ridge 7 managed by Bentall Kennedy, Kings Harbor managed by L&B, and Museum Tower, which is internally managed by staff. No motion was made.

The Board went into a closed executive session – Real Estate issues at 10:00 a.m.

The meeting was reopened at 10:48 a.m.

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Mr. Youngblood left the Board meeting at 10:05 a.m. (by telephone)
Mr. Youngblood returned to the Board meeting at 10:24 a.m. (by telephone)
Mr. Walters left the Board meeting at 10:30 a.m.

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No motion was made.

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Regular Board Meeting
Thursday, January 10, 2019

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

    The Board went into a closed executive session – Legal issues at 10:55 a.m.

    The meeting was reopened at 11:08 a.m.

    No motion was made.

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D. 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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2. **Executive Director's report**

   a. Open Records Requests
   b. Pension Obligation Bond Funding Exploration

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

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Regular Board Meeting
Thursday, January 10, 2019

On a motion by Mr. Rowe and a second by Ms. Hernandez Patterson, the meeting was adjourned at 11:09 a.m.

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William F. Quinn
Chairman

ATTEST:

____
Kelly Gottschalk
Secretary

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

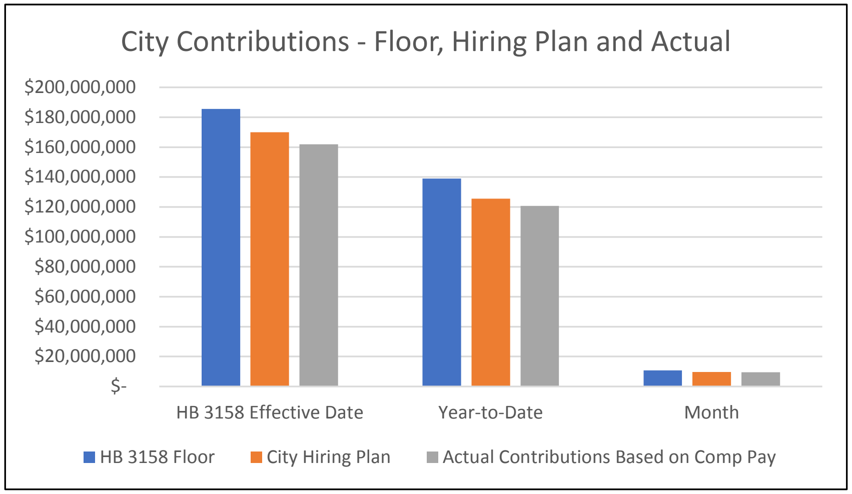
ITEM #C1

Topic: **Monthly Contribution Report**

Discussion: Staff will review the Monthly Contribution Report.

Regular Board Meeting – Thursday, February 14, 2019

Contribution Tracking Summary - February 2019 (December 2018 Data)

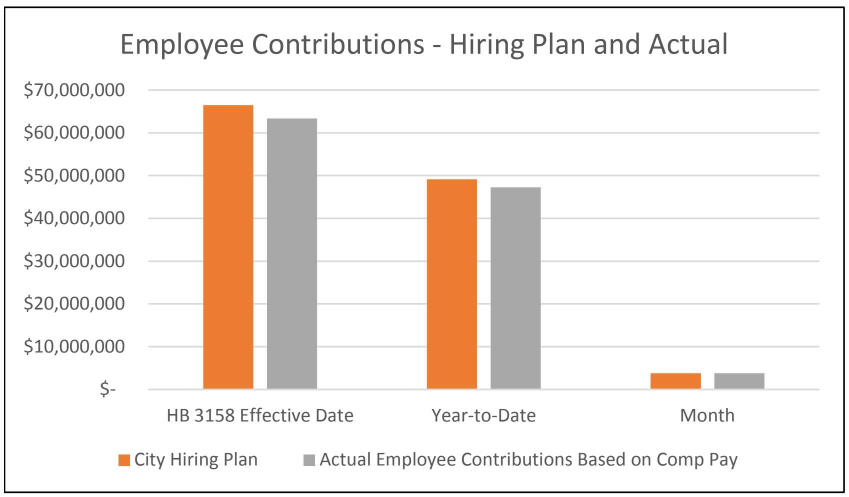


Actual Comp Pay was 95% of the Hiring Plan estimate since the effective date of HB 3158.

In the most recent month Actual Comp Pay was 99% of the Hiring Plan estimate.

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

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



Since the effective date of HB 3158 actual employee contributions have been $3.2 million less than the Hiring Plan estimate.

There is no Floor on employee contributions.

Contribution Summary Data

City Contributions

Dec-18	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	$ 10,688,000	$ 9,660,000	$ 9,568,271	$ 1,119,729	90%	99%
Year-to-Date		$ 138,944,000	$ 125,580,000	$ 120,710,507	$ 18,233,493	87%	96%
HB 3158 Effective Date		$ 185,501,000	$ 170,005,385	$ 161,881,213	$ 23,619,787	87%	95%

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

Dec-18	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	$ 3,780,000	$ 3,759,811	$ (20,189)	$ 3,593,458	99%	105%
Year-to-Date		$ 49,140,000	$ 47,253,100	$ (1,886,900)	$ 46,714,954	96%	101%
HB 3158 Effective Date		$ 66,523,846	$ 63,354,060	$ (3,169,786)	$ 64,098,796	95%	99%

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	$ 392,000,000	Not Available	Not Available	5,240	4,935	(305)
2018	$ 403,000,000			4,988		
2019	$ 420,000,000			5,038		
2020	$ 431,000,000			5,063		
2021	$ 443,000,000			5,088		
2022	$ 456,000,000			5,113		
2023	$ 468,000,000			5,163		
2024	$ 481,000,000			5,213		
2025	$ 494,000,000			5,263		
2026	$ 508,000,000			5,313		
2027	$ 522,000,000			5,363		
2028	$ 536,000,000			5,413		
2029	$ 551,000,000			5,463		
2030	$ 566,000,000			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 - 2018	**Annual Divided by 26 Pay Periods**	**Actual**	**Difference**	**2018 Cumulative Difference**	**Number of Employees - EOM**	**Difference**
January	$ 31,000,000	$ 26,630,158	$ (4,369,842)		4877	(111)
February	$ 31,000,000	$ 26,544,057	$ (4,455,943)	$ (8,825,784)	4894	(94)
March	$ 31,000,000	$ 26,494,165	$ (4,505,835)	$ (13,331,619)	4869	(119)
April	$ 31,000,000	$ 26,535,396	$ (4,464,604)	$ (17,796,224)	4907	(81)
May	$ 46,500,000	$ 40,104,087	$ (6,395,913)	$ (24,192,137)	4894	(94)
June	$ 31,000,000	$ 26,687,252	$ (4,312,748)	$ (28,504,885)	4890	(98)
July	$ 31,000,000	$ 26,853,295	$ (4,146,705)	$ (32,651,590)	4974	(14)
August	$ 31,000,000	$ 27,066,893	$ (3,933,107)	$ (36,584,698)	4949	(39)
September	$ 31,000,000	$ 27,112,052	$ (3,887,948)	$ (40,472,646)	4957	(31)
October	$ 46,500,000	$ 40,776,493	$ (5,723,507)	$ (46,196,153)	4931	(57)
November	$ 31,000,000	$ 27,347,561	$ (3,652,439)	$ (49,848,592)	4992	4
December	$ 31,000,000	$ 27,734,120	$ (3,265,880)	$ (53,114,472)	4983	(5)

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C2

Topic: **Trustee Election Procedures**

Discussion: Section 3.01(f) of Article 6243a-1 requires that the Board adopt rules for the election of Trustees. During the January 2019 Board meeting, staff presented a draft Trustee Election Procedure. The Board asked that the draft procedure be sent to the Nominations Committee members for comment.

As of the date of the agenda posting, no requests have been received to make changes to the draft procedure. Staff will provide an update of any comments received prior to the Board meeting.

Staff Recommendation: **Adopt** the Trustee Election Procedures as amended.

DALLAS POLICE & FIRE PENSION SYSTEM

TRUSTEE ELECTION PROCEDURES

As Amended Through February 14, 2019

DALLAS POLICE AND FIRE PENSION SYSTEM

TRUSTEE ELECTION PROCEDURES

Adopted January 9, 1997
As amended through February 14, 2019

A. Purpose

These procedures provide rules governing the election of Trustees of the Dallas Police and Fire Pension Board (the "Board"). Pursuant to Section 3.01(f) of Article 6243a-1 of the Texas Revised Civil Statutes ("6243a-1"), the Board shall adopt rules that govern Trustee elections. All references in these procedures to sections numbers are to sections of 6243a-1. These procedures apply to the election of Trustees under Section 3.01(b)(2), (3) and (4). These procedures do not apply to the six trustees appointed by the Mayor of the City of Dallas under Section 3.01(b)(1).

B. Definitions

(Capitalized terms not defined here have the definition set out in Article 6243a-1.)

Fire Fighter Trustee: One trustee that is a current or former Fire Fighter.

Members: Police Officers or Fire Fighters in Active Service.

Non-Member Trustee: Three trustees who cannot be a Member, Pensioner, a current City employee, a person who was formerly a City employee and who has been separated from the City for less than two years prior to becoming a Trustee or a currently elected City official.

Nominations Committee: A committee with voting representation from the organizations named in Section 3.011(b)(2) responsible for vetting, selecting and nominating Non-Member Trustee candidates.

Pensioners: A former Police Officer or Fire Fighter who is either on a service or disability retirement.

Police Officer Trustee: One trustee that is a current or former Police Officer

C. Eligible voters in a Trustee Election

1. All Members in Active Service are eligible to vote for Non-Member Trustees and the Police Officer Trustee or Fire Fighter Trustee that corresponds with their role as either a Police Officer or Fire Fighter.

2. Pensioners are eligible to vote only for Non-member Trustees.

D. Eligibility to Serve as a Trustee:

1. Pursuant to Section 3.01(b-1) all Trustees must have demonstrated financial, accounting, business, investment, budgeting, real estate, or actuarial expertise.

2. There is no residency requirement for Trustees.

E. Indication of Candidate Interest to serve as a Trustee

Candidates interested in serving as a Police Officer Trustee, Fire Fighter Trustee or Non-Member Trustee will indicate their interest by completing and submitting a trustee application packet to the Executive Director in the form prescribed by the Executive Director no later than the established application deadline for the specific election. Applications of interest will not be carried over from a prior election.

F. Number of Candidates on the Ballot and Election Requirements for the Police Officer and Fire Fighter Trustees

All Police Officer Trustee and Fire Fighter Trustee candidates deemed qualified by the Board will be placed on the ballot in elections when the Police Officer Trustee and/or Fire Fighter Trustee position is being elected. To be elected a Police Officer Trustee or Fire Fighter Trustee a candidate must receive more than 50% of the votes cast. If no candidate earns more than 50% of the votes cast, a runoff election will be held involving the two candidates receiving the highest number of votes. If there is only one qualified candidate for the Police Office Trustee or Fire Fighter Trustee positions, then the Board shall be authorized to declare that the sole qualified candidate as the person selected for such Trustee position and no further electoral action is required.

G. Number of Candidates on the Ballot and Election Requirements for Non-Member Trustees

1. The Nominations Committee will vet, select and nominate one candidate for each open Non-Member Trustee position. If the Board determines that there are no qualified Police Officer Trustee or Fire Fighter Trustee candidates the Nominations Committee will vet, select and nominate a Non-Member Trustee to fill the position.

2. Members and Pensioners will vote YES or NO for each candidate placed on the ballot. Each of the candidates will be voted on individually as either a YES or NO vote. To be elected, the candidate must individually receive more YES votes than NO votes. The election will be repeated for individual candidates, if necessary, until the required number of candidates have individually received a majority of YES votes.

G. Number of Candidates on the Ballot and Election Requirements for Non-Member Trustees (continued)

3. Prior to amending any provision of this subsection G, the Board will consult the Nominations Committee for input on any proposed amendment.

H. Trustee Terms and Term Limits

The Police Officer Trustee and Fire Fighter Trustee serve three-year terms with no term limits. Non-member Trustees serve two-year terms. The Nominations Committee may alter the two-year and three-year terms for the Police Officer Trustee and Fire Fighters Trustee terms and Non-Member Trustee terms prior to an election. In no event may any Non-Member Trustee serve more than six consecutive years.

I. Trustee vacancies

A Trustee vacancy occurring with nine months or more remaining on the Trustee's term will be filled in the same manner as the process for electing the respective Police Officer Trustee and Fire Fighter Trustee or Non-Member Trustee. The elected trustee will fill the remaining term that was vacated. A Trustee vacancy occurring with less than nine months remaining in the term will remain unfilled until the regular election cycle.

J. Scheduling and Conducting the Election

1. The Executive Director will coordinate the election process and perform the necessary activities related to conducting the election in conformity with the requirements of 6243a-1, including but not limited to the following:

   - Inform the Board of the Trustee of Trustee terms expiring no later than April 15th each year.
   - Develop an election schedule for approval by the Board. The schedule must include a minimum of two months for the Nominations Committee to seek candidate interests, vet, select and nominate Non-Member Trustees if Non-Member Trustees terms are being elected.
   - Inform Members and Pensioners of upcoming Trustee elections including the schedule of the election, the Trustee positions up for election, the requirements to serve as a Trustee and instructions on how to submit a candidate interest application.
   - Make the Trustee Election Procedures available to Members and Pensioners.

J. Scheduling and Conducting the Election (continued)

- Accept applications and provide information to the Board or the Nominations Committee as applicable.
- Coordinate the Nominations Committee schedule, meetings and process of vetting, selecting and nominating Non-Member Trustee candidates.
- Coordinate with the Board to determine if the Police Officer and Fire Fighter Trustee candidates meet the minimum qualifications to serve as a Trustee.

2. The Executive Director will contract with an independent professional election management company to conduct the Trustee election in accordance with the generally accepted principles of elections and secret balloting.

3. The Executive Director will inform the Board, Nominations Committee, Members and Pensioners of the results of the Trustee elections. Communication to all such parties can be made via email and postings to the DPFP website.

APPROVED on **February 14, 2019** the Board of Trustees of the Dallas Police and Fire Pension System.

____
William Quinn
Chairman

Attested:

____
Kelly Gottschalk
Secretary

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C3

Topic: **Quarterly financial reports**

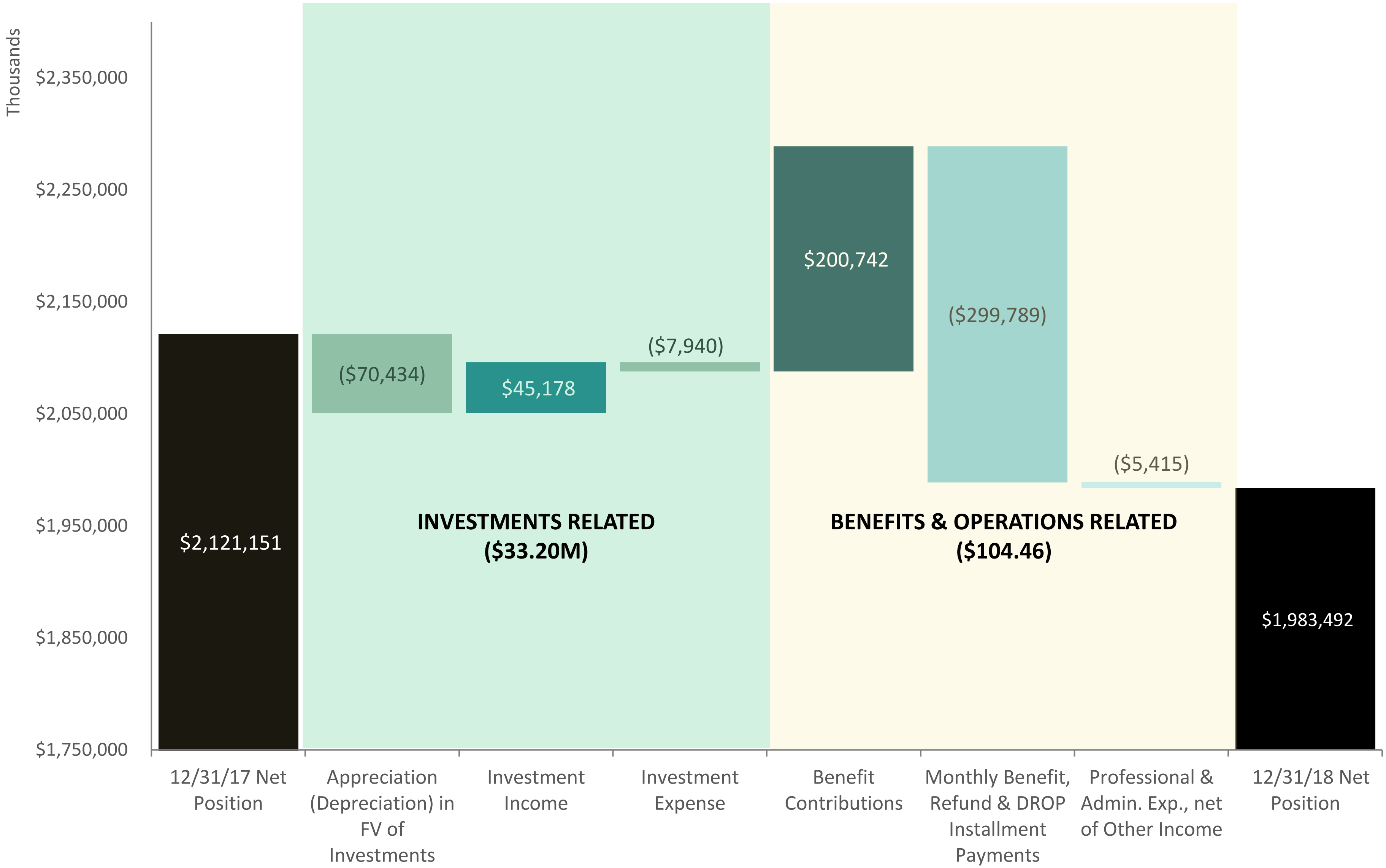
Discussion: The Chief Financial Officer will present the fourth quarter 2018 financial statements.

Regular Board Meeting – Thursday, February 14, 2019

Change in Net Fiduciary Position

December 31, 2017 – December 31, 2018 - **PRELIMINARY**

* Private asset values have not yet been reported for Q4 2018. Values will be updated as final reporting is received.



Components may not sum exactly due to rounding.

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

	PRELIMINARY 12/31/18 (unaudited)	12/31/17 Audited
Assets		
Investments, at fair value (NOTE)		
Short-term investments	$ 41,316,915	$ 24,132,673
Fixed income securities	516,969,244	328,013,649
Equity securities	435,935,015	470,081,008
Real assets	686,482,380	801,206,306
Private equity	249,550,402	222,106,207
Alternative investments	-	144,926,992
Forward currency contracts	(270,709)	135,273
Total investments (NOTE)	1,929,983,247	1,990,602,108
Invested securities lending collateral	20,559,432	12,152,708
Receivables		
City	2,504,571	2,026,827
Members	803,244	643,145
Interest and dividends	4,802,419	2,949,258
Investment sales proceeds	34,231,149	28,393,783
Other receivables	237,806	616,051
Total receivables	42,579,190	34,629,064
Cash and cash equivalents	50,137,929	118,586,970
Prepaid expenses	365,515	435,431
Capital assets, net	12,488,943	12,715,204
Total assets	2,056,114,255	2,169,121,485
Liabilities		
Payables		
Securities purchased	20,559,432	12,152,708
Securities lending obligations	48,598,173	31,410,927
Accounts payable and other accrued liabilities	3,464,596	4,407,226
Total liabilities	72,622,200	47,970,861
Net position		
Net investment in capital assets	12,488,943	12,715,204
Unrestricted	1,971,003,112	2,108,435,420
Net position held in trust - restricted for position benefits	$ 1,983,492,055	$ 2,121,150,623

(NOTE) 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

	PRELIMINARY 12 Months Ended 12/31/2018 (unaudited)	12 Months Ended 12/31/2017 Audited
Contributions		
City	$ 151,335,850	$ 128,395,064
Members	49,406,142	33,043,520
Investments, at fair value	200,741,992	161,438,584
Investment income		
Net appreciation (depreciation) in fair value of investments **(NOTE)**	(70,433,847)	75,371,777
Interest and dividends	45,066,373	31,185,070
Total gross investment income	(25,367,474)	106,556,847
less: investment expense	(7,940,213)	(9,101,033)
Net investment income	(33,307,687)	97,455,813
Securities lending income		
Securities lending income	312,393	186,728
Securities lending expense	(200,479)	(85,329)
Net securities lending income	111,914	101,399
Other income	479,377	2,093,556
Total additions	168,025,596	261,089,352
Deductions		
Benefits paid to members	297,154,779	295,244,860
Refunds to members	2,634,547	3,577,530
Interest expense	-	1,290,356
Legal expense reimbursement	(294,183)	(1,350,107)
Professional and administrative expenses	6,189,021	9,508,219
Total deductions	305,684,164	308,270,858
Net decrease in net position	(137,658,568)	(47,181,507)
Beginning of period	2,121,150,623	2,168,332,130
End of period	$ 1,983,492,055	$ 2,121,150,623

(NOTE) 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

DISCUSSION SHEET

ITEM #C4

Topic: **Correction of Errors in Benefit Payments Policy**

Discussion: Section 6.20(c) of Article 6243a-1 states that the Board may adopt procedures to enable the pension system to offset future benefits or other payments of a recipient to recover an overpayment. The correction procedure must comply with the Internal Revenue Service's Employee Plans Compliance Resolution System and Revenue Procedure (EPCRS).

The Board adopted the Recapture of Overpayments Policy on February 12, 2004. If adopted, the Correction of Errors in Benefit Payments Policy will supersede the 2004 Overpayments Policy.

Staff Recommendation: **Adopt** the Correction of Errors in Benefit Payments Policy.

CORRECTION OF ERRORS
IN
BENEFIT PAYMENTS POLICY

Adopted February 14, 2019

DALLAS POLICE AND FIRE PENSION SYSTEM

CORRECTION OF ERRORS IN BENEFIT PAYMENTS POLICY
Adopted February 14, 2019

Supersedes the Recapture of Overpayments Policy
as amended through February 13, 2004

A. <u>Purpose</u>

In order to preserve the financial integrity of DPFP and comply with the Board's fiduciary duty, IRS rules and regulations governing overpayment and underpayment of benefit payments known as the Employee Plans Compliance Resolution System (EPCRS) and Section 802.1024 of the Texas Government Code, it is the Board's policy to investigate any overpayment or underpayment promptly and diligently and to recover the overpayment or pay the underpayment in a timely manner. The purpose of this Policy is to provide guidelines and a process for evaluation and collection or payment of overpaid and underpaid benefits made to members and beneficiaries (collectively "Members," for purposes of this Policy).

B. <u>Benefit Underpayments</u>

When a wrongful underpayment of benefits has been identified, the following guidelines and procedures shall be followed:

1. Board Notification

   The Executive Director shall report any underpayment in excess of $10,000 to the Board at the next regularly scheduled Board meeting.

2. Investigation

   When an underpayment of benefits is identified, the Executive Director shall investigate the facts and circumstances surrounding the underpayment.

3. Resolution

   a. Staff shall notify the affected Member of the underpaid benefit in writing and DPFP shall pay any underpaid benefits as soon as reasonably possible.

B. <u>Benefit Underpayments</u> (continued)

b. Interest

i. DPFP shall include interest in its repayment only if the underpayment of benefits is not paid within the same fiscal year in which the error was made.

ii. Interest is due from the date(s) of the underpayment to the date the Member is paid.

iii. Interest shall be calculated using the actuarially assumed rate of return in effect when the underpayment of benefits is paid or commenced to be paid.

C. <u>Benefit Overpayments</u>

1. Notification

The Executive Director shall report any overpayments in excess of $10,000 to the Board at the next regularly scheduled Board meeting. The Executive Director shall report back to the Board on the progress of the investigation and collection of the overpayment within six months if payment in full including interest, if any, is not achieved.

2. Investigation

When an overpayment of benefits is identified, the Executive Director shall immediately investigate the facts and circumstances surrounding the overpayment.

3. Collection

a. Overpayment of Benefits Exceeding $10,000 – Approval by the Board

i. Resolution of an overpayment of benefits that exceeds $10,000 should result in immediate full payment of the entire amount, plus interest, whenever feasible. For purposes of this Policy, full repayment may include an installment repayment plan for the full amount owed, including interest at the actuarially assumed rate. A resolution on these terms does not need Board approval, except for repayment plans exceeding one year which do require Board approval.

C. **<u>Benefit Overpayments</u>** (continued)

ii. Any resolution of an overpayment of benefits exceeding $10,000 that does not result in full payment of the entire amount, plus interest, must be approved by the Board.

b. Overpayment of Benefits of $10,000 or Less – Approval by the Executive Director

i. Resolution of an overpayment of benefits of $10,000 or less should result in immediate full payment of the entire amount, plus interest, whenever feasible. For purposes of this Policy, full repayment may include an installment repayment plan for the full amount owed, including interest at the actuarially assumed rate.

ii. Subject to the procedures and objectives in this Policy, the Executive Director shall have sole discretion to resolve any overpayment of benefits of $10,000 or less.

c. The Board and Executive Director shall use reasonable efforts to resolve an overpayment of benefits. Reasonable efforts include consideration of the facts and circumstances, IRS guidelines for correction of Plan errors and costs and benefits of collection efforts. The plan sponsor has indicated to the Board that it has no statutory authority to make additional payments to DPFP to cover any overpayments.

d. Interest

i. DPFP shall charge the Member interest only if the overpayment of benefits is not fully paid within the same fiscal year in which the error was made.

ii. Interest is assessed from the date(s) of the overpayment to the date the overpayment is resolved. "Resolved," for purposes of including interest for overpayment, means the date when DPFP collects or begins collecting any overpayment.

iii. Interest shall be calculated using the actuarially assumed rate in effect when the overpayment of benefits is resolved.

C. **Benefit Overpayments** (continued)

e. General Rules on Recovery of Overpayments

i. Future payments due to a Qualifying Survivor or an Estate and/or a DROP annuity beneficiary will be reduced to recover the overpayment whenever possible.

ii. If there is more than one Qualified Survivor or Beneficiary receiving the future payment, the recovery of overpayment will be applied on a pro-rata basis.

iii. The Executive Director may choose to not pursue collections of overpayments that are below the EPCRS de minimis level of $100.

D. **Procedures**

The Executive Director may develop written procedures to implement this policy.

APPROVED on **February 14, 2019** the Board of Trustees of the Dallas Police and Fire Pension System.

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William Quinn
Chairman

Attested:

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Kelly Gottschalk
Secretary

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C5

Topic: **Funding Policy**

Discussion: On January 24, 2019, the Texas Pension Review Board (PRB) adopted the Interim Study on Funding Policies for Fixed Rate Plans (Study). The Study states the following:

"A pension funding policy should be designed to guide retirement systems to full funding and to help them achieve the three goals. A funding policy also should include clear and concrete funding objectives, the actuarial methods to be used, and a pathway to achieve the stated funding goals. Additionally, the funding policy should outline how the plan will address setbacks that occur when experience diverges from actuarial assumptions or assumption changes result in losses."

"As a result of the study, the PRB recommends that all Texas public retirement systems, including fixed rate plans, adopt and maintain a written funding policy that fully funds the plan over as brief a period as possible, as recommended in the PRB Pension Funding Guidelines. The funding period should be a finite, or closed, period, and the funding policy should be established in conjunction with the plan sponsor if possible."

The Study was adopted by the PRB as a legislative recommendation and our understanding is that the requirement of pension systems, such as DPFP, to adopt a funding policy will be introduced as legislation during this legislative session.

Staff will discuss the study and propose next steps with the Board.

PRB: Funding Policies for Fixed Rate Plans

- What is a funding policy?
  - Written statement of guiding principles and strategy to fully fund the plan
- Typical pension funding goals
  - Benefit security
  - Contribution stability
  - Intergenerational equity
- Funding Policy Components
  - Establishing clear and concrete funding objectives
  - Selecting actuarial methods
    - Actuarial cost method
    - Asset smoothing method
    - Amortization policy
- Roadmap to achieve funding objectives
  - Target contribution rates
  - Benefit & contribution change parameters
  - Contribution smoothing
  - Adopting actions to address actual experience that diverges from assumptions

Interim Study:

Funding Policies for Fixed-Rate Pension Plans

January 2019

PENSION REVIEW BOARD

Table of Contents

Executive Summary

Despite a nearly 10-year bull market following the 2008 market downturn, the unfunded liabilities of many public retirement systems both across the country and in Texas continue to rise. In 2012, the Governmental Accounting Standards Board (GASB) issued statement 68, which requires plan sponsors to report a pension plan's funded status on their balance sheets.[1] This change has brought increased scrutiny from credit rating agencies, with pension debt and related costs directly impacting sponsors' bond ratings and therefore the cost of borrowing money.

Today, volatile investment markets, dampened future market projections, and lower mortality rates are placing additional pressure on retirement systems' ability to reduce their unfunded liabilities. Given these pressures, strong funding policies are a necessity for public pensions to help ensure that over time unfunded liabilities do not continue to grow but rather are reduced or eliminated. In addition, solid funding policies can help assure rating agencies that pension debt is being proactively managed.[2]

Recognizing the many challenges facing Texas plans and in accordance with its *Pension Funding Guidelines*, the Texas Pension Review Board (PRB or the Board) at its November 16, 2017 meeting directed staff to research and identify the role that funding policies could play in helping plans meet their funding objectives.[3] The Board asked staff to focus on how systems with fixed-rate contribution structures could benefit from adopting funding policies. Contributions to fixed-rate plans do not automatically adjust to address negative experience like those plans that are funded using actuarially determined contributions. Fixed-rate plans make up nearly 75% of Texas public pension plans. The PRB conducted this interim study as part of the agency's mandate to include recommendations of any legislation relating to public retirement systems that the Board finds advisable through its Biennial Report to the Legislature and Governor.

