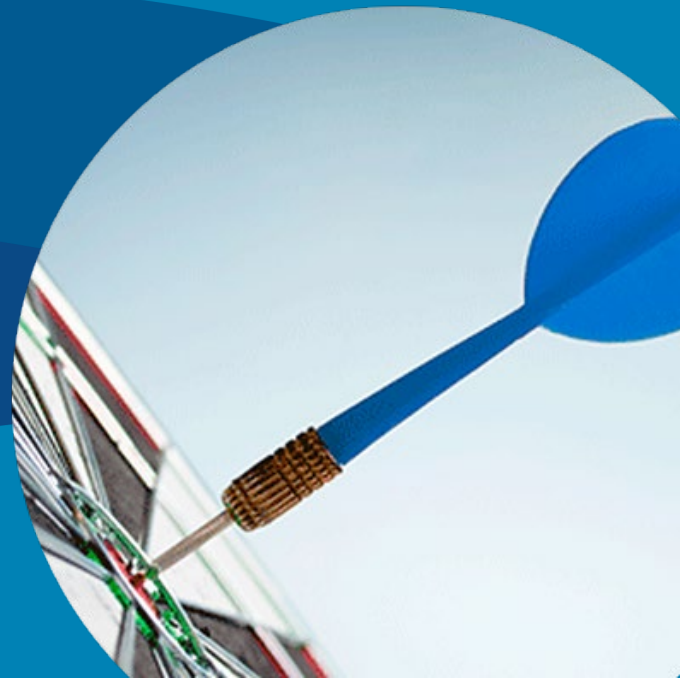




Employees' Retirement Fund of the City of Dallas

Actuarial Experience Investigation Study

Through December 31, 2019



Purpose of Experience Study

- Assumptions are not static; they should occasionally change to reflect
 - New information
 - Changing patterns of mortality, retirements, terminations, etc.
 - Changing knowledge
- Recent experience provides strong guidance for some assumptions (for example, mortality) and weak guidance for others (for example, the investment return rate)
- Based on results of study:
 - Actuary recommends revised assumptions
 - Board accepts, modifies, or rejects recommendations

Assumptions Studied

- Economic assumptions
 - Price inflation (CPI)
 - Investment return
 - Salary increases (for individuals)
 - Payroll growth rate (for plans as a whole)
- Demographic assumptions
 - Mortality (Active Duty and Non-Duty, Post-Retirement)
 - Disability (Duty and Non-Duty)
 - Retirement
 - Other terminations
 - Other miscellaneous assumptions
- Actuarial Methods
 - Funding Method
 - Asset Smoothing Method
 - Funding Period and Actuarially Determined Contributions

Purpose of Experience Study

- The report answers these questions for each assumption
 - What was the plan's actual experience?
 - How does that compare with current assumptions?
 - Is a change warranted?
- We also measure the impact of the recommended changes on the contribution rate and actuarial liabilities

Procedure

- Compared economic assumptions to:
 - General US price inflation and wage inflation statistics
 - City of Dallas specific salary increases
 - Expected return using multiple capital market assumption sets
 - Economic assumptions should be consistent
- Analyzed demographic assumptions
 - Retirement, mortality, disability, other terminations
 - Compared to Dallas ERF's actual experience
 - Used Actual-to-Expected (A/E) Ratio as an analysis tool
 - Looked at patterns by age and service
- If $A/E = 100\%$ at all ages, assumption could be “perfect”
 - Although we often want to build in some margin

Actuarial Standards

- Guidelines for the assumption setting process are set by the Actuarial Standards of Practice
 - ASOP #4 Measuring Pension Obligations
 - ASOP #27 Selection of Economic Assumptions
 - ASOP #35 Selection of Demographic and Other Noneconomic Assumptions
 - ASOP #44 Selection and Use of Asset Valuation Methods

Actuarial Standards

- Each Individual Assumption must satisfy the Actuarial Standard
- The set of Assumptions should be internally consistent
- The set of Assumptions as a whole must satisfy the Actuarial Standard

Investment Return Assumption Review Process

- The assumption selected should be reasonable
 - Identify a reasonable range of possible assumptions
 - Select a best-estimate from within that range
 - No single “correct” answer
- Assumption is selected using a process that considers:
 - Historical investment performance
 - Comparison with peers
 - ERF’s target asset allocation
 - Economic capital market expectations
 - Utilize a building block approach that reflects expected inflation, real rates of return, and plan related expenses
 - Take into account the volatility of the expected returns produced by the investment portfolio

Current Assumption

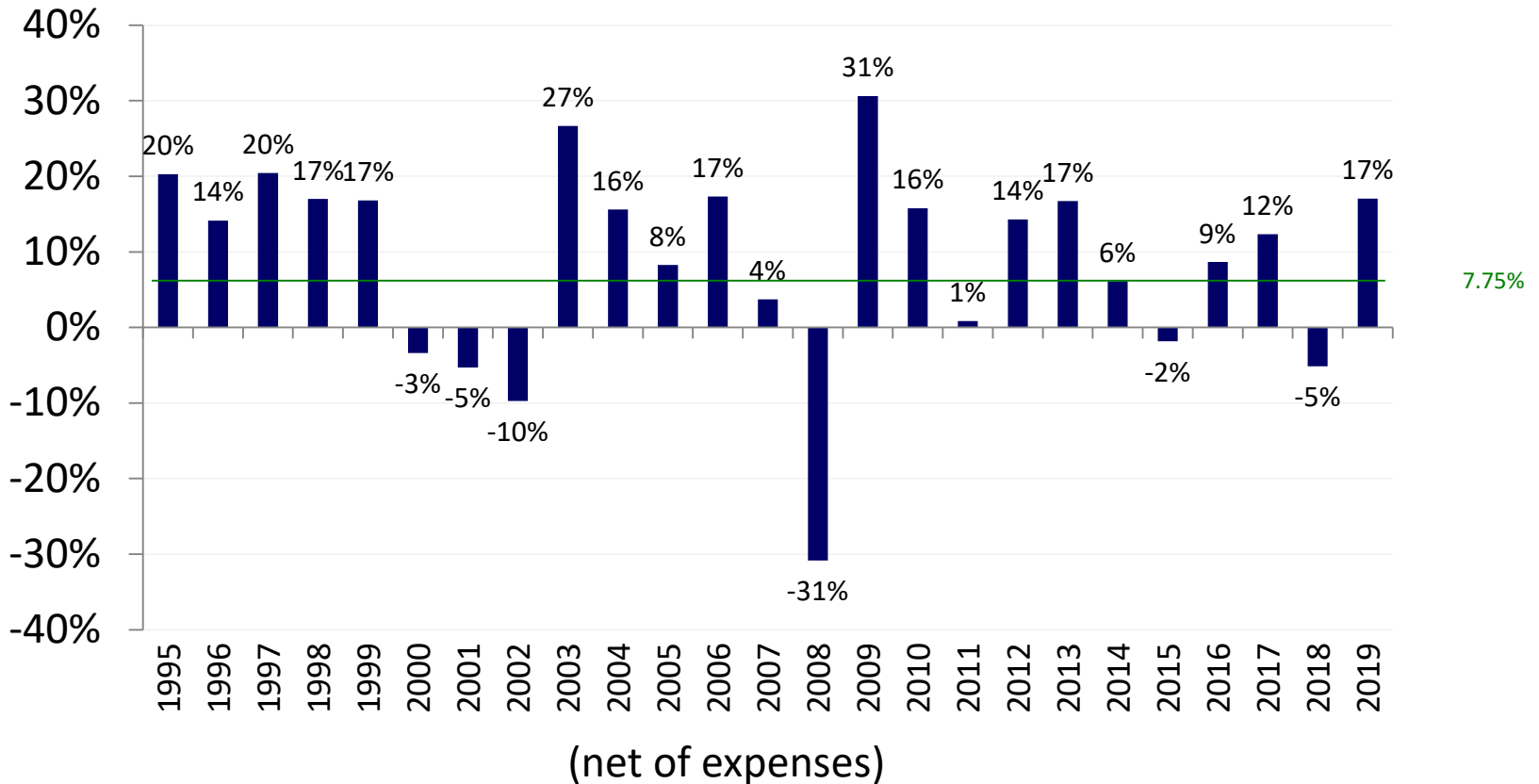
- The current assumption is 7.75% per annum, net of expenses
- This is based on the following “building block” approach:

	Current Assumption
Price Inflation	2.75%
Real Return	5.00%
Administrative Expenses*	-0.00%
Investment Expenses**	<u>-0.00%</u>
Net Return Assumption	7.75%

*Administrative Expenses are accounted for in the contribution rate

**Real return expectation is net of investment expenses

History of ERF Returns (Market)

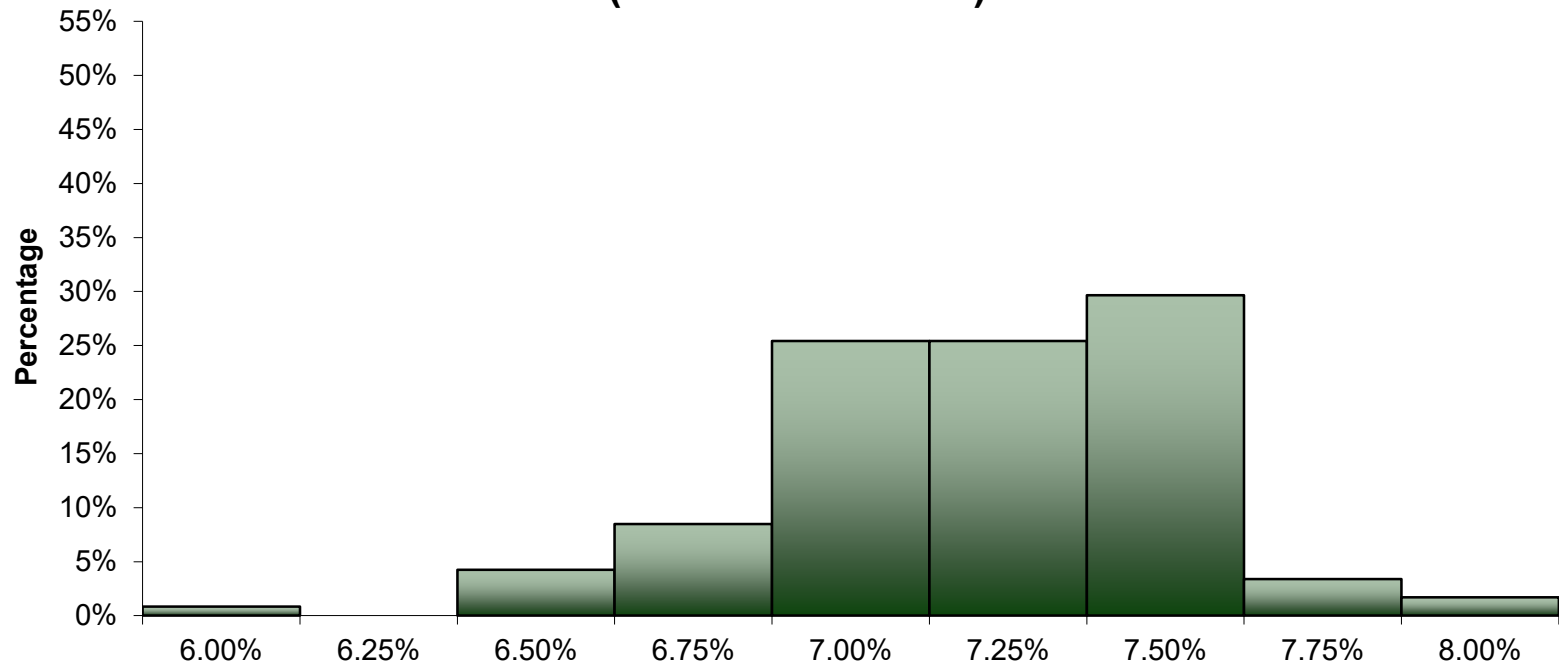


10-year average arithmetic and geometric average returns as of 12-31-2019: 8.49% & 8.20%

20-year average arithmetic and geometric average returns as of 12-31-2019: 6.89% & 5.94%

Comparison to Other Systems

Investment Return Assumptions of Other Large Pension Systems (Nominal Returns)



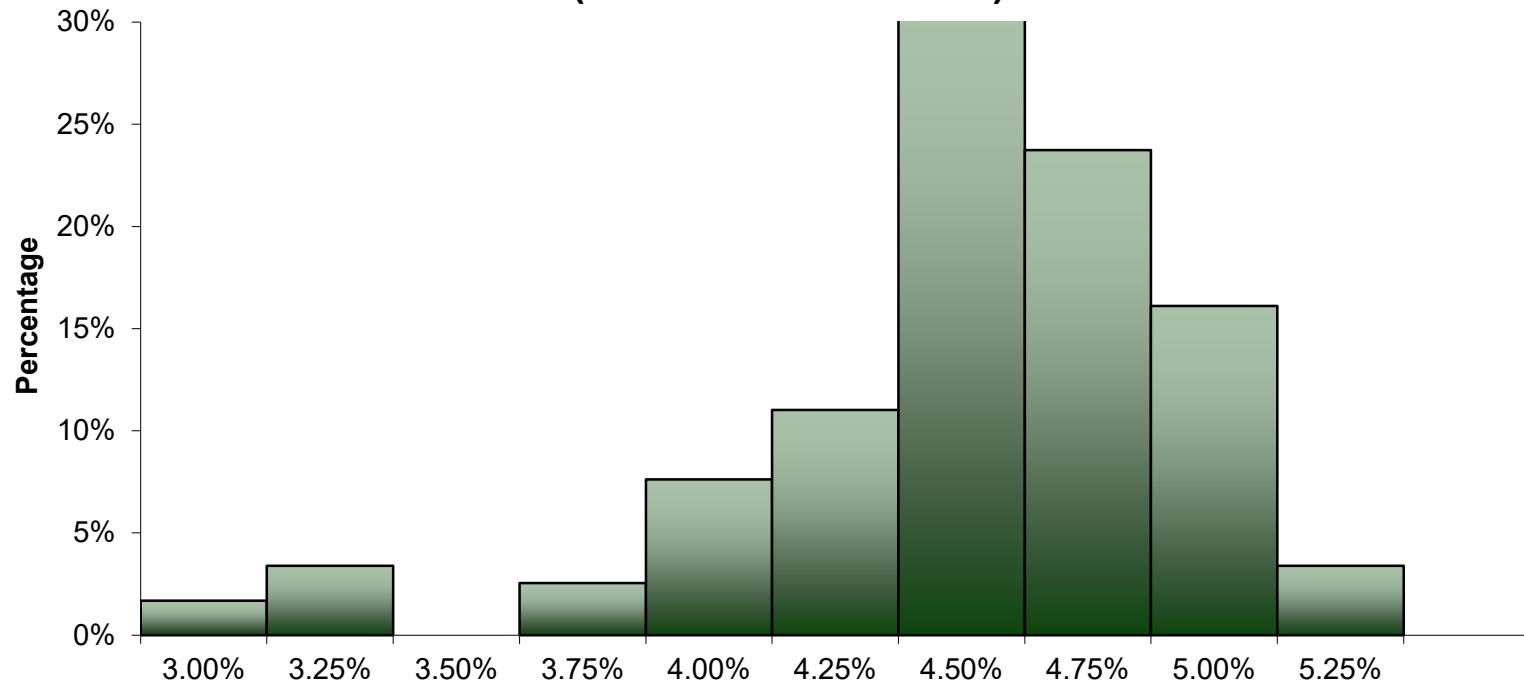
Source: Public Funds Survey Summary of Findings (FY 2019)