Staff began by analyzing the contribution structures of Texas plans and comparing the average funded ratios over time. The average funded ratio of systems with actuarially determined contributions (ADCs) was higher overall than that of fixed-rate systems and has reversed its decline after the 2008 financial crisis, while fixed-rate systems' average funded ratio has continued a downward trajectory. Staff then reviewed funding policies from Texas systems as well as systems in other states and evaluated the benefits of adopting those policies. Finally, staff worked to identify essential components that a sound funding policy should include as well as various approaches that could be provided as examples for Texas systems.

As a result of the study, the PRB recommends that all Texas public retirement systems, including fixed-rate plans, adopt and maintain a written funding policy that fully funds the plan over as brief a period as possible, as recommended in the *PRB Pension Funding Guidelines*. The funding period should be a finite, or closed, period, and the funding policy should be established in conjunction with the plan sponsor if possible. The PRB staff is available to provide technical assistance to systems throughout the process.

[1] Pension Standards for State and Local Governments. *Governmental Accounting Standards Board.* www.gasb.org/jsp/GASB/Page/GASBSectionPage&cid=1176163528472

[2] Example: Houston, Texas' credit rating from Moody's Investors Service was upgraded after pension reforms, including the establishment of a funding policy. "City of Houston, Texas Rating Action: Moody's Assigns Aa3 to Houston's POBs; Stable Outlook." Moody's Investors Service. November 29, 2017.

[3] *PRB Pension Funding Guidelines* can be found in Appendix A.

Introduction

As of January 2019, there were 99 actuarially funded defined benefit plans registered with the PRB. They included multi-billion-dollar statewide plans, large municipal plans, local firefighter plans, and special district plans such as hospital districts and transportation authorities. Their total net assets were approximately $272 billion, and total membership was more than 2.7 million members.

The Texas Pension Review Board is mandated to oversee all Texas public retirement systems, both state and local, to monitor their actuarial soundness and compliance with state law. The agency's mission is to provide the state of Texas with the necessary information and recommendations to ensure that its public retirement systems, whose combined assets total in the multi-billions, are financially sound, benefits are equitable, the systems are properly managed, tax expenditures for employee benefits are kept to a minimum while still providing for those employees; and to expand the knowledge and education of administrators, trustees, and members of Texas public pension funds.

State law establishes the PRB's core duties, which include recommending policies, practices, and legislation to public retirement systems and appropriate governmental entities. In November 2017, the Board directed staff to research and identify the role that funding policies could play in helping plans meet their funding objectives. In particular, the Board asked staff to focus on how systems with fixed-rate contribution structures could benefit from adopting funding policies, in line with the PRB *Pension Funding Guidelines* which recommend that retirement systems should adopt a funding policy.

The study is organized as follows. Section I discusses Texas pension plans' contribution structure, which is predominantly comprised of systems that receive an annual contribution that is a fixed percentage of payroll. Section II discusses the unique challenges presented by fixed-rate contribution structures. Section III presents ways adopting a funding policy can help address some of these challenges. Section IV details the necessary components of a strong funding policy, and Section V provides examples of funding policies adopted by plans with fixed-rate contribution structures. The paper concludes with the recommendation that all plans, including fixed-rate plans, should adopt a funding policy, in conjunction with their sponsor whenever possible.

What is a Funding Policy?

Three Pension Funding Goals, Explained

Benefit security: sufficient assets will be available to pay all benefits when they come due.

Contribution stability: low volatility in contributions from year to year, helping employers maintain budgetary stability.

Intergenerational equity: each generation of taxpayers bear the cost of benefits for the employees who provide services to those taxpayers, rather than deferring those costs to future taxpayers.

For the purposes of this paper, a funding policy is considered a written statement of guiding principles and strategy to fully fund the long-term costs of promised benefits.[4]

A funding policy helps a system achieve the three fundamental goals of public pension funding: benefit security, contribution stability, and intergenerational equity.[5] While different pension plans and their governmental sponsors may prioritize these goals differently, the funding policy should strive to balance the three goals so that member benefits are secure, employers and members are afforded some level of contribution predictability from year to year, and liabilities are managed so that future taxpayers are not burdened with costs associated with a previous generation's workers.

The fundamental equation governing pension financing is **C+I=B+E**.[6] The inputs to the pension fund are contributions and investment income, while outputs from the fund are benefits and expenses (administrative costs and investment fees). Therefore, these are the four levers that may be adjusted to affect overall plan financing.[7] A funding policy should establish a clear link between all four components to ensure the equation balances and the pension's long-term health is sound. If contributions are fixed, then other components such as benefits must be flexible to bring the equation back into balance to address any negative experience.

The Fundamental Equation of Pension Plan Financing

(C)ontributions + (I)nvestments = (B)enefits + (E)xpenses

I. Public Pension Contribution Structures

Pension funding approaches can be conceptualized in two basic categories:

Actuarially Determined Contribution

An actuarially determined contribution (ADC) structure requires the payment of an ADC rate. GASB defines ADC as the target or recommended contribution to a defined benefit plan, determined in conformity with Actuarial Standards of Practice (ASOPs), standards set forth and maintained for

[4] Link, Jim et al. Implementing a Pension Funding Plan. GFOA 108th Annual Conference. May 18-21, 2014. Slide 19.

[5] *Issue Brief: Objectives and Principles for Funding Public Sector Pension Plans*. American Academy of Actuaries. February 2014, p. 3.

[6] For more information on the C+I=B+E equation, please see the PRB's white paper, *Understanding the Basics of Actuarial Methods.*

[7] Benefit modifications are generally constrained for many systems which operate within a legal framework that prevents decreases in benefit levels for past accrued service.

professional actuaries by the Actuarial Standards Board. In this paper, the ADC is defined as the cost of benefits earned by workers in the current year (the normal cost) plus an amortization payment calculated over a closed period on any unfunded liability.

Funding according to the ADC satisfies the pension funding goals of retirement security and intergenerational equity, as long as actuarial assumptions and the amortization period are reasonable, because the ADC calculation balances the fundamental equation of pension financing discussed above. ADC contribution structures inherently adjust to the plan's changing funded status to maintain the overall trajectory towards fully funding benefit promises. However, this responsiveness to realized plan cost can result in contribution volatility and create budgetary challenges for plan sponsors. Contribution volatility under ADC funding can be mitigated using a number of smoothing techniques either on the inputs (e.g., asset smoothing) or the outputs (e.g., direct contribution rate smoothing), as well as establishing other cost containment methods.

ADC Contribution Structure Examples

CPS Energy of San Antonio – As of 2017, CPS Energy's funding policy requires payment of an annually calculated ADC that amortizes the existing unfunded liability over a closed, 30-year period with future gains/losses amortized over their own closed, 30-year period (i.e. a layered amortization approach).

TMRS/TCDRS – Texas has two agent multiple-employer retirement systems: Texas Municipal Retirement System (TMRS) and Texas County & District Retirement System (TCDRS). Combined, these two systems have over 1,400 participating employers, which consist of municipalities, counties and special districts. Both systems have statutory requirements and established funding policies that require the participating employers to fund the ADC for their plans each year. Both funding policies define the actuarial cost method, the asset smoothing method and the amortization policy that is used to determine the ADC for each participating employer. They also utilize a level percent-of-pay basis with a layered approach where different amortization bases are established and amortized over varying periods in accordance with several factors. For example, both amortization policies have stricter funding requirements for underfunded plans (closed, layered approach) versus overfunded plans (open amortization approach) and have shorter amortization periods for benefit enhancements than actuarial gains and losses.[8,9]

Tennessee (local plans) – In 2014, Tennessee passed a bill to require political subdivisions with pension plans that are not part of the Tennessee Consolidated Retirement System to adopt funding policies. The funding policies must include a statement that the political subdivision's budget shall include funding of at least 100% of the ADC, which is defined as the normal cost plus amortization of the unfunded liability to the extent that one exists for a particular year. The policy must also specify the maximum amortization period over which any unfunded liabilities will be paid.

[8] "Actuarial Funding Policy." Texas Municipal Retirement System, 31 Dec. 2015, www.tmrs.com/down/board/12-31-2015%20Actuarial%20Funding%20Policy.pdf.
[9] "TCDRS Funding Policy." Texas County & District Retirement System, 25 June 2015, https://www.tcdrs.org/governance/tcdrs%20funding%20policy_2015.pdf

Non-Actuarially Determined Contribution

Fixed-Rate Funding

Nearly 75% of Texas plans have fixed contribution rates. Under a fixed-rate funding structure, the contribution rate is a set percentage of payroll specified in statute/ordinance or local bargaining agreements rather than the ADC. As such, a fixed-rate contribution does not change from valuation to valuation unless proactive steps are taken. Such contribution structures do not inherently adjust to cover liability losses or gains and may not reflect the plan's expected cost. Thus, fixed-rate contributions may not be sufficient to move toward the goal of full funding. This is especially true when a plan experiences significant actuarial or investment losses.

While contributions based on a fixed percentage of pay provide the highest degree of contribution stability in the short-term, this approach increases the likelihood of not achieving the other two goals, retirement security and intergenerational equity. Without close monitoring and pro-active adjustment of the fixed contribution rate, the amount contributed to the plan may not be adequate, resulting in a poorly funded plan which provides for a lower degree of benefit security and defers necessary contributions, placing the burden of funding current plan costs on future plan members and taxpayers through increased contributions and/or benefit reductions.

Other

In Texas, a small number of firefighter plans peg their sponsor contribution to the rate at which the city contributes to its municipal employees plan within the Texas Municipal Retirement System (TMRS). Such an approach can be problematic because the contribution rate for the municipal plan, while actuarially determined for that plan, has no bearing on the actual cost of the firefighter plan in cases where there is a different benefit structure and a separate pool of assets.

II. Challenges Associated with Fixed-Rate Contributions

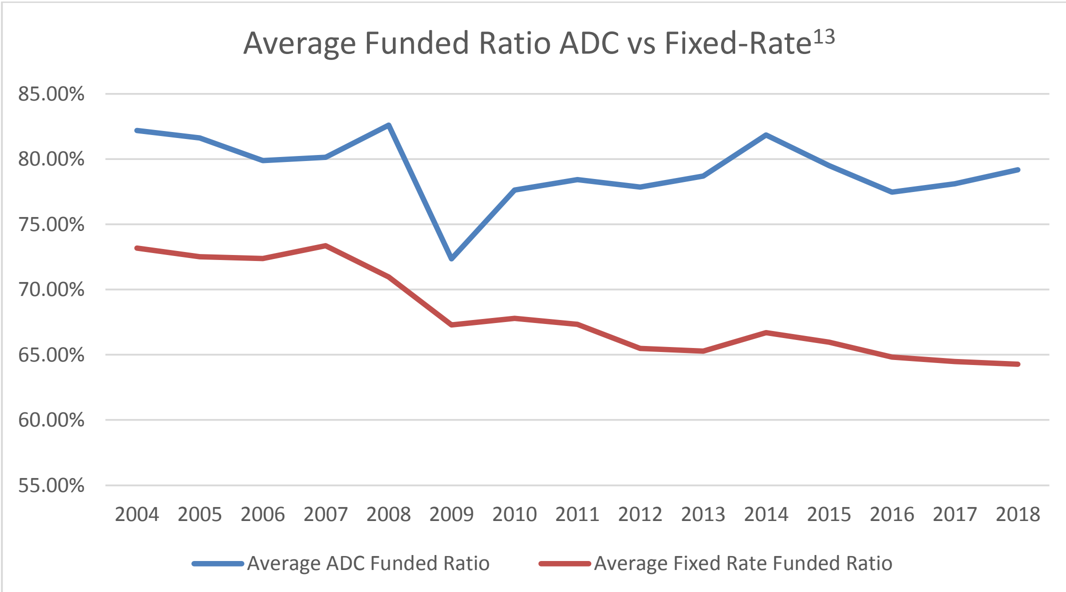
As discussed above, by definition, a fixed-rate contribution plan does not automatically respond to plan experience deviating from actuarial assumptions. Fixed-rate funding approaches may ensure that contributions do not swing dramatically from year to year, and thereby allow sponsors to plan ahead for budgetary reasons. However, they also may bear little to no relation to the actual cost of plan benefits, leaving plans more vulnerable to sharp increases in unfunded liability, therefore requiring future contribution increases and benefit reductions.[10]

Comparison of Funded Ratios by Contribution Structure

Over the last 15 years, information provided to the PRB shows that the average funded ratio for ADC-funded plans has been higher than that of plans with fixed-rate contribution structures. While ADC-funded plans' funded ratios appear to have stabilized since 2008-09, funded ratios for fixed-rate plans on average have continued to fall, indicating a much higher degree of difficulty recovering from the market crisis of 2008. Plans with "Other" contribution structures or which have recently changed

[10] Link, Jim, et al. "Implementing a Pension Funding Plan." *GFOA 108th Annual Conference*. May 18-21, 2014. Slide 13.

contribution type were omitted from this analysis. The complete data behind the line graph below may be found in Appendix B.



Potential Future Impact of the Fixed-Rate Funding Approach

The PRB has expressed concern regarding the fiscal health of fixed-rate contribution plans and the broader effects of increased unfunded liabilities on a plan and its sponsor.

- The graph above shows that the average funded ratio of fixed-rate contribution plans has been declining despite experiencing over nine years of a bull market. Flat or negative market returns will only worsen these ratios and must be anticipated.
- In recent years, key actuarial assumptions, such as the investment return assumption, have failed to match actual plan experience, and fixed contribution rates are not flexible enough to quickly respond to the resulting funding shortfalls.
- Contributions consistently lower than the ADC can result in long-term negative amortization where annual contributions are insufficient to cover the current year's cost plus *just the interest* on the plan's unfunded liability. Thus, no progress is made toward paying off the unfunded liability, which continues to grow as the unpaid interest compounds over time, and contribution increases and/or benefit reductions will ultimately be required (jeopardizing the goals of contribution stability and retirement security). Negative amortization runs contrary to the pension prefunding concept and the goal of intergenerational equity in which the current generation pays for its own future benefits.

[11] Chart does not include closed/frozen plans, plans with "other" contribution structures, or plans with known contribution structure changes in the past 15 years.

- Life expectancy generally is increasing and the soon-to-be-completed Society of Actuaries Survey of Public Pension Mortality indicates both public safety and teacher pension liabilities should be even higher as a result of retirees living longer.
- Pension liabilities are increasingly considered by credit rating agencies, putting at risk a sponsoring governmental entity's ability to issue debt cost-effectively.

III. Benefits of a Funding Policy for Fixed-Rate Plans

Benefits of a Funding Policy

All plans, regardless of size or funding type, benefit from having written funding policies. If a plan is receiving a fixed-rate contribution rather than one based on an ADC, a funding policy is even more crucial since contributions do not adjust to changes in the realized cost of the plan. Going back to the fundamental equation, **C+I=B+E**, if (C)ontributions are fixed, other components in the equation must be flexible for the pension financing equation to balance, and therefore, for a plan's financing framework to be sound.

The funding policy should address how and under what circumstances contribution and (B)enefit levels will be adjusted to bridge any gaps between actuarial expectations and actual experience over time. The policy should be closely linked to (I)nvestment and (E)xpense policies. The funding policy should be jointly developed by the plan's governing board and the sponsoring governmental entity. A funding policy of this nature can provide a roadmap to full funding and increase transparency by clearly setting forth the steps to be taken under different experience scenarios such that plan members, policymakers, taxpayers and other stakeholders are aware in advance of such action being taken. The following section discusses the specific benefits of adopting a strong, forward-looking funding policy.

Governance. Just the act of developing a funding policy is likely to benefit a plan because the process requires the governing board to ask itself fundamental questions regarding its current funding approach and future funding goals.[12] For example, boards should discuss questions such as, "How do we define full funding?" and "Under what funding conditions should benefit enhancements be made? Should a cost-of-living adjustment (COLA), benefit enhancement, or reduction in employer contribution ever occur when the plan is not fully funded?"[13] These conversations allow the board to openly discuss funding approaches and establish what mechanisms they, as plan fiduciaries, are comfortable adopting to guide the plan through both positive and negative experience.[14]

Funding Discipline. A funding policy memorializes the retirement system's funding goals and helps provide increased discipline regarding funding decisions.[15] When facing stakeholder pressure for benefit enhancements, a written funding policy can help trustees by shifting the conversation away from the merits of the potential benefit increase to whether or not such an increase can be implemented within

[12] "Guideline No. 7 Pension Plan Funding Policy Guidelines." *Canadian Association of Pension Supervisory Authorities.* 2011.
[13] Interview with City of Austin Employees' Retirement System, Executive Director and Deputy Director, July 10, 2018, Austin, TX.
[14] Link, Jim, et al. "Implementing a Pension Funding Plan." *GFOA 108th Annual Conference*. May 18-21, 2014. Slide 57.
[15] "Guideline No. 7 Pension Plan Funding Policy Guidelines." *Canadian Association of Pension Supervisory Authorities.* 2011.

the parameters of the system's funding policy.[16] For example, although a board may desire to grant a cost-of-living adjustment, a funding policy might state that such action may not be considered if the plan's funded status would dip below a specific level after the COLA, thereby ensuring continued progress towards the plan's stated funding goals. A funding policy may also support funding discipline on the employer contribution side by laying out the specific circumstances under which contributions would need to be increased or decreased.

Downside Protection and Transparency. Downside protections include specific steps to be taken under adverse conditions, such as policies that spread downside risk equitably. Some examples include tying employer and employee contributions to investment returns, requiring consideration of benefit adjustments given certain conditions, etc. Including downside protection provisions in a funding policy can allow plans to make necessary corrections quickly and smoothly to protect against economic downturns because such plans have been adopted in advance through a transparent process. Even just the process of developing downside protections can be beneficial because it allows governing boards to carefully consider how to respond to market declines or other contingencies ahead of time, rather than in a crisis state.

In the absence of a written, formal risk-sharing plan developed in advance, de facto risk-sharing ultimately occurs through ad-hoc changes that often disproportionately affect certain groups of employees or taxpayers.[17] In contrast, a formal cost- or risk-sharing policy can distribute unexpected cost increases between taxpayers and employees in a predetermined, fair and transparent manner.[18] Thus, a written funding policy can help make clear ahead of time to pension trustees, plan members, tax payers and other stakeholders the role that these various groups will play in absorbing the risk involved in public pension structures.

Sponsor Credit Ratings. Governments closely monitor their credit ratings since these ratings directly impact borrowing costs. Underfunded pensions contribute to a state or local government's overall liabilities and can have a negative impact on its bond ratings, increasing the entity's borrowing costs.[19] Credit rating agencies particularly consider funding ratios and risks associated with the plan when determining a local government's credit rating.[20] A funding policy can help assure rating agencies that pension liabilities are being proactively managed, leading to an improvement in credit rating.[21,22]

IV. Funding Policy Components

As previously discussed, the primary purpose of a funding policy is to help plans meet the three goals of intergenerational equity, contribution stability, and benefit security. The following components should

[16] Interview with City of Austin Employees' Retirement System, Executive Director and Deputy Director, July 10, 2018, Austin, TX.
[17] "NASRA Issue Brief: Shared-Risk in Public Retirement Plans." NASRA. June 2014, p. 2.
[18] *Cost-Sharing Features of State Defined Benefit Pension Plans: Distributing Risk Can Help Preserve Plans' Fiscal Health*. The Pew Charitable Trusts. January 2017, p. 1.
[19] "How Do Public Pension Plans Impact Credit Ratings?" *Aon Hewitt Retirement & Investment*. December 2017, p. 2.
[20] "Local Government Pension Analysis Special Report". *Fitch Ratings.* April 8, 2013. p. 1.
[21] "How Do Public Pension Plans Impact Credit Ratings?" *Aon Hewitt Retirement & Investment.* December 2017, p. 2.
[22] "City of Houston, Texas Rating Action: Moody's Assigns Aa3 to Houston's POBs; Stable Outlook." Moody's Investors Service. November 29, 2017.

be featured in a comprehensive funding policy to ensure a plan is achieving the three goals or is at least on the path to doing so:

Establishing Clear and Concrete Funding Objectives

Perhaps the most important element of a funding policy is to establish the funding objectives of the retirement system. Funding policies should aim to achieve full funding of benefit promises and should include a specific funded ratio and amortization period target, such as achieving 100% funding over a closed 10-25-year period. Plans should establish different closed-period amortization bases for each year's realized experience, frequently referred to as layered amortization.

Selecting Actuarial Methods

The primary role of a funding policy is to set boundaries on what is allowable for actuarial calculations. At a minimum, the three actuarial methods that should be included in a funding policy for a fixed-rate plan include the actuarial cost method, the asset-smoothing method and the amortization policy.

Actuarial Cost Method

An actuarial cost method is a procedure for allocating the actuarial present value of projected benefits to time periods, usually in the form of an actuarial accrued liability (AAL) and normal cost (NC).[23] In other words, the cost method determines when pension liabilities are accrued on the plan’s books as workers earn benefits. At minimum, the funding policy should address the desired goals and purpose of the cost method if it does not also specify the exact cost method to be used. The most common actuarial cost method used in Texas, and the cost method required by GASB for financial reporting disclosures, is the entry age normal (EAN) method. Under the EAN method, benefits are assumed to accrue as a level percentage of pay over the period from the member’s entry into the plan until the assumed termination or retirement.

Asset Smoothing Method

Asset smoothing techniques can help keep contributions stable and more predictable over time. A five-year smoothing period where 20% of any gain or loss is recognized in each subsequent year is typically used in Texas. Corridors may be added to the smoothing period to keep asset values closer to the market value. The funding policy should specify the amount of return subject to smoothing (i.e. how much is deferred), the time period of the deferral and if the smoothed value is subject to a corridor.

Amortization Policy

The unfunded liability is the actuarial accrued liability (AAL) less the actuarial value of plan assets. An amortization method determines the timing and pattern of contributions to pay off the unfunded liability.[24] A fixed-rate contribution structure does not have an explicit amortization method; instead, the effective amortization period is a by-product of the expected contributions and plan experience. Creating an amortization policy provides an opportunity for fixed-rate plans to discuss an appropriate funding period, including the impact of benefit enhancements as well as the degree and length of any

[23] ASOP No. 4

[24] Actuarial Standard of Practice (ASOP) No. 4 Measuring Pension Obligations and Determining Pension Plan Costs or Contributions

negative amortization period. Negative amortization occurs when contributions are insufficient to cover the cost of benefits accrued and the interest accrued on the unfunded liability during the year. Plans must consider how negative amortization affects the total contribution requirements over the long-term as an important part of their amortization policy.

Developing a Roadmap to Achieve Funding Objectives

Funding policies should provide a clear plan detailing how the stated funding goals will be met. Methods a plan can use to ensure they stay on track may include the following.

Target Contribution Rates

The first step for a fixed-rate plan to monitor its funding progress is to establish a target contribution rate, in consultation with the plan's actuary, that is designed to achieve the stated funding goals, but that also reacts to the changing condition of the plan. The Conference of Consulting Actuaries Public Plans Community recommends that a pension plan's current, fixed contribution rate should be compared to the ADC.[25] As the current fixed-rate contribution rate moves away from the ADC, plans will need to begin to take steps to mitigate the differences.

Benefit and Contribution Change Parameters

Funding policies should include elements designed to impede deviation from progress toward funding goals. This may be done by establishing parameters under which future benefit increases and contribution reductions can be considered. For example, a funding policy might state that benefit enhancements can be made only if the funded ratio would remain at a certain level after the increase or contribution reductions may only occur if a minimum amortization period is maintained.

Contribution Smoothing

The asset smoothing methods discussed briefly above are one approach to try to smooth the volatility inherent in an ADC. In addition to or instead of smoothing the inputs into the calculation (such as assets), funding policies may utilize contribution smoothing to directly achieve this result. Contribution smoothing is an approach that limits the amount the required contribution increases or decreases from one year to the next by setting rules around when and how much the actual contribution will change based on changes in the ADC.

Adopting Actions to Address Actual Experience that Diverges from Assumptions

Funding policies develop predetermined policies for how a plan should respond to both positive and negative experiences that are different than the plan's assumptions. A funding policy should identify key risks faced by the plan and how those risks, and their associated costs, will be distributed between the employer and employees. Often when there is no formal risk-sharing policy, benefit reductions or cost increases are imposed on employees, retirees or both *after* the plan's condition has deteriorated, rather than proactively, in advance, and in a manner transparent to members and stakeholders.[26]

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[25] Conference of Consulting Actuaries Public Plans Community. "Actuarial Funding Policies and Practices for Public Pension Plans." October 2014, p. 6.

[26] Brainard, Keith, and Alex Brown. *Shared-Risk in Public Retirement Plans*. National Association of State Retirement Administrators, June 9, 2014, *Shared-Risk in Public Retirement Plans*.

Risk-Sharing – Defined

Risk- or cost-sharing refers to the distribution of risks across employers and employees.[26] Risk-sharing prevents one party from bearing all the risk in a pension funding policy. For example, if investment returns are not as high as projected, the associated costs will need to be covered by additional contributions or benefit reductions. Risk-sharing would prevent one party (i.e., only the employees or employer) from being responsible for bearing the entire cost.

According to C+I=B+E, costs can be shared between parties by altering either contribution rates or benefit levels. On the contribution side, funding policies can include provisions governing how contribution increases will be used to make up for unexpected costs. A funding policy should outline when it is appropriate for employer or employee contributions, or both, to be increased or decreased. Caps or limits may be placed on contribution changes to limit volatility, which provides the employer with some assurance of future costs. A cap or limit may, however, also necessitate adjustment in benefit levels. A contribution corridor may be used, which is an acceptable range in the deviation of the actual contribution rate from the target contribution rate. For example, the Houston pension plans' reform package created a corridor around the target contribution rate to help limit the ongoing overall cost increases of the plans. The plans and the City are required to take corrective action, including negotiating benefit reductions, if the actual contribution falls outside of the corridor.

A funding policy may also establish when benefit adjustments will occur, if necessary, to balance the fundamental equation. For example, a policy may include provisions prescribing when COLAs may occur or stipulating that they can be granted only if the plan's financial condition will not be affected. Caps may also be placed on maximum COLAs, or COLAs can be tied to inflation, to manage plan costs. For instance, both the City of Austin Employees' Retirement System and the South Dakota Retirement System's target a 120% funded ratio for consideration of benefit improvement recommendations.

Contributions and benefits can also be made variable upon certain factors such as investment returns or funded levels. For example, Pennsylvania has tied employee contribution levels to investment returns, while Wisconsin's State Retirement system has tied benefits to investment performance.[28] The South Dakota Retirement System requires the Board to submit a report to the Governor and Legislature specifying recommendations for corrective action, including benefit changes, if its fixed, statutory contributions fall short of actuarial funding requirements, or if the fair value funded ratio is under 100%.[29] The Maine Public Employee Retirement System also has tied COLAs to investment returns.[30]

Experiences may sometimes deviate from the assumptions in a positive way, leaving the plan with an unanticipated increase in assets. A funding policy should have provisions in place to specify how both positive and negative experience will be addressed. For example, plans may allow for increased benefits or an increased COLA as a result of a positive deviation, but plans will need to ensure they are able to consistently meet the new funding demands of the changes.

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[27] Brainard, Keith, and Alex Brown. *Shared-Risk in Public Retirement Plans*. National Association of State Retirement Administrators, June 9, 2014, *Shared-Risk in Public Retirement Plans*, p. 2.
[28] Ibid.
[29] Codified Laws of South Dakota, Chapter 3-12-122; http://sdlegislature.gov/Statutes/Codified_Laws/DisplayStatute.aspx?Type=Statute&Statute=3-12-122
[30] "Summary: PLD Plan Changes." *Maine Public Employees Retirement System*, www.mainepers.org/Pensions/PLD%202018-Summary.htm.

V. Funding Policies Examples

Many pension plans across the United States have already adopted a funding policy, including several within the state of Texas. Highlighted below are two examples of funding policies from Texas plans and one example from outside the state. The featured funding policies are all from fixed-rate plans. Two are written policies adopted by the plans, while one was placed in state law. However, they all contain components to help guide the plan towards achieving benefit security, intergenerational equity, and contribution stability.

Houston Pension Plans

In 2017, the 85th Texas Legislature enacted Senate Bill 2190, which created a contribution corridor for all three City of Houston pension plans – Houston Firefighters' Relief & Retirement Fund (HFRRF), Houston Municipal Employees' Pension System (HMEPS), and Houston Police Officers Pension System (HPOPS).[31] Prior to the reform legislation, HFRRF contributions were set in its governing statute, and HMEPS and HPOPS contributions were established through meet and confer agreements with the City of Houston. The bill established a statutory funding policy that set a target contribution rate for the City based on the ADC and developed a corridor around the City's target contribution rate. Should the annually calculated contribution move outside the corridor, which encompasses rates equal to +/- 5% of the target rate (projected midpoint), certain steps must be taken, highlighted in the excerpt below.

> "If a Risk Sharing Valuation Study determines the City Contribution Rate differs from the Midpoint, in most cases, steps are taken to bring the Rate back toward the Midpoint. In a falling-cost environment, gains are used to accelerate the payoff of unfunded liabilities or reduce the interest rate. In a rising-cost environment, adjustments are made to the amortization period, employee contributions, or benefits to reduce the City Contribution Rate."
>
> - *City of Houston HMEPS Pension Reform Cost Analysis*. Retirement Horizons Incorporated, 2017, *City of Houston HMEPS Pension Reform Cost Analysis*, p. 10.