Average: 7.22%

ERF Current Assumption: 7.75%

Comparison to Other Systems

Investment Return Assumptions of Other Large Pension Systems (Real Rate of Return)



Source: Public Funds Survey Summary of Findings (FY 2019)

Average: 4.54%

ERF Current Assumption: 5.00%

Anticipated Investment Expenses

- ASOP provides guidance that we can assume active management net of fees will be no better or worse than passive investing
 - Unless there is evidence to the contrary
- Therefore, we continue to recommend that investment expenses are assumed to be a net zero
 - i.e. capital market expectations are already net of investment fees
 - Active management is assumed to generate sufficient return above passive management to cover the additional investment expenses associated with active management, but no additional return

Inflation

- The assumed inflation rate is not used directly in the actuarial valuation, but it impacts the development of:
 - Investment return assumption
 - Salary increase assumptions
 - Payroll growth rate
 - Cost of Living Adjustments assumption
- Actual inflation (measured by the CPI-U) during
 - Last 5 years: 1.82%
 - Last 10 years: 1.75%
 - Last 20 years: 2.14%
 - Last 30 years: 2.40%
 - Since 1913: 3.11%

Inflation

- Expected inflation implied by the difference between the return for long US Treasury bonds and the return for TIPs is 1.80% (as of 12/31/2019)
 - Over calendar year 2019, this expectation for long-term inflation varied from 1.55% to 1.99%
- We recommend decreasing the current 2.75% inflation assumption to 2.50%
- We also believe that a 2.25% inflation assumption is reasonable

Capital Market Assumptions – Investment Consultants

- Projected real returns were developed using ERF target investment allocation and most recent capital market return assumptions developed by the following investment consultants:

- | | | |
|--------------|-------------|------------|
| – AON | – JPM | – RVK |
| – BlackRock | – Marquette | – Verus |
| – BNY Mellon | – Meketa | – VOYA |
| – Callan | – Mercer | – Wilshire |
| – Cambridge | – NEPC | |

Note: the expected returns shown on the next two slides are intended to be anonymous and do not reflect the order of the investment consultants shown above

Capital Market Assumptions – Real Return

- Average annual arithmetic return for the assumptions from the fourteen consulting firms is about 7.50%

Investment Consultant	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Avg.
Net Real Return	3.01%	4.34%	4.41%	4.49%	4.66%	4.88%	5.06%	5.16%	5.20%	5.35%	5.50%	5.87%	5.96%	6.16%	5.00%
Anticipated Inflation	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>	<u>2.50%</u>
Net Investment Return	5.51%	6.84%	6.91%	6.99%	7.16%	7.38%	7.56%	7.66%	7.70%	7.85%	8.00%	8.37%	8.46%	8.66%	7.50%

Note: arithmetic return is the expected return for a one-year period

Capital Market Assumptions – Expected Return Volatility

- Investment returns are uncertain and are subject to volatility. Therefore, it is also appropriate to examine the assumption from the perspective of what is the range of return that can be expected based on current capital market assumptions.

Investment Consultant	Distribution of 20-Year Average Geometric Net Nominal Return			Probability of exceeding 7.25%
	40th	50th	60th	
(1)	(2)	(3)	(4)	(5)
1	3.98%	4.71%	5.45%	19.28%
2	5.36%	6.07%	6.80%	34.05%
3	5.54%	6.25%	6.96%	36.14%
4	5.71%	6.33%	6.96%	35.53%
5	5.90%	6.54%	7.19%	39.13%
6	6.17%	6.80%	7.44%	42.89%
7	6.12%	6.82%	7.53%	43.95%
8	6.08%	6.84%	7.61%	44.65%
9	6.29%	6.97%	7.66%	45.90%
10	6.66%	7.33%	8.01%	51.22%
11	6.78%	7.36%	7.94%	51.84%
12	7.14%	7.78%	8.42%	58.23%
13	7.08%	7.83%	8.59%	57.77%
14	7.28%	7.90%	8.53%	60.44%
Average	6.15%	6.82%	7.51%	44.36%

Assumption of 6.82% produces 50% probability of 20-year geometric return being achieved

Note: geometric return is the average compound return over the selected period

Our Recommendations

- GRS recommends the Board lower the annual net investment return assumption to 7.25%
 - We recommend lowering real return to 4.75% and lowering the inflation assumption to 2.50%
 - Based on 10-year capital market expectations, arithmetic return is 7.50% for the fourteen investment consultants
 - Based on 10-year capital market expectations, 20-year geometric mean is 6.82%
 - Our best estimate lies between 6.82% and 7.50%

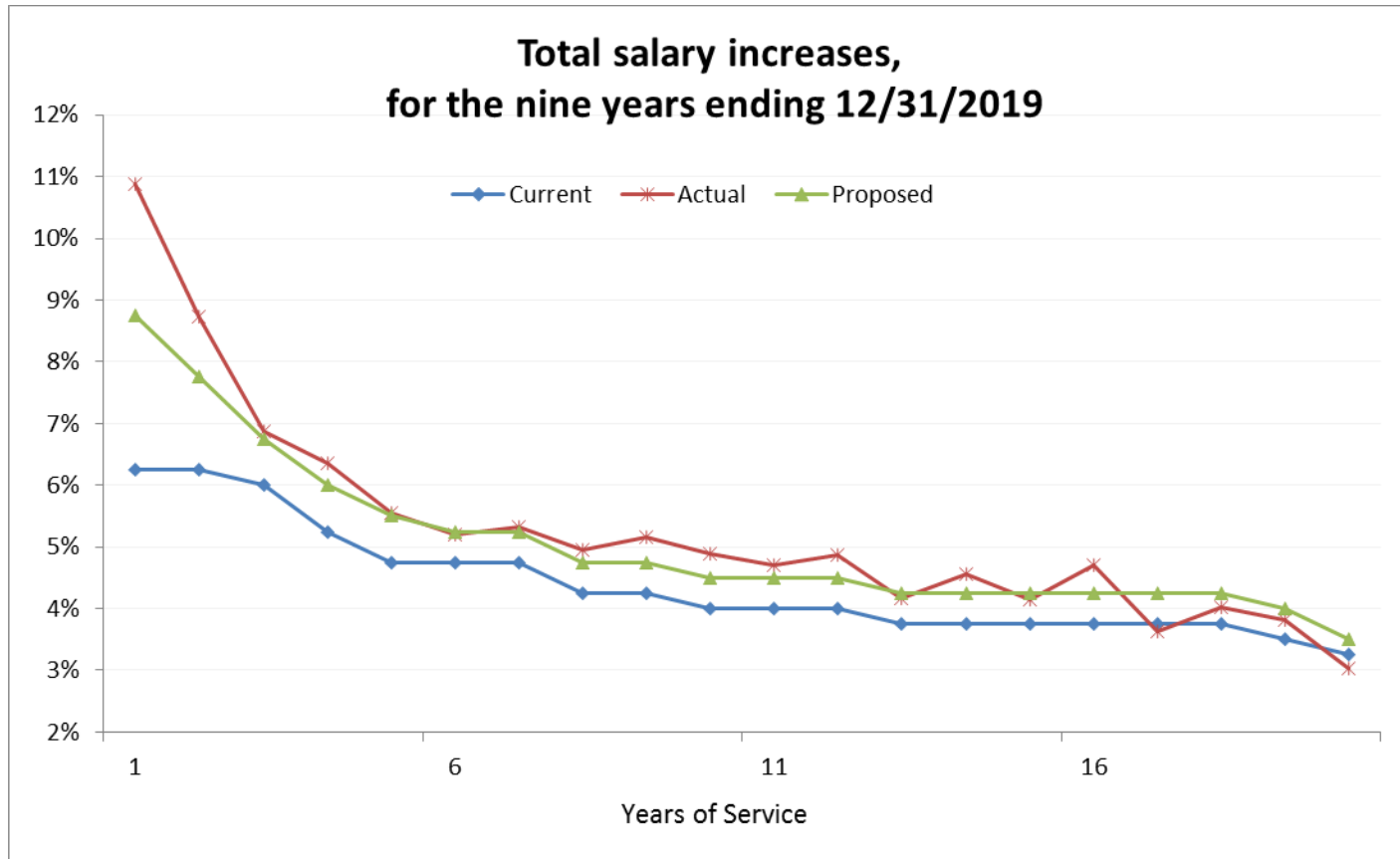
Salary Increase Rates

- Used for projecting individual member's pay and benefits
- Current assumption
 - 2.75% inflation, 0.50% productivity
 - Service-related increases during first 19 years of service
- We considered experience over the nine-year period from 2011 through 2019
- Average increase for long-term employees (20 years of service or more) was 3.03% over the period
 - Inflation was 1.79% over the same time period, which gives an apparent productivity component of 1.24%
 - This continues a trend seen in the last experience study
- If this recommendation was made solely on plan experience we would be recommending an increase in the productivity component from 0.50% to 1.00%
- However, COVID-19 could have a dramatic impact on both current and future city budgets hindering the ability to grant similar salary increases in the future
- Therefore, we believe it would be reasonable to defer increasing the productivity component until the next experience study to determine the impact (if any) of COVID-19 on the pattern of future salary increases

Salary Increase Rates

- The proposed average salary increase for long-term employees reflecting the 50 basis point increase in the wage inflation assumption is 3.50% (a 25 basis point increase over the current assumption)
 - 2.50% inflation plus 1.00% productivity
- The proposed average salary increase for long-term employees maintaining the current wage inflation assumption is 3.00% (a 25 basis point decrease over the current assumption)
 - 2.50% inflation plus 0.50% productivity
- Experience shows the current service-related component of the salary scale should also be increased
 - Continues a trend from the last experience study
 - Proposed increases are at least 0.25% with higher increases in the first five years of employment
- We acknowledge that there may be short-term variance from these long-term assumptions

Salary Increase Rates



Proposed assumption reflects 1.0% wage inflation assumption. The proposed assumption would be 0.5% less across the chart if a 0.5% wage inflation assumption is used.

Payroll Growth Rate

- Used in amortizing unfunded liability, not in projecting benefits
- UAAL amortization payments in dollars are assumed to increase at the payroll growth rate
- Current assumption is 2.75%
- Actual increases for the period from 2010 – 2019 have averaged 2.7% (normalized for membership changes)
- We recommend continuing to assume payroll growth matches inflation, which means a 2.50% recommended assumption
- We recommend to continue assuming no membership growth
- Please see later discussion about possible methodology change for determining amortization payment

Healthy Retiree Mortality

- Current tables are based on the assumptions used for the Texas Municipal Retirement Systems (“TMRS”)
- TMRS recently updated their mortality assumptions
- To be consistent we recommend that ERF adopt the new TMRS assumptions

Healthy Retiree Mortality

- Male
 - Proposed base table is based on TMRS experience, with fully generational mortality improvement using the ultimate improvement rates from the MP mortality improvement scales for males
 - A/E ratio on ERF data of 109%
 - A/E ratio at core ages (60-85) of 103%
- Female
 - Proposed base table is based on combined TMRS and Texas ERS experience, with fully generational mortality improvement using the ultimate improvement rates from the MP mortality improvement scales for females
 - A/E ratio on ERF data of 131%
 - A/E ratio at core ages (60-85) of 132%

Disabled Mortality

- The amount of experience for disabled lives is very small
- We are recommending the use of the TMRS assumptions for disabled lives
 - Healthy mortality tables for males with a 4-year age set forward and a minimum mortality rate of 3.5%
 - Healthy mortality tables for females with a 3-year age set forward and a minimum mortality rate of 3.0%
 - The assumption is appropriate based on the ten-year period measured
- These assumptions appear very conservative compared to ERF experience
 - A/E ratio for disabled males is 131%
 - A/E ratio for disabled females is 153%
 - Not a significant assumption due to the small number of disabled retirees

Retirement

- Eligibility under Tier A:
 - Unreduced
 - Age 60; or
 - Age 55 (if credited service began before May 9, 1972); or
 - Age 50, if sum of age and service is at least 78
 - Reduced
 - Before age 50 with 30 years service
- Analysis is based on the ten-year period ending 12/31/2019
- Current and proposed rates are gender-specific and make a distinction between members over 60 who have more/less than 18 years of service and for members in their first year of eligibility between ages 50 and 60
- Recommend minor adjustments to male rates to better match experience
- Recommend increasing female rates for 1st eligibility and decreasing rates after 1st eligibility

Retirement

A/E Ratios for Retirement Experience				
Age Based	Male		Female	
	Current	Proposed	Current	Proposed
50-59 (first year eligible)	85%	94%	99%	98%
50-59 (>1 year eligible)	81%	89%	88%	92%
60-69 (<18 yrs. of service)	84%	90%	69%	85%
60-69 (≥18 yrs. of service)	82%	89%	84%	84%
Total	83%	90%	84%	90%

Note: the preferred A/E ratio for retirement rates is between 85% - 95%



Retirement

- Early Retirement
 - Current A/E of 106%
 - 13 actual vs. 12.3 expected
 - Currently assume 10% of members eligible for early retirement elect to retire
 - Propose no change to current assumption

Marriage Assumption

- Currently assume 50% of female members and 75% of male members are married
- Data for retirees in the past five years shows 44% of females and 76% of males are married
- Recommend no change to the marriage assumption
- Currently assume female spouse is 3 years younger than the male spouse
- Recommend no change in the Spouse's Age assumption

Form of Payment

- Currently assume 64% of married males and 86% of married females elect J & 50% form of payment and all other married members elect J & 100%
- Data for retirees in the past five years indicates these assumptions continue to be appropriate
 - 65% for males and 85% for females
- Recommend continuing to adjust form of payment assumption for differences between actual conversion factors and factors derived from valuation assumptions
 - This assumption applies only to Tier A
- Combined with marriage assumption, we will
 - Value future male retirees as J & 28.0% Survivor (was 29%)
 - Value future female retirees as J & 22.0% Survivor (was 16.5%)

Determination of Contribution Rate

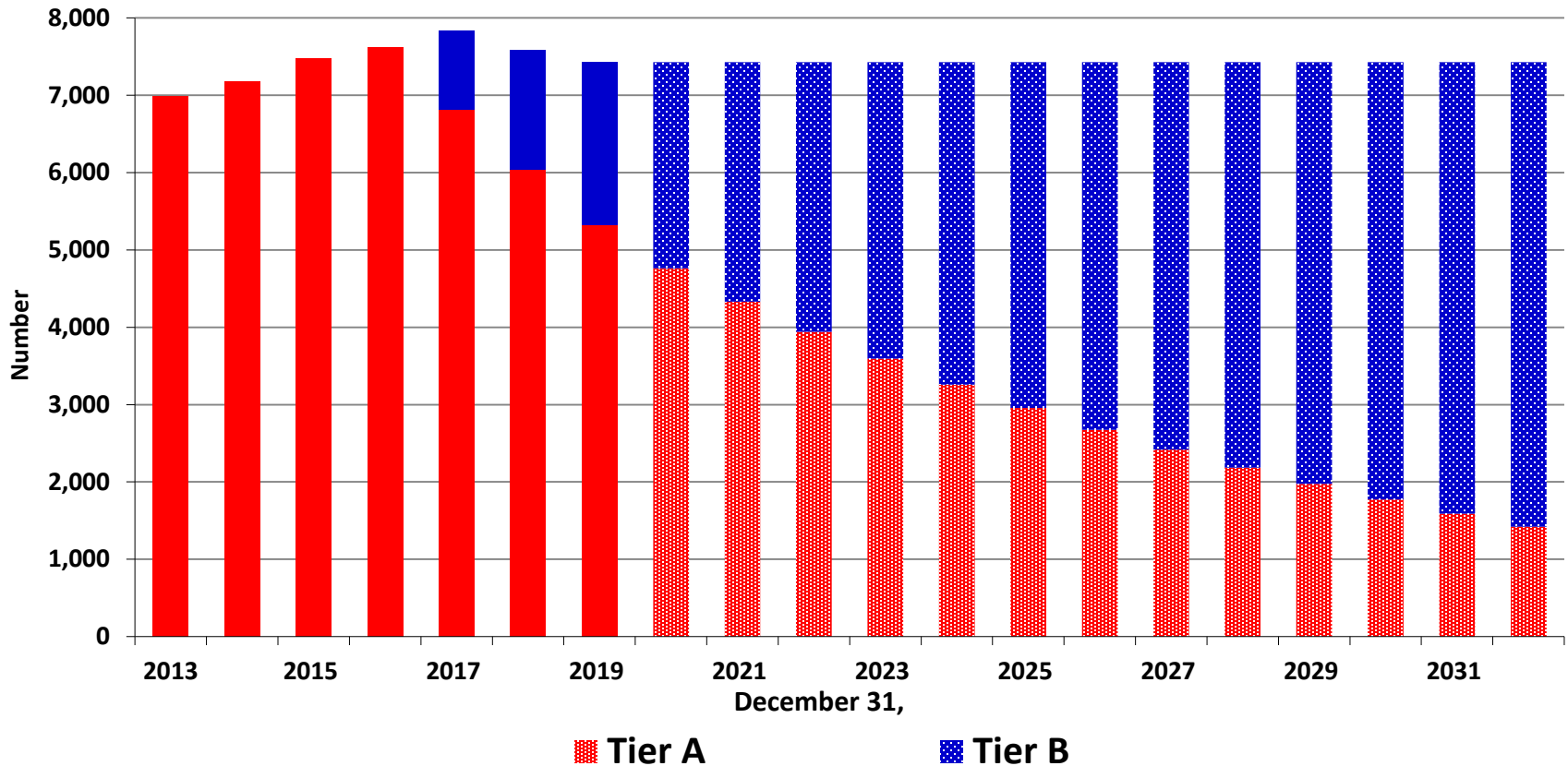
- Currently the determination of the Actuarially Required Contribution (ARC) is the sum of three components
 - Normal Cost
 - Estimated Administrative Expenses
 - Amortization payment of the UAAL
 - Determined using an algebraic formula
 - Currently a 30-year period is used
 - Payroll is assumed to grow constantly at the payroll growth rate (PGR)
 - PGR rate is currently equal to the inflation assumption

Determination of Contribution Rate

- It is assumed that the ARC will be made for the entire amortization period and that the UAAL would be fully paid off at the end of 30 years
- However, we know that if the average normal cost rate will decline over time as the membership moves from Tier A to Tier B
 - If the same ARC% is made for 30 years, the percentage of the ARC going to amortize the UAAL will increase over time
 - Therefore, the algebraic formula is overstating the ARC

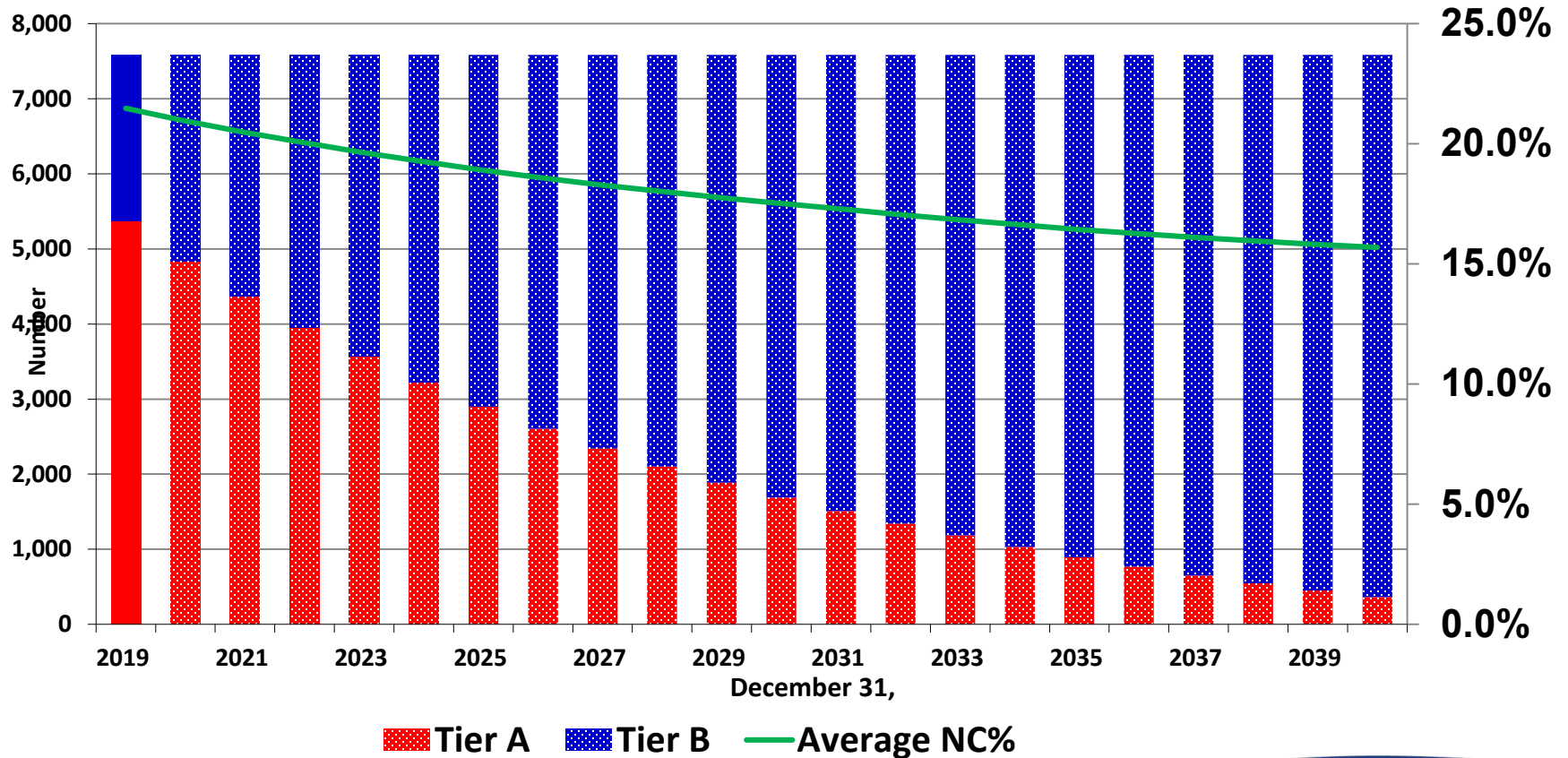
Projected Active Membership

Projected Number of Tier A and Tier B Employees



Projected Average Normal Cost as % of Payroll

Projected Number of Tier A and Tier B Employees and Average NC%



Determination of Contribution Rate

- For other plans with two tiers with such large differences in average NC%, we are using open group projections to solve for the ARC
 - We determine the total constant rate that amortizes the UAAL over the amortization period
- There are pros and cons to this approach
 - Pros
 - More accurate measurement of the constant rate of pay needed to satisfy the ARC
 - Cons
 - Complicates the calculation of the ARC
 - Measuring changes in the ARC requires an open group projection instead of just a formula in a spreadsheet

Determination of Contribution Rate

- We recommend that the Board adopt the use of an open group projection for determining the ARC
 - Note that practically it will only have a theoretical impact until the Pension Obligation Bonds are paid off or unless the 36% of pay cap on contributions is removed
 - As we move forward in time, the gap between the two methods will decrease as the NC% declines
 - 20 years from now, when over 90% of the active employees are in Tier B, there will be very little difference

Cost Impact (\$ in millions)

Item	12-31-2019 Results											
	12/31/2018	Experience	W/ Demographic Assumption Changes					W/ Demographic Assumption Changes except for increase in wage inflation				
	Valuation	Only	(3)	(4)	(5)	(6)*	(7)	(8)	(9)	(10)	(11)**	(12)
Scenario	(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)	(10)	(11)**	(12)
Real Return	5.00%	5.00%	5.00%	5.00%	4.75%	4.75%	5.00%	5.00%	5.00%	4.75%	4.75%	5.00%
Inflation	2.75%	2.75%	2.75%	2.50%	2.75%	2.50%	2.25%	2.75%	2.50%	2.75%	2.50%	2.25%
Investment Return	7.75%	7.75%	7.75%	7.50%	7.50%	7.25%	7.25%	7.75%	7.50%	7.50%	7.25%	7.25%
Normal Cost %	19.56%	19.05%	20.13%	20.39%	21.21%	21.48%	20.66%	19.20%	19.46%	20.23%	20.50%	19.70%
Accrued Liability	\$4,527	\$4,658	\$4,719	\$4,761	\$4,847	\$4,892	\$4,803	\$4,691	\$4,734	\$4,819	\$4,863	\$4,775
AVA	\$3,620	\$3,681	\$3,681	\$3,681	\$3,681	\$3,681	\$3,681	\$3,681	\$3,681	\$3,681	\$3,681	\$3,681
UAAL	\$907	\$977	\$1,038	\$1,080	\$1,166	\$1,211	\$1,122	\$1,010	\$1,053	\$1,138	\$1,182	\$1,094
Funded Ratio	80.0%	79.0%	78.0%	77.3%	75.9%	75.2%	76.6%	78.5%	77.8%	76.4%	75.7%	77.1%
ADC (w/o POB)	34.59%	34.79%	36.83%	37.74%	39.90%	40.35%	38.67%	35.45%	36.35%	38.45%	38.91%	37.25%