City of Austin Employee Retirement System

The City of Austin developed a supplemental funding plan for the City of Austin Employee Retirement System (COAERS) in 2005, which was amended in 2010.[32] In 2014, COAERS' board of trustees adopted a funding policy that built upon the supplemental funding plan. Highlights from the COAERS funding policy include:

- The first priority is to sufficiently fund the plan to pay the promised benefits to current and future generations.
- A COLA may be adjusted when:
    - the adjustment can be financially supported;

[31] A summary of the funding policies for the three City of Houston pension plans is in Appendix C.
[32] A copy of COAERS' funding policy is in Appendix D.

- the funded ratio of the plan is greater than or equal to 80% after incorporating the COLA;
- the amortization period is 20 years or less after incorporating the COLA; and
- the actual employer contribution rate is greater than or equal to the ADC but no more than 18% after incorporating the COLA.

- Employer contribution rate reductions should be considered only when annual COLA adjustments are built into funding assumptions and the funded ratio will remain greater than or equal to 105% after the reduction.
- All other benefit enhancements will be considered only when: a) annual COLA adjustments are built in to funding assumptions; b) the funded ratio will be at least 120% after the enhancement; and c) the actuarially determined employer contribution rate is less than or equal to the statutory employer contribution rate.

South Dakota Retirement System

The South Dakota Retirement System (SDRS), while not a Texas plan, is a fixed-rate plan with a solid funding policy and a long track record of remaining fully-funded or nearly so. The SDRS funding policy is a written document put forth by their Board of Trustees which incorporates elements in its statute.[33]

SDRS' Funding and System Management Policy is divided into three major sections: Funding Objectives, Consideration of Benefit Improvements, and Required Corrective Action Recommendations.[34] SDRS requires a fair value funded ratio of over 120% before considering any benefit improvements and must retain a funded ratio of over 120% after fully funding a benefit improvement. Per South Dakota statute, SDRS requires that an annual funding report be submitted to the South Dakota Governor and Retirement Laws committee.[35]

Per state statute and its own funding policy, SDRS is dedicated to keeping its plan well-funded. Should the funded ratio of the fund fall below 100% or if the fixed contribution rates are not sufficient to meet the actuarial requirement, the retirement system is required to detail in their annual report what corrective actions it will take. In 2016, SDRS lowered several key actuarial assumptions, including the investment return assumption. After incorporating those changes, SDRS determined it would not meet its funding policy objectives without corrective action, and the board recommended legislative changes to bring the system back into actuarial balance. These changes included modifying the COLA design to reflect a lower rate of expected inflation and changing the compensation definitions and calculations to reduce the effect of large, late-career pay increases.[36]

[33] *The South Dakota Perspective on Public Employee Retirement Benefits and the South Dakota Retirement System (SDRS)*. South Dakota Retirement System, sdrs.sd.gov/docs/SDPerspective.pdf.
[34] A copy of SDRS' 2017 revised funding and system management policy is located in Appendix E.
[35] Codified Laws of South Dakota, Chapter 3-12-122; http://sdlegislature.gov/Statutes/Codified_Laws/DisplayStatute.aspx?Type=Statute&Statute=3-12-122
[36] Managing SDRS for Sustainability. South Dakota Retirement System. December 2016. Slide 26, https://sdrs.sd.gov/docs/ManagingSDRSforSustainability.pdf

Conclusion and Recommendation

A contribution structure that requires the payment of an ADC is best suited to achieve the three primary goals of benefit security, contribution stability, and intergenerational equity. Contribution volatility associated with paying an ADC can be mitigated through contribution smoothing and other methods. Fixed-rate contribution structures necessitate strong funding policies with flexible mechanisms to make up for the inflexibility of contributions.

A pension funding policy should be designed to guide retirement systems to full funding and to help them achieve the three goals. A funding policy also should include clear and concrete funding objectives, the actuarial methods to be used, and a pathway to achieve the stated funding goals. Additionally, the funding policy should outline how the plan will address setbacks that occur when experience diverges from actuarial assumptions or assumption changes result in losses.

The PRB recommends that all Texas public retirement systems, including fixed-rate plans, adopt and maintain a written funding policy that fully funds the plan over as brief a period as possible, as recommended in the *PRB Pension Funding Guidelines*. The funding period should be a finite, or closed, period. The funding policy should be established in conjunction with the plan sponsor whenever possible and should work together with a plan's other policies such as benefit and investment policies. The PRB staff is available to provide guidance to plans as they develop their funding policies.

Appendix A – PRB Pension Funding Guidelines

I

Pension Review Board

Pension Funding Guidelines

(Adopted 01/26/17; Effective 06/30/17)

The purpose of the Pension Review Board's Pension Funding Guidelines is to provide guidance to public retirement systems and their sponsoring governmental entities in meeting their long-term pension obligations. The Guidelines are intended to foster communication between plans and their sponsors as they determine a reasonable approach to responsible funding, whether the contribution rate is fixed or actuarially determined.

Public retirement systems should develop a funding policy, the primary objective of which is to fund the obligations over a time frame that ensures benefit security while balancing the additional, and sometimes competing, goals of intergenerational equity and a stable contribution rate.

1. The funding of a pension plan should reflect all plan obligations and assets.
2. The allocation of the normal cost portion of the contributions should be level or declining as a percentage of payroll over all generations of taxpayers, and should be calculated under applicable actuarial standards.
3. Funding of the unfunded actuarial accrued liability should be level or declining as a percentage of payroll over the amortization period.
4. Actual contributions made to the plan should be sufficient to cover the normal cost and to amortize the unfunded actuarial accrued liability over as brief a period as possible, but not to exceed 30 years, with 10 - 25 years being the preferable target range.* For plans that use multiple amortization layers, the weighted average of all amortization periods should not exceed 30 years.* Benefit increases should not be adopted if all plan changes being considered cause a material increase in the amortization period and if the resulting amortization period exceeds 25 years.
5. The choice of assumptions should be reasonable, and should comply with applicable actuarial standards.
6. Retirement systems should monitor, review, and report the impact of actual plan experience on actuarial assumptions at least once every five years.

*Plans with amortization periods that exceed 30 years as of 06/30/2017 should seek to reduce their amortization period to 30 years or less as soon as practicable, but not later than 06/30/2025.

Appendix B – Retirement Systems by Contribution Type

Retirement Systems by Contribution Type

Plan Name	Actual ER Cont Type	Effective Date	Effective Amort Period	Funded Ratio %	ER Rec Cont	Actual ER Cont	Percent of Rec Cont Paid
University Health System Pension Plan	**Actuarial**	1/1/2016	28.0	66.4	6.14%	5.82%	95%
Dallas Co. Hospital Dist. Retirement Income Plan	**Actuarial**	1/1/2017	27.0	73.8	4.89%	4.58%	94%
Houston MTA Non-Union Pension Plan	**Actuarial**	1/1/2017	26.0	63.8	23.74%	23.86%	101%
San Antonio Metropolitan Transit Retirement Plan	**Actuarial**	10/1/2015	26.0	60.4	14.90%	18.58%	125%
Texas Municipal Retirement System	**Actuarial**	12/31/2016	19.7	86.3	12.63%	13.05%	103%
Plano Retirement Security Plan	**Actuarial**	12/31/2015	19.0	99.2	3.62%	3.12%	86%
Dallas/Fort Worth Airport Board DPS Retirement Plan	**Actuarial**	1/1/2017	18.0	75.6	30.71%	30.71%	100%
Dallas/Fort Worth Airport Board Retirement Plan	**Actuarial**	1/1/2017	18.0	80.3	37.49%	37.49%	100%
Texas County & District Retirement System	**Actuarial**	12/31/2016	13.5	88.4	11.19%	12.10%	108%
Colorado River Municipal Water Dist. Pension Trust	**Actuarial**	1/1/2017	9.1	89.9	13.34%	13.54%	101%
Corpus Christi Regional Transportation Authority	**Actuarial**	1/1/2017	7.0	93.2	11.16%	16.38%	147%
Employees Retirement System of Texas	**Fixed**	8/31/2017	Infinite	70.1	10.12%	11.51%	114%
Fort Worth Employees' Retirement Fund	**Fixed**	12/31/2017	Infinite	57.8	25.07%	19.98%	80%
Galveston Firefighter's Relief & Retirement Fund	**Fixed**	12/31/2016	Infinite	68.0	17.64%	14.00%	79%
Law Enforcement & Custodial Officer Sup. Ret. Fund	**Fixed**	8/31/2017	Infinite	66.0	2.51%	1.59%	63%
Beaumont Firemen's Relief & Retirement Fund	**Fixed**	12/31/2016	104.0	67.5	20.17%	15.00%	74%
Orange Firemen's Relief & Retirement Fund	**Fixed**	1/1/2017	69.3	49.9	19.86%	14.00%	70%
Judicial Retirement System of Texas Plan Two	**Fixed**	8/31/2017	63.0	90.8	16.63%	15.81%	95%
Harlingen Firemen's Relief & Retirement Fund	**Fixed**	9/30/2017	59.1	66.1	15.60%	18.07%	116%
Marshall Firemen's Relief & Retirement Fund	**Fixed**	12/31/2016	56.4	42.0	22.50%	19.05%	85%
Longview Firemen's Relief & Retirement Fund	**Fixed**	12/31/2016	50.7	45.5	26.84%	17.11%	64%
Cleburne Firemen's Relief & Retirement Fund	**Fixed**	12/31/2016	49.6	65.4	23.50%	24.40%	104%
Wichita Falls Firemen's Relief & Retirement Fund	**Fixed**	1/1/2017	49.4	62.5	17.27%	12.35%	72%
Galveston Employees' Retirement Plan for Police	**Fixed**	1/1/2017	48.7	42.1	16.46%	12.00%	73%
Odessa Firemen's Relief & Retirement Fund	**Fixed**	1/1/2018	47.1	43.1	25.00%	20.33%	81%
Midland Firemen's Relief & Retirement Fund	**Fixed**	12/31/2015	44.7	65.8	24.73%	22.20%	90%
Dallas Police & Fire Pension System-Combined Plan	**Fixed**	1/1/2017	44.0	49.4	79.03%	32.68%	41%
Paris Firefighters' Relief & Retirement Fund	**Fixed**	12/31/2016	41.9	35.6	12.00%	12.00%	100%
McAllen Firemen's Relief & Retirement Fund	**Fixed**	10/1/2016	41.4	69.1	13.00%	13.50%	104%
San Angelo Firemen's Relief & Retirement Fund	**Fixed**	12/31/2015	38.5	65.7	23.69%	20.23%	85%
Greenville Firemen's Relief & Retirement Fund	**Fixed**	12/31/2016	38.0	47.7	22.20%	16.43%	74%
Big Spring Firemen's Relief & Retirement Fund	**Fixed**	1/1/2017	36.2	54.9	12.54%	13.80%	110%
Brownwood Firemen's Relief & Retirement Fund	**Fixed**	12/31/2015	36.1	44.6	21.30%	20.00%	94%
Amarillo Firemen's Relief & Retirement Fund	**Fixed**	12/31/2015	34.5	81.8	20.22%	18.99%	94%
Lubbock Fire Pension Fund	**Fixed**	12/31/2016	33.5	72.6	21.73%	21.73%	100%
Lufkin Firemen's Relief & Retirement Fund	**Fixed**	12/31/2016	33.1	46.7	25.72%	21.98%	85%
El Paso Police Pension Fund	**Fixed**	1/1/2016	33.0	81.1	26.45%	18.16%	69%
Irving Firemen's Relief & Retirement Fund	**Fixed**	12/31/2015	33.0	74.9	19.01%	15.65%	82%
Teacher Retirement System of Texas	**Fixed**	8/31/2017	32.2	80.5	7.94%	7.99%	101%
Plainview Firemen's Relief & Retirement Fund	**Fixed**	12/31/2015	31.6	37.3	28.12%	24.68%	88%
Abilene Firemen's Relief & Retirement Fund	**Fixed**	10/1/2015	31.5	56.6	19.69%	13.20%	67%
Conroe Fire Fighters' Retirement Fund	**Fixed**	12/31/2015	31.4	61.5	16.28%	15.00%	92%
Austin Employees' Retirement System	**Fixed**	12/31/2016	31.0	67.5	19.84%	18.04%	91%
Corsicana Firemen's Relief & Retirement Fund	**Fixed**	12/31/2016	28.9	53.1	14.00%	14.00%	100%
Atlanta Firemen's Relief & Retirement Fund	**Fixed**	12/31/2016	28.4	82.1	13.64%	14.68%	108%
Temple Firemen's Relief & Retirement Fund	**Fixed**	9/30/2016	28.4	75.1	15.97%	15.21%	95%
Laredo Firefighters Retirement System	**Fixed**	9/30/2016	28.0	59.3	22.42%	20.10%	90%
Texas City Firemen's Relief & Retirement Fund	**Fixed**	12/31/2016	28.0	50.4	16.43%	16.00%	97%
Sweetwater Firemen's Relief & Retirement Fund	**Fixed**	12/31/2016	27.5	70.0	19.76%	16.52%	84%
Austin Police Retirement System	**Fixed**	12/31/2016	27.3	66.2	22.49%	20.96%	93%
Denison Firemen's Relief & Retirement Fund	**Fixed**	12/31/2015	27.1	74.4	15.00%	15.00%	100%
El Paso Firemen's Pension Fund	**Fixed**	1/1/2016	26.0	79.2	21.81%	18.79%	86%
Waxahachie Firemen's Relief & Retirement Fund	**Fixed**	10/1/2016	25.4	66.9	14.92%	15.33%	103%
Corpus Christi Fire Fighters' Retirement System	**Fixed**	12/31/2016	23.1	62.1	20.78%	20.78%	100%
Killeen Firemen's Relief & Retirement Fund	**Fixed**	9/30/2016	22.8	69.7	13.00%	13.13%	101%
San Benito Firemen Relief & Retirement Fund	**Fixed**	12/31/2015	21.7	60.5	11.07%	15.87%	143%

Retirement Systems by Contribution Type

Plan Name	Actual ER Cont Type	Effective Date	Effective Amort Period	Funded Ratio %	ER Rec Cont	Actual ER Cont	Percent of Rec Cont Paid
El Paso City Employees' Pension Fund	**Fixed**	9/1/2016	17.0	79.2	10.41%	15.73%	151%
Texarkana Firemen's Relief & Retirement Fund	**Fixed**	12/31/2015	16.3	87.4	19.50%	19.50%	100%
Austin Fire Fighters Relief & Retirement Fund	**Fixed**	12/31/2016	16.2	88.3	19.13%	18.33%	96%
Weslaco Firemen's Relief & Retirement Fund	**Fixed**	9/30/2016	14.1	68.5	7.96%	12.30%	155%
San Antonio Fire & Police Pension Fund	**Fixed**	1/1/2017	13.1	87.9	18.22%	24.64%	135%
Galveston Employees' Retirement Fund	**Fixed**	12/31/2017	11.6	79.6	9.00%	9.01%	100%

Appendix C – Houston Plans' Corridors: Rising Cost/Falling Cost Scenarios

Houston Plans – Rising Cost Scenario

<table>
<tr><th colspan="2">HFRRF – Municipal Contribution Rate When Estimated Municipal Contribution Rate Lower than Corridor Midpoint, Authorization for Certain Adjustments (Sec 13E)</th></tr>
<tr><td>If funded ratio is less than 90%</td><td>Municipal Contribution Rate = Corridor Midpoint</td></tr>
<tr><td>If funded ratio is equal to or greater than 90%</td><td>If municipal contribution rate is equal to or greater than the minimum contribution rate

Estimated contribution rate = Municipal Contribution Rate
<hr>If municipal contribution rate is less than the minimum contribution rate for corresponding fiscal year

Municipal Contribution Rate = Minimum Contribution Rate Achieved in accordance with subsection c.

SUBSECTION c (Adjustments):
First, adjust AVA to = MVA, if making adjustment causes municipal contribution rate to increase
Second, under written agreement (not later than April 30 before the first day of the next fiscal year), reduce assumed rate of return
Third, under written agreement (not later than April 30), prospectively restore all or part of any benefit reductions or reduce increased employee contributions, in each case made after the year 2017 effective date
Fourth, accelerate the payoff year of the existing liability loss layers, including the legacy liability, by accelerating the oldest liability loss layers first, to an amortization period that is not less than 10 years from the first day of the fiscal year beginning 12 months after the date of the risk sharing valuation study in which the liability loss layer is first recognized.</td></tr>
<tr><td>If funded ratio is equal to or greater than 100%</td><td>All existing liability layers, including the legacy liability, are considered fully amortized and paid
The applicable fiscal year is the payoff year for the legacy liability
For each fiscal year subsequent, the corridor midpoint shall be determined as provided by Section 13C(g) of the article</td></tr>
<tr><td>If funded ratio is greater than 100%</td><td>In a written agreement between the municipality and the fund, the fund may reduce member contributions or increase pension benefits if, as a result of the action:
the funded ratio is not less than 100 percent, and
the municipal contribution rate is not more than the minimum contribution rate</td></tr>
</table>

Houston Plans – Rising Cost Scenario

<table>
<tr><th colspan="2">HPOPS – City Contribution Rate When Estimated City Contribution Rate Lower than Corridor Midpoint, Authorization for Certain Adjustments (Sec 9D)</th></tr>
<tr><td>If funded ratio is less than 90%</td><td>City Contribution Rate = Corridor Midpoint</td></tr>
<tr><td>If funded ratio is equal to or greater than 90%</td><td>If city contribution rate is equal to or greater than the minimum contribution rate

Estimated contribution rate = City Contribution Rate
<hr>If city contribution rate is less than the minimum contribution rate for corresponding fiscal year

City Contribution Rate = Minimum Contribution Rate Achieved in accordance with Subsection (c).

Subsection (c) (Adjustments):
First, adjust AVA to = MVA, if making adjustment causes city contribution rate to increase
Second, under written agreement (not later than April 30 before the first day of the next fiscal year), reduce assumed rate of return
Third, under written agreement (not later than April 30), prospectively restore all or part of any benefit reductions or reduce increased employee contributions, in each case made after the year 2017 effective date
Fourth, accelerate the payoff year of the existing liability loss layers, including the legacy liability, by accelerating the oldest liability loss layers first, to an amortization period that is not less than 10 years from the first day of the fiscal year beginning 12 months after the date of the RSVS in which the liability loss layer is first recognized.</td></tr>
<tr><td>If funded ratio is equal to or greater than 100%</td><td>All existing liability layers, including the legacy liability, are considered fully amortized and paid
The applicable fiscal year is the payoff year for the legacy liability
For each fiscal year subsequent, the corridor midpoint shall be determined as provided by Section 9B(g) of the article</td></tr>
<tr><td>If funded ratio is greater than 100%</td><td>In a written agreement between the city and the board, the fund may reduce member contributions or increase pension benefits if, as a result of the action:
the funded ratio is not less than 100 percent, and
the municipal contribution rate is not more than the minimum contribution rate</td></tr>
</table>

Houston Plans – Rising Cost Scenario

HMEPS – City Contribution Rate When Estimated City Contribution Rate Lower than Corridor Midpoint, Authorization for Certain Adjustments (Sec 8E)	
If funded ratio is less than 90%	City Contribution Rate = Corridor Midpoint
If funded ratio is equal to or greater than 90%	**If city contribution rate is equal to or greater than the minimum contribution rate** Estimated Contribution Rate = City Contribution Rate ___ If city contribution rate is **less than the minimum contribution rate** for corresponding fiscal year City Contribution Rate = Minimum Contribution Rate achieved **in accordance with subsection c.** **Subsection (c)** (Adjustments): • First, adjust AVA to = MVA, if making adjustment causes city contribution rate to increase • Second, under written agreement (not later than April 30), prospectively restore all or part of any benefit reductions or reduce increased employee contributions, in each case made after the year 2017 effective date • Third, accelerate the payoff year of the legacy liability by offsetting the remaining legacy liability by the amount of the new liability loss layer, provided that during the accelerated period the city will continue to pay the city contribution amount as scheduled in the initial RSVS • Fourth, accelerate the payoff year of existing liability loss layers, excluding the legacy liability, by accelerating the oldest liability loss layers first, to an amortization period not less than 20 years from the first day of the fiscal year beginning 12 months after the date of the RSVS in which the liability loss layer is first recognized • Fifth, under a written agreement (not later than the 30th day before the first day of the next fiscal year), the city and pension board may agree to reduce the assumed rate of return
If funded ratio is equal to or greater than 100%	• All existing liability layers, including the legacy liability, are considered fully amortized and paid • The city contribution amount may no longer be included in the city contribution under 8A • The city and the pension system may mutually agree to change assumptions in a written agreement
If funded ratio is greater than 100%	In a written agreement between the city and the board, the fund may reduce member contributions or increase pension benefits if, as a result of the action: • the funded ratio is not less than 100 percent, and • the city contribution rate is not more than the minimum contribution rate

Houston Plans – Falling Cost Scenario

<table>
<tr><th colspan="2">HFRRF – Municipal Contribution Rate When Estimated Municipal Contribution Rate Equal to or Greater than Corridor Midpoint, Authorization for Certain Adjustments (Sec 13F)</th></tr>
<tr><td>If estimated municipal contribution rate is less than or equal to maximum contribution rate</td><td>Estimated Municipal Contribution Rate = Municipal Contribution Rate</td></tr>
<tr><td>If municipal contribution rate is greater than maximum contribution rate for corresponding fiscal year</td><td>Municipal Contribution Rate = Corridor Midpoint Achieved in accordance with Subsection (c).

Subsection (c) (Adjustments):

• First, if payoff year of the legacy liability was accelerated previously (falling cost scenario), extend the payoff year of existing liability loss layers, by extending the most recent loss layers first, to a payoff year not later than 30 years for the first day of the fiscal year beginning 12 months after the date of the RSVS in which the liability loss layer first recognized
• Second, adjust AVA to current MVA, if making the adjustment causes the municipal contribution rate to decrease</td></tr>
<tr><td>If municipal contribution rate after adjustment by Subsection (c) is greater than the third quarter line rate</td><td>Municipal Contribution Rate = Third Quarter Line Rate

• To the extent necessary to comply with the statute, the City and System shall enter into a written agreement to increase member contributions and make other benefit or plan changes not otherwise prohibited by applicable federal law or regulations
• If an agreement is not reached on/before April 30 before the first day of the next fiscal year, before the start of the next fiscal year to which the municipal contribution rate would apply, the board, to the extent necessary to set the municipal contribution rate equal to the third quarter line, shall:
    o Increase member contributions and decrease cost-of-living adjustments;
    o Increase normal retirement age; or
    o Any combination of the two</td></tr>
<tr><td>If municipal contribution rate remains greater than corridor midpoint in the third fiscal year after adjustments</td><td>In third fiscal year,
Municipal Contribution Rate = Corridor Midpoint achieved in accordance with Subsection (g).

Subsection (g):
Municipal contribution rate must be set at corridor midpoint by:
• In RSVS for third fiscal year, adjust AVA to MVA, if making the adjustment causes the municipal contribution rate to decrease</td></tr>
</table>

Houston Plans – Falling Cost Scenario

<table>
<tr><td></td><td>

Under written agreement between City and board:

Increase member contributions
Make any other benefit or plan changes not otherwise prohibited by applicable federal law or regulations

If an agreement is not reached on/before April 30 before the first day of the next fiscal year, before the start of the next fiscal year, the board, to the extent necessary to set the municipal contribution rate equal to the corridor midpoint, shall:

Increase member contributions and decrease cost-of-living adjustments;
Increase normal retirement age; or
Any combination of the two

</td></tr>
<tr><td colspan="2">HPOPS – City Contribution Rate When Estimated City Contribution Rate Equal to or Greater Than Corridor Midpoint, Authorization for Certain Adjustments (Sec 9F)</td></tr>
<tr><td>If estimated City contribution rate is less than or equal to maximum contribution rate</td><td>Estimated City Contribution Rate = City Contribution Rate</td></tr>
<tr><td>If City contribution rate is greater than maximum contribution rate for corresponding fiscal year</td><td>
City Contribution Rate = Corridor Midpoint achieved in accordance with Subsection (c).

Subsection (c) (Adjustments):

First, if payoff year of the legacy liability was accelerated previously (falling cost scenario), extend the payoff year of existing liability loss layers, by extending the most recent loss layers first, to a payoff year not later than 30 years for the first day of the fiscal year beginning 12 months after the date of the RSVS in which the liability loss layer first recognized
Second, adjust AVA to current MVA, if making the adjustment causes the city contribution rate to decrease

</td></tr>
<tr><td>If city contribution rate after adjustment by Subsection (c) is greater than the third quarter line rate</td><td>
City Contribution Rate = Third Quarter Line Rate

To the extent necessary to comply with the statute, the City and board shall enter into a written agreement to increase member contributions and make other benefit or plan changes not otherwise prohibited by applicable federal law or regulations
If an agreement is not reached on/before April 30 before the first day of the next fiscal year, before the start of the next fiscal year to which the city contribution rate would apply, the board, to the extent necessary to set the city contribution rate equal to the third quarter line, shall:

</td></tr>
</table>

Houston Plans – Falling Cost Scenario

	o Increase member contributions and decrease cost-of-living adjustments; o Increase normal retirement age; or o Any combination of the two
If city contribution rate remains greater than corridor midpoint in the third fiscal year after adjustments	In third fiscal year, City Contribution Rate = Corridor Midpoint achieved in accordance with **Subsection (g).** **Subsection (g):** City contribution rate must be set at corridor midpoint by: • In RSVS for third fiscal year, adjust AVA to MVA, if making the adjustment causes the city contribution rate to decrease • Under written agreement between City and board: o Increase member contributions o Make any other benefit or plan changes not otherwise prohibited by applicable federal law or regulations • If an agreement is not reached on/before April 30 before the first day of the next fiscal year, before the start of the next fiscal year, the board, to the extent necessary to set the city contribution rate equal to the corridor midpoint, shall: o Increase member contributions and decrease cost-of-living adjustments; o Increase normal retirement age; or o Any combination of the two
HMEPS – City Contribution Rate When Estimated City Contribution Rate Equal to or Greater Than Corridor Midpoint, Authorization for Certain Adjustments (Sec 8F)	
If estimated City contribution rate is **less than or equal to** maximum contribution rate	Estimated City Contribution Rate = City Contribution Rate
If City contribution rate is **greater than** maximum contribution rate for corresponding fiscal year	City Contribution Rate = Corridor Midpoint achieved in accordance with **Subsection (c).** **Subsection (c)** (Adjustments): • First, adjust AVA to current MVA, if making the adjustment causes the city contribution rate to decrease • Second, if payoff year of the legacy liability was accelerated previously (falling cost scenario), o extend the payoff year of the legacy liability by the amount of the new liability gain layer to a maximum amount

Houston Plans – Falling Cost Scenario

	o during extended period, the city shall continue to pay the city contribution amount for the extended period • Third, if the payoff year of a liability loss layer other than legacy liability was previously accelerated(falling cost scenario), extend the payoff year of existing liability loss layers, excluding legacy liability, by extending the most recent loss layers first, to a payoff year not later than 30 years from the first day of the fiscal year beginning 12 months after the date of the RSVS in which the liability loss layer first recognized

If city contribution rate after adjustment by Subsection (c) is greater than the third quarter line rate	City Contribution Rate = Third Quarter Line Rate
	
	• To the extent necessary to comply with the statute, the City and board shall enter into a written agreement to increase member contributions and make other benefit or plan changes not otherwise prohibited by applicable federal law or regulations
	• Gains resulting from adjustments made as the result of a written agreement may not be used as a direct offset against the city contribution amount in any fiscal year
	• If an agreement is not reached on/before the 30th day before the first day of the next fiscal year, before the start of the next fiscal year to which the city contribution rate would apply, the board, to the extent necessary to set the city contribution rate equal to the third quarter line, shall:
	    o Increase member contributions and decrease cost-of-living adjustments;
	    o Increase normal retirement age

If city contribution rate remains greater than corridor midpoint in the third fiscal year after adjustments	In third fiscal year,
	City Contribution Rate = Corridor Midpoint achieved in accordance with **Subsection (h).**
	
	Subsection (h):
	City contribution rate must be set at corridor midpoint by:
	• In RSVS for third fiscal year, adjust AVA to MVA, if making the adjustment causes the city contribution rate to decrease
	• Under written agreement between City and board:
	    o Increase member contributions
	    o Make any other benefit or plan changes not otherwise prohibited by applicable federal law or regulations
	
	• If an agreement is not reached on/before the 30th day before the first day of the next fiscal year, before the start of the next fiscal year, the board, to the extent necessary to set the city contribution rate equal to the corridor midpoint, shall:
	    o Increase member contributions
	    o decrease cost-of-living adjustments

Appendix D – COAERS Funding Policy

coaers

City of Austin Employees' Retirement System

City of Austin Employees' Retirement System
Board Approved Policy

Policy: F-2

Subject: Funding Policy and Guidelines

Review Committee: Benefits & Services Committee

Date Implemented: November 25, 2014

Date Updated:

Signature of Chair: Sam R Jones

Sam Jones

City of Austin Employees' Retirement System
Funding Policy and Guidelines

I. PURPOSE AND SCOPE

This Funding Policy establishes appropriate actuarial methodologies and memorializes the long-term funding goals for COAERS. COAERS is formally adopting certain baseline actuarial measurements to provide guidance for actuarial valuations performed on and after December 31, 2013. The Board of Trustees has also used this opportunity to establish guidelines to ensure that the Plan is well funded into the future and specifies under what conditions benefit enhancements will be considered by the Board of Trustees.

II. DEFINITIONS

"Board of Trustees" means the Board of Trustees of the City of Austin Employees Retirement System as defined by Vernon's Ann.Texas Civ.St. Art. 6243n.

"Funding period" means the length of time required to eliminate the Plan's unfunded liability.

"Cost of living adjustment" means an adjustment which is added to the current monthly payment of the retirement annuities, pensions, or allowances of each retired member and beneficiary to help counteract the erosion of purchasing power caused by inflation.

"Funded ratio" means the value of a Plan's assets, expressed as a percentage of the plan's actuarial liability

"Actuarial value of plan assets" means the Plan's assets determined in accordance with the Asset Valuation Method outlined in Section III of this Policy.

"Actuarial liability" means the actuarial accrued liability determined in accordance with the Actuarial Cost Method outlined in Section III of this Policy.

"Unfunded liability" means the actuarial liability in excess of the actuarial value of plan assets.

"Plan" means the City of Austin Employees' Retirement System and the provisions found in Vernon's Ann.Texas Civ.St. Art. 6243n.

"Actuarially determined employer contribution rate" means the employer's periodic contribution to the Plan which is required to properly fund the Plan, which should be sufficient to eliminate the unfunded liability over a period not to exceed 25 years (based on the Texas Pension Review Board's Guidelines for Actuarial Soundness).

"Statutory employer contribution rate" means the employer contribution rate as defined by Vernon's Ann.Texas Civ.St. Art. 6243n, which is currently eight percent (8%) of base compensation.

"Actual employer contribution rate" means the actual employer contribution paid by the City of Austin currently under the Amended Supplemental Funding Plan or by agreement.

"Benefit enhancement" means any change to the promised benefits for retired, active, vested, and nonvested members of the City of Austin Employees Retirement System which increases the actuarially determined employer contribution rate, or increases the amortization period, or decreases the funded ratio of the Plan. Examples include, but are not limited to: benefit formula multiplier increases; reductions in eligibility for benefits, or lump-sum additional benefit payments to retired members or beneficiaries.

III. ACTUARIAL METHODS FOR VALUATIONS

The Board of Trustees has adopted the following actuarial methods for the purposes of actuarial valuations occurring on and after December 31, 2013 and for plan funding purposes:

A. Asset Valuation Method - Five year Smoothing with Direct Offset of Gains/(Losses) and 20% Soft Corridor,
B. Actuarial Cost Method – Entry Age Normal (Individual), and
C. Funding Period – Determined based on an open group projection.

IV. STATEMENT OF PRIORITIES

The first obligation of the Board of Trustees is to fund the Plan sufficiently to preserve the ability to reliably pay benefits promised under the Plan to current and future generations. However, the Board believes that an ideal benefit design should include annual cost of living adjustments to help counteract the erosion of purchasing power caused by inflation. Other benefit enhancements should be considered only after cost-of-living adjustments have been incorporated and only if the actuarially determined employer contribution rate is less than or equal to the statutory employer contribution rate.

V. GUIDELINES FOR FUTURE COST OF LIVING ADJUSTMENTS

The Board of Trustees believes that it is best to consider supporting cost of living adjustments only when the following conditions exist:

A. The adjustment can be financially supported on a regular, periodic basis preferably on an annual basis but no less frequently than every five years.

B. The funded ratio of the Plan is greater than or equal to 80% after incorporating the cost of living adjustment, assuming it to be regular and periodic; and
C. The amortization period for unfunded liabilities is less than or equal to 20 years after incorporating the cost of living adjustments, assuming it to be regular and periodic; and
D. The actual employer contribution rate is greater than or equal to the actuarially determined contribution rate but not more than 18% after incorporating the cost of living adjustments, assuming it to be regular and periodic.

VI. GUIDELINES FOR FUTURE REDUCTIONS IN EMPLOYER CONTRIBUTION RATES

The Board of Trustees believes that it is best to consider supporting a reduction in the actual employer contribution rate only when the following conditions exist:

A. Annual cost of living adjustments are built into funding assumptions; and
B. The funded ratio will remain greater than or equal to 105% subsequent to any reduction in the actual employer contribution rate.

The actual employer contribution rate should not go down by more than 1% of pay per year.

VII. GUIDELINES FOR FUTURE BENEFIT ENHANCEMENTS

For all other benefit enhancements not specifically mentioned above, the Board of Trustees believes that it is best to support such enhancements only when the following conditions exist:

A. Annual cost of living adjustments are built into funding assumptions; and
B. The funded ratio is equal to or greater than 120% after incorporating the benefit enhancement, and
C. The actuarially determined employer contribution rate is less than or equal to the statutory employer contribution rate.

VIII. AMENDED SUPPLEMENTAL FUNDING PLAN

A. This Policy is to be implemented consistently with City of Austin Resolution No. 20100913-008 as known as the Amended Supplemental Funding Plan.
B. So long as the Amended Supplemental Funding Plan remains in effect, any future benefit enhancements or cost of living adjustments otherwise permitted under the Plan's governing documents will require recommendation from the City Manager and approval by the City Council. Any such recommendation by the City Manager should include a projection and actuarial analysis by the COAERS and its actuaries of the effect of the requested enhancement or adjustment on the Plan and the level of employer contributions to the Plan, including projections under scenarios simulating volatile market returns.

IX. EMPLOYEE CONTRIBUTIONS

In order to fund the Plan, regular full-time employee members may increase the employee contribution rate by a majority vote of all such members voting at an election to consider an increase in contributions.

X. MONITORING AND EVALUATION

A. The Board of Trustees and its actuary will monitor the Plan's progress towards the guidelines in this Policy.

B, If a cost of living adjustment is provided, future cost of living adjustments are not necessarily guaranteed and are subject to meeting the guidelines in this Policy, the process for reviewing cost of living adjustments established by the Amended Supplemental Funding Plan, and other factors that the Board of Trustees and the City of Austin may choose to consider.

Appendix E – South Dakota Retirement System Funding and System Management Policy

SDRS FUNDING AND SYSTEM MANAGEMENT POLICIES

– Managing SDRS Based on Fixed, Statutory Contributions –

FUNDING OBJECTIVES	CONSIDERATION OF BENEFIT IMPROVEMENTS	REQUIRED CORRECTIVE ACTION RECOMMENDATIONS
• A Fair Value Funded Ratio (Fair Value of Assets ÷ Actuarial Accrued Liability*) of 100% or more • A fully funded system with no Unfunded Liabilities under the Entry Age Normal Cost method • Actuarially determined benefits that are variable and can be supported by fixed, statutory contributions	• A Fair Value Funded Ratio of over 120% is required before considering benefit improvement recommendations • The cost to fully fund the recommended benefit improvement is also limited to the net accumulated actuarial investment gains and losses, with gains recognized over a five-year period and losses recognized immediately • After fully funding the cost of the benefit improvement, the Fair Value Funded Ratio must be at least 120% and all funding objectives must continue to be met • Proposed benefit improvement must be consistent with both the Board's long-term benefit goals and sound public policy with regard to retirement practices	• The annual report to Governor and Retirement Laws Committee will include corrective action recommendations if SDRS does not meet both of the following conditions: o Fixed, statutory contributions sufficient to meet the actuarial requirement, and o Fair Value Funded Ratio of 100% or more • The report shall include recommendations for the circumstances and timing for any benefit changes, contribution changes or any other corrective action, or any combinations of actions to improve the funding conditions

The Entry Age Normal cost method is used to calculate Normal Cost and Actuarial Liability

*The Actuarial Accrued Liability and Normal Cost at each July 1 will be based on the baseline COLA assumption or the restricted maximum COLA, as applicable under the SDRS variable COLA structure

Revised 4-5-17

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C6

Topic: **Chairman's Discussion Item - Review of meeting with the City about USERRA, hiring plan and payroll issues**

Discussion: The Chairman will review the meeting he had with the City about USERRA, hiring plan and payroll issues.

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 – February 14, 2019

			ATTENDING	APPROVED
1.	**Conference:**	**TEXPERS Annual Conference**	**BD**, **SF**	12/13/2018
	Dates:	April 7-10, 2019		
	Location:	Austin, TX		
	Est. Cost:	$1,225		
2.	**Conference:**	**NCPERS Accredited Fiduciary Program**		
	Dates:	May 18-19, 2019		
	Location:	Austin, TX		
	Est. Cost:	TBD		
3.	**Conference:**	**NCPERS Annual Conference**	**SF**	
	Dates:	May 19-22, 2019		
	Location:	Austin, TX		
	Est. Cost:	$1,500		
4.	**Conference:**	**TEXPERS Summer Educational Forum**		
	Dates:	August 11-13, 2019		
	Location:	El Paso, TX		
	Est. Cost:	TBD		

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C8

Topic: **Public Equity Structure Study**

Attendees: Leandro Festino, Managing Principal – Meketa Investment Group
Aaron Lally, Executive Vice President – Meketa Investment Group

Discussion: Public equity asset classes represented 24% of the DPFP portfolio as of 1/31/19 (preliminary). This weighting is expected to double over the next three to four years to reach a target allocation of 50% (40% Global Equity and 10% Emerging Markets Equity) as private market assets are gradually redeployed.

Meketa and Staff have conducted a detailed analysis of the public equity program and will present this analysis and recommendations to the Board.

Staff Recommendation: **Review** the equity structure study with the Investment Advisory Committee and **incorporate** their advice into a future recommendation to the Board.

Dallas Police and Fire Pension System

Public Equity Review

M E K E T A I N V E S T M E N T G R O U P
5796 ARMADA DRIVE SUITE 110 CARLSBAD CA 92008
760 795 3450 fax 760 795 3445 www.meketagroup.com

Introduction

- In August 2018, Meketa Investment Group conducted its initial fund review (“IFR”) of DPFP.
- As part of the IFR, we identified the public equity program as a priority two item, with a goal of completing a comprehensive review in the first half of 2019.
- The intent of this review was to develop a deeper understanding on how the public equity program is structured, with an eye towards potential enhancements, where appropriate.
- The analysis evaluated the focus areas listed on the following page.

Focus Areas

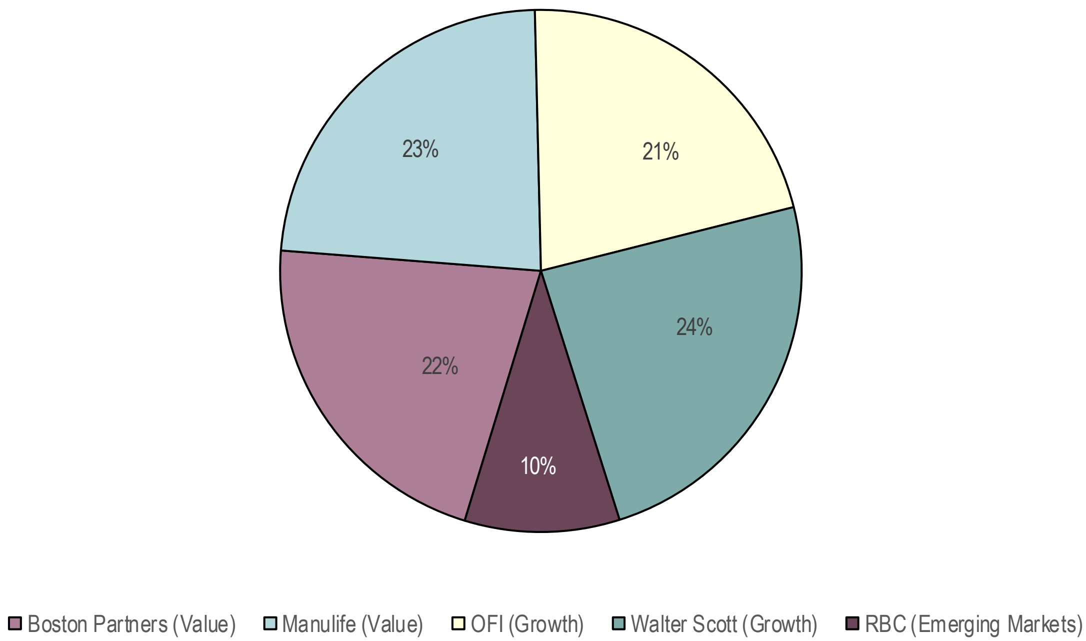
U.S. and Small Cap Underweights	The current public equity program (in aggregate) has had a persistent underweight to the U.S. and a persistent underweight to small cap stocks. We are evaluating whether DPFP should bring both exposures closer to market weight. The underweight to U.S. may be the result of tactical positioning by the global equity managers and may revert in the future. We feel the underweight to small cap is unlikely to change, given the biases and AUM of the current manager roster. We note that it could be potentially additive to hire one (or more) small cap manager(s). Small cap equities have generally had higher returns historically (albeit with higher volatility).
Weight of Emerging Markets	The current emerging markets exposure is roughly equal to the market weight. At full policy weights, we expect the program will have a material overweight to emerging market equity relative to the MSCI ACWI IMI index composition. This is in line with the policy targets adopted by the Board, and Meketa Investment Group clients and other peers.
Correlations and Holdings Overlap	Correlation of excess returns across the pairs of managers ranges from a low of -0.2 to a high of 0.4. Overall, we are pleased with the low level of correlation across the strategies. 85% of the stocks owned are unique to only one manager. The remaining 15% of positions have some degree of overlap and represent a larger portion of the overall market value. It is not surprising the magnitude of overlap (in market value terms) is higher given the bias towards mega/large cap companies in the overall equity portfolio.
Attribution	Over the past five years, the managers (in aggregate) have added value through security selection and sector selection. Regional and country positioning has not been a significant driver of excess returns.
Returns/Volatility[1]	The total public equity program outperformed the index (8.8% vs. 7.9%, annualized) with lower standard deviation (13.4% vs. 14.2%, annualized). The program has beaten the index, after fees, in 88% of rolling three-year periods.
Tracking Error	OFI and RBC contribute more tracking error to the total program than their respective weights imply. Boston Partners and Manulife are the least additive to total expected tracking error. We estimate tracking error will be approximately 1.7% going forward. We generally prefer high tracking error portfolios (i.e. higher alpha potential). We are reasonably pleased with the tracking error expectations given the five managers in use.
Passive Exposure	The public equity program has no passive exposure. We have included an example (Appendix A) of what the program might look like with the addition of a passive index.

[1] Net of fees from April 2010 - November 2018. This period was selected because this is the longest common period that all five current strategies have been in existence.

Current Structure

- DPFP has investments with five public equity managers (two value tilted global strategies, two growth tilted global strategies, and one dedicated emerging market equity strategy).
- The structure is currently 90% global strategies and 10% emerging market equity.
- The four global strategies are roughly equal weight.

Total Public Equity Exposure
(as of November 30, 2018)

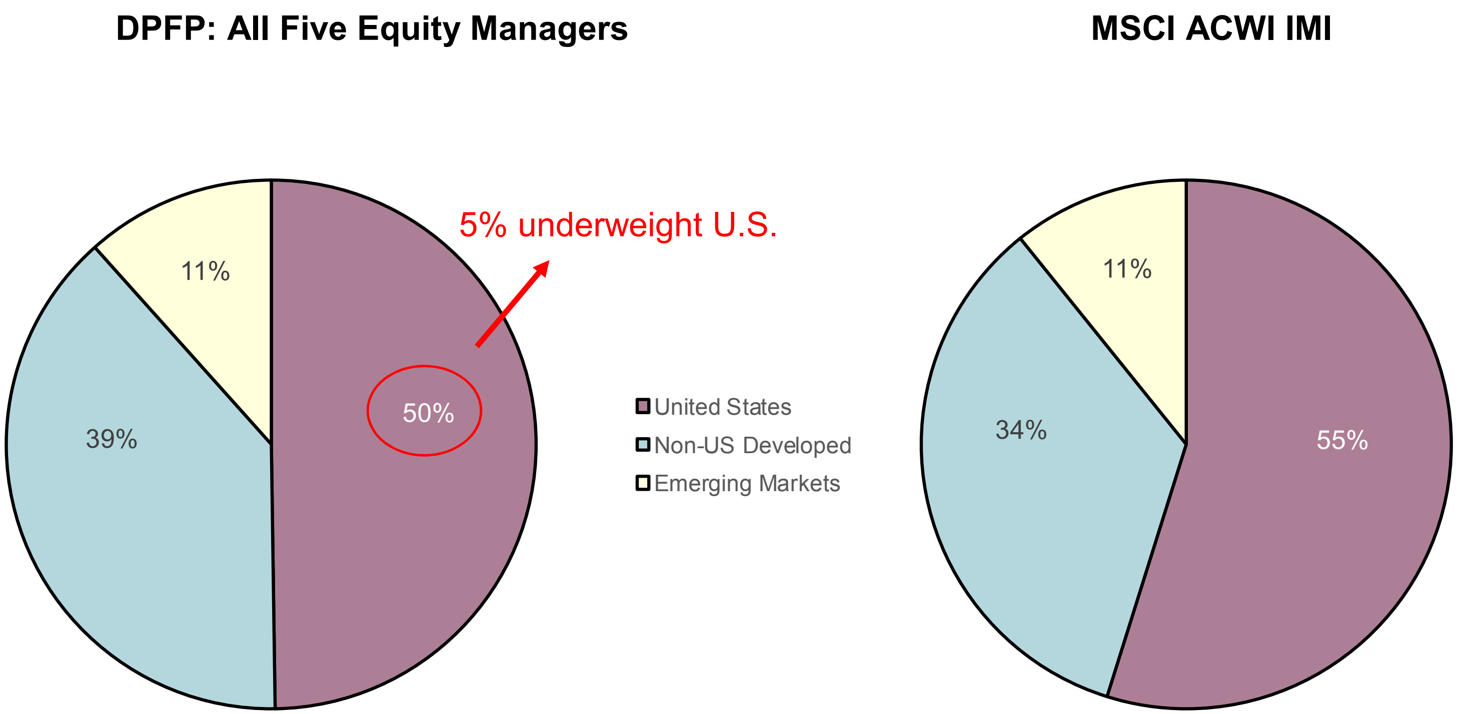


Global vs. Regional Allocations

- There is no single “best” way to structure a pension’s public equity exposure.
- We have clients that exclusively use global managers, others that use regional specialists (i.e. dedicated U.S. strategies, developed (ex-U.S.) strategies, and emerging markets strategies) and some that use a combination of both.
- Below we highlight some of the pros and cons to each approach.

	Global	Regional
Pros	• Global managers can be more nimble and tactical. • Global managers can access the full opportunity set. • Likely hire fewer managers = larger mandates = possibility to reach fee breaks.	• Gain more control over regional asset allocation. • Regional specialists have more defined mandates and may be better equipped at covering opportunity set. • Deeper pool of strategies to choose from.
Cons	• Lose control over regional and market cap asset allocation. • Higher potential for overlapping exposure. • Higher potential for global manager to chase regional performance.	• Certain regions may be underperforming vs. rest of the world (could last many years). • Managers are often compelled to be (nearly) fully invested in their region even if valuations are expensive. • Most pension plans meet monthly or less frequently and may be unable to make quick regional tilts (if desired).

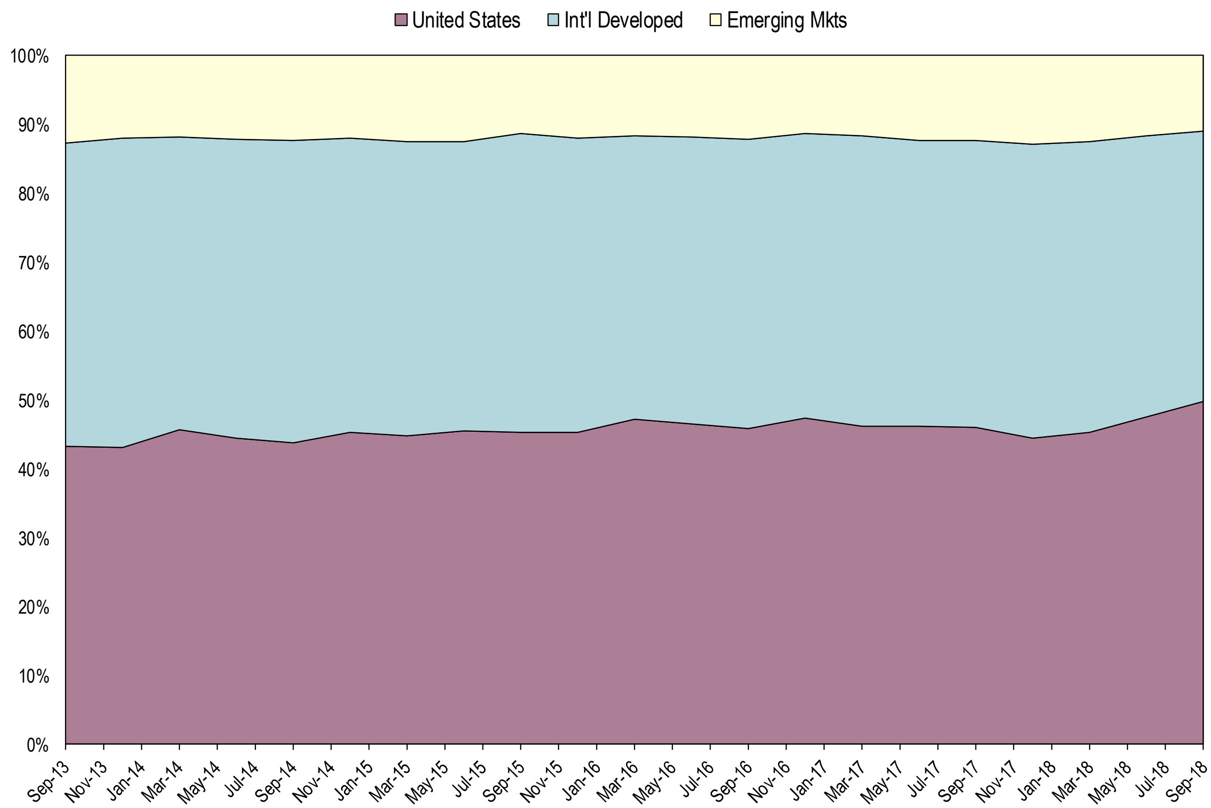
Regional Breakdown[1]



- The total equity program is underweight U.S. equity and has similar emerging market exposure as the MSCI ACWI IMI Index.

[1] As of September 2018. Source: eVestment, FactSet.

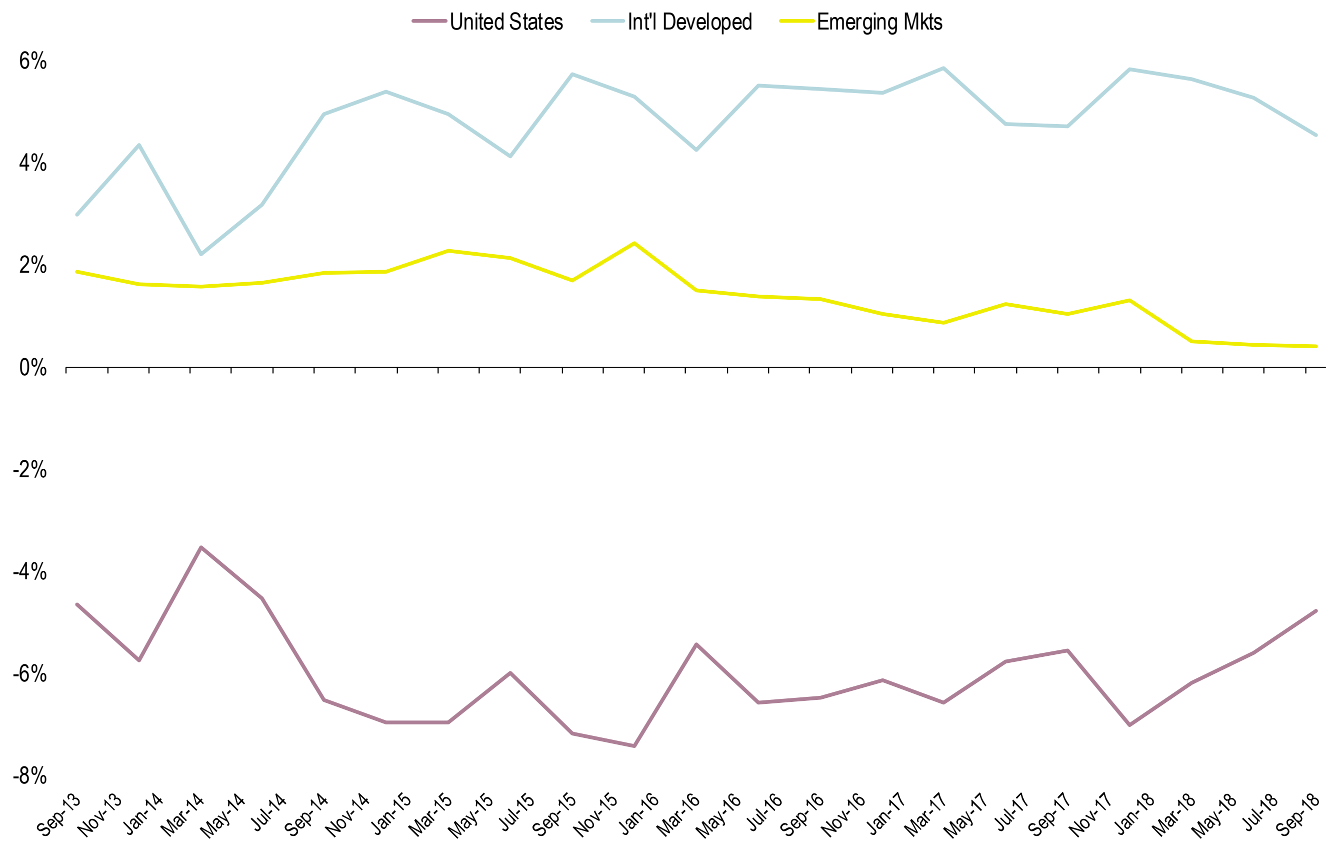
Regional Breakdown[1]



- If the current roster of strategies had been held historically, the regional exposure would not have deviated significantly throughout time.

[1] Source: eVestment, FactSet. Based on current portfolio of managers if held historically at current weights. Last five years through September 2018.

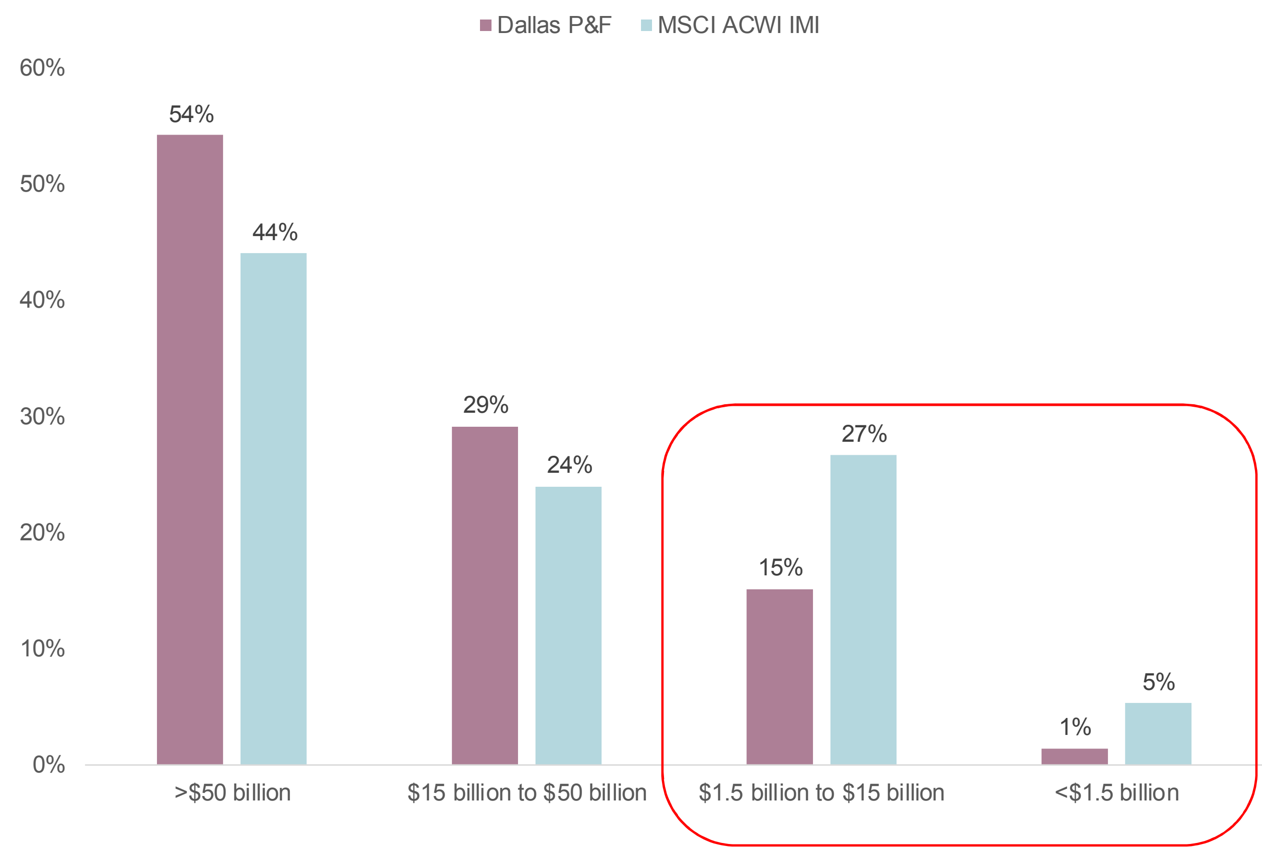
Regional Breakdown[1]– Relative Weights vs. MSCI ACWI IMI



- The current roster of strategies has had a relative underweight position to U.S. stocks historically.