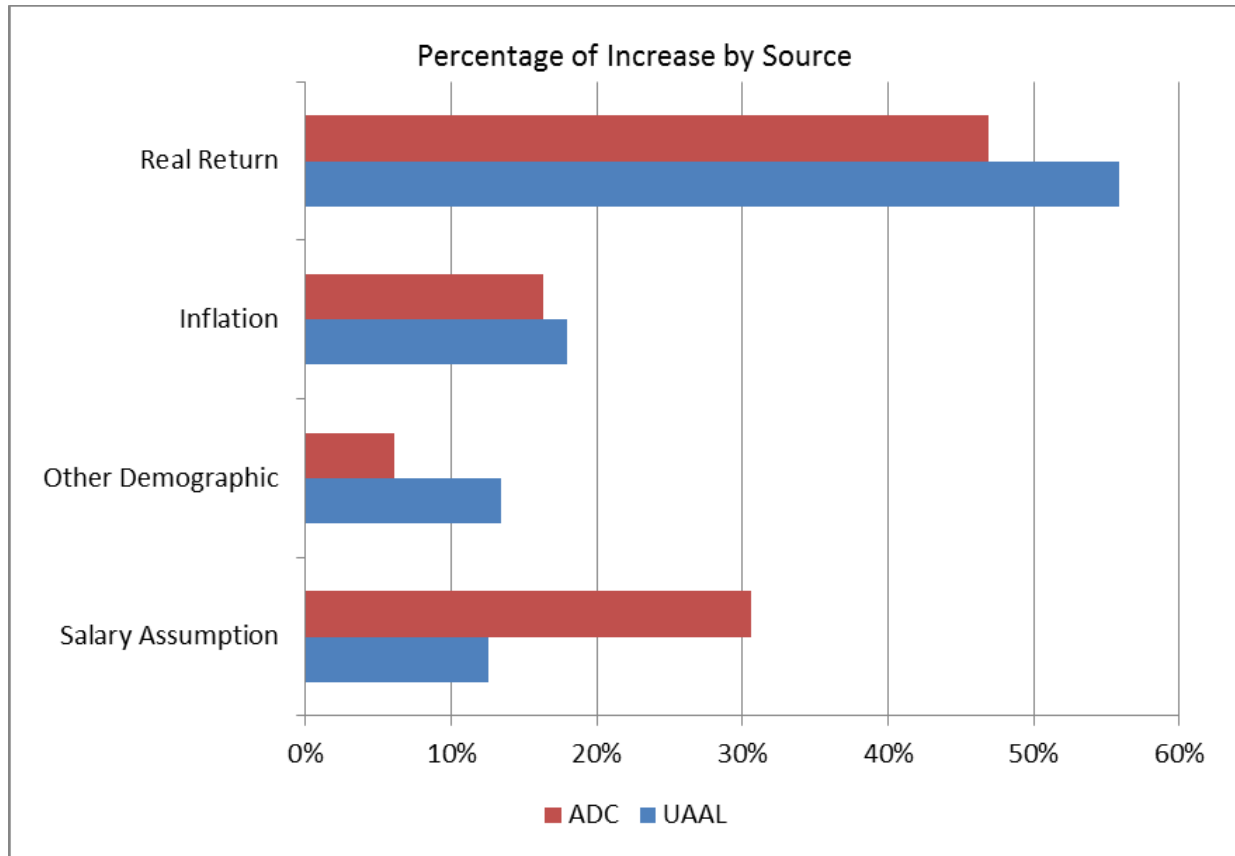
*Recommended Assumption Set if Board elects 1.0% wage inflation

**Recommended Assumption Set if Board elects 0.5% wage inflation

Note: ADC's shown above are determined on current methodology not on recommended open group projection. The ADC using the open group methodology for the recommended assumptions in column 6 would be approximately 35.85%. For the other assumption sets, the ADC would be expected to be 3.5% to 4.5% using an open group projection.



Impact of Recommended Changes



Note: the "Salary Assumption" impact shown reflects the 50 basis point increase in the wage inflation assumption. The impact would be much less if the current wage inflation assumption is maintained.

Summary of Recommendations

- Recommendations with material impact
 - Decrease the inflation assumption from 2.75% to 2.50%
 - Lower the real rate of return assumption from 5.00% to 4.75%
 - This combined with a 2.50% inflation assumption nets an annual nominal rate of return of 7.25%
 - Wage Inflation (Board Option)
 - Reflect experience and increase the wage inflation component of the salary increase assumption from 0.50% to 1.00%
 - Due to COVID-19 defer any increase to a future experience study
 - Increase the service-based salary scales
 - Decrease the COLA assumption to reflect a decrease in inflation (2.50% for Tier A and 2.20% for Tier B)
 - Reduce the rates of retirement for most ages
 - Update post-retirement mortality assumptions to current TMRS mortality assumptions

Summary of Recommendations

- Recommendations with non-material impact
 - Small modifications to termination rates for males
 - Modifications to termination rates for females
 - Modification to rates of disability incidence
 - No change in marriage assumption or spousal age difference
 - Small change to form of payment election assumption
 - No change to the refund election assumption
 - No change to vacation leave conversion amounts
 - No change to the actuarial cost method
 - No change to the actuarial asset method

Summary of Recommendations

- Additional Recommendation
 - Move from algebraic determination of Actuarially Determined Contribution to open group projection

Disclaimers

- This presentation is intended to be used in conjunction with the actuarial valuation report issued in May 2020. This presentation should not be relied on for any purpose other than the purpose described in the valuation report.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- Readers are cautioned to examine original source materials and to consult with subject matter experts before making decisions related to the subject matter of this presentation.

DISCUSSION SHEET

Employees' Retirement Fund
Board of Trustees Meeting

May 22, 2020

Issue: ERF Manager Selection & Monitoring Policy Revisions

Attachment: ERF Manager Selection & Monitoring Policy

Discussion: The ERF Manager Selection & Monitoring Policy was revised to update the due diligence process to include videoconference in addition to in-person meetings due to current travel restrictions from COVID-19. Other edits streamline the RFP process, extend the period for manager monitoring from every 2 years to every 3 years and remove redundancies.

Recommendation: Approve the proposed revised Manager Selection & Monitoring Policy. Suggested motion for the approval is as follows: Move to approve the Manager Selection & Monitoring Policy as revised.

EMPLOYEES' RETIREMENT FUND OF THE CITY OF DALLAS

MANAGER SELECTION AND MONITORING POLICY

A. PURPOSE

This Manager Selection and Monitoring Policy ("MS&MP") in conjunction with the General Investment Policy ("GIP") and the Specific Asset Class Policy ("SACP") of the Employees' Retirement Fund of the City of Dallas ("the Fund") will provide the framework for ensuring that the Fund's investment managers are prudently selected and reviewed. This MS&MP has been designed to allow for sufficient flexibility in the selection and monitoring ~~process, yet~~ process, yet provide reasonable parameters to ensure prudence and care in the execution of the Fund's investment program.

B. MANAGER SELECTION

1. Minimum Criteria:

Managers selected to manage Fund assets shall meet the following minimum criteria:

- a) The manager must have a history of returns which are fully compliant with Chartered Financial Analyst (CFA) Institute standards. Managers in newer asset classes should have at least three years of returns for the subject product. Other potential managers should have at least three to five years of returns for the subject product. Some exceptions may be made depending on the investment strategy and manager.
- b) The manager's ADV (the manager's registration document with the Securities and Exchange Commission which discloses any violations of securities laws or regulations) must not contain any irregularities. If a manager's ADV does indicate any such violations, it should be reviewed by legal counsel.
- c) The manager must manage assets for institutional clients.
- d) The manager's investment professionals should have a high level of experience and several years of experience at the manager under consideration.
- e) The manager should have low employee turnover of its professional staff.
- f) The manager should have deep resources in terms of breadth of staff, research capabilities, and information management.
- g) A low client to staff ratio for the portfolio management, client service, and analytical staff is preferred.

2. Selection Process:

The following process should serve as a guideline for an investment manager search and may be modified as needed.

- a) Before a search is conducted, the Board will outline a clear mandate for the potential manager(s) and determine the strategic role it (they) will serve in the Fund's investment program ("Initial Search Criteria"), with advice from the Fund's staff ("Staff") and from the Fund's investment consultant ("Consultant"). The Consultant shall provide analysis on how the new manager would fit into the Fund's investment program.
- b) Manager searches should be conducted:
 - i) to replace a terminated ~~manager;~~manager;
 - ii) upon restructuring following an asset allocation study; and
 - iii) when investing in a new asset class.
- c) Candidate Identification:
 - i) The Consultant will prepare a list of managers that meet the Initial Search ~~Criteria;~~Criteria.
 - ii) The Consultant will provide reviews of managers from the Consultant's internal research ~~team;~~team.
 - iii) Staff and the Consultant will review and analyze managers with the goal of producing a list of approximately ten managers for more detailed analysis.
- d) RFP Process:
 - i) Staff will prepare a detailed request for proposals ("RFP") along with the specific evaluation and rating scale with feedback from the ~~Consultant;~~Consultant.
 - ii) Staff will request Board approval to send-issue the RFP ~~to a recommended list of managers~~;
 - iii) Following Board approval, Staff will send-the-issue the RFP ~~to selected managers~~ and Staff will post the RFP publicly on the Fund's website so that any manager may access the RFP and may submit a response to the Fund;
 - iv) Staff and the Consultant will independently review managers' RFP ~~responses;~~responses.
 - v) After extensive RFP reviews, Staff and the Consultant will meet to select managers ~~who are then recommended to the Board~~ for on-site due diligence.

e) ~~On-Site~~ Due Diligence:

Staff and the Consultant will visit manager candidates in each candidate's home office. If it is not possible to travel and visit on site, staff will conduct virtual due diligence. The purpose of such visits is to meet all of the manager's appropriate and most pertinent executives and staff, confirm RFP responses, review trading and office capabilities, discuss significant personnel, and obtain an overall good understanding of the firm's culture, capabilities, and capacity. Staff and the Consultant will review, ~~and evaluate each visit, and select a list of finalists.~~ ~~Staff will then prepare a list of finalists for Board presentations, which finalists shall be approved by the Board for final presentations.~~

f) Manager Hiring:

~~Board-approved~~ finalists will visit the Board to make final presentations in person or online. ~~The Board typically will select one to two managers for a mandate.~~ The Board, in consultation with Staff and with the Consultant, will review the recommendation for funding and the Board will make final decisions regarding manager selection and allocations. Following final Board selection of a manager(s), Staff will complete the process by facilitating onboarding of each manager with the Fund's custodian bank and by finalizing all legal documentation, upon investment counsel approval, for execution by both the manager and by the Fund's Board Chair.

C. MANAGER MONITORING

1. Board Meetings: ~~Meetings:~~ Staff Contact:

The Board and/ or ERF Staff should meet with each manager approximately every ~~threetwo~~ years at either a Board meeting, or at the manager's headquarters. An additional monitoring check point may be at a manager-sponsored conference where both Board Members and ERF Staff may speak to the manager at length. The meeting schedule will be determined by ~~the Board and~~ Staff. The session should focus on the manager's performance versus required objectives and market environment, a review of investment philosophy and process, changes to either the manager's organization or investment process, the manager's view of the market going forward, and any outstanding issues or concerns relating to the account.

Staff shall maintain telephone or face-to-face contact with each manager every quarter.

2. Investment Performance Reports:

The Board shall review the quarterly investment performance report provided by the Consultant. The Consultant will calculate and provide portfolio returns which have been reconciled with the manager and the custodian bank. The Consultant will also provide portfolio characteristics and performance attribution data for each manager. From this information, managers can be reviewed by the Board and by Staff based on their performance.

3. Monthly Updates:

In addition to the quarterly performance report, the Consultant will provide monthly updates on each manager's performance, as warranted.

D. DISCIPLINARY ACTION

1. Managers Placed on Watch:

The Board may place a manager on watch ("Watch") ~~in~~ at its discretion, including, without limitation, when there is a breach of contract (including guidelines or other compliance issues), a protracted downturn in performance relative to its benchmark, or major organizational changes (*e.g.*, a sale or other change of control of the manager, departure of key personnel or other significant organizational turnover, or reassignment of the manager). Staff and the Consultant shall apprise the Board of any such conditions of which they have knowledge.

Each case is unique and will be evaluated individually, but the following instances generally may be considered when placing a manager on Watch:

- a) If a manager is in violation of its contract for a non-performance related breach of contract, Staff or the Consultant will provide written notification to the manager and a reasonable deadline for resolving the problem. If the manager fails to correct the problem by the stated deadline, the manager will be placed on Watch.
- b) If a manager deviates significantly from its stated style (which is outlined in the manager's guidelines) for an extended period or if there is a protracted downturn in a manager's performance relative to its benchmark, Staff and the Consultant will provide the Board with a recommendation on whether placing the manager on Watch status is warranted.
- c) If a manager has experienced major organizational changes (*e.g.*, a sale or other change of control of the manager, departure of key personnel or other significant organizational turnover, or reassignment of the manager), Staff and the Consultant will review the changes and will provide the Board with a recommendation on whether Watch status is warranted.

Subject to the Executive Director's authority in D.3, below, before any manager is placed on Watch for any reason, Staff and the Consultant shall conduct one or more meetings with the manager (either in person or by phone).

2. Watch Period:

- a) The Watch period will be at the discretion of the Board.
- b) When the Board places a manager on Watch, the manager will be notified in writing by Staff.

c) A manager on Watch will be monitored by Staff ~~on a monthly basis~~ monthly. The manager's Watch status will be noted in the quarterly Executive Summary of Investment Performance prepared by the Consultant.

3. Actions by the Executive Director:

The Executive Director has the authority to place a manager on Watch immediately between Board meetings for any of the following reasons, until such Watch status subsequently is either ratified or removed by the Board:

- a) The manager does not comply with securities ~~laws;~~ laws.
- b) The manager does not comply with industry ~~regulations;~~ regulations.
- c) The manager violates professional conduct standards. ~~;~~ or
- d) The manager violates contractual agreements.

4. Board Termination:

Depending on the seriousness of the violation(s), the Board may terminate the manager at will in accordance with the terms of the manager's contract.

E. REMOVING A MANAGER FROM WATCH

1. Watch Period Termination:

When the Watch period has ended, Staff or the Consultant will revisit the manager's performance and will provide a recommendation to the Board.

2. Removal from Watch Status:

Subject to the Board's discretion, a manager will generally be removed from Watch status in the following instances:

- a) After a significant improvement in performance relative to its ~~benchmark;~~ benchmark;
- b) If the manager restores its style elements and portfolio characteristics originally established in the contract and continues to maintain those characteristics in the portfolio management ~~process;~~ process;
- c) If the manager was found to be in violation of its contract for a non-performance related reason and resolves the violation; and/or
- d) If the manager can demonstrate that organizational changes have not impeded the investment process and that sufficient resources are in place (or have been restored).

F. FAILURE TO CORRECT ~~DEFICIENCIES;~~ DEFICIENCIES, TERMINATION

1. Failure to Correct Deficiencies:

If Staff or the Consultant's review of the manager at the end of its Watch period finds that the manager has not corrected the identified deficiencies, Staff and the Consultant may recommend to the Board one or more of the following actions:

- a) Extend the Watch period for a specified amount of ~~time~~time;
- b) Reduce the manager's assets under management, keeping the Fund's asset allocation policy in ~~mind~~mind;
- c) Renegotiate ~~fees~~fees; or
- d) Terminate the manager.