1 Source: eVestment, FactSet. Based on current portfolio of managers if held historically at current weights. Last five years through September 2018.

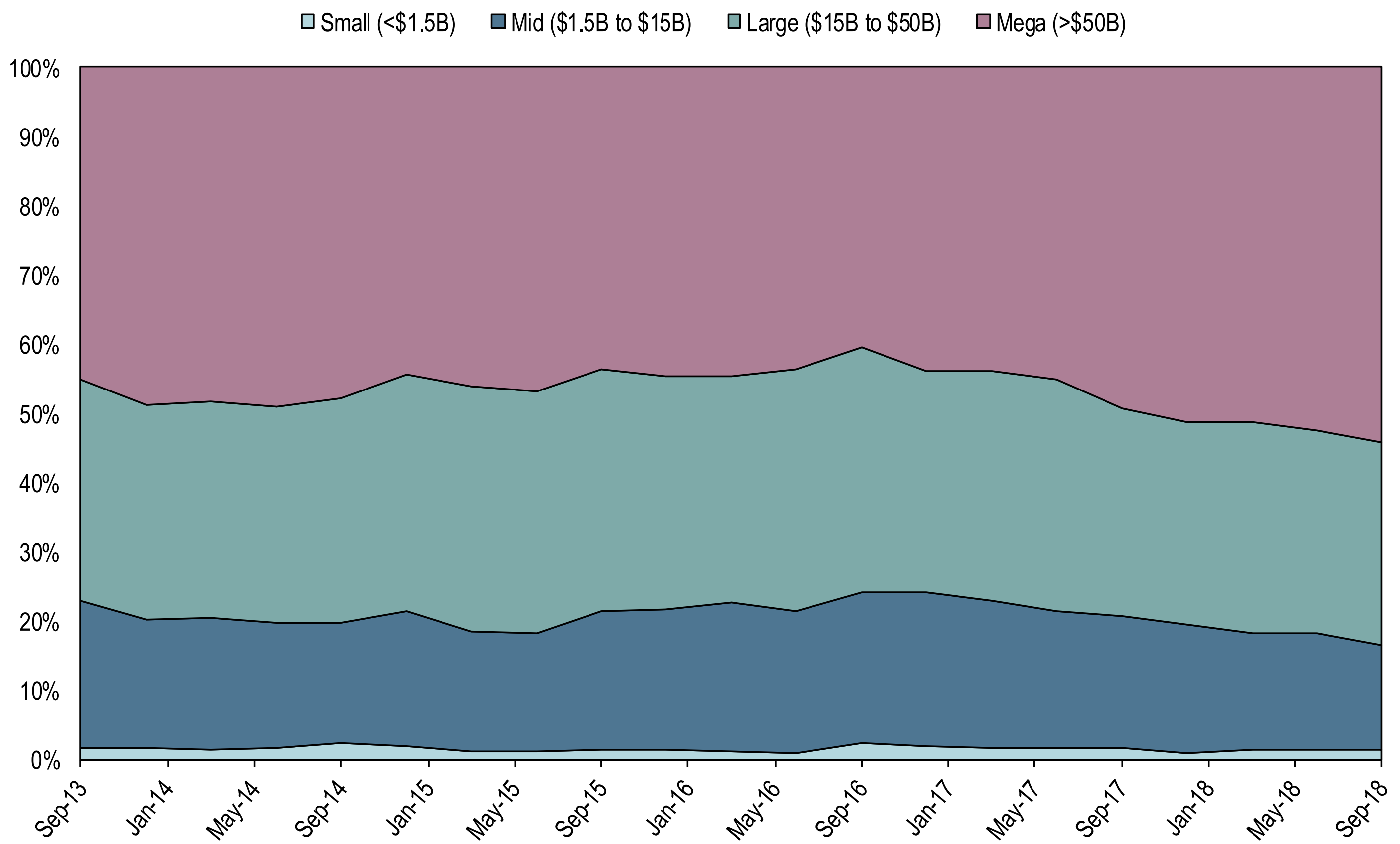
Market Cap Exposure[1]



- Relative to the broad MSCI ACWI IMI Index, the public equity program has an underweight to small and mid-cap stocks and an overweight to large cap stocks.

[1] As of September 2018. Source: eVestment, FactSet. May not sum to 100% due to rounding.

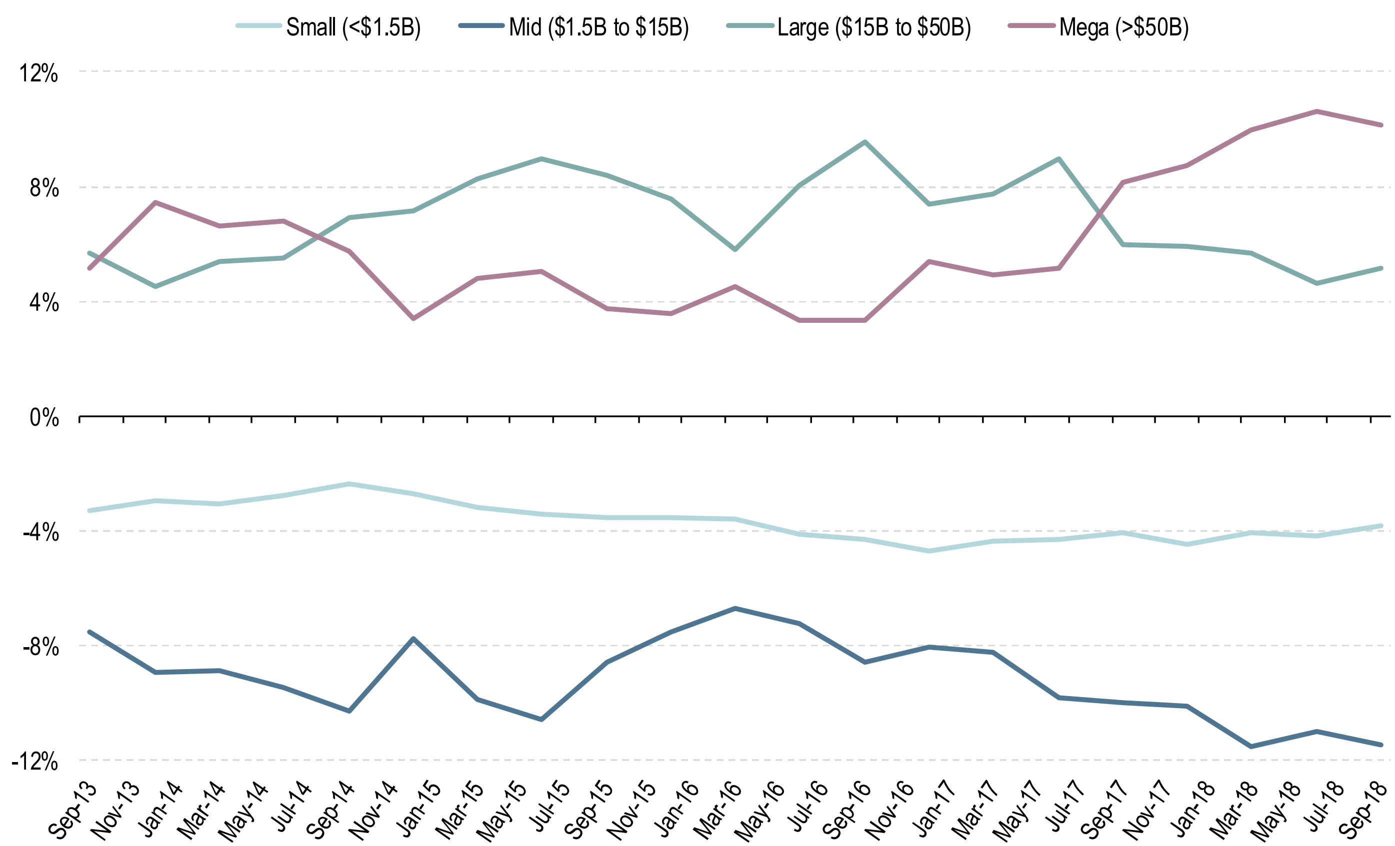
Market Cap Exposure[1]



- Fairly consistent market cap exposure in recent years, with a current small trend toward larger companies.

1 Source: eVestment, FactSet. Based on current portfolio of managers if held historically at current weights. Last five years through September 2018.

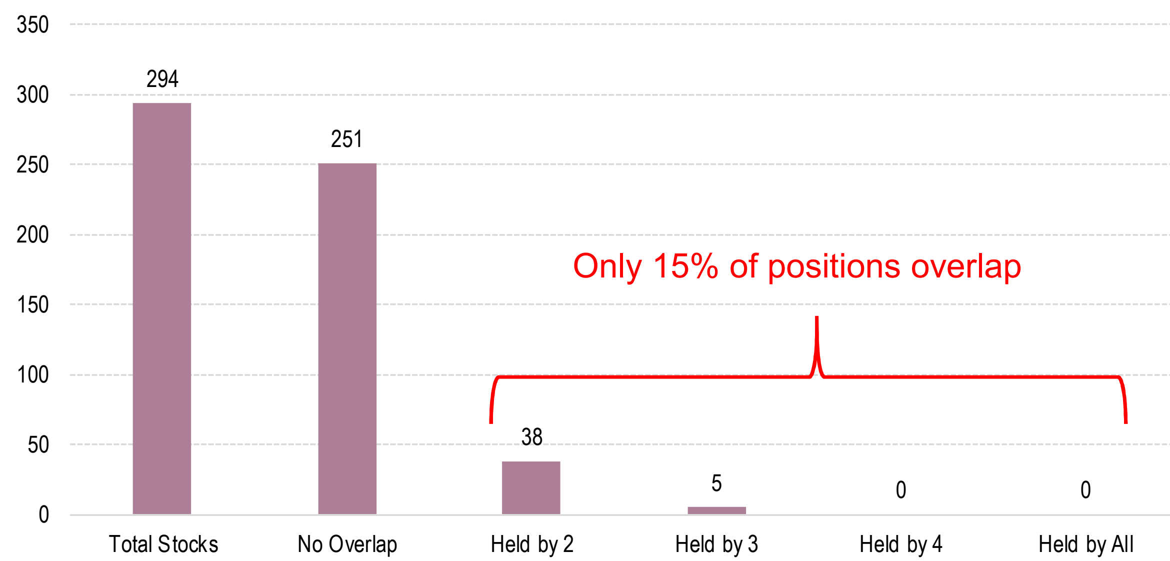
Market Cap Exposure[1] – Relative Weights vs. MSCI ACWI IMI



- The underweight to small and mid-cap companies (relative to the index) has been consistent historically.

[1] Source: eVestment, FactSet. Based on current portfolio of managers if held historically at current weights. Last five years through September 2018.

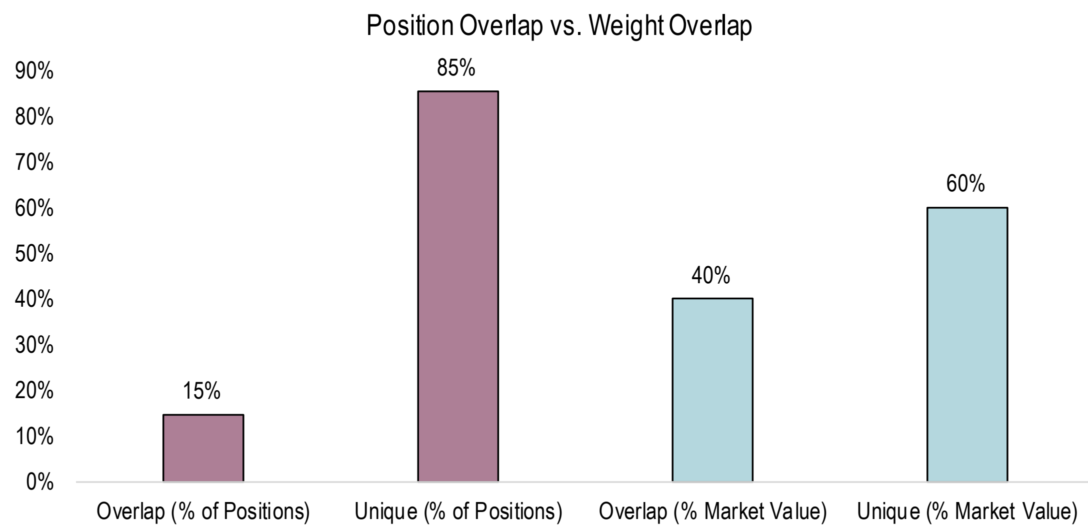
Holdings Overlap[1]



- No positions are held in common across more than three strategies.
- 251 of the 294 stock positions (85%) in the total portfolio are unique holdings to just a single manager, indicating that individual managers on the roster have limited position overlap and the total portfolio is reasonably diversified.

[1] FactSet. Excludes U.S. dollar cash positions. As of September 30, 2018.

Holdings Overlap (continued)[1]



- While just 15% of the stocks overlap (by name), those overlapping positions represent approximately 40% of the total market value. It is important to note that many of these overlapping positions are mega-cap, multinational stocks that have large weights in the MSCI ACWI IMI Index, and overlap among these names should be expected.
- In some instances, managers hold the same position but at significantly different weights. For example, both OFI and Walter Scott hold Alphabet. However, it is OFI's largest stock position, 6.6% weight, and one of Walter Scott's smallest positions at 0.6%. This "netting" of position size tends to occur more often as the number of managers increases, potentially leading to index type weights.

[1] FactSet. Excludes U.S. dollar cash positions. As of September 30, 2018.

Excess Return Correlation Matrix[1]

Common Period (4/2010 – 11/2018)	Boston Partners	OFI	Walter Scott	Manulife	RBC
Boston Partners	1.00				
OFI	0.12	1.00			
Walter Scott	-0.11	-0.11	1.00		
Manulife	0.28	-0.16	0.41	1.00	
RBC	0.10	0.11	0.32	0.29	1.00

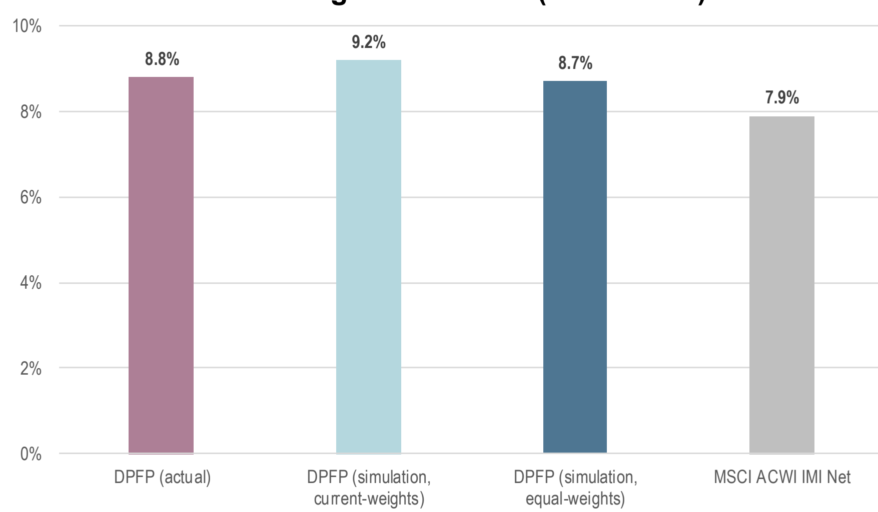
- The average monthly excess return correlation for the roster is 0.13.
- The least correlated pair has been Manulife and OFI.
- The least correlated manager has been OFI, with an average monthly excess return correlation of -0.01.
- Overall, the correlation of excess returns reflects desired diversification.

[1] Gross of fees, strategy composite returns (eVestment). Boston Partners, OFI, Manulife, and Walter Scott are benchmarked to the MSCI ACWI IMI Net and RBC is benchmarked to the MSCI Emerging Markets Net Index. Common period is from April 2010 to November 2018.

Historical Risk and Returns Analysis

- We evaluated historical performance three ways.
- First, we looked at the actual returns of the total public equity exposure (net of fees).
- Second, because the current roster of strategies is not the same as it was in the past, we created a simulated portfolio (based on the current five strategies at current weights) to see how today's roster of public equity managers would have performed as a program in the past.
- Third, we ran another simulation with all five managers at equal weights (to proxy what the future exposure might look like once the full allocation to global equity and emerging market equity is funded).
- All three portfolios outperformed the index with lower standard deviation.

Trailing Net Returns[1] (annualized)



[1] Common period is from April 2010 through November 2018. Returns are net of fees. Source: MSCI Barra, eVestment Alliance.

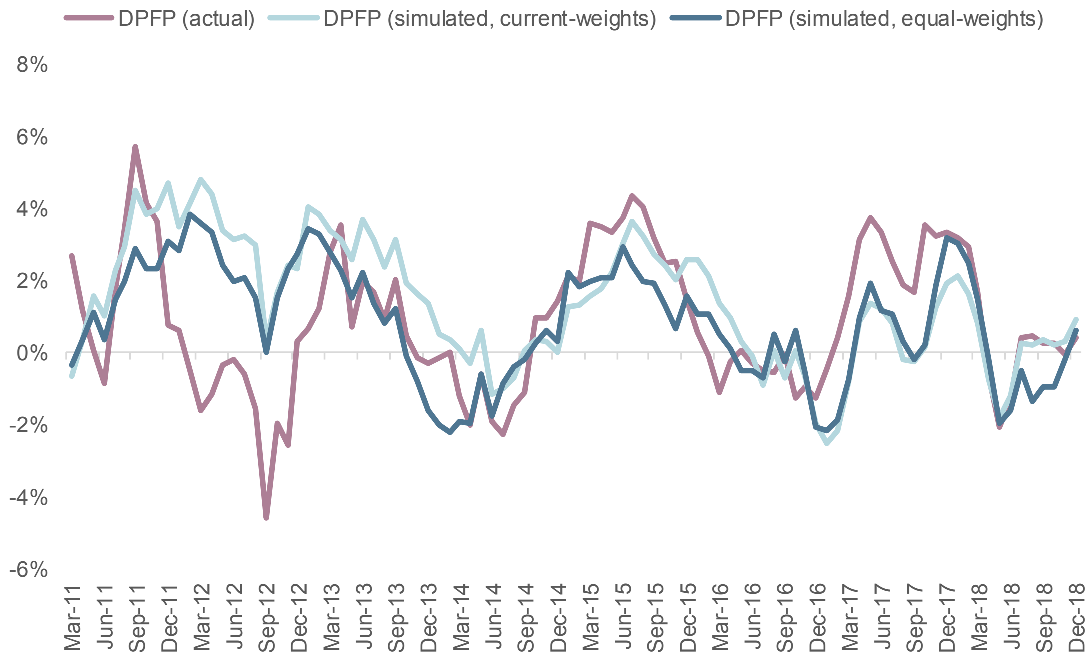
Historical Risk and Returns Analysis (continued)

	DPFP (actual)	DPFP (simulation, current-weights)	DPFP (simulation, equal-weights)	*MSCI ACWI IMI Net*
Common Period Performance[1]:				
Common Period Performance (%)	8.8	9.2	8.7	*7.9*
Best 3 Months (%)	13.2	13.9	14.3	*14.5*
Worst 3 Months (%)	-14.9	-15.0	-15.7	*-17.9*
Risk Measures:				
Standard Deviation (%)	13.4	13.6	13.7	*14.2*
Tracking Error (%)	2.4	1.8	1.8	*NA*
Beta	0.93	0.95	0.95	*NA*
Correlation to Benchmark	0.98	0.99	0.99	*1.00*
Upside Capture (%)	100	100	99	*NA*
Downside Capture (%)	94	93	94	*NA*
Risk-Adjusted Performance:				
Jensen's Alpha (%)	1.5	1.7	1.2	*NA*
Sharpe Ratio	0.63	0.65	0.61	*0.53*
Information Ratio	0.39	0.75	0.46	*NA*

- The simulated portfolio at current weights would have performed the best in absolute and risk-adjusted terms.
- The equal-weighted portfolio would have underperformed the current-weight portfolio because it has higher exposure to emerging markets (during a period when developed markets outperformed).

[1] Common period is from April 2010 through November 2018. Returns are net of fees. Source: MSCI Barra, eVestment Alliance.

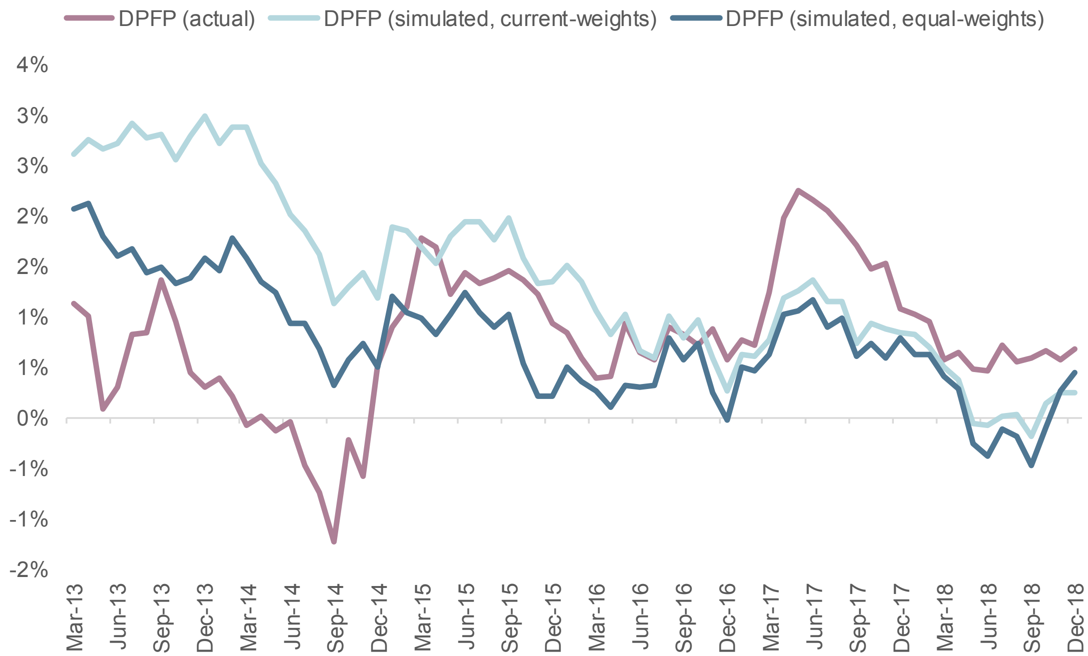
Aggregate Rolling One-Year Excess Returns [1]
(as of December 31, 2018)



As of 12/31/2018	Total Periods	Periods Outperformed	Percentage (%)	Average Ann. Excess Return (%)	Median Ann. Excess Return (%)	Max (%)	Min (%)	Range (%)
DPFP (actual)	94	57	61	0.8	0.5	5.7	-4.6	10.3
DPFP (simulated, current-weights)	94	75	80	1.4	1.3	4.8	-2.5	7.3
DPFP (simulated, equal-weights)	94	63	67	0.8	1.0	3.8	-2.2	6.0

[1] Common period is from April 2010 through December 2018. Returns are net of fees. Source: MSCI Barra, eVestment Alliance. The DPFP (simulation) composite represents the simulated historical aggregate returns based on the five managers' portfolio weights, as of November 2018, and assumes monthly rebalancing. Excess returns are calculated versus the MSCI ACWI IMI net.

Aggregate Rolling Three-Year Excess Returns [1]
(as of December 31, 2018)



As of 12/31/2018	Total Periods	Periods Outperformed	Percentage (%)	Average Ann. Excess Return (%)	Median Ann. Excess Return (%)	Max (%)	Min (%)	Range (%)
DPFP (actual)	70	62	89	0.8	0.8	2.2	-1.2	3.5
DPFP (simulated, current-weights)	70	67	96	1.4	1.3	3.0	-0.2	3.2
DPFP (simulated, equal-weights)	70	63	90	0.8	0.7	2.1	-0.5	2.6

1 Common period is from April 2010 through December 2018. Returns are net of fees. Source: MSCI Barra, eVestment Alliance. The DPFP (simulation) composite represents the simulated historical aggregate returns based on the five managers' portfolio weights, as of November 2018, and assumes monthly rebalancing. Excess returns are calculated versus the MSCI ACWI IMI net.

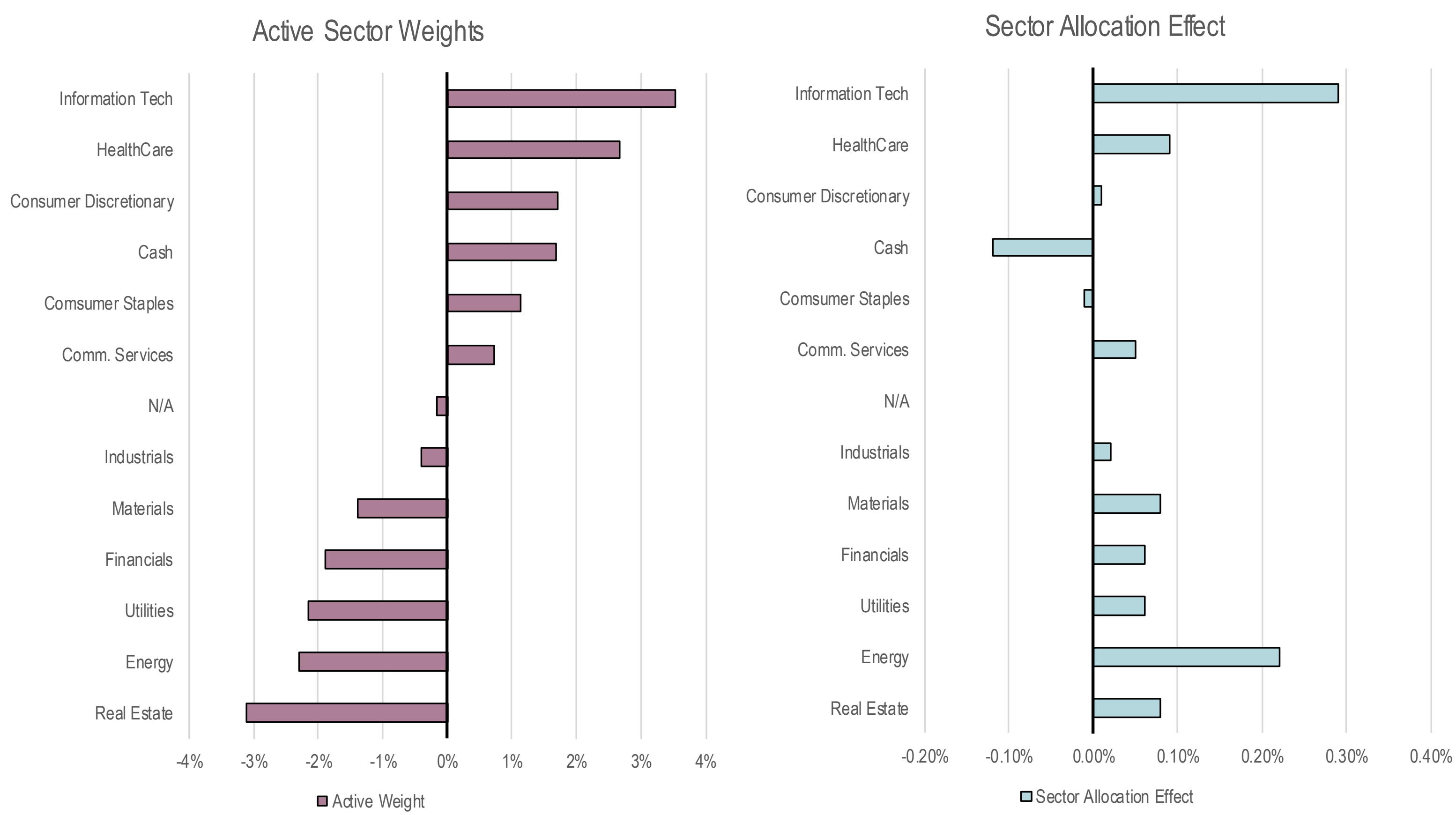
Drivers of Excess Returns

DPFP (Current-weights)[1] vs. MSCI ACWI IMI Net											
	Sector		Country		Market Cap		Factor		Total		
	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Total Effect	Excess Return	Attribution Error
1-Year	1.17	0.21	-0.57	1.96	0.65	0.74	0.18	1.59	1.39	0.99	0.39
3-Year	0.35	-0.06	-0.08	0.37	0.06	0.23	-1.43	2.13	0.28	0.48	-0.20
5-Year	0.83	0.12	0.16	0.79	0.18	0.77	-0.84	2.01	0.95	1.17	-0.22

- We conducted a holdings attribution (at current weights) to understand the drivers of returns[2].
- From a country/regional perspective, geographic allocation decisions have not been the primary driver of the relative returns. Stock selection has been a much larger contributor.
- The same conclusion is observed through a market cap lens. Market cap tilts have not been the primary drivers of returns. Stock selection has been a much larger contributor.
- The opposite observation is identified when looking at the sector attribution. The primary driver of returns has been an overweight to strong performing sectors (e.g. average overweight of 3.5% to Information Technology) and underweight to lagging sectors (e.g. average underweight of -2.3% to Energy), over a five year period.
- When looking at attribution through a factor based lens, stock selection has been primary driver of long-term excess performance (i.e. the portfolio did not have favorable factor exposures but strong stock selection overcame this headwind).

1 Source: FactSet, using quarterly investment manager holdings, as of September 30, 2018.
2 We did not conduct a similar holdings-based analysis on the simulated equal-weighted portfolio because it may take multiple years before DPFP has enough liquidity to fully fund the public equity program up to equal weights.

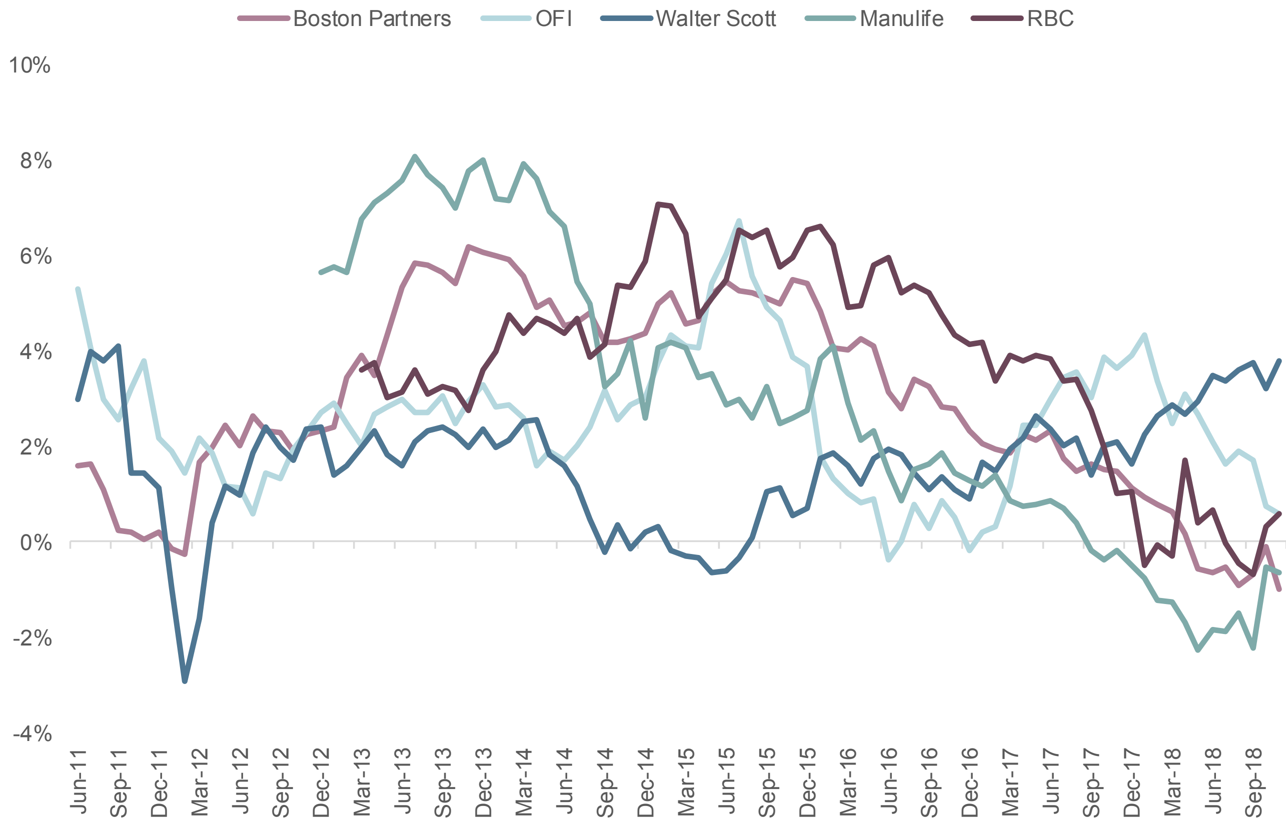
Sector Attribution[1]



- Over the last five years, sector selection has been exceptionally good.

[1] As of September 2018. Source: eVestment, FactSet. Based on current-weight simulated portfolio.

Manager Rolling Three-Year Excess Returns [1]
(as of November 30, 2018)



[1] Manager returns are gross of fees for this table. Boston Partners, OFI, Walter Scott, and Manulife are benchmarked to the MSCI ACWI IMI Net. RBC is benchmarked to the MSCI Emerging Markets Index Net. Boston Partners, OFI, and Walter Scott are calculated over the longest common period from July 2008 to November 2018. Manulife and RBC are calculated since their respective inception dates.

Manager Rolling Three-Year Excess Returns [1]

(as of November 30, 2018)

As of 11/30/2018	Total Periods	Periods Outperformed	Percentage Outperformance (%)	Average Ann. Excess Return (%)	Median Ann. Excess Return (%)	Max (%)	Min (%)	Range (%)
Boston Partners	90	81	90	3.0	2.8	6.2	-1.0	7.2
OFI	90	87	97	2.5	2.5	6.7	-0.4	7.1
Walter Scott	90	79	88	1.6	1.8	4.1	-2.9	7.0
Manulife	72	57	79	3.0	2.7	8.1	-2.3	10.4
RBC	69	63	91	3.8	4.1	7.1	-0.7	7.8

- Four out of the five managers have beaten their respective benchmark roughly 90% of the time (on a rolling three-year annualized basis). Manulife has beaten its benchmark 79% of the time.
- The RBC strategy has had the highest average excess return relative to its benchmark (3.8%) on a rolling three year annualized basis.
- Manulife has had the widest range of returns. Returns have fluctuated from -2.3% underperformance to 8.1% outperformance relative to its benchmark on a rolling three-year annualized basis.

[1] Manager returns are gross of fees for this table. Boston Partners, OFI, Walter Scott, and Manulife are benchmarked to the MSCI ACWI IMI Net. RBC is benchmarked to the MSCI Emerging Markets Index Net. Boston Partners, OFI, and Walter Scott are calculated over the longest common period from July 2008 to November 2018. Manulife and RBC are calculated since their respective inception dates.

Manager Qualitative Assessment

OFI	Walter Scott
• Diversified, pure growth investment approach. • Focused on companies that benefit from long-term secular growth themes (e.g. technological change, demographics). • Most likely to pay up for growth (highest P/E). • PMs make final investment decisions but stock selection is primarily driven by analysts. • Low portfolio turnover (~15%). • Analyst driven approach and common investment framework lessens the impact of key person risk via PM departure. • Higher than benchmark beta (1.09). • Higher than benchmark standard deviation (16.6% versus 14.4%).	• Concentrated bottom-up approach. • Focused on absolute, as opposed to benchmark-relative, performance. • Low portfolio turnover (10%-20%). • Stock selection targets companies with 20% sustainable wealth generation, with primary focus on quality (e.g. ROE, ROI, ROIC) and sustainability of business. • Willing to pay up for quality. • Analyst driven approach and investment committee decision-making structure lessens the impact of key person risk. • Lower than benchmark beta (0.86). • Lower than benchmark standard deviation (13.0% versus 14.4%).

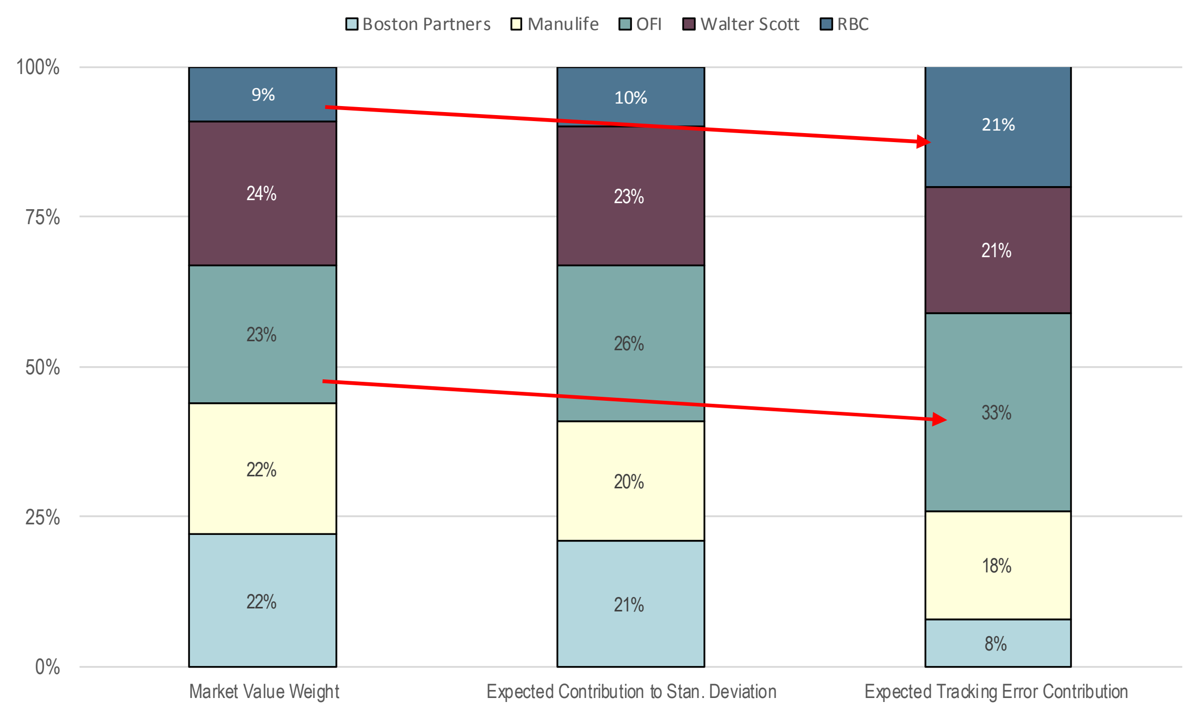
Manager Qualitative Assessment

Boston Partners	Manulife
• Diversified, "quant-amental" investment approach that leverages a front-end multi-factor model. • The model produces stock forecasts based on relative valuation, business quality (e.g. ROE, ROIC), and fundamental momentum (e.g. increasing analyst revisions). • Highest portfolio turnover of the four (75%-100%). • Analysts verify model output and make stock recommendations based on bottom-up, fundamental analysis. • Most all-cap portfolio exposure of the four global equity managers, historically, but today is more tilted to large and mid-cap stocks. • Benchmark-like beta (0.99). • Benchmark–like standard deviation (14.7% versus 14.4%).	• Concentrated, bottom-up approach. • Focused on quality businesses trading at a discount to their estimate of intrinsic value. • Look for companies with attractive quality characteristics (e.g. ROE, ROI), stable free-cash-flow, and good free-cash-flow yields. • Low portfolio turnover (~25%-35%). • Large cap tilted portfolio with above market dividend yield. • More valuation sensitive than Walter Scott. • Lower than benchmark beta (0.85). • Lower than benchmark standard deviation (13.1% versus 14.4%).

Manager Qualitative Assessment

RBC
• Concentrated, bottom-up driven investment approach. • The RBC team believes that companies with high and sustainable cash flows and ROIC will outperform the market over time. • Quality focused. • Emphasis is placed on businesses with perceived low variability of cash flows. • Looks for long-term secular growth trends with reasonable valuations. • Lower than benchmark beta (0.84). • Lower than benchmark standard deviation (14.8% versus 17.1%).

Standard Deviation vs. Tracking Error Contribution[1]



- Each manager contributes to the total expected standard deviation roughly proportionately to its portfolio weight, but that is not the case for expected contribution to tracking error.
- OFI and RBC take on the most tracking error risk. Boston Partners has the lowest tracking error risk.

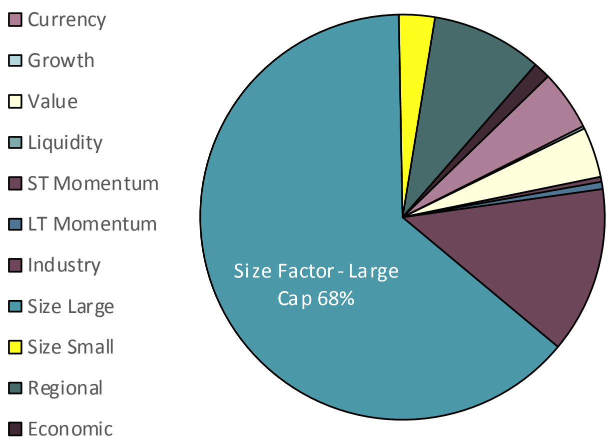
1 Source: FactSet as of September 30, 2018. Based on current-weights.

Tracking Error Decomposed

- Historical tracking error (of the current-weight simulated portfolio) has been 1.8%.
- Going forward we estimate tracking error will be similar, approximately 1.69%[1].

1.69%
Tracking Error

0.87%
Common Risk Factor Exposure

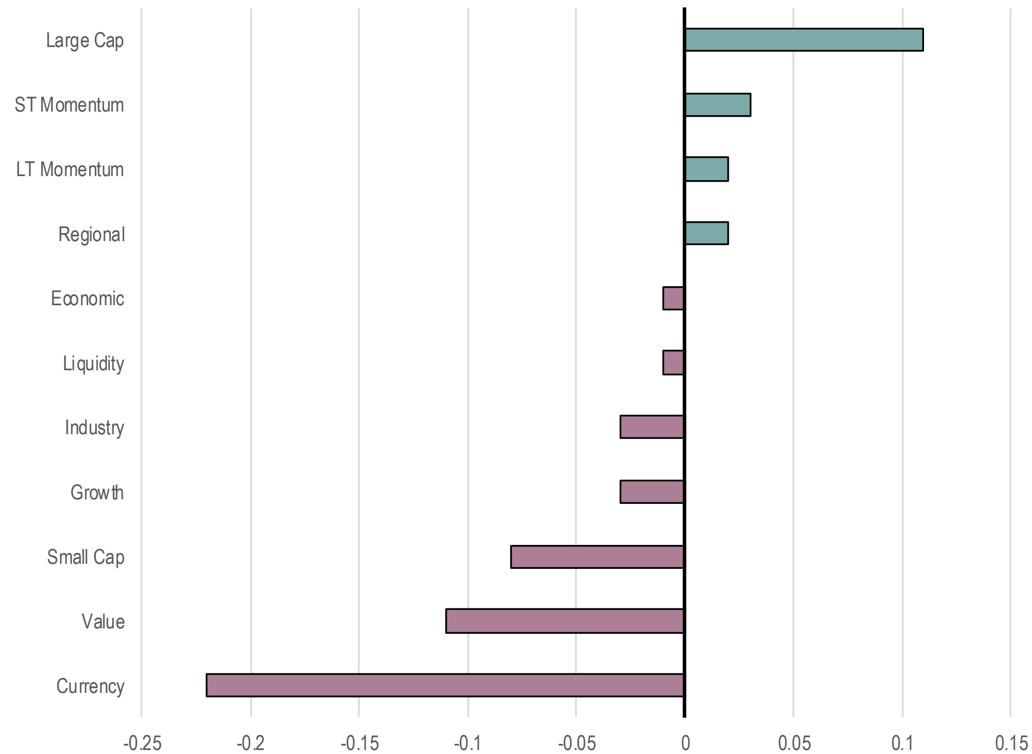


0.82%
Stock Specific Risk Exposure

ORACLE
Adobe
tsmc
AIRBUS
KEYENCE

1 Tracking error at the portfolio level is predicted based on a holding-by-holdings risk analysis and aggregation. The risk model decomposes risk (variance) into its two primary components: stock specific risk and factor risk. The sum of these two measures is the stock's "total risk", which is then annualized. The difference between a stock's total annualized risk in the portfolio versus the benchmark equals the stock's benchmark-relative risk (i.e. tracking error). This calculation is done for every stock in the portfolio. Adding up all the values results in the predicted tracking error for the total portfolio.

Factor Risk (Beta) Exposures



- The total equity program has positive active exposure to large cap and momentum risk factors.
- The program's largest negative factor exposures are currency, value and small cap.

Looking Forward – Expected Exposures at Full Emerging Market Weight

- DPFP's long term asset allocation policy targets 40% of the total pension in global public equity and 10% in emerging market equity.
- The analysis below evaluates what the portfolio would look like with each of the five current managers at an equal 10% weight.

Pro –Forma Analysis[1]

	Current Exposure	Pro Forma	Relative Change	Comments
Regional Exposure	U.S: 50% Developed: 39% EM: 11%	U.S: 44% Developed: 36% EM: 19%	U.S.: -6% Developed: -3% EM: +8%	Relative to MSCI ACWI IMI index, total exposure would be 10% underweight U.S., 2% overweight developed and 8% overweight EM
Market Cap Exposure	Mega (>$50B): 54% Large ($15B to $50B): 29% Mid ($1.5B to $15B):15% Small (<$1.5B): 1%	Mega (>$50B): 51% Large ($15B to $50B): 28% Mid ($1.5B to $15B): 18% Small (<$1.5B): 2%	Mega (>$50B): -3% Large ($15B to $50B): -1% Mid ($1.5B to $15B) : +3% Small (<$1.5B): +1%	Relative to MSCI ACWI IMI index, total exposure would be roughly 12% overweight mega/large cap and 12% underweight mid/small cap.
Tracking Error	1.69%	2.18%	+0.49%	The higher the exposure to RBC, the higher the tracking error will be relative to the MSCI ACWI IMI index (a predominantly developed market index).

[1] Based on current manager holdings prorated to equal weights across all five managers.

Summary

- The portfolio is reasonably well designed with limited overlap and non-correlated strategies.
- The portfolio has generated excess returns above the index with less standard deviation.
- Excess returns have come mostly from stock selection and sector tilts, not from regional or market cap tilts
- In aggregate, the current program of managers has had an underweight to U.S. equities and small cap stocks.
  - It could be potentially beneficial to hire one (or more) small cap manager(s). Small cap equities have generally had higher returns historically (albeit with higher volatility).
- Tracking error is expected to be around 1.7% going forward, assuming the current roster is maintained at present's weights. While we generally advocate for higher tracking error portfolio (i.e. higher alpha potential) we are reasonably pleased with the tracking error expectations given the five managers in use.
- Looking forward, as the full emerging market equity mandate is filled with RBC, the total portfolio is projected to have a relative 10% underweight to U.S. equities and an 8% overweight to emerging markets stocks. Additional rationale for the strategic overweight to emerging markets is contained in the appendix.
- We look forward to discussing our findings and possible enhancements with the Board of Trustees as well as the Investment Advisory Committee, if desired.

Appendix A – Utilizing Passive Exposure

Utilizing Passive Exposure

- DPFP currently has no passive exposure.
- We estimate more than 90% of our clients utilize passive index investments to some degree.
- An alternative approach to the current global structure would be to implement a core-satellite structure with a global equity index fund as the core (up to 50% of total public equity exposure) supplemented by high tracking error active managers (possibly concentrated strategies).
- A structure like this would theoretically provide DPFP with broad global equity exposure while still providing for the possibility of significant alpha generation, while reducing investment management fees.

Hypothetical Fee Savings with Passive Core

	Current Lineup	Hypothetical 50% Passive[1]
Structure	5 active managers	3 active managers (50%) and 1 passive (50%)
Market Value	$478.9 million	$478.9 million
Estimated Annual Fee ($)	$2.3 million	$1.4 million
Estimated Annual Fee (%)	0.48%	0.29%
Estimated Hypothetical Annual Fee Savings →		$910,000+

[1] Hypothetical portfolio is based on 50% Blackrock MSCI World Index (0.04% annual fee), 16.7% RBC Emerging Markets Equity (0.70% annual fee), 16.7% Active Global Value manager (0.53% annual fee - average of current two existing managers), and 16.7% Active Global Growth manager (0.39% annual fee – average of current two existing managers). In both the current lineup and hypothetical lineup we have only included the Walter Scott base fee (no performance fee).

Appendix B – Manager Attribution

Boston Partners Global Equity

Attribution Analysis[1]

Boston Partners vs. MSCI ACWI IMI Net									
	Sector		Country		Factor		Total		
	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Total Effect	Excess Return	Attribution Error
1-Year	0.21	-0.21	1.75	-1.75	3.34	-3.16	0.00	-0.65	0.65
3-Year	0.19	-0.72	0.38	-0.91	-0.12	-0.48	-0.53	-0.70	0.17
5-Year	0.37	1.16	1.12	0.42	-0.04	1.56	1.53	1.44	0.09

- Boston Partners has generated mixed results, underperforming the index over the trailing one- and three-year periods with negative stock selection effects.
- However, over the trailing five-year period, the portfolio has outperformed the index with positive stock selection effects on a sector and country basis, and positive contribution from factor stock specific risk.

1 Source: FactSet, using quarterly investment manager holdings, as of September 30, 2018.

Manulife Global Equity

Attribution Analysis[1]

Manulife vs. MSCI ACWI IMI Net									
	Sector		Country		Factor		Total		
	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Total Effect	Excess Return	Attribution Error
1-Year	-0.38	-2.33	-0.15	-2.56	-1.43	-1.27	-2.70	-3.37	0.67
3-Year	-0.70	-1.19	-0.19	-1.70	-3.10	1.22	-1.89	-2.22	0.33
5-Year	0.11	-0.45	0.70	-1.04	-2.62	2.29	-0.33	-0.31	-0.03

- Manulife has underperformed the MSCI ACWI IMI Net Index over the trailing one-, three-, and five-year periods.
- Manulife has struggled to add value through stock selection, as measured by sector and country attribution data.
- However, factor attribution indicates that Manulife has indeed faced factor headwinds, despite reasonably positive stock selection. Size effects (small caps vs. large caps) in particular have had a significant negative impact on relative returns.

[1] Source: FactSet, using quarterly investment manager holdings, as of September 30, 2018.

OFI Global Equity

Attribution Analysis[1]

OFI vs. MSCI ACWI IMI Net									
	Sector		Country		Factor		Total		
	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Total Effect	Excess Return	Attribution Error
1-Year	1.35	0.92	-0.03	2.30	1.79	0.48	2.27	1.79	0.48
3-Year	0.77	1.49	0.62	1.65	0.82	1.45	2.27	1.70	0.57
5-Year	1.65	1.18	0.48	2.35	1.55	1.28	2.83	2.30	0.54

- OFI has outperformed the MSCI ACWI IMI index over the trailing one-, three-, and five-year periods, with consistently positive stock selection effects (sector and country) and positive stock specific risk factor effects.
- Over all time periods, factor exposures have had a consistently positive impact on excess returns, indicating that OFI has benefitted from factor tailwinds rather than stock specific risk alone.
- Over the trailing one- and five-year periods, risk factor effect represents the majority of excess returns.

[1] Source: FactSet, using quarterly investment manager holdings, as of September 30, 2018.

Walter Scott Global Equity

Attribution Analysis[1]

Walter Scott vs. MSCI ACWI IMI Net									
	Sector		Country		Factor		Total		
	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Total Effect	Excess Return	Attribution Error
1-Year	4.85	6.24	1.42	9.67	-1.42	12.91	11.08	10.47	0.61
3-Year	1.35	2.14	1.04	2.45	-3.82	8.53	3.49	3.74	-0.25
5-Year	1.41	1.09	1.20	1.29	-2.61	5.67	2.50	2.45	0.05

- Walter Scott has generated impressive results over all trailing periods. The portfolio has outperformed the MSCI ACWI IMI Net Index with positive contribution from allocation and selection effect on a sector and country basis.
- Importantly, much of the portfolio's excess return over all trailing periods can be attributed to stock specific selection, rather than factor risk. In fact, more than 100% of excess returns over all three trailing periods are attributable to stock specific risk effect over the three trailing periods.

[1] Source: FactSet, using quarterly investment manager holdings, as of September 30, 2018.

RBC Emerging Market Equity

Attribution Analysis[1]

RBC vs. MSCI Emerging Markets Index Net									
	Sector		Country		Factor		Total		
	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Allocation Effect	Selection Effect	Total Effect	Excess Return	Attribution Error
1-Year	-1.33	3.92	0.05	2.53	-4.79	7.37	2.58	1.23	1.35
3-Year	-2.07	2.67	-0.91	1.51	-6.17	6.78	0.60	-0.70	1.30
5-Year	-0.06	4.01	1.89	2.06	-2.93	6.88	3.95	2.79	1.15

- RBC has outperformed the MSCI Emerging Markets Net Index over the trailing one- and five-year periods.
- Stock selection effects have been positive on a sector and country basis over all time periods.
- On a factor basis, stock specific selection has been a positive contributor to portfolio returns over all time periods.

1 Source: FactSet, using quarterly investment manager holdings, as of September 30, 2018.

Appendix C – Case for Emerging Markets Overweight

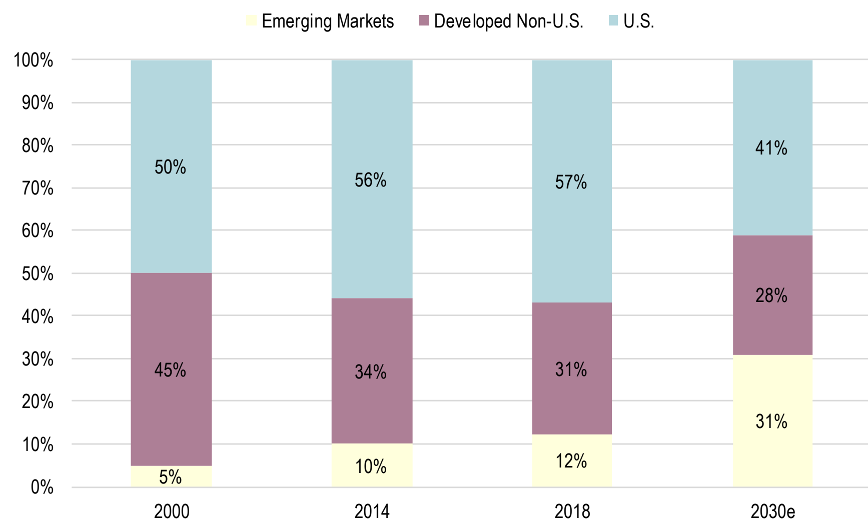
Emerging Market Equity Thesis

- The two central themes that support an overweight to emerging market equites are:
  1. Higher expected growth potential
     - Emerging market nations have a lower starting point of economic activity and favorable demographics, on average, relative to developed markets.
     - Populations are generally younger and growing faster, leading to better future growth potential.
     - These nations have also benefited from the ability to import technology (cheaply) from developed nations.
     - Overall, we expect large increases in GDP growth over the coming decades.
  2. Valuations are attractive from multiple perspectives
     - Emerging market equities are priced below their long-term averages.
     - Emerging market equities are also trading at a much lower valuation than U.S. equities, and at a lower valuation than non-U.S. developed market equities.

1. Growth

- The size and liquidity of the emerging market investable marketplace are both expected to continue[1] to increase.
- Emerging markets comprise roughly 80% of the world's population, approximately 40% of global economic output[2], but only approximately 12% of the investable equity universe.

MSCI ACWI IMI Index Market Weights

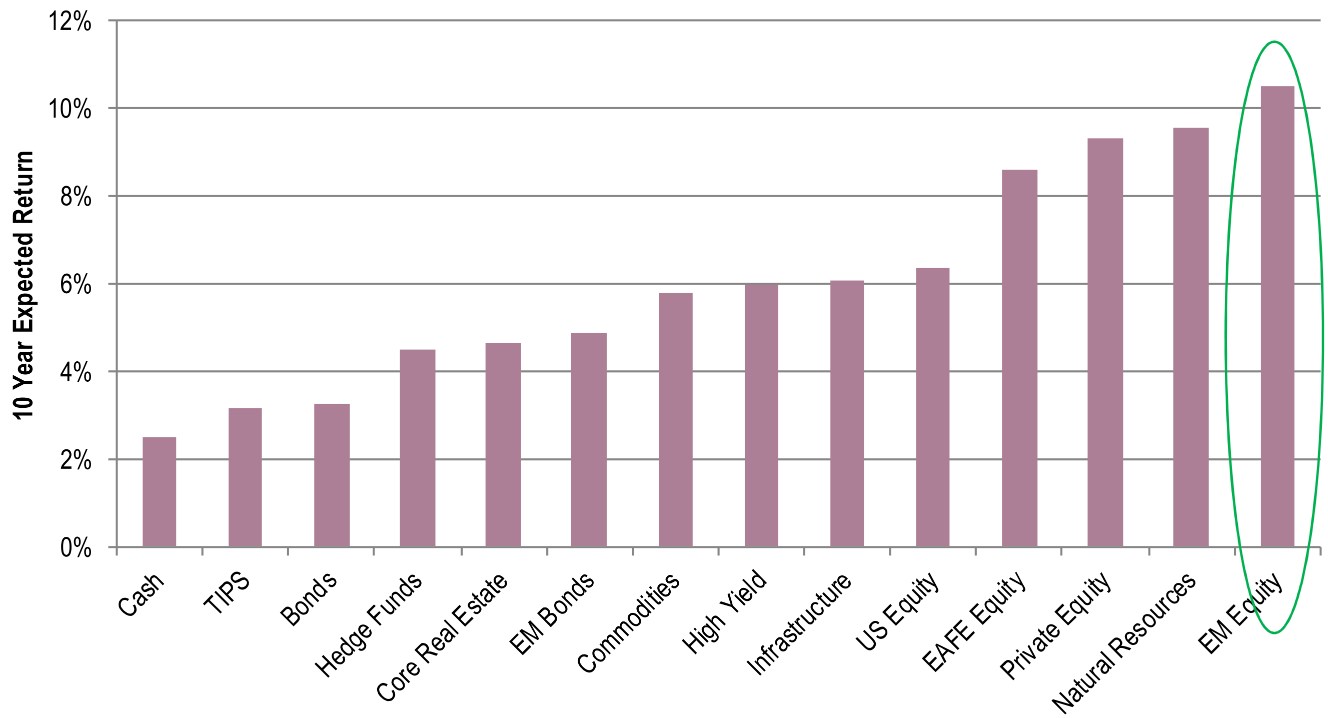


[1] Projections for 2030 are from Goldman Sachs Global ECS Research. Data is free-float adjusted.
[2] Source: IMF, World Bank.