- 2. Should the Board choose to terminate a manager, Staff and the Consultant will advise the Board on the transition of the affected assets.
- 3. This policy does not preclude the Board's discretion to terminate any manager at will in accordance with the terms of the manager's contract.

G. POLICY AUTHORITY OF THE EXECUTIVE DIRECTOR AND BOARD CHAIR

Temporary exceptions to the GIP, SACP, and this MS&MP may be granted with the approval of both the Board Chair and the Executive Director where the Board Chair and the Executive Director together have determined that such temporary exception is in the best interest of the Fund. Any such temporary exception shall last for a defined ~~period of time~~period between Board meetings, until such exception is either ratified or removed by the Board. The Board shall review and either ratify or remove such exception at a future Board meeting.

Attest:

By: _____ Date: _____
Employees' Retirement Fund of the City of Dallas
Board Chair

By: _____ Date: _____
Employees' Retirement Fund of the City of Dallas
Executive Director

Last revised: May 2020December 2017

Exhibit 2
Aberdeen Asset Management Inc.
Total Return Bond Strategy Portfolio Guidelines

for the

Employees' Retirement Fund of the City of Dallas

I. Investment Philosophy, Policy & Process

Active Domestic and Non-dollar Fixed Income Management

Aberdeen Asset Management believes an investment-grade fixed income portfolio can consistently deliver a source of superior risk-adjusted returns when enhanced through multiple sources of alpha, including:

- Effective duration budgeting
- Expanding the opportunity set to include foreign sovereign debt in both local and hard currency
- Yield curve positioning across global markets
- Sector-oriented credit analysis

The Aberdeen Asset Management process is centered on global fundamental analysis of macroeconomic variables, country-specific monetary and fiscal policies, and trade and current account balances around the world. Aberdeen Asset Management breaks down the universe into six distinct segments – Core, Major, Satellites, Convergence, Low Correlation, and Commodity, applying different tactics for different segments. Aberdeen Asset Management believes that this approach allows the firm to use its macro economic analysis to strategically deliver alpha. The five steps that we follow to execute the process of managing the strategy include market segmentation, macro fundamental analysis and screening, internal ratings assignment, target portfolio construction, and risk distribution examination of target portfolio.

II. Portfolio Characteristics

A. Permitted Markets

Individual markets must meet certain minimum standards prior to their approval by Investment Manager for investment. The criteria considered in this process relate to the degree of political, currency, legal, regulatory, liquidity and settlement risk exhibited by each market. Investment in non-dollar debt is allowed in countries in the Citibank Non-US Government Bond Index or in emerging market countries in the Emerging Local Markets Index Plus (ELMI+) provided that the countries are rated investment grade by Moody's or S&P's. [Countries of similar qualities that are not in either indices can also be purchased](#)

but limited to a total of 5% of market value, provided that the countries are rated investment grade by Moody's or S&P's (revised 05/20).

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B. Permitted Instruments

1. Non-U.S. Instruments

Eurobonds
Local Currency Markets
Government Bonds
Government Agency Bonds
Corporate Bonds
Supranationals
Asset Backed Securities, Mortgage Backed Securities, and Pfand Briefs

2. U.S. Instruments

Units of the Master Custodian STIF
U.S. Treasury Bonds
U.S. Government, Agency and Whole-Loan -Backed Mortgages
(Pass Throughs, TBAs and CMOs, note restriction below)
Federal Agency and Supranational Bonds
Corporate Bonds and Hybrids
Asset-Backed and Commercial Mortgage-Backed Securities
Yankee Bonds

C. Restricted Instruments

The manager may not invest in the following securities without prior written approval:

Emerging Market securities that are below investment grade
(revised 12/16)
Leveraged/Residual CMOs
Structured Notes

D. Portfolio Restrictions.

Maximum non-dollar bonds or foreign currency exposure	30%, based on market value
Maximum corporate bond exposure	50%, based on market value
Maximum structured bond (CMO, ABS, etc.) exposure	50% based on market value <small>(revised 10/8/13)</small> .
Non-US Issues	5% per issuer, based on market value

Non-US Government Sovereign Issues	10% per issuer, based on market value
Duration range relative to stated benchmark	Maximum of plus one year to the index (with no minimum) (revised 10/8/13)
Average Credit Quality	A or A2 (revised 12/16)
Minimum Credit Rating Per Issue	BBB- or Baa3
Maximum holdings in BB+ or Ba1 or lower	5% based on market value (added 12/16)
Maximum holding period for individual securities rated BB+ or Ba1 or lower	270 days from date of downgrade (added 12/16)
Maximum allocation to 144A Private Placements without Registration Rights	25 40% based on market value (added 12/16, revised 05/20)

No single currency can have a net negative exposure

E. Maximum Allocation to Derivatives

1. Maximum net allocation to derivatives is 10% of the entire account on a market value basis, excluding currency forward contract positions and options.
2. Maximum allocation to currency forward contracts and options is 100% of the non-dollar allocation.

III. General Investment Manager Guidelines and Requirements

- A. Investment Manager shall take note of and operate under the “Fixed Income Asset Class Policy for the Employees’ Retirement Fund of the City of Dallas”, which specifies the strategic role its portfolio is to fulfill in the overall investment structure of the Fund, a copy of which is appended to, and is a part of, these guidelines and objectives.
- B. Purchases and sales, security selection, and portfolio implementation of investment strategies are delegated to the discretion of the investment manager.
- C. The following transactions are prohibited: purchase of non-negotiable securities, short sales, except for hedging purposes, stock and bond transactions on margin, straddles, options, leverage, or letter stock.
- D. Derivatives.
Notwithstanding any other language in Aberdeen Asset Management Inc’s. investment management agreement with the Employees’ Retirement Fund of the City of Dallas effective April 26, 2007 and as thereafter amended, which may relate to Aberdeen Asset Management’s investment authority in and use of derivatives of any type, the provisions of:

- a. the Employees' Retirement Fund General Investment Policy, dated December 13, 2016, at Paragraph G.7 found as Exhibit 2-A, and
- b. The Employees' Retirement Fund Fixed Income Asset Class Investment Policy,

as may later be amended, which are both attached hereto and made a part hereof and a part of the April 26, 2007 investment management agreement as if fully set forth in both, shall control (revised 12/16).

- E. Transactions that involve a broker acting as a "principal" where such broker is also the investment manager who is making the transaction is prohibited.
- F. Transactions shall be executed at a reasonable cost, taking into consideration prevailing market conditions and services and research provided by the executing broker.
- G. Each investment manager shall have full responsibility for the exercise of all rights appurtenant to any securities under its management, including responsibility to vote proxies, except to the extent otherwise directed by the Trustees. Investment managers shall maintain records of proxy votes and make them available for inspection upon reasonable request.
- H. Performance objectives are to be met on a net of fees basis.
- I. Any investment or action with respect to an investment not expressly allowed is prohibited, unless presented to and approved prospectively by the Trustees of the Dallas Employees' Retirement Fund. All guidelines must be adhered to by the manager. If from time to time an exception to the guidelines shall be deemed appropriate by a manager, it must seek review and approval by the Trustees prior to making such an exception. However, if a guideline is violated due to market events, actions, or conditions, the manager must immediately inform the Administrator to determine a course of action. This course of action will be based upon the best judgement recommendation of the manager and the Administrator's discussion with the investment consultant and Board members. Correction of the violation may be postponed if it is deemed to be in the best interest of the Fund.
- J. Should any temporary or permanent change regarding a manager occur, the manager shall notify the Trustees immediately via phone. A letter, detailing the circumstances of the change and the possible impact to the portfolio management, will be faxed immediately to the Trustees. Changes include, but are not limited to: a) a significant change in investment philosophy, b) a loss of one or more key management personnel, c) a new portfolio manager on the account, d) a change in ownership structure of the firm, or e) any occurrence which might potentially impact the management, professionalism, integrity or financial position of the investment manager.

K. For purposes of the guidelines, (a) all percentages apply on a market value basis immediately after a purchase or initial investment and (b) any subsequent change in any applicable percentage resulting from market fluctuations or other changes in total assets does not require immediate elimination of any security from the Portfolio.

V. Performance Objective

Exceed the return of the Barclay's Aggregate Bond Index by 50 basis points annually net of the base fee over a 5-year period.

Acknowledged: Aberdeen Asset Management Inc.

By: _____ Date: _____

Employees' Retirement Fund of the City of Dallas

By: _____ Date: _____

Approved by Board: April 10, 2007

Last Amended: ~~May 22nd, 2020~~ ~~December 13, 2016~~

2016

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DISCUSSION SHEET

Employees' Retirement Fund Board of Trustees Meeting

Friday, May 22nd, 2020

- Issue:** Aberdeen Guideline Changes
- Attachments:** Redlined Aberdeen Standard Investments Fixed Income Guidelines
- Discussion:** Aberdeen is requesting two changes in manager guidelines:
- 1) To allow out of benchmark purchases of up to 5% of the market value of the portfolio;
 - 2) To allow the Manager to invest in 144A securities up to a maximum of 25% of the market value of the portfolio.
- Recommendation:** Suggested motion for the approval is as follows: Move to approve the requested guideline changes as noted and authorize the Board Chair to sign.

Exhibit B
BLACKROCK FINANCIAL MANAGEMENT, INC.

for the

Employees' Retirement Fund of the City of Dallas

I. Investment Philosophy

Active High Yield Fixed Income Management

BlackRock Financial Management, Inc. (Investment Manager) is a bottom-up investor utilizing fundamentally driven research to identify value. Security selection seeks to identify companies with franchise positions in their industries, separable and liquid assets, and stable cash flows.

II. Portfolio Characteristics

A. Permitted Instruments

Fixed Income Securities rated Ba1 - Caa by Moody's, BB+ - CCC- by Standard & Poor's, or BB+ - CCC- by Fitch. The investment manager has the discretion to purchase non-rated securities that it deems to fall within the credit quality guidelines. In the event that a Portfolio investment is downgraded below or upgraded above these credit quality guidelines, the Investment Manager shall notify the Plan and provide an evaluation and a plan of action. Manager is allowed to hold up to ~~2%~~ the benchmark weight (revised 5/20) in aggregate market value of these securities. (revised to include Fitch 1/14)

For split-rated bonds the higher rating will prevail.

Bank floating rate securities and other floating rate debt obligations rated B3 or higher by Moody's, B- by S&P, or B- by Fitch. (revised to include Fitch 1/14)

Bridge Securities, whether fixed or floating, with or without a payment in kind feature ("Bridge Securities"). (revised 2/08)

Investment Grade Bonds – may be purchased only if the yield equals or exceeds the yield of the Citigroup (revised 3/07) BB- High Yield Bond Index.

Payment in Kind Bonds ("PIK") (revised 6/07)

Zero coupon fixed income securities

Rule 144A securities (with and without registration rights)

Securities issued or guaranteed by the US Government, its agencies, and instrumentalities

Cash equivalent investments are defined as any security that has an effective duration under one year, a weighted average life of less than one year, and a spread duration less than one year. Temporary Cash balances may be invested by BlackRock in a money market instrument (A1/P1 or better, less than 390 days), in a client and NAIC approved commingled 2A-7 Money Market Fund or in a commingled Stable Dollar NAV Fund or units of the Master Custodian STIF fund,

Contracts representing forward commitments to purchase securities which comply with these guidelines

B. Restricted Instruments

The manager may not invest in the following securities without prior written approval:

1. Derivatives.

Notwithstanding any other language in BlackRock Financial Management, Inc's. Investment management agreement with the Employees' Retirement Fund of the City of Dallas effective August 1, 2006 and as thereafter amended, which may relate to BlackRock Financial Management, Inc's investment authority in and use of derivatives of any type, the provisions of:

- (i) the Employees' Retirement Fund General Investment Policy, dated December 13, 2016, at Paragraph G.7 found at Exhibit B-1, and
- (ii) the Employees' Retirement Fund Fixed Income Asset Class Investment Policy, found at Exhibit B-2,

as may later be amended, which are both attached hereto and made a part hereof and a part of the August 1, 2006 investment management agreement as if fully set forth in both, shall control (revised 12/16).

- 2. Unregistered securities (including any unregistered equity security or warrant or option to acquire any such security), except Rule 144A securities (with and without registration rights)
- 3. Convertible preferred securities or warrants
- 4. Securities for which the value of all outstanding securities of the issue is less than \$100 million at the time of purchase.
- 5. Securities of a company for the purpose of acquiring control or management
- 6. Securities issued in connection with a highly leveraged transaction involving a company which, in the manager's judgment, is experiencing clear operating difficulty.
- 7. Real estate, real estate mortgage loans, except securities secured by real estate or interests therein, or issue by companies, including real estate investment trusts, which invest in real estate or interests therein
- 8. Commodities or commodities contracts
- 9. Units of mutual funds

10. Securities of foreign issuers, except issues of companies issued in the G7 countries if principal and interest are payable in US dollars up to 10% on a market value basis.
11. Purchase of common stocks, or warrants or options to acquire common stocks, unless such common stocks, warrants or options are issued as part of an investment unit the major portion of the value of which is attributable, in the manager's judgment, to fixed income securities, provided that such restriction shall not prohibit the acquisition of (A) convertible bonds, if, in the manager's judgment, most of their value is attributable to their yield and other fixed income features, or (B) equity securities upon conversion of a convertible bond or upon exercise of a warrant or option that is part of any such investment unit to the extent that exercise is deemed advisable to facilitate sale of the investment.

C. Other Portfolio Restrictions and Requirements:

Maximum amount of securities rated in all CCC+/Caa1/CCC categories and/ or below utilizing the higher of split rated securities methodology (revised 1/14)	Index weighting plus five percent; (revised 7/11, 1/14)
Maximum PIK and/or zero coupon securities	10%, based on market value
Maximum allocation to a single issuer	3%, except government securities. (revised 09/19)
Maximum allocation to a single industry	20%, except government securities
Minimum amount of non-US treasury bonds	30 securities where no individual issuer comprises more than 5% of the market value of the portfolio
Maximum amount of leveraged loans and/or floating rate securities	14% based on market value (revised 3/08; 09/19)

III. General Investment Manager Guidelines and Requirements

- A. Investment Manager shall take note of and operate under the "Fixed Income Asset Class Policy for the Employees' Retirement Fund of the City of Dallas", which specifies the strategic role its portfolio is to fulfill in the overall investment structure of the Fund, a copy of which is appended to, and is a part of, these guidelines and objectives.

- B. Purchases and sales, security selection, and portfolio implementation of investment strategies are delegated to the discretion of the investment manager.
- C. The following transactions are prohibited: purchase of non-negotiable securities, short sales, stock and bond transactions on margin, straddles, options, leverage, or letter stock.
- D. The use of leverage is prohibited, with the exception of hedging risk when leverage is limited to 10% of the notional value of the entire portfolio. (revised 10/19)
- E. Transactions that involve a broker acting as a "principal" where such broker is also the investment manager who is making the transaction is prohibited.
- F. Transactions shall be executed at a reasonable cost, taking into consideration prevailing market conditions and services and research provided by the executing broker.
- G. Each investment manager shall have full responsibility for the exercise of all rights appurtenant to any securities under its management, including responsibility to vote proxies, except to the extent otherwise directed by the Trustees. Investment managers shall maintain records of proxy votes and make them available for inspection upon reasonable request.
- H. Performance objectives are to be met on a net of fees basis.
- I. Any investment or action with respect to an investment not expressly allowed is prohibited, unless presented to and approved prospectively by the Employees' Retirement Fund of the City of Dallas Board of Trustees. All guidelines must be adhered to by the Investment Manager; however, if from time to time an exception to the guidelines shall be deemed appropriate by the Investment Manager, it must seek review and approval by the Trustees prior to making such an exception.
- J. To perform Investment Manager's obligations under its contract, Investment Manager agrees that should any temporary or permanent change regarding the manager occur, the Investment Manager shall notify the Trustees immediately via phone. A letter, detailing the circumstances of the change and the possible impact to the portfolio management, will be faxed immediately to the Trustees. Changes include, but are not limited to: a) a significant change in investment philosophy, b) a loss of one or more key management personnel, c) a new portfolio manager on the account, d) a change in ownership structure of the firm, or e) any occurrence which might potentially impact the management, professionalism, integrity or financial position of the investment manager, f) the entrance into any relationship(s) that would result in the compensation for business consulting services from any company the securities of which are investments within the client's portfolio or other clients' portfolios managed by Investment Manager. However, if a guideline is violated due to market events, actions, or conditions, the Investment Manager must immediately inform the Administrator to determine a course of action. This course of action will be based upon the best judgment recommendation of the manager and the

Administrator's discussion with the investment consultant and Trustees. Correction of the violation may be postponed if it is deemed to be in the best interest of the Fund.

- K. For purposes of the guidelines, (a) all percentages apply immediately after a purchase or initial investment and (b) any subsequent change in any applicable percentage resulting from market fluctuations or other changes in total assets does not require immediate elimination of any security from the Portfolio.

IV. Performance Objective

Exceed the return of the Citigroup High Yield Cash Pay Capped (revised 6/07) by 1% annually net of the base fee over a 3-year period.

Acknowledged: BlackRock Financial Management, Inc.

By: _____ Date: _____

Employees' Retirement Fund of the City of Dallas

By: _____ Date: _____

Date last revised: May 22nd, 2020 ~~October 8th, 2019~~

DISCUSSION SHEET

Employees' Retirement Fund Board of Trustees Meeting

Friday, May 22nd, 2020

Issue: BlackRock High Yield Guideline Change

Attachments: Redlined BlackRock High Yield Investment Guidelines

Discussion: BlackRock has requested a guideline change regarding their exposure to investment grade (IG) credits. ERF currently has a 2% limit on exposure to IG rated securities, which uses a "splits high" credit rating methodology (using the highest of Moody's, S&P, and Fitch) for the portfolio's definition of what is considered investment grade. This coupled with the number of credits recently downgraded to high yield due to COVID-19 and added to the benchmark has not allowed BlackRock to manage the portfolio as effectively versus the benchmark exposures. This could also result in a notable tracking error between the portfolio and the benchmark.

ERF Staff and Wilshire recommend permitting BlackRock an allocation to IG credits that is equal to that of their benchmark, which is currently at 4.5%.

Recommendation: Suggested motion for the approval is as follows: Move to approve the requested guideline change as noted and authorize the Board Chair to sign.

ASSET ALLOCATION COMPARISON

April 30, 2020

	Market Value	% of Total Fund	Allocation Policy	% Difference from Allocation	Prior Period Market Value	Prior Period % of Total Fund
EQUITY						
CHANNING CAPITAL	26,592,557.73	0.82			23,306,429.11	0.77
REDWOOD- SL	31,387,876.19	0.97			28,668,828.38	0.94
SYSTEMATIC	53,276,243.85	1.65			47,857,399.53	1.58
<i>Total Small Cap</i>	111,256,677.77	3.45			99,832,657.02	3.29
SMITH GRAHAM	49,958,530.39	1.55			43,407,751.30	1.43
T. ROWE PRICE	130,597,399.86	4.04			116,055,766.37	3.82
<i>Total Domestic/Enhanced equity</i>	180,555,930.25	5.59			159,463,517.67	5.25
NTGI S&P 500 EQUITY INDEX	124,947,275.05	3.87			110,745,605.06	3.65
<i>Total Index</i>	124,947,275.05	3.87			110,745,605.06	3.65
<i>Total Domestic</i>	416,759,883.07	12.91	15.00	-2.09	370,041,779.75	12.19
ADELANTE CAPITAL	67,156,177.22	2.08			62,424,151.19	2.06
CENTERSQUARE-SL	66,756,415.16	2.07			62,020,232.28	2.04
<i>Total REITS</i>	133,912,592.38	4.15	5.00	-0.85	124,444,383.47	4.10
HEITMAN	83,362,106.55	2.58			86,516,403.58	2.85
INVESCO	73,287,915.10	2.27			72,244,342.82	2.38
INVESCO - SA	69,665,216.00	2.16			69,665,216.00	2.29
<i>Total Real Estate</i>	226,315,237.65	7.01	5.00	2.01	228,425,962.40	7.52
FAIRVIEW CAPITAL	40,578,460.00	1.26			39,383,343.00	1.30
GROSVENOR GCM - CFG	153,542,631.00	4.76			151,914,295.00	5.00
HAMILTON LANE	78,656,639.00	2.44			78,656,639.00	2.59
<i>Total Private Equity</i>	272,777,730.00	8.45	5.00	3.45	269,954,277.00	8.89
ACADIAN	88,129,382.47	2.73			79,111,449.93	2.61
AQR CAPITAL	100,371,943.15	3.11			91,942,699.81	3.03
ATIVO	30,436,006.14	0.94			28,248,052.58	0.93
BAILLIE GIFFORD	79,747,020.60	2.47			73,055,370.69	2.41
BLACKROCK ACW-EXUS-SL	1,486.31	0.00			1,484.71	0.00
EARNEST PARTNERS	67,424,597.42	2.09			61,804,684.18	2.04
GLOBAL TRANSITION ACCOUNT	939.46	0.00			939.02	0.00
<i>Total International</i>	366,111,375.55	11.34	15.00	-3.66	334,164,680.92	11.01
ARIEL	100,122,302.02	3.10			92,087,476.47	3.03
NORTHERN TRUST INTL EQ ACWI INDEX	18,210,507.54	0.56			16,434,934.51	0.54
WELLINGTON MGMT	114,143,817.61	3.54			102,340,467.61	3.37
<i>Total Global Equity</i>	232,476,627.17	7.20	7.50	-0.30	210,862,878.59	6.95
ACADIAN-LVG	191,549,915.78	5.93			176,725,962.80	5.82
BLACKROCK	195,780,522.25	6.06			182,202,670.16	6.00
<i>Total Low Volatility Global Equity</i>	387,330,438.03	12.00	10.00	2.00	358,928,632.96	11.82
ATLANTIC TRUST	67,983,430.30	2.11			49,096,070.65	1.62
HARVEST FUND	69,985,478.11	2.17			53,399,698.85	1.76
<i>Total MLP</i>	137,968,908.41	4.27	7.50	-3.23	102,495,769.50	3.38
TOTAL EQUITY	2,173,652,792.26	67.32	70.00	-2.68	1,999,318,364.59	65.86
FIXED INCOME						
ABERDEEN ASSET MGMT	234,463,036.76	7.26			227,069,962.62	7.48
GARCIA HAMILTON	72,380,701.77	2.24			70,707,615.25	2.33
SECURIAN ASSET MANAGEMENT	226,363,641.78	7.01			219,232,245.18	7.22
<i>Total Investment Grade</i>	533,207,380.31	16.51	15.00	1.51	517,009,823.05	17.03
NEUBERGER BERMAN	159,058,454.13	4.93			152,562,294.36	5.03
<i>Total Opportunistic Credit</i>	159,058,454.13	4.93	5.00	-0.07	152,562,294.36	5.03
BLACKROCK-HY	168,189,859.68	5.21			161,507,195.31	5.32
OAKTREE	165,811,342.21	5.14			159,751,726.39	5.26
<i>Total High Yield</i>	334,001,201.89	10.34	10.00	0.34	321,258,921.70	10.58
CASH ACCOUNT	28,872,607.70	0.89			45,736,974.76	1.51
<i>Total Short Term</i>	28,872,607.70	0.89	0.00	0.89	45,736,974.76	1.51
TOTAL FIXED INCOME	1,055,139,644.03	32.68	30.00	2.68	1,036,568,013.87	34.14

TOTAL FUND \$ 3,228,792,436.29

\$ 3,035,886,378.46

Market Value YE 2019 \$ 3,650,917,064.60

Market Value Variance

Change from YE 2019: \$ (422,124,628.31)

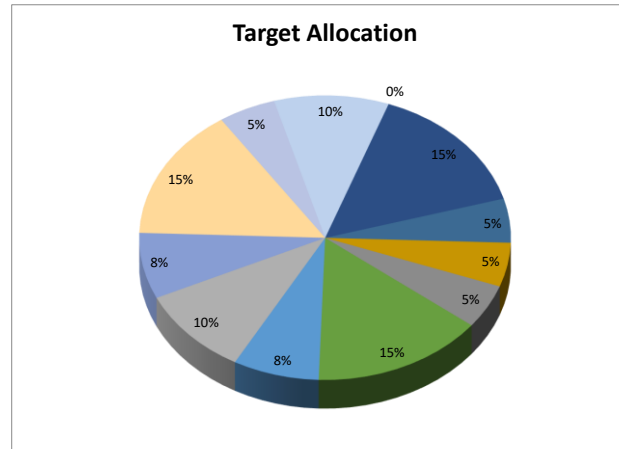
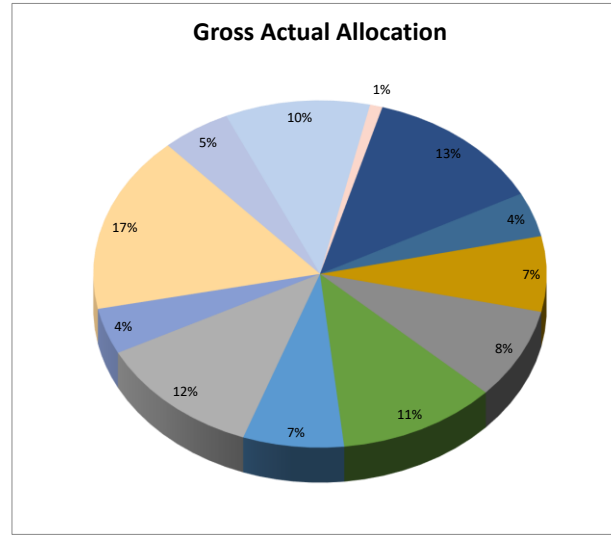
Change from prior month: \$ 192,906,057.83

Asset Allocation: Actual vs. Target

April 30, 2020

	Market Value	Gross Actual Allocation	Target Allocation	% Difference from Allocation
EQUITY				
CHANNING CAPITAL	26,592,557.73	0.82		
REDWOOD- SL	31,387,876.19	0.97		
SYSTEMATIC	53,276,243.85	1.65		
<i>Total Small Cap</i>	111,256,677.77	3.45		
SMITH GRAHAM	49,958,530.39	1.55		
T. ROWE PRICE	130,597,399.86	4.04		
<i>Total Domestic/Enhanced equity</i>	180,555,930.25	5.59		
NTGI S&P 500 EQUITY INDEX	124,947,275.05	3.87		
<i>Total Index</i>	124,947,275.05	3.87		
<i>Total Domestic</i>	416,759,883.07	12.91	15.00	-2.09
ADELANTE CAPITAL	67,156,177.22	2.08		
CENTERSQUARE-SL	66,756,415.16	2.07		
<i>Total REITS</i>	133,912,592.38	4.15	5.00	-0.85
HEITMAN	83,362,106.55	2.58		
INVESCO	73,287,915.10	2.27		
INVESCO - SA	69,665,216.00	2.16		
<i>Total Real Estate</i>	226,315,237.65	7.01	5.00	2.01
FAIRVIEW CAPITAL	40,578,460.00	1.26		
GROSVENOR GCM - CFGI	153,542,631.00	4.76		
HAMILTON LANE	78,656,639.00	2.44		
<i>Total Private Equity</i>	272,777,730.00	8.45	5.00	3.45
ACADIAN	88,129,382.47	2.73		
AQR CAPITAL	100,371,943.15	3.11		
ATIVO	30,436,006.14	0.94		
BAILLIE GIFFORD	79,747,020.60	2.47		
BLACKROCK ACW-EXUS-SL	1,486.31	0.00		
EARNEST PARTNERS	67,424,597.42	2.09		
GLOBAL TRANSITION ACCOUNT	939.46	0.00		
<i>Total International</i>	366,111,375.55	11.34	15.00	-3.66
ARIEL	100,122,302.02	3.10		
NORTHERN TRUST INTL EQ ACWI INDEX	18,210,507.54	0.56		
WELLINGTON MGMT	114,143,817.61	3.54		
<i>Total Global Equity</i>	232,476,627.17	7.20	7.50	-0.30
ACADIAN-LVG	191,549,915.78	5.93		
BLACKROCK	195,780,522.25	6.06		
<i>Total Low Volatility Global Equity</i>	387,330,438.03	12.00	10.00	2.00
ATLANTIC TRUST	67,983,430.30	2.11		
HARVEST FUND	69,985,478.11	2.17		
<i>Total MLP</i>	137,968,908.41	4.27	7.50	-3.23
TOTAL EQUITY	2,173,652,792.26	67.32	70.00	-2.68
FIXED INCOME				
ABERDEEN ASSET MGMT	234,463,036.76	7.26		
GARCIA HAMILTON	72,380,701.77	2.24		
SECURIAN ASSET MANAGEMENT	226,363,641.78	7.01		
<i>Total Investment Grade</i>	533,207,380.31	16.51	15.00	1.51
NEUBERGER BERMAN	159,058,454.13	4.93		
<i>Total Opportunistic Credit</i>	159,058,454.13	4.93	5.00	-0.07
BLACKROCK-HY	168,189,859.68	5.21		
OAKTREE	165,811,342.21	5.14		
<i>Total High Yield</i>	334,001,201.89	10.34	10.00	0.34
CASH ACCOUNT	28,872,607.70	0.89		
<i>Total Short Term</i>	28,872,607.70	0.89	0.00	0.89
TOTAL FIXED INCOME	1,055,139,644.03	32.68	30.00	2.68