2. Growth

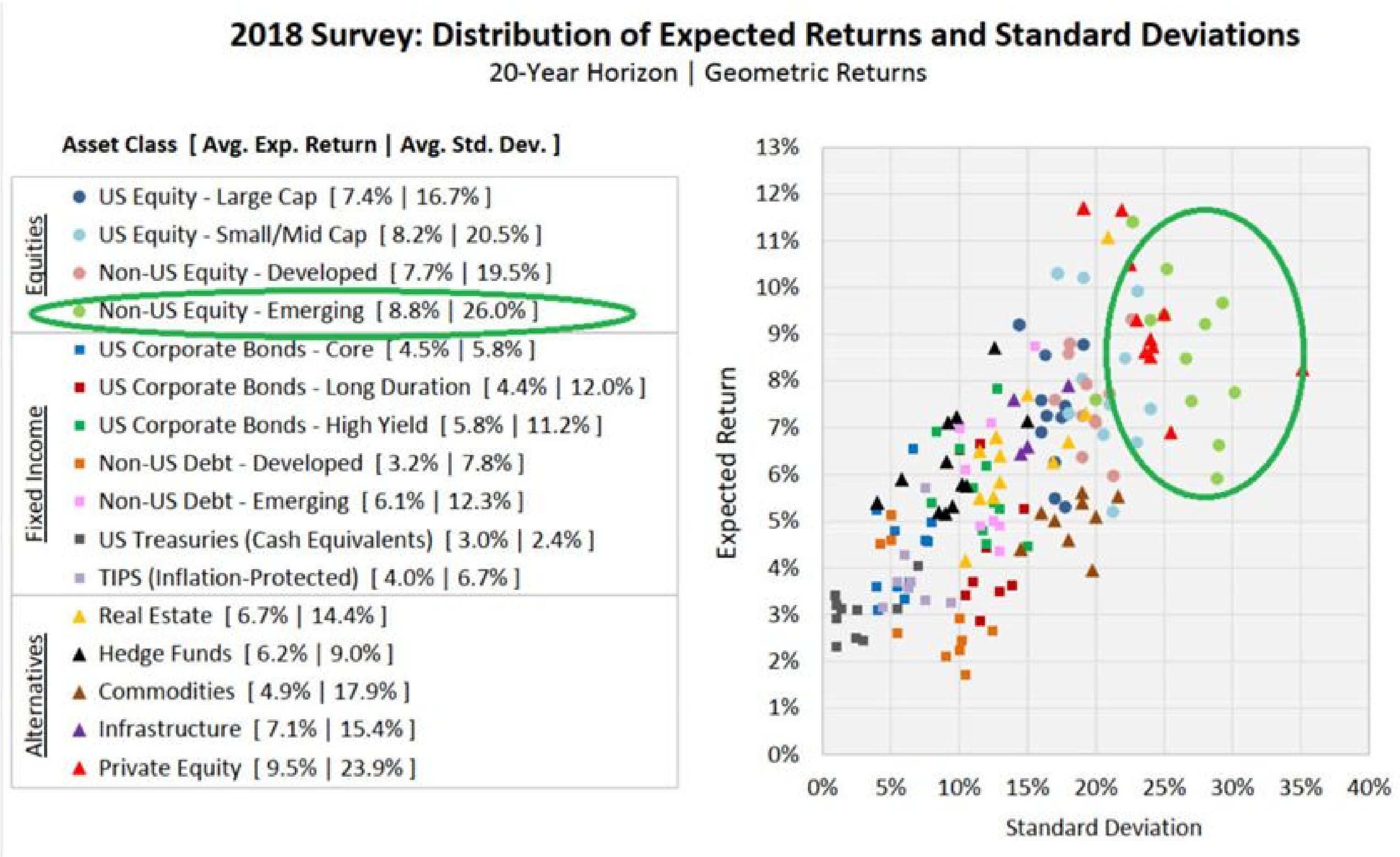
- Emerging market equity has the highest long-term return expectation in Meketa Investment Group's asset study.

Meketa Investment Group Long Term Return Projections[1]



[1] Ten-year expected returns based upon Meketa Investment Group's 2019 Annual Asset Study.

2. Growth - The Industry[1] Has Similar Expectations



[1] Source: Horizon Actuarial Survey of Capital Market Assumptions, 2017 Edition, survey of 35 investment advisors.

2. Valuations - Emerging Market Equities are Cheaper than Historical Average[1]

- Emerging market equities (MSCI Emerging Markets) are priced below their (brief) historical average cyclically adjusted P/E.
- By this metric, emerging market equities are trading at a much lower valuation than U.S. equities, and at a lower valuation than non-U.S. developed market equities.

[1] Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is from January 31, 1990 to December 31, 2018.

2. Valuations – U.S. Equities Remain Expensive

- As of December 31st, the cyclically adjusted P/E[1] ratio for the S&P 500 was 29.0x, which is above its historical average of 16.9x.

[1] Source: Robert Shiller and Yale University. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is from January 31, 1881 to December 31, 2018.

Conclusion

- DPFP is not an outlier (relative to Meketa Investment Group clients and other peers) with its target weight to emerging market equities.
- Two primary reasons we have recommended overweight allocations (relative to MSCI ACWI IMI weight) are:
  - Growth opportunities
  - Valuations are less expensive outside United States
- Emerging market equities is a volatile asset class, but we feel it is an important component of a well-diversified pension system with a long-term focus.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C9

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, February 14, 2019

DALLAS POLICE & FIRE PENSION SYSTEM

Portfolio Update

February 14, 2019

Asset Allocation

DPFP Asset Allocation	% weight				$ millions		
	1/31/19	Target	Variance		1/31/19	Target	Variance
Equity	**36.6%**	**55.0%**	**-18.4%**		**729**	**1,095**	**-366**
Global Equity	21.8%	40.0%	-18.2%		434	796	-362
Emerging Markets	2.3%	10.0%	-7.7%		45	199	-154
Private Equity*	12.5%	5.0%	7.5%		250	100	150
Fixed Income	**29.9%**	**35.0%**	**-5.1%**		**595**	**697**	**-102**
Safety Reserve - Cash	2.5%	3.0%	-0.5%		50	60	-10
Safety Reserve - ST IG Bonds	12.7%	12.0%	0.7%		254	239	15
Investment Grade Bonds	0.0%	4.0%	-4.0%		0	80	-80
Global Bonds	3.3%	4.0%	-0.7%		66	80	-14
High Yield Bonds	4.1%	4.0%	0.1%		82	80	2
Bank Loans	5.7%	4.0%	1.7%		114	80	34
Emerging Mkt Debt	1.0%	4.0%	-3.0%		19	80	-60
Private Debt*	0.6%	0.0%	0.6%		11	0	11
Real Assets*	**33.5%**	**10.0%**	**23.5%**		**667**	**199**	**468**
Real Estate*	22.4%	5.0%	17.4%		446	100	347
Natural Resources*	8.2%	5.0%	3.2%		163	100	63
Infrastructure*	2.9%	0.0%	2.9%		57	0	57
Total	**100.0%**	**100.0%**	**0.0%**		**1,990**	**1,990**	**0**
Safety Reserve	15.2%	15.0%	0.2%		303	299	5
*Private Market Assets	46.6%	15.0%	31.6%		927	299	629

Source: JP Morgan Custodial Data, Staff Calculations
Preliminary reporting as of 2/4/19

DALLAS POLICE & FIRE PENSION SYSTEM

4Q18 Public Market Performance Preview

Public Markets Performance Analysis	**4Q18**				**2018**		
Net of fees	**Manager**	**Index**	**Excess**		**Manager**	**Index**	**Excess**
Global Equity	-13.53%	-12.65%	-0.87%		-8.91%	-8.93%	0.02%
Boston Partners	-14.73%	-12.65%	-2.08%		-12.80%	-8.93%	-3.87%
Manulife	-11.25%	-12.65%	1.40%		-9.74%	-8.93%	-0.81%
OFI	-16.28%	-12.65%	-3.63%		-12.45%	-8.93%	-3.51%
Walter Scott	-12.05%	-12.65%	0.60%		-0.78%	-8.93%	8.15%
RBC, EM Equity	-3.65%	-7.47%	3.83%		-10.29%	-14.58%	4.29%
Fixed Income							
IR+M, short term debt	0.99%	1.31%	-0.32%		1.82%	1.56%	0.26%
Brandywine, global bonds	-1.35%	1.20%	-2.54%		-3.84%	-1.20%	-2.64%
Loomis, High Yield	-5.81%	-3.49%	-2.32%		-3.70%	-4.06%	0.36%
Loomis, Bank Loans	-2.78%	-3.45%	0.67%		0.89%	0.45%	0.43%
Pacific Asset Mgt., Bank Loans	-3.30%	-3.45%	0.14%		0.69%	0.45%	0.24%
Ashmore, EMD	-0.39%	-0.02%	-0.37%		-5.70%	-4.00%	-1.70%
Source: JPM Morgan custody data, manager reports, Investment Staff estimates and calculations							

4Q18 Public Market Impact Estimate

Public Markets Impact Analysis	4Q18				2018		
$ millions	Manager	Market	Active		Manager	Market	Active
Public Markets	(71.2)	(65.0)	(6.2)		(45.7)	(47.2)	1.5
Public Equity	(64.4)	(62.2)	(2.3)		(44.4)	(46.6)	2.3
Global Equity	(62.7)	(58.7)	(4.0)		(39.2)	(39.3)	0.1
Boston Partners	(16.4)	(14.1)	(2.3)		(13.9)	(9.7)	(4.2)
Manulife	(13.1)	(14.7)	1.6		(11.2)	(10.2)	(0.9)
OFI	(18.4)	(14.3)	(4.1)		(13.5)	(9.7)	(3.8)
Walter Scott	(14.8)	(15.5)	0.7		(0.8)	(9.7)	8.9
RBC, EM Equity	(1.7)	(3.5)	1.8		(5.2)	(7.3)	2.2
Fixed Income	(6.8)	(2.8)	(4.0)		(1.4)	(0.6)	(0.8)
IR+M, short term debt	2.5	3.3	(0.8)		4.5	3.9	0.6
Brandywine, global bonds	(0.9)	0.8	(1.6)		(2.5)	(0.8)	(1.7)
Loomis, High Yield	(4.9)	(2.9)	(2.0)		(3.0)	(3.3)	0.3
Loomis, Bank Loans	(1.7)	(2.1)	0.4		0.5	0.3	0.3
Pacific Asset Mgt., Bank Loans	(1.8)	(1.8)	0.1		0.4	0.2	0.1
Ashmore, EMD	(0.1)	(0.0)	(0.1)		(1.2)	(0.8)	(0.3)

DALLAS POLICE & FIRE PENSION SYSTEM

2019 Investment Review Calendar

January ✓	• Real Estate: Staff review of Vista 7, King's Harbor, and Museum Tower
February	• Real Estate: Clarion Presentation • Global Equity Structure Review (Staff/Meketa)
March	• Real Estate: AEW Presentation
April	• Real Estate: Hearthstone Presentation • Private Equity: Staff review of Lone Star, Huff, Hudson, and Industry Ventures
May	• Natural Resources: Hancock Presentation, Staff review of Forest Inv. Assoc. and BTG Pactual
June	• Infrastructure: Staff review of AIRRO (Asia Infrastructure) and JPM Maritime
2H19	• Global Equity Manager Reviews • Fixed Income Manager Reviews

Updated 2/5/19

DISCUSSION SHEET

ITEM #C10

Topic: **Lone Star Investment Advisors Update**

Discussion: Investment Staff will update the Board on recent performance and operational developments with respect to DPFP investments in funds managed by Lone Star Investment Advisors.

Regular Board Meeting – Thursday, February 14, 2019

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C11

Topic: **Real Estate Overview - Clarion Partners Portfolio**

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:
Bohdy Hedgcock, Senior Vice President
Karen Rodriguez, Controller/Senior Vice President
Travis Stevens, Senior Analyst

Discussion: Clarion will update the Board on the status and plans for DPFP's investments in CCH Lamar and The Tribute. Clarion was engaged in October 2015 to take over the investment management of DPFP's interest in several Dallas area real estate assets, including the two remaining investments.

DALLAS POLICE AND FIRE PENSION SYSTEM

FEBRUARY 2019

CLARION PARTNERS

REAL ESTATE INVESTMENT MANAGEMENT

Table of Contents

CLARION OVERVIEW

SECTION I

CLARION PARTNERS

Firm Highlights

One of the largest U.S. focused real estate investment managers

36-Year History of Stability and Growth

Partnership structure: Equity owned broadly across ~90 senior employees; independently operated affiliate of Legg Mason

Co-investment: Over $114 million in employee investments in our Firm

Diversification: Broad client base provides stability (over 350 investors globally)

National Operating Platform

Focus: 97 acquisitions and asset management team members with presence and expertise in local markets across the country

Scale: Over $30 billion of deals reviewed annually to generate equity and debt investment opportunities across all property sectors

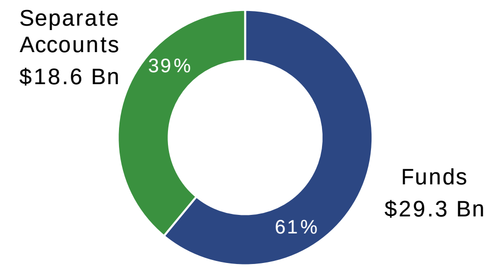
Long-Term Outperformance

Discipline: In-house research group informs investment strategy and execution

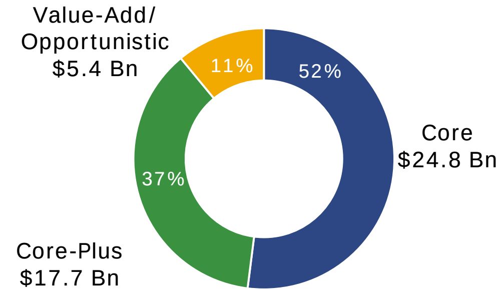
Consistency: Successful management through market cycles

Results: Firm-level property performance since inception exceeds NCREIF Property Index by approximately 90 bps[2]

INVESTMENT FORMAT[1]



RISK PROFILE[1]



Personnel as of December 31, 2018. All other data as of September 30, 2018.

[1]Diversification percentages are based on Gross Asset Value (GAV) at share.

[2]Please see NCREIF Disclosure at the end of this presentation.

GAV, Gross Real Estate Value (GRE) and AUM are defined in Important Performance Disclosures at the end of this presentation.

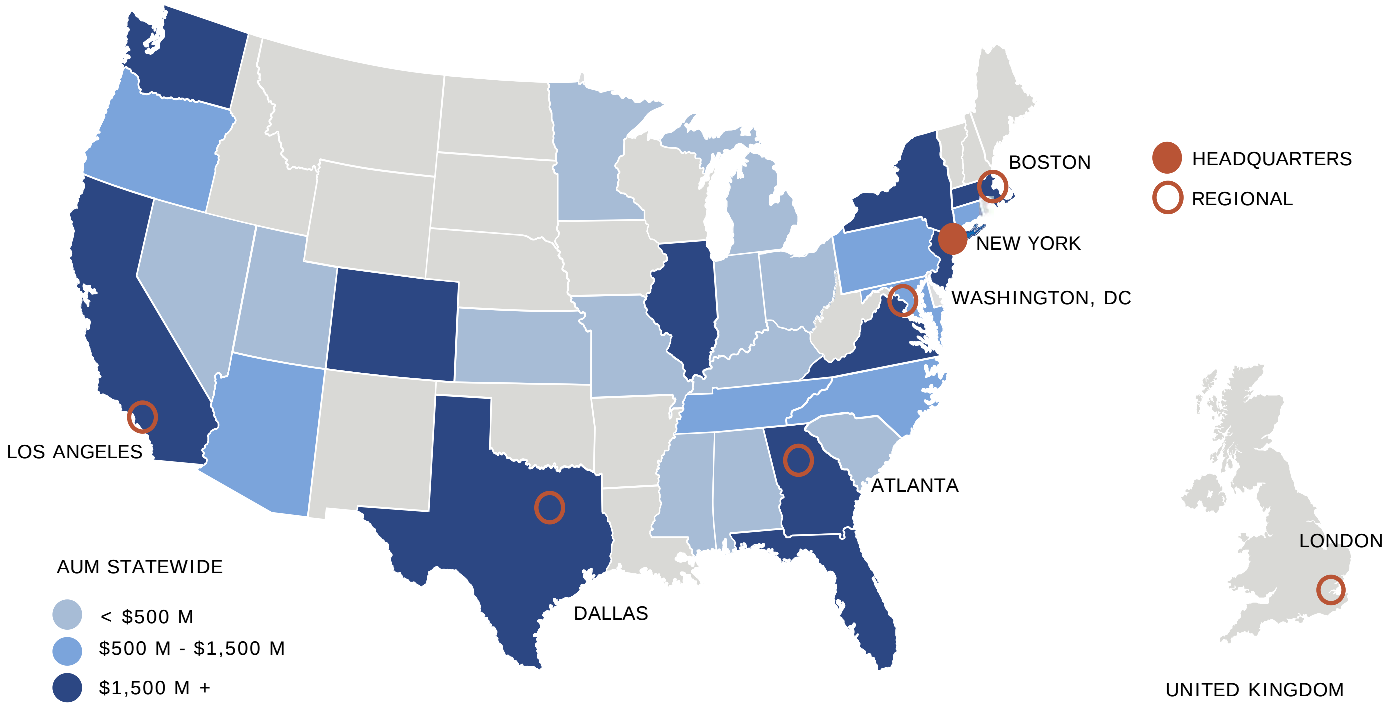
National Investment Management Platform with Local Execution

AUM ($bn)
$47.8

Assets
1,215

Offices
7

Employees
287



Investment Research
7 Team Members

Leverages Clarion's national footprint to create sector forecasts using proprietary models

Acquisitions
28 Team Members

Regional teams based in New York, Dallas and Los Angeles. Industrial specialists in each office with regional responsibility

Asset Management
69 Team Members

Property sector specialists positioned regionally

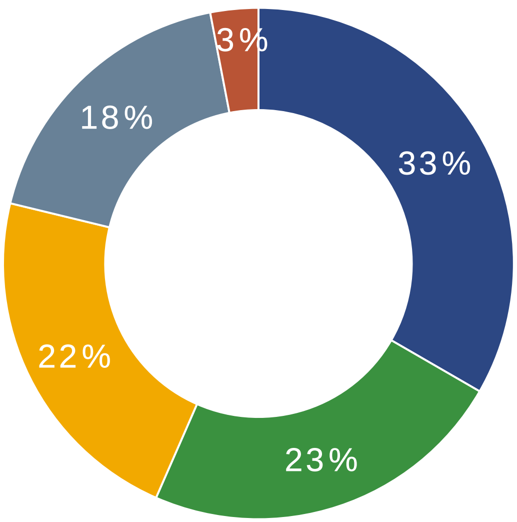
Personnel as of December 31, 2018. All other data as of September 30, 2018.
Geographic information represents GRE; compared to Firm-level GAV. Please refer to the Important Performance Disclosures at the end of this presentation.

CLARION PARTNERS

National Scale Across All Property Types

Scale enhances deal flow and tenant relationships across all major sectors

% OF FIRM AUM



INDUSTRIAL — **$15.4 billion, 698 properties, 42 markets**

- Includes a $12.1 billion[1] open-end, sector-focused fund
- One of the largest private industrial funds in the U.S., and one of the few that is "pure-play"

OFFICE — **$10.7 billion, 96 properties, 22 markets**

- Approximately 1,500 tenant relationships
- Investments in 22 MSAs nationwide

MULTIFAMILY — **$10.1 billion, 176 properties, 36 markets**

- Spans spectrum: apartments, student housing, condominium projects
- Includes a $3.9 billion[1] open-end, sector-focused fund operated by a vertically integrated, 35-year old operating company with over 28,000 owned/managed units in the U.S.

RETAIL — **$8.3 billion, 142 properties, 40 markets**

- Proven execution through JVs with public companies and direct investment
- Partner relationships include GGP, Simon, Kimco & New England Development

HOTEL — **$1.3 billion, 58 properties, 36 markets**

- One of the largest institutional owners of hotel assets in the U.S.
- Diversified portfolio of upper-scale branded hotels catering to business travel

As of September 30, 2018. Excludes Land and Other Investments.
Dollar values and diversification percentages are GRE.
[1]Based on Fund's GAV.

PARTNERSHIP OVERVIEW

SECTION II

CLARION PARTNERS

Summary

The Dallas Police & Fire Pension System ("DPFP" or "the System") retained Clarion Partners in 2015 to manage a portfolio of previously made direct investments in real estate

- DPFP remains over-allocated to real estate and there is an interest in reducing both the scale and risk profile of the overall real estate portfolio
- Clarion continues to execute according to the above mentioned mandate through the selective sale of non-strategic properties and the completion of underway projects
- Five assets have been realized to date with two assets remaining under Clarion Management

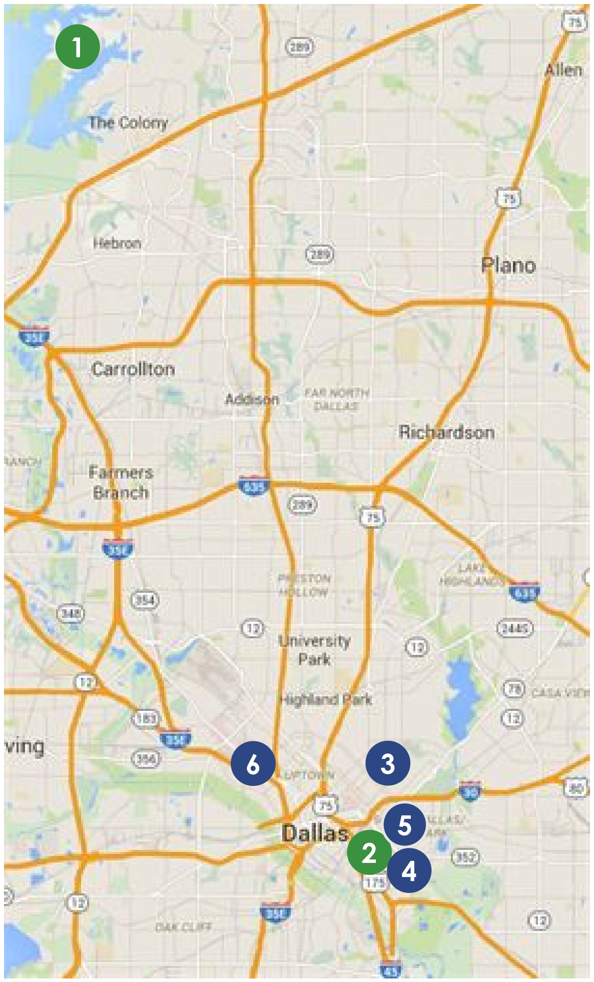
Key Terms:

Effective Date	October 2015
Management Fee	65 basis points based on Net Asset Value
Incentive Fee[1]	10% over an 8% IRR hurdle, calculated upon realization of the portfolio or on the fourth anniversary of the Effective Date, and every four years thereafter, and adjusted based upon the percentage of the portfolio realized at that time

1. The incentive fee excludes certain assets, as defined in the Investment Management Agreement.

Portfolio Overview

Take Over Assignment Awarded July 2015 / Expanded October 2015



	Property	Property Type	Location	Partner	Status
1	**The Tribute**	**Residential Lots & Land; Golf Courses**	**The Colony**	**MSW**	**Active**
2	**CCH Lamar**	**Mixed Use**	**Cedars**	**MSW**	**Active**
3	3030 Bryan	Condos	East Dallas	Reeder/ Smith	Realized June 2018
4	South Side Flats Mezz. Loan	Multifamily	Cedars	Buitte Againn	Realized June 2017
5	The Beat	Condos	Cedars	MSW	Realized February 2017
6	4100 Harry Hines Land	Vacant Land	Uptown	None	Realized December 2016
7	Four Leaf	Vacant Land	Arizona	None	Realized July 2016

DIVIDER

CLARION PARTNERS

DISCUSSION SHEET

ITEM #C12

Topic: **Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about interpretation of Section 6.13 of Article 6243a-1, pending or contemplated litigation, 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.

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.

Regular Board Meeting – Thursday, February 14, 2019

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #D2

Topic: **Executive Director's report**

a. Associations' newsletters
- NCPERS Monitor (January 2019)
- NCPERS Monitor (February 2019)

b. Open Records Requests

c. Staffing Update

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

Regular Board Meeting – Thursday, February 14, 2019

THE NCPERS
MONITOR
The Latest in Legislative News
JANUARY 2019

In This Issue

Forthcoming Decision in 'California Rule' Case Could Have Implications Beyond Golden State

Photo Illustration © 2019 Wikimedia Commons/ Coolcaesar

The California Supreme Court on December 5 heard oral arguments in a case that could have significant consequences for whether pension benefits for government employees can be reduced.

A ruling on the so-called "California Rule" is expected within 90 days of the hearing, or by early March. The California Rule is a longstanding legal precedent that asserts that public agencies cannot reduce pension benefits without offering workers new incentives to offset the loss in retirement benefits.

The decision merits close attention not just in California, but in a dozen states with similar provisions on the books. In California, the outcome has implications for former Governor Jerry Brown's pension reform act, which took effect in 2013. Since then, new public employees in California have received reduced pension benefits, and they pay more for them than state employees hired before the changes.

The case, Cal Fire Local 2881 v. California Public Employees' Retirement System, focuses on Calpers' practice of allowing public employees to purchase additional service credits

CONTINUED ON PAGE 3

NCPERS Executive Directors Corner

NCPERS Kicks Off 2019 with Four Compelling Educational Opportunities

Photo Illustration © 2019, istock.com

An informed professional is an effective professional. That's the principle behind all of NCPERS's training and education programs, and it is why we work so hard to bring pension trustees, administrators, and executives the information they need to succeed. As we kick off a new year, NCPERS is pleased to provide our members with an outstanding array of educational opportunities. During January and February, we are offering both live and remote learning opportunities. Read on for details!

Legislative Webcast: January 8. The 116th Congress convened on January 3, 2019, and the House of Representatives returned to a Democratic majority for the first time since 2011. With Republicans retaining their majority in the Senate, we are looking at divided government for the next two years. Meanwhile, the majority of state legislatures are convening for work sessions during the month of January.

Against this backdrop, our popular semiannual live webcast on state and federal legislation was held on January 8 from 1 pm to 2 pm eastern time. Members tuned into this free session as I moderated what was an insightful conversation between two experts: Tony Roda, partner at Williams & Jensen, and Andrew Collier, director of communications for the National Public Pension Coalition. You can view the webcast here.

An informed professional is an effective professional. That's the principle behind all of NCPERS's training and education programs, and it is why we work so hard to bring pension trustees, administrators, and executives the information they need to succeed.

Legislative Conference with New Policy Day: January 27–29. This is simply one of the most important events on our calendar: An evening and two full days when NCPERS members from around the nation gather in Washington to make their collective voice heard by Congress, regulators, and the Administration. Participants will arrive in the nation's capital on Sunday night, participate in a full day of briefings on Monday, and then head to Capitol Hill on Tuesday.

Tuesday's Policy Day has been designed to maximize the impact of members' Washington visits. We foster a focused discussion of retirement policies and health care, we have scheduled group meeting with the tax-writing committees—the House Ways and Means Committee and the Senate Finance Committee—as well as the Senate Special Committee on Aging. In addition, individual states and localities are scheduling meeting with members of their Congressional delegations to build or cement important relationships. One goal of such meetings is to establish NCPERS members as go-to resources when lawmakers need to understand how public pensions work and impact communities and the economy as a whole. Register for the conference here.

Public Retirement Systems Survey & Dashboard Webinar: February 5. One of our most anticipated offerings each year is the annual update to our wide-ranging NCPERS Public Retirement Systems Survey and the valuable tool that accompanies it: The interactive dashboard. On February 5 from 1 pm to 2 pm eastern time, we will host a free webinar to walk members through the key findings of this year's survey and demonstrate how to use the dashboard to meet their needs for timely information and analysis. The dashboard is a dynamic way to manipulate

CONTINUED ON PAGE 8

CALIFORNIA RULE CONTINUED FROM PAGE 1

before retirement to enhance their benefits—a practice known as selling "airtime."

California's Supreme Court has several options at hand, but they boil down to issuing a narrow ruling or a broad ruling.
Based on the line of questioning during oral arguments, some observers are expecting a narrow ruling on the legislature's intent in offering the airtime benefit. Questioning by Supreme Court Chief Justice Tani Cantil-Sakauye centered on whether the selling of airtime would qualify for protection if it was determined not to be a fixed benefit.

On the other hand, if the court issues a broad ruling upholding the California Rule, it could apply it to other pension reform cases. California courts have held since the 1950s that pension benefits given when a public-sector worker is hired can't be changed unless equal benefits are substituted. The underlying principle is that pension benefits are part of a contract that cannot be broken.