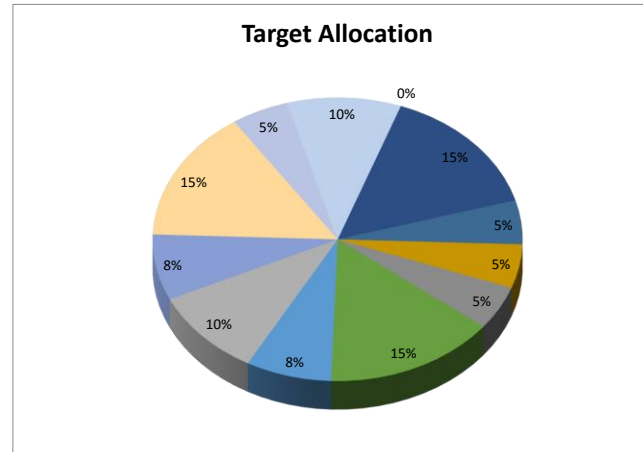
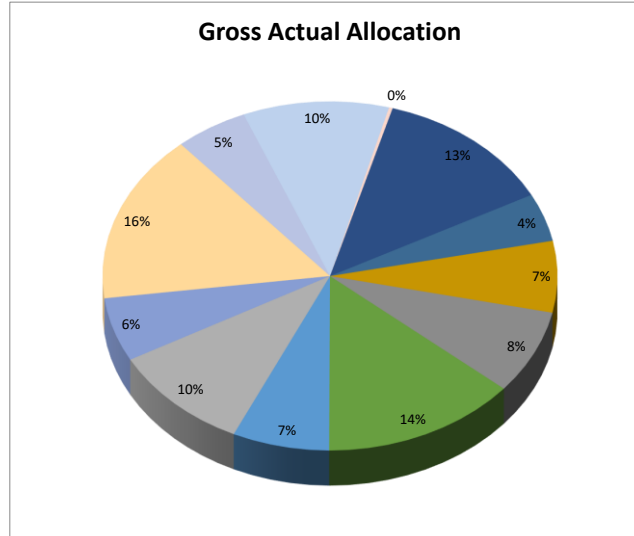
TOTAL FUND \$ 3,228,792,436.29



Asset Allocation: Actual vs. Target

February 29, 2020

	Market Value	Gross Actual Allocation	Target Allocation	% Difference from Allocation
EQUITY				
CHANNING CAPITAL	30,111,625.89	0.87		
REDWOOD- SL	31,788,655.88	0.92		
SYSTEMATIC	60,880,841.81	1.77		
<i>Total Small Cap</i>	122,781,123.58	3.57		
SMITH GRAHAM	60,281,010.65	1.75		
T. ROWE PRICE	133,298,998.63	3.87		
<i>Total Domestic/Enhanced equity</i>	193,580,009.28	5.62		
NTGI S&P 500 EQUITY INDEX	126,343,557.91	3.67		
<i>Total Index</i>	126,343,557.91	3.67		
<i>Total Domestic</i>	442,704,690.77	12.86	15.00	-2.14
ADELANTE CAPITAL	76,171,791.06	2.21		
CENTERSQUARE-SL	76,981,005.24	2.24		
<i>Total REITS</i>	153,152,796.30	4.45	5.00	-0.55
HEITMAN	85,733,644.58	2.49		
INVESCO	72,244,342.82	2.10		
INVESCO - SA	69,665,216.00	2.02		
<i>Total Real Estate</i>	227,643,203.40	6.61	5.00	1.61
FAIRVIEW CAPITAL	37,008,462.00	1.08		
GROSVENOR GCM - CFG	149,138,433.00	4.33		
HAMILTON LANE	82,180,630.00	2.39		
<i>Total Private Equity</i>	268,327,525.00	7.80	5.00	2.80
ACADIAN	94,976,988.19	2.76		
AQR CAPITAL	188,338,668.62	5.47		
ATIVO	34,349,362.52	1.00		
BAILLIE GIFFORD	84,067,301.86	2.44		
BLACKROCK ACW-EXUS-SL	1,480.25	0.00		
EARNEST PARTNERS	76,435,021.87	2.22		
GLOBAL TRANSITION ACCOUNT	938.14	0.00		
<i>Total International</i>	478,169,761.45	13.89	15.00	-1.11
ARIEL	99,484,788.88	2.89		
NORTHERN TRUST INTL EQ ACWI INDEX	19,221,052.60	0.56		
WELLINGTON MGMT	118,443,077.37	3.44		
<i>Total Global Equity</i>	237,148,918.85	6.89	7.50	-0.61
ACADIAN-LVG	172,822,482.44	5.02		
BLACKROCK	174,634,102.35	5.07		
<i>Total Low Volatility Global Equity</i>	347,456,584.79	10.09	10.00	0.09
ATLANTIC TRUST	100,519,617.26	2.92		
HARVEST FUND	103,279,378.79	3.00		
<i>Total MLP</i>	203,798,996.05	5.92	7.50	-1.58
TOTAL EQUITY	2,358,402,476.61	68.52	70.00	-1.48
FIXED INCOME				
ABERDEEN ASSET MGMT	233,372,936.31	6.78		
GARCIA HAMILTON	71,954,993.60	2.09		
SECURIAN ASSET MANAGEMENT	233,316,628.21	6.78		
<i>Total Investment Grade</i>	538,644,558.12	15.65	15.00	0.65
NEUBERGER BERMAN	178,395,824.18	5.18		
<i>Total Opportunistic Credit</i>	178,395,824.18	5.18	5.00	0.18
BLACKROCK-HY	179,341,112.88	5.21		
OAKTREE	178,183,109.87	5.18		
<i>Total High Yield</i>	357,524,222.75	10.39	10.00	0.39
CASH ACCOUNT	8,980,714.38	0.26		
<i>Total Short Term</i>	8,980,714.38	0.26	0.00	0.26
TOTAL FIXED INCOME	1,083,545,319.43	31.48	30.00	1.48
TOTAL FUND	\$ 3,441,947,796.04			



ASSET ALLOCATION COMPARISON

March 31, 2020

	Market Value	% of Total Fund	Allocation Policy	% Difference from Allocation	Prior Period Market Value	Prior Period % of Total Fund
EQUITY						
CHANNING CAPITAL	23,306,429.11	0.77			30,111,625.89	0.96
REDWOOD- SL	28,668,828.38	0.94			31,788,655.88	0.92
SYSTEMATIC	47,857,399.53	1.58			60,880,841.81	1.94
<i>Total Small Cap</i>	99,832,657.02	3.29			122,781,123.58	3.82
SMITH GRAHAM	43,407,751.30	1.43			60,281,010.65	1.95
T. ROWE PRICE	116,055,766.37	3.82			133,298,998.63	3.96
<i>Total Domestic/Enhanced equity</i>	159,463,517.67	5.25			193,580,009.28	5.91
NTGI S&P 500 EQUITY INDEX	110,745,605.06	3.65			126,343,557.91	3.77
<i>Total Index</i>	110,745,605.06	3.65			126,343,557.91	3.77
<i>Total Domestic</i>	370,041,779.75	12.19	15.00	-2.81	442,704,690.77	13.50
ADELANTE CAPITAL	62,424,151.19	2.06			76,171,791.06	2.24
CENTERSQUARE-SL	62,020,232.28	2.04			76,981,005.24	2.25
<i>Total REITS</i>	124,444,383.47	4.10	5.00	-0.90	153,152,796.30	4.49
HEITMAN	86,516,403.58	2.85			85,733,644.58	2.39
INVESCO	72,244,342.82	2.38			72,244,342.82	1.97
INVESCO - SA	69,665,216.00	2.29			69,665,216.00	1.91
<i>Total Real Estate</i>	228,425,962.40	7.52	5.00	2.52	227,643,203.40	6.27
FAIRVIEW CAPITAL	39,383,343.00	1.30			37,008,462.00	1.01
GROSVENOR GCM - CFG	151,914,295.00	5.00			149,138,433.00	3.79
HAMILTON LANE	78,656,639.00	2.59			82,180,630.00	2.29
<i>Total Private Equity</i>	269,954,277.00	8.89	5.00	3.89	268,327,525.00	7.09
ACADIAN	79,111,449.93	2.61			94,976,988.19	2.99
AQR CAPITAL	91,942,699.81	3.03			188,338,668.62	5.77
ATIVO	28,248,052.58	0.93			34,349,362.52	1.04
BAILLIE GIFFORD	73,055,370.69	2.41			84,067,301.86	2.52
BLACKROCK ACW-EXUS-SL	1,484.71	0.00			1,480.25	0.00
EARNEST PARTNERS	61,804,684.18	2.04			76,435,021.87	2.35
GLOBAL TRANSITION ACCOUNT	939.02	0.00			938.14	0.00
<i>Total International</i>	334,164,680.92	11.01	15.00	-3.99	478,169,761.45	14.68
ARIEL	92,087,476.47	3.03			99,484,788.88	2.93
NORTHERN TRUST INTL EQ ACWI INDEX	16,434,934.51	0.54			19,221,052.60	0.58
WELLINGTON MGMT	102,340,467.61	3.37			118,443,077.37	3.47
<i>Total Global Equity</i>	210,862,878.59	6.95	7.50	-0.55	237,148,918.85	6.98
ACADIAN-LVG	176,725,962.80	5.82			172,822,482.44	5.19
BLACKROCK	182,202,670.16	6.00			174,634,102.35	5.11
<i>Total Low Volatility Global Equity</i>	358,928,632.96	11.82	10.00	1.82	347,456,584.79	10.30
ATLANTIC TRUST	49,096,070.65	1.62			100,519,617.26	3.20
HARVEST FUND	53,399,698.85	1.76			103,279,378.79	3.26
<i>Total MLP</i>	102,495,769.50	3.38	7.50	-4.12	203,798,996.05	6.47
TOTAL EQUITY	1,999,318,364.59	65.86	70.00	-4.14	2,358,402,476.61	69.78
FIXED INCOME						
ABERDEEN ASSET MGMT	227,069,962.62	7.48			233,372,936.31	6.15
GARCIA HAMILTON	70,707,615.25	2.33			71,954,993.60	1.92
SECURIAN ASSET MANAGEMENT	219,232,245.18	7.22			233,316,628.21	6.17
<i>Total Investment Grade</i>	517,009,823.05	17.03	15.00	2.03	538,644,558.12	14.24
NEUBERGER BERMAN	152,562,294.36	5.03			178,395,824.18	4.90
<i>Total Opportunistic Credit</i>	152,562,294.36	5.03	5.00	0.03	178,395,824.18	4.90
BLACKROCK-HY	161,507,195.31	5.32			179,341,112.88	5.00
OAKTREE	159,751,726.39	5.26			178,183,109.87	5.01
<i>Total High Yield</i>	321,258,921.70	10.58	10.00	0.58	357,524,222.75	10.01
CASH ACCOUNT	45,736,974.76	1.51			8,980,714.38	1.07
<i>Total Short Term</i>	45,736,974.76	1.51	0.00	1.51	8,980,714.38	1.07
TOTAL FIXED INCOME	1,036,568,013.87	34.14	30.00	4.14	1,083,545,319.43	30.22

TOTAL FUND \$ 3,035,886,378.46

\$ 3,441,947,796.04

Market Value YE 2019 \$ 3,650,917,064.60

Market Value Variance

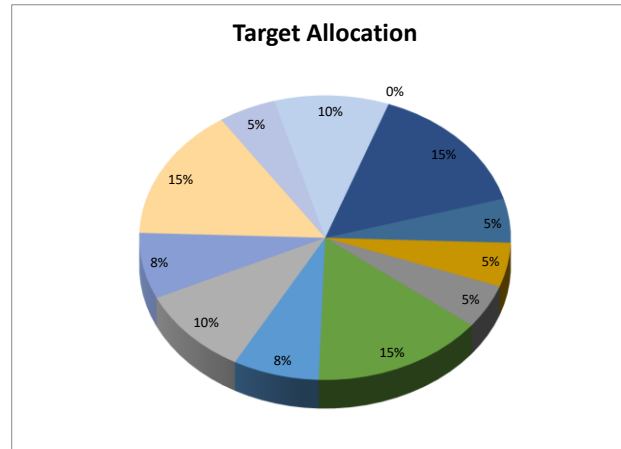
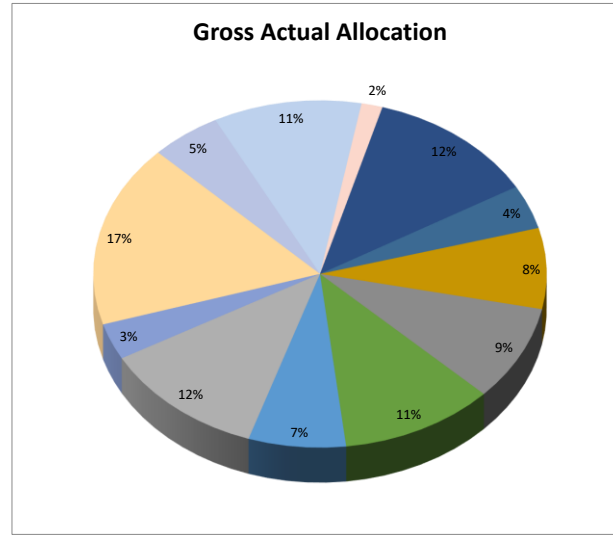
Change from YE 2019: \$ (615,030,686.14)