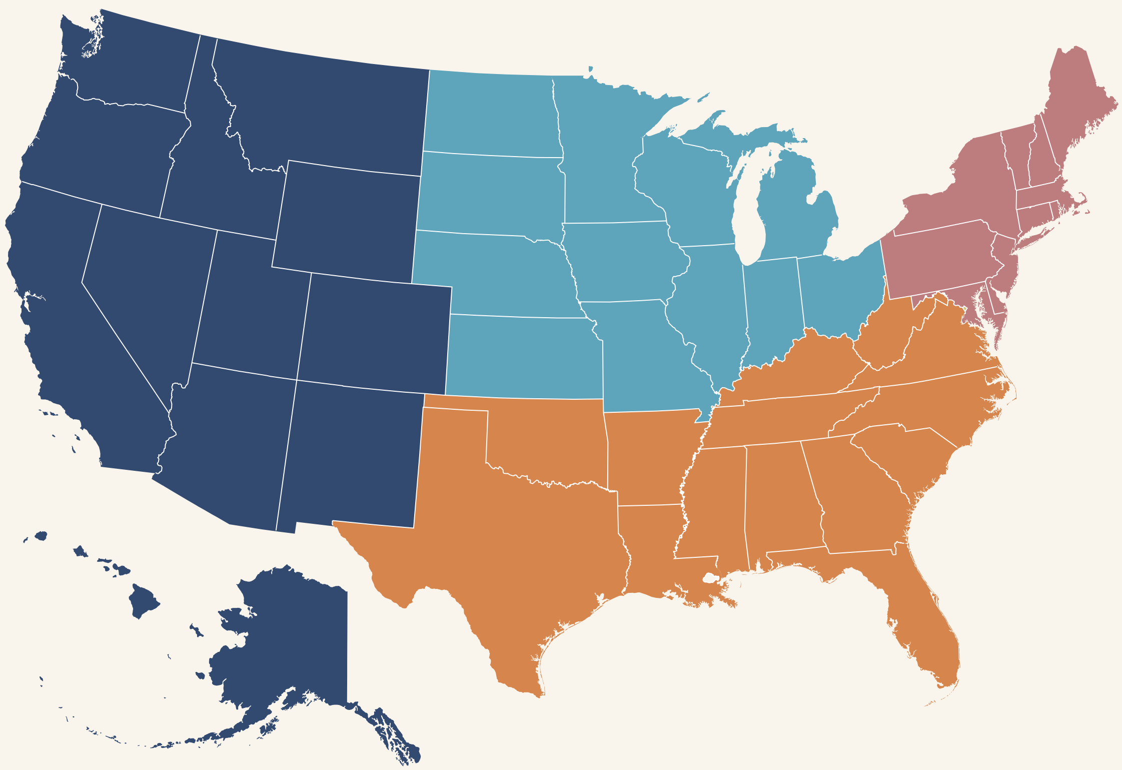
Brown, a Democrat, began pushing to take down the California Rule in 2012 as part of his pension reform act. He has long argued that it hinders necessary pension reform.

The California Rule was created in 1955 when the California Supreme Court considered a challenge to a 1951 city charter amendment in Allen v. City of Long Beach (Cal. 1955).

The rule exists in varied forms in states that, like California, use a contract-rights approach to public pension benefits. These states are: Alaska, Colorado, Idaho, Kansas, Massachusetts, Nebraska, Nevada, Oklahoma, Oregon, Pennsylvania, Vermont, and Washington. While a California state court decision would not set precedent in other states, a decision to strike down the California Rule in its home state might embolden other states to weaken this legal principle. ◆

NCPERS Around the Regions

This month, we will highlight Nevada, New Jersey, Kentucky, and Michigan.



NEVADA:
Secure Choice Gains Advocate

The Secure Choice model for retirement savings has another advocate in high places: Nevada Lt. Governor Kate Marshall.

In a recent interview with the *Las Vegas Review-Journal*, Marshall reiterated her long-standing support for creating a state-sponsored retirement savings vehicle for the 57 percent of Nevada private-sector employees who lack such options at work.

Marshall, a former two-term state treasurer, has been pushing the state to enact such a program, known as an auto-IRA. Doing so would put Nevada in the company of more than 20 states that are actively considering such programs. The first auto-IRA program in the country is up and running in Oregon, where it serves 49,661 people, or 73 percent of eligible workers, the *Review-Journal* reported.

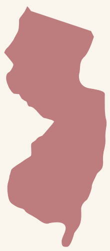
How a Nevada program would run is yet to be determined, but Marshall said the 529 college savings programs that the state offers to help families save for higher education costs can serve as a useful model.

Marshall is not new to the auto-IRA issue. In March 2015, she co-authored an opinion article in the *Nevada Appeal*, "Retirement Security Is an Issue for All Nevadans." She took a firm stance against calls to dismantle the state's pension system. "Our real problem is that a large majority of Nevadans and of Americans in general, are not saving enough for retirement," Marshall wrote. She pointed to auto-IRA initiatives in other states as a solution.

CONTINUED ON PAGE 5

AROUND THE REGIONS CONTINUED FROM PAGE 4

NEW JERSEY: Legislature O.k.'s Secure Choice



Add New Jersey to the growing lists of states that have approved the creation of a state-run retirement savings program for private-sector workers.

New Jersey's General Assembly on December 17 enacted legislation establishing the New Jersey Secure Choice Savings Program. The bill, approved on a 53-24 vote, following approval by the State Senate on December 3.

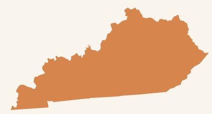
According to the bill, A4134, the program would be made available to employees of companies with fewer than 25 employees in the state that have been in business for at last two years and that do not offer a qualified retirement plan. The bill sets a standard auto-enrollment and payroll-deduction contribution level of 3 percent of salary.

The bill authorizes the creation of the New Jersey Secure Choice Savings Board, a seven-member panel. It would consist of the State Treasurer (chair), the State Comptroller, the Director of the Office of Management and Budget, two representatives of the general public with relevant retirement plan experience, a representative of participating employers, and a representative of enrollees.

"Employees may select an investment option from the investment options provided by the board," said an explanatory note that accompanied the bill, *Pensions & Investments* reported. "If an employee fails to select an investment option, that employee's contributions shall be placed in the default investment option selected by the board."

A lifecycle fund will be the initial default investment option. The program will have a maximum of five investment choices.

KENTUCKY: Special Pension Session Fizzles



Kentucky's special legislative session on pensions turned out to be not so special after all.

In a dizzying turn of events, Kentucky's Supreme Court on December 13 unanimously struck down Senate Bill 151, a pension reform measure passed earlier this year, saying the process in which the measure was passed was unconstitutional. The bill was rapidly passed in a matter of hours after it was introduced, violating the state constitution's provisions that lawmakers must have time to consider a bill.

The law would have diverted new teachers hired starting next year from participating in the traditional pension plan, and would have instead put them into a cash-balance plan similar to a 401(k) retirement plan.

This defeat prompted Republican Governor Matt Bevin—who campaigned on promises to reform public pensions—to convene the special session on December 17. It was disbanded the next when it became clear that a compromise could not be reached. The session had been expected to last up to five days.

Speaker Pro-tem David Osborne, a Republican, told the *Louisville Courier-Journal* that talks broke down because of differences between the proposed bill that Bevin distributed to leaders and the bill that the legislature passed last spring, which most House Republicans preferred and had expected. Bevin's version differed with respect to cuts in certain benefits within SB 151 and mechanisms for funding the pension plans.

"It caused a great deal of consternation to come in here yesterday, to see the bills last night when we finally got to see them, to see that they were not what they expected," Osborne said.

On social media, the Kentucky Educators Association dubbed the session "the most expensive temper tantrum in Kentucky history," a nod to the fact that each day of the session cost Kentucky taxpayers $63,000.

CONTINUED ON PAGE 8

Transition to the 116th Congress

By Tony Roda

Photo Illustration © 2018, istockphotos

Eight years after she relinquished the gavel to the Republicans, Nancy Pelosi is once again the Speaker of the U.S. House of Representatives. It is difficult to describe the depth of change this will bring to Washington. While President Trump will be in office for at least two more years and Republicans continue to hold a majority in the Senate, the new energy that the House Democratic majority will bring to both public policy and oversight of the Executive Branch is expected to be significant.

On January 3, the first day of the 116th Congress, the House passed legislation to reopen those federal departments and agencies that are currently closed due to the government shutdown. Specifically, the House bundled six, full-year appropriations bills at the Senate Committee-reported levels. These bills are Agriculture, Interior-Environment, Financial Services and General Government, Transportation and HUD, Commerce Justice Science, and State and Foreign Operations. However, Senate Republican Leader Mitch McConnell (R-KY) has stated that bills the President will not sign into law will not be considered by the Senate, which includes this package of funding bills. During the week of January 7, the House is expected to pass each of the bills separately, thereby continuing pressure on the Senate to take action to end the shutdown.

In addition, on January 3, the House passed a short-term funding bill for the Department of Homeland Security through February 8. This measure would keep funding at an annual rate of $1.3 billion for border security, but none of those funds could be spent on a "wall." However, the monies could be spent on other types of barriers such as fencing. The wall or fence on the southern border is the only issue preventing an agreement on federal funding. President Trump has now sent to a request to Congress for $5.7 billion to build a border fence. He also stated that, if Congress fails to approve these funds, he will declare a national emergency and begin work on the fence without Congressional approval. Such an action would immediately be challenged in court.

If there is anything akin to a honeymoon period between House Democrats, Senate Republicans and President Trump, which most observers increasingly doubt, the opportunity for bipartisan action could be filled by passage of infrastructure legislation or measures designed to rein in prices on prescription drugs.

Regarding infrastructure, Congress has often looked at ways to encourage public pension plans to invest more heavily in these projects. While Rep. Mike Bishop (R-MI) lost his re-election bid, his legislation (H.R. 6276, 115th) to promote investments in public infrastructure projects by state and local governmental pension plans by clarifying the tax law is expected to be introduced in the new Congress by another Member. It is not yet clear who will introduce the legislation.

In addition, House Budget Committee Chairman John Yarmuth (D-KY) is developing legislation that would create a National Infrastructure Development Bank, which would be financed through the sale of $75 billion worth of Rebuild America Bonds on the credit of the U.S. An additional $300 billion in bonds could be issued at the request of the Bank. Under the draft legislation, the bonds mature in 40 years and they may not be resold until 10 years after the date of issuance. The bonds will bear an interest rate of 200 basis points above the 30-year Treasury bond. Interestingly for the public pension plan community, the bonds may be purchased only by pension plans – both plans governed by the Employee Retirement Income Security Act (ERISA) and governmental plans as defined by ERISA, which includes state and local governmental pension plans.

Once we move off infrastructure and prescription drugs, we are likely to find ourselves in "messaging-bill" territory. Medicare

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THE 116TH CONGRESS CONTINUED FROM PAGE 6

for all is a touchstone for the progressive wing of the Democratic Party and a vote on it in the House, despite the lack of votes in the Senate, is expected.

An alternative to full Medicare for all is being developed by Sen. Sherrod Brown (D-OH), who just won re-election to a new six-year term and may be interested in running for president in 2020. Senator Brown is developing legislation to allow retired first responders who have reached age 55 to opt into Medicare. Recognizing that public safety employees generally retire in their mid-fifties and that there is always a significant gap in time from retirement to the Medicare eligibility age of 65, Sen. Brown believes this group should be given a choice to enroll in Medicare at an earlier age. His staff is working closely with the public safety community to finalize the legislation.

The House Ways and Means Committee is also likely to develop tax legislation that would make changes to the Republican tax law enacted at the end of 2017. Over the past few years the public pension plan community has been resigned to playing more defense than offense on tax policy. While proposals such as the Public Employee Pension Transparency Act (PEPTA) and the extension of the unrelated business income tax (UBIT) to certain investments of state and local plans are much less likely to gain traction in a Democratic-controlled House, our opponents could easily shift their emphasis on these issues to the GOP-controlled Senate.

We believe that any tax legislation should contain provisions to make improvements to the current law that allows public safety employees to exclude from their gross income up to $3,000 from pension distributions if the monies are used for health care premiums. First, the $3,000 cap has been unchanged since its inception in 2006. We believe the $3,000 limit should be increased and also indexed in future years. Second, this tax benefit should be extended to all public sector workers. Finally, the structure of the current benefit should be examined. Questions have been raised on whether the direct payment requirement is workable under more innovative retiree health initiatives and whether the exclusion should be changed to a deduction.

NCPERS will work diligently in this new political environment to ensure that the interests of state and local governmental pension plans are protected and advanced. As always, we will keep you apprised of any significant developments. ◆

__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.

NCPERS KICKS OFF 2019 CONTINUED FROM PAGE 2

and search the survey results and refine the data to the specific needs of your organization—for instance, creating your own peer groups. Joining me for this important seminar will be William SaintAmour, CEO and executive director of Cobalt Community Research, which conducts the annual NCPERS Public Retirement Systems Survey. Register for the webinar here.

Pre-funding Retiree Health Care: February 26. Capping off a busy two-month period, we will host a webinar on February 26 from 1 pm to 2 pm eastern to examine the costs and associated liabilities of retiree health care costs. The webinar will explore the merits for pre-funding retiree health care costs, along with various vehicles available to the public sector for pre-funding. In addition, we will explore potential funding sources and key considerations in the design of a pre-funded arrangement.

Joining me will be Don Heilman of Gallagher Benefit Services. Don has spent most of a 25-year career in benefits focusing on large governmental entities. He has broad experience in designing, financing, and implementing comprehensive health and welfare benefit programs to help clients balance financial realities with employee expectations. Register for the webinar here.

An important note: Registration for the two February webinars is limited to 100 participants, so please sign up early to avoid disappointment.

We are excited about the programs we've put together for NCPERS members in 2019. We'll be off to a strong start during the winter months, and we look forward to seeing and hearing from many members during the conference, webcast, and webinars. ◆

AROUND THE REGIONS CONTINUED FROM PAGE 5

MICHIGAN: Lame Duck Session Limps Off

Several significant anti-union bills came up for consideration during the Michigan Legislature's marathon 13-day lame-duck session, but failed to garner the votes for passage.

SB 1260, a bill to require public employee unions to vote every two years on whether they want the union to continue to represent them, ran into strong opposition from teacher, police and firefighter unions. The unions argued that the re-certification requirement would have been highly disruptive to unions. The measure would have affected 250,000 state employees.

Ingham County Sheriff Scott Wriggelsworth told *The Detroit News* that the proposal would strain labor and management relationships in public safety, where "our jobs … are to deal with and prevent chaos in our society."

"If this bill passes, I guarantee it will create significant internal chaos in our organizations that could possibly or would possibly affect our ability to deal with… external chaos," Wriggelsworth said.

The bill's sponsor, Senate Majority Leader Arlan Meekhof, a Republican, said that while he lacked the votes for passage during the lame duck session, "a number of returning senators who really want to do this will pick it up."

Other bills that failed to advance during the lame duck session included:

- HB 6474, which would have prohibited bargaining agreements from allowing certain union activities to be done during the workday on time paid for by a public employer or on "relief time." It would not impact arbitration for police or firefighters, corrections officers or workers of transit authorities seeking or receiving federal assistance.
- HB 5368, which would have blocked public school employees from receiving pension credits for union representation work.

The bills reflect policy initiatives developed by the Mackinac Center for Public Policy, a Midland-based conservative think tank.

Michigan's lame duck sessions have proved consequential in the past. For example in 2012, a lame duck session passed a right-to-work law. ◆

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Legislative Conference
January 27 – 29
Washington, DC

May

NCPERS Accredited Fiduciary Program (All modules)
May 18 – 19
Austin, TX

Trustee Educational Seminar
May 18 – 19
Austin, TX

Annual Conference & Exhibition (ACE)
May 19 – 22
Austin, TX

June

Chief Officers Summit (COS)
June 13 – 14
Chicago, IL

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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THE NCPERS
MONITOR
The Latest in Legislative News
FEBRUARY 2019

In This Issue

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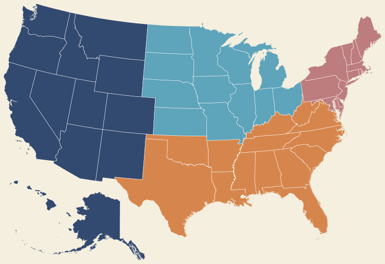
One of the most anticipated events on the calendar for public pensions is the release of the annual NCPERS Public Retirement Systems Study each winter. The 2018 edition is now available, providing NCPERS members with a vital tool for analyzing a host of operational benchmarks, including investment assumptions, funded levels, expenses, and of course fund performance.



This month, we will highlight New York, Virginia, North Dakota, Kansas, Oklahoma, and Montana.

U.S. Pension Spending Supports 7.5 Million Jobs, $1.2 Trillion in Economic Output

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A sweeping annual analysis of the impact of defined benefit pensions underscores the critical economic contributions made by retirees spending their pension dollars. Retiree spending of pension benefits generated $1.2 trillion of economic output in 2016, supporting 7.5 million jobs, according the National Institute on Retirement Security. Pension spending also plowed $202.6 billion in federal, state and local tax coffers, NIRS found.

The study, "Pensionomics 2018: Measuring the Economic Impact of Defined Benefit Pension Expenditures," examines the impacts of both public and private pension plans.

"The analysis shows that virtually every state and local economy across the country benefits from the spending when retirees spend their pension benefits," said Diane Oakley, NIRS executive director. "Pension expenditures are especially vital for small and rural communities where other steady sources of income may not be readily found if the local economy lacks diversity."

The study found that during 2016, $578 billion in pension benefits were paid to 26.9 million retired Americans. This includes $294.7 billion paid 10.7 million retired employees of state and local government and their beneficiaries.

CONTINUED ON PAGE 3

NCPERS **Executive Directors Corner**

2018 Public Pension Study and Dashboard Are Vital Tools for Benchmarking

Photo illustration © 2019, istock.com

One of the most anticipated events on the calendar for public pensions is the release of the annual *NCPERS Public Retirement Systems Study* each winter. The 2018 edition is now available, providing NCPERS members with a vital tool for analyzing a host of operational benchmarks, including investment assumptions, funded levels, expenses, and of course fund performance. The study is now available for download from the NCPERS website.

This year's study—the eighth one we have conducted— is a testament to the resilience of public pensions. At a time when pensions have been under pressure to rein in assumptions for investment returns, 65 percent of public pensions did just that – and still greatly outperformed their own expectations. The study showed that the average investment assumption dipped to 7.34 percent in 2018, down from 7.49 percent a year earlier. As funds were tamping down expectations, reality delivered a pleasant surprise. One-year investment returns soared to 13.4 percent, up from 7.8 percent in 2017 and 1.5 percent in 2016. In other words, the 2018 results left the assumptions in the dust.

To me, one of the most exciting aspects of the annual study is the opportunity to provide members with an interactive dashboard that they can use to slice, dice, and compare data as they see fit.

Of course, long-term investors like public pensions don't get worked up over one-year trends. The study enables users to dig deeper, as it provides a window into meaningful long-term developments. The picture that emerges is clear: Public pensions take their fiscal responsibilities seriously, as they always have. They are vigilant about expenses, open to continually refining their investment assumptions, willing to reassess amortization periods, and much more. All of these trends are carefully explained in the 40-page report, which includes extensive appendixes, including sections on reducing liability and fostering innovation and best practices.

To me, one of the most exciting aspects of the annual study is the opportunity to provide members with an interactive dashboard that they can use to slice, dice, and compare data as they see fit. Many members use the dashboard to search for information and to create peer groups and benchmarks against which they can evaluate their own best efforts. The dashboard is a unique offering for members, a no-extra-cost benefit of belonging to NCPERS.

We have a webinar scheduled for Tuesday, February 5, to introduce this year's study and the dashboard, and we hope to welcome as many members as possible to hear about and experience this great membership perk. I'll be joined by William SaintAmour, CEO and executive director of Cobalt Community Research, which conducts

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CALIFORNIA RULE CONTINUED FROM PAGE 1

According to NIRS, defined benefit pension expenditures have large multiplier effects. Each dollar paid out in pension benefits supported $2.13 in total economic output nationally, and each taxpayer dollar contributed to state and local pensions supported $8.48 in total output nationally. "This represents the leverage afforded by robust long-term investment returns and shared funding responsibility by employers and employees," the study found.

The economic impact of pensions were strongest in the real estate, food services, health care, and retail trade sectors, the study found.

Drawing on an analysis of U.S. Census data, the study noted that between 1993 and 2016, investment earnings accounted for 63 percent of state and local pension receipts. Employer contributions provided 25 percent, and employee contributions accounted for 12 percent. ◆

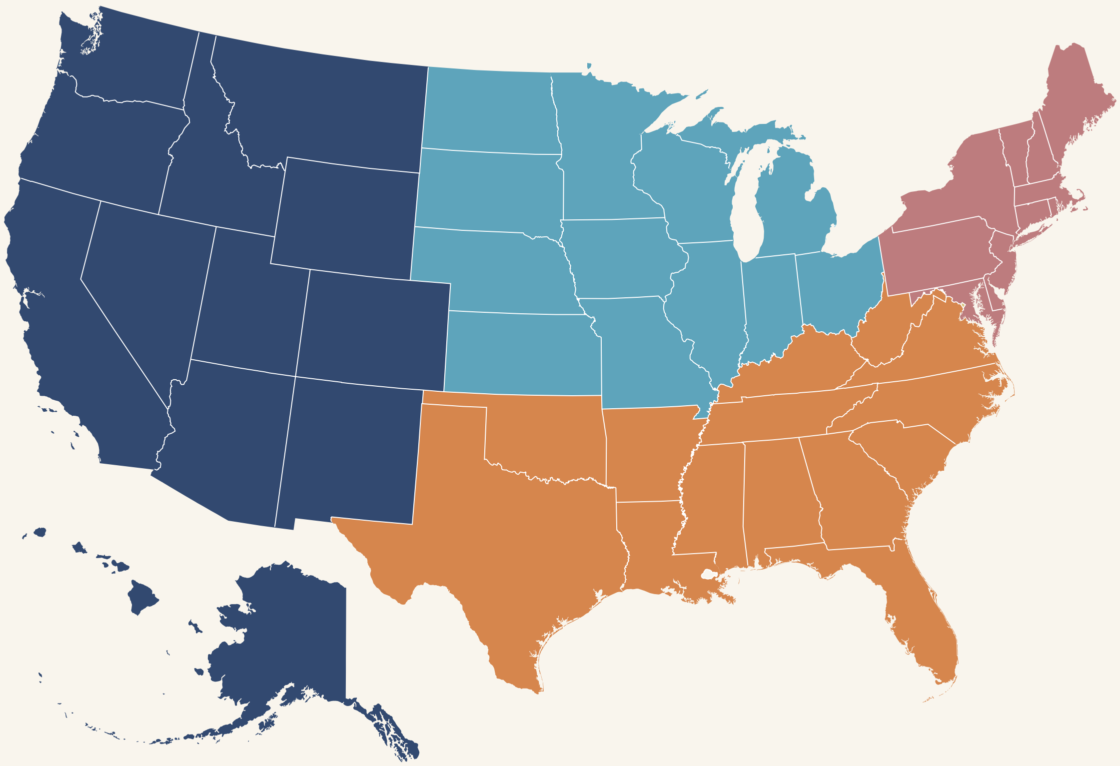
EXECUTIVE DIRECTORS CORNER CONTINUED FROM PAGE 2

the annual study and creates the dashboard for us each year. This is a hands-on session where you will have an opportunity to learn to use the dashboard, so please sign up! The webinar, which will run from 1 to 2 P.M. eastern time, is open to the first 100 participants.

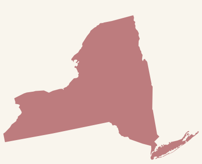
This important annual study wouldn't be possible without the strong support and participation of NCPERS members. This year, 167 state and local pension systems with more than 18.7 million active and retirement members took part. Their actuarial asset exceeded $2.5 trillion, and their market assets were an even healthier $2.6 trillion. Our thanks go out to all the participants. If this wasn't your year to participate, we hope you will consider doing so when the 2019 study rolls around! We conduct the study between September and December each year. ◆

NCPERS Around the Regions

This month, we will highlight New York, Virginia, North Dakota, Kansas, Oklahoma, and Montana.



NORTHEAST: NEW YORK



New York City Mayor Bill de Blasio made the Secure Choice retirement savings initiative a centerpiece of his State of the City address on Jan. 10, proposing to create a program to serve the private sector workforce.

"Nearly half of the workforce in this city, 2 million of us, don't have employer-sponsored retirement plans," di Blasio said. "So we're going to establish retirement plans for any worker who doesn't have one. We'll be there for them."

The mayor's office said that under the city's proposal, a New Yorker who makes the city's median salary of $50,850 per year and invests 5 percent annually while earning an average net return of 4 percent would amass savings of $146,274 after 30 years.

"You'll be able to set aside a small portion of your paycheck, watch it grow over the years, and take it with you from job to job," di Blasio said in his address.

Secure Choice auto-IRA programs like the one envisioned in New York City use the most effective savings method—payroll deduction—to help workers build a retirement nest egg, while states and municipalities provide expertise and savings mechanisms in the form of pooled investment vehicles.

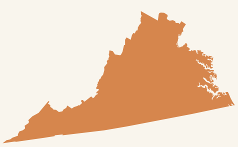
CONTINUED ON PAGE 5

AROUND THE REGIONS CONTINUED FROM PAGE 4

"In proposing to adopt a version of the SecureChoice auto-IRA program that NCPERS has championed for years, the mayor is demonstrating the power of this idea to improve workers' lives," said Hank Kim, executive director and counsel of NCPERS.

The City Council would need to consider and approve the mayor's plan before it can become law. Some 40 states and localities are considering or have adopted similar programs.

SOUTHEAST: VIRGINIA



Two bills to expand retirement savings options for private-sector workers have been introduced in Virginia's House of Delegates.

The bills, sponsored by Democratic Delegate Luke E. Torian, would create the My Virginia Plan and a 14-member board to oversee and operate it.

The first bill, HB 2431, outlines how the My Virginia Plan would operate. If enacted, it would create the a supervisory board and direct it to conduct a market analysis, obtain legal advice, coordinate with other states, analyze potential costs, and deliver a plan and timeline. The resulting report would be due to the Chairmen of the House Committee on Appropriations and the Senate Committee on Finance by July 1, 2020.

The second bill, HR 2432, details how the My Virginia Plan board would be structured and how the program would be administered.

Both measures were referred to the House of Delegates Committee on Commerce and Labor.

A decade ago, Virginia was one of the first states to pursue a Secure Choice-inspired program. In 2009, the state legislature considered but failed to enact legislation proposed by Republican Delegate Daniel Marshall to create the Virginia Employee Voluntary Accounts Program. The program would have enabled private employers with fewer than 50 workers to sign up to offer tax-deferred retirement plans to their employees, provided they had not offered a payroll savings deduction plan to employees in the preceding year.

MIDWEST: NORTH DAKOTA

Republican Representative Vicky Steiner on Jan. 14 introduced HR 1419. As amended on Jan. 25 by the North Dakota House of Representatives Government and Veterans Affairs Committee, the bill would authorize a legislative management study to consider "the spectrum of public employee retirement options." The study is to consider options including a defined benefit plan, hybrid plan, and defined contribution plan. If the bill is enacted as written, the report would be due to the 67th Legislative Assembly, which takes office in January 2021.

Before it was amended, the bill provided for the annual transfer of $20 million to the North Dakota Public Employees Retirement System, from the state's strategic investment and improvements fund. It would have defined "eligible employees" as those participating in the plan before January 1, 2025 and would have made employees 100 percent vested in the employer contribution after one year of service, eliminating a four-year vesting schedule.

MIDWEST: KANSAS

Democratic Governor Laura Kelly is encountering strong criticism from Republicans over her plan to reamortize the state's annual payments to the Kansas Public Employees Retirement System (KPERS).

As part of her budget proposal, unveiled Jan. 17, Kelly called to extend the schedule for closing a long-term funding gap in the pension system to 2049. Under a 2012 law, the state is currently committed to filling the gap with repayments by 2034.

CONTINUED ON PAGE 6

AROUND THE REGIONS CONTINUED FROM PAGE 5

Kelly's plan would make the state's payments to KPERS more affordable in the short term, to the tune of $145 million per year – funds that she has proposed to redeploy for public schools, Medicaid, and social services. But it would cost Kansas a projected $7.4 billion more over 30 years.

The state's unfunded liability wouldn't drop to $5 billion until 2040, 15 years later than under the current plan. And it would take an additional 12 years for KPERS to be 80 percent funded.

KPERS serves 311,000 current and former public employees and paid out $1.7 billion in retirement benefits in fiscal year 2018.

WEST: MONTANA

Montana's legislative session kicked off January 7, with a number of retirement savings-related initiatives likely to come up for consideration.

AARP Montana has made the Small Business Retirement Plan a centerpiece of its legislative agenda for 2019. "Older Montanans, especially those over age 65, are projected to be a larger part of our state's population," said Tim Summers, AARP Montana State Director. "Policymakers need to plan for this shift in demographics by enhancing services and infrastructure in our communities so Montanans can continue to be independent, engaged and productive members of our state."

AARP noted that more than half of Montana's workforce lacks access to a retirement savings plan. "Today, a secure retirement is out of reach for thousands of Montanans, especially those who work for small businesses," AARP said. "The Montana Small Business Retirement plan will make it easier for Montanans to save so they can live the lives they want in retirement. The plan provides an easy, low-cost retirement savings option to help small businesses provide a way for their employees to save and take control of their future."

Separately, two bills have been introduced in 2019 at the request of Montana's Teachers Retirement System (TRS) and a third is being drafted. They are:

- **HB 204,** a bill to update certain aspects of current law with more concise language, including the rules for withdrawal of membership and refund of contributions, and the requirements for designation of and payment to a beneficiary. A hearing took place before the Montana House of Representatives State Administration Committee on Jan. 24.
- **SB 139,** a bill to allow certain TRS employees to be re-employed in the system without loss or interruption of retirement benefits. A hearing was held by the Montana Senate Education and Cultural Resources Committee on Jan. 28.
- **LC 0951** has been referred for drafting. It would increase the employer supplemental contribution to TRS to 11.89 percent of Montana University System Retirement Plan (MUS-RP) salaries, up from 4.72 percent. The increase would amortize by 2033 the unfunded liability that was created when TRS was closed to all new hires of the MUS-RP. ◆

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