Change from prior month: \$ (406,061,417.58)

Asset Allocation: Actual vs. Target

March 31, 2020

	Market Value	Gross Actual Allocation	Target Allocation	% Difference from Allocation
EQUITY				
CHANNING CAPITAL	23,306,429.11	0.77		
REDWOOD- SL	28,668,828.38	0.94		
SYSTEMATIC	47,857,399.53	1.58		
<i>Total Small Cap</i>	99,832,657.02	3.29		
SMITH GRAHAM	43,407,751.30	1.43		
T. ROWE PRICE	116,055,766.37	3.82		
<i>Total Domestic/Enhanced equity</i>	159,463,517.67	5.25		
NTGI S&P 500 EQUITY INDEX	110,745,605.06	3.65		
<i>Total Index</i>	110,745,605.06	3.65		
<i>Total Domestic</i>	370,041,779.75	12.19	15.00	-2.81
ADELANTE CAPITAL	62,424,151.19	2.06		
CENTERSQUARE-SL	62,020,232.28	2.04		
<i>Total REITS</i>	124,444,383.47	4.10	5.00	-0.90
HEITMAN	86,516,403.58	2.85		
INVESCO	72,244,342.82	2.38		
INVESCO - SA	69,665,216.00	2.29		
<i>Total Real Estate</i>	228,425,962.40	7.52	5.00	2.52
FAIRVIEW CAPITAL	39,383,343.00	1.30		
GROSVENOR GCM - CFGI	151,914,295.00	5.00		
HAMILTON LANE	78,656,639.00	2.59		
<i>Total Private Equity</i>	269,954,277.00	8.89	5.00	3.89
ACADIAN	79,111,449.93	2.61		
AQR CAPITAL	91,942,699.81	3.03		
ATIVO	28,248,052.58	0.93		
BAILLIE GIFFORD	73,055,370.69	2.41		
BLACKROCK ACW-EXUS-SL	1,484.71	0.00		
EARNEST PARTNERS	61,804,684.18	2.04		
GLOBAL TRANSITION ACCOUNT	939.02	0.00		
<i>Total International</i>	334,164,680.92	11.01	15.00	-3.99
ARIEL	92,087,476.47	3.03		
NORTHERN TRUST INTL EQ ACWI INDEX	16,434,934.51	0.54		
WELLINGTON MGMT	102,340,467.61	3.37		
<i>Total Global Equity</i>	210,862,878.59	6.95	7.50	-0.55
ACADIAN-LVG	176,725,962.80	5.82		
BLACKROCK	182,202,670.16	6.00		
<i>Total Low Volatility Global Equity</i>	358,928,632.96	11.82	10.00	1.82
ATLANTIC TRUST	49,096,070.65	1.62		
HARVEST FUND	53,399,698.85	1.76		
<i>Total MLP</i>	102,495,769.50	3.38	7.50	-4.12
TOTAL EQUITY	1,999,318,364.59	65.86	70.00	-4.14
FIXED INCOME				
ABERDEEN ASSET MGMT	227,069,962.62	7.48		
GARCIA HAMILTON	70,707,615.25	2.33		
SECURIAN ASSET MANAGEMENT	219,232,245.18	7.22		
<i>Total Investment Grade</i>	517,009,823.05	17.03	15.00	2.03
NEUBERGER BERMAN	152,562,294.36	5.03		
<i>Total Opportunistic Credit</i>	152,562,294.36	5.03	5.00	0.03
BLACKROCK-HY	161,507,195.31	5.32		
OAKTREE	159,751,726.39	5.26		
<i>Total High Yield</i>	321,258,921.70	10.58	10.00	0.58
CASH ACCOUNT	45,736,974.76	1.51		
<i>Total Short Term</i>	45,736,974.76	1.51	0.00	1.51
TOTAL FIXED INCOME	1,036,568,013.87	34.14	30.00	4.14
TOTAL FUND	\$ 3,035,886,378.46			





WILSHIRE ASSOCIATES

Wilshire Consulting



Employees' Retirement Fund of the City of Dallas

Monthly Investment Summary

March 31, 2020

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Global Equity Composite	-11.08	-17.30	-9.56	2.20	2.89	6.27	9/1/2012	210,862,879	6.95
Global Low Volatility Composite	-12.20	-18.89	-9.67	2.24		4.54	7/1/2015	358,927,180	11.83
Domestic Equity Composite	-16.41	-24.93	-14.61	0.65	3.66	9.07	1/1/1990	370,041,780	12.19
International Equity Composite	-15.65	-24.74	-17.23	-3.06	-0.42	4.56	1/1/1990	334,164,681	11.01
Global Fixed Income Composite	-4.02	-0.51	4.99	3.68	2.93	4.99	10/1/1995	517,009,823	17.03
High Yield Composite	-10.14	-12.08	-6.22	0.46	2.35	5.88	1/1/1997	321,258,922	10.58
Credit Opportunities Composite	-14.48	-15.15	-10.29	-0.31		2.93	2/1/2016	152,562,294	5.03
Total Real Estate Composite	-7.54	-9.81	-3.14	3.53	4.40	6.31	1/1/1990	352,086,123	11.60

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
MLP Composite	-39.91	-48.13	-51.83	-22.52	-16.25	-3.55	1/1/2012	102,495,770	3.38
Private Equity Composite	-0.04	2.69	14.46	14.16	11.85	13.43	6/1/2009	269,954,277	8.89
Managed Short Term Composite	0.29	0.58	2.26	1.83	1.19	2.93	1/1/1990	45,736,975	1.51
Dallas Total Fund	-11.56	-15.92	-9.18	0.94	2.34	8.49	1/1/1985	3,035,100,703	100.00
Policy Index	-12.86	-17.68	-10.63	0.13	1.77	9.01			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Systematic Financial Russell 2000 Index	-21.39 -21.73	-32.47 -30.61	-24.28 -23.99	-5.24 -4.64	1.15 -0.25	8.17 6.87	8/1/2003	47,857,400	12.93
Redwood Investments * Russell 2000 Growth Index	-9.81 -19.10	-14.47 -25.76	-13.58 -18.58	-0.44 0.10		1.23 2.61	10/1/2016	28,668,828	7.75
Channing Capital * Russell 2000 Value Index	-22.60 -24.67	-33.82 -35.66	-28.23 -29.64	-10.09 -9.51	-3.48 -2.42	-0.93 -0.68	12/1/2013	23,306,429	6.30
Domestic Equity Small Cap Composite	-18.69	-28.49	-22.52	-5.15	-0.05	7.13	6/1/2003	99,832,657	26.98

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Smith Graham * Russell Midcap Index	-27.99 -19.49	-38.95 -27.07	-29.41 -18.31			-16.33 -6.20	1/1/2018	43,407,751	11.73
T. Rowe Price S&P 500	-12.94 -12.35	-19.68 -19.60	-6.95 -6.98	5.82 5.10	7.33 6.73	7.82 7.29	4/1/2006	116,055,766	31.36
Northern Trust S&P 500 (Lending) S&P 500	-12.35 -12.35	-19.59 -19.60	-6.95 -6.98	5.13 5.10	6.76 6.73	9.21 9.16	1/1/1995	110,745,605	29.93
Domestic Equity Composite Custom Benchmark	-16.41 -13.62	-24.93 -20.70	-14.61 -8.94	0.65 4.09	3.66 5.99	9.07 9.35	1/1/1990	370,041,780	100.00

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Adelante Capital Management	-18.05	-23.58	-17.05	-0.68	0.12	8.44	10/1/2001	62,424,151	17.73
Wilshire U.S. Real Estate Securities Index	-20.05	-25.73	-19.47	-2.47	0.08	8.61			
CenterSquare	-19.43	-24.59	-17.88			-3.33	6/1/2018	62,020,232	17.62
Wilshire U.S. Real Estate Securities Index	-20.05	-25.73	-19.47			-4.78			
REIT Composite	-18.74	-24.09	-17.47	-1.24	0.00	8.51	10/1/2001	124,444,383	35.34
Wilshire U.S. Real Estate Securities Index	-20.05	-25.73	-19.47	-2.47	0.08	8.61			
Heitman America Real Estate Trust, LP	0.00	0.00	-0.01	4.21	6.80	9.99	12/1/2010	85,733,884	24.35
NCREIF ODCE NOF	0.00	0.00	3.15	5.59	7.32	10.04			
Invesco Core Real Estate USA, LLC	0.00	0.00	5.46	7.24	8.94	10.75	12/1/2010	72,242,640	20.52
NCREIF ODCE NOF	0.00	0.00	3.15	5.59	7.32	10.04			
Private Core Real Estate Composite	0.00	0.51	6.99	6.49	7.17	9.69	10/1/2010	227,641,740	64.66
Custom Benchmark	0.00	0.37	6.59	6.35	6.60	9.01			
Total Real Estate Composite	-7.54	-9.81	-3.14	3.53	4.40	6.31	1/1/1990	352,086,123	100.00
Custom Benchmark	-10.03	-13.04	-6.62	2.28	3.67	8.15			

Employees' Retirement Fund of the City of Dallas



Private Equity & Direct Private Real Estate Monthly Performance and Market Value Summary

Periods Ended 03/31/20

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple ³
Invesco II	69,665,216	65,188,333	65,188,333	5,679,544	Jan-14	4.0%	1.2
Total Direct Private Real Estate	69,665,216	65,188,333	65,188,333	5,679,544	Jan-14	4.0%	1.2

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple ³
Hamilton Lane Secondary Fund II	1,324,190	25,000,000	22,848,181	27,078,689	Jul-09	8.4%	1.2
Hamilton Lane Secondary Fund III	10,511,062	30,000,000	17,764,658	18,603,871	Nov-12	18.7%	1.6
Hamilton Lane Secondary Fund IV	22,020,513	30,000,000	18,667,963	3,099,866	Mar-17	23.9%	1.3
Hamilton Lane Fund VII Composite	23,275,949	50,000,000	42,992,714	35,118,430	Jan-10	6.4%	1.4
Hamilton Lane Fund VIII (Global)	21,524,925	30,000,000	16,412,837	4,425,140	Nov-12	10.6%	1.6
Hamilton Lane Cash	-	-	-	-	Aug-09	--	--
GCM Grosvenor - Partnership, L.P.	47,598,903	75,000,000	81,752,229	86,497,244	Jun-11	15.2%	1.6
GCM Grosvenor - Partnership II, L.P. (2014)	55,618,332	60,000,000	59,234,526	19,096,084	Jul-14	12.1%	1.3
GCM Grosvenor - Partnership II, L.P. (2015)	38,059,107	20,000,000	29,470,171	3,512,059	Dec-15	17.7%	1.4
GCM Grosvenor - Partnership II, L.P. (2017)	10,637,953	30,000,000	10,939,984	105,389	Jan-18	-1.9%	1.0
GCM Grosvenor Cash	-	-	-	-	Jun-11	--	--
Fairview Capital III *	39,383,343	40,000,000	36,477,216	3,663,353	Aug-15	9.5%	1.2
Total Private Equity Composite	269,954,277	390,000,000	336,560,480	201,200,125	Jul-09	12.9%	1.4

Public Market Equivalent (PME) ²

271,675,906

13.0%

* Next Generation Manager

¹ Total Value to Paid-in Capital ("TVPI") multiple calculation = (market value + distributions) / capital called

² The Public Market Equivalent (PME) approach creates a hypothetical investment vehicle that mimics the private equity composite cash flows. The performance difference between the PME vehicle and the private equity portfolio is determined by their net asset value (NAV) at the end of the benchmarking period. The performance of the "public market" is simulated using the monthly S&P 500 index returns, plus a 300 BPs annual hurdle rate.

³ Private Equity cash account

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Acadian International Custom Benchmark	-16.70 -19.30	-27.63 -29.01	-21.26 -21.18	-4.42 -4.89	0.84 -0.81	7.19 4.78	4/1/1989	79,111,450	23.67
Ativo International * MSCI EAFE Index (Net)	-17.76 -13.35	-25.66 -22.83	-17.19 -14.38			-9.66 -8.85	1/1/2018	28,248,053	8.45
AQR Capital Management Custom Benchmark	-13.76 -14.48	-22.73 -23.36	-16.86 -15.57	-3.55 -1.96	-0.60 -0.64	1.55 1.21	4/1/2006	91,942,700	27.51
Baillie Gifford MSCI AC World ex USA (Net)	-13.10 -14.48	-20.51 -23.36	-7.00 -15.57			-7.00 -15.57	4/1/2019	73,055,371	21.86
Earnest Partners MSCI AC World ex USA (Net)	-19.12 -14.48	-28.52 -23.36	-21.55 -15.57			-21.55 -15.57	4/1/2019	61,804,684	18.50
BlackRock ACWI Ex U.S.								1,485	0.00
International Equity Composite Custom Benchmark	-15.65 -15.11	-24.74 -24.11	-17.23 -16.32	-3.06 -2.34	-0.42 -0.66	4.56 3.69	1/1/1990	334,164,681	100.00

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Ariel Global *	-7.43	-13.96	-7.43			-1.91	1/1/2018	92,087,476	43.67
MSCI AC World Index (Net)	-13.50	-21.37	-11.26			-4.49			
Wellington	-13.59	-19.30	-10.97	1.17	2.55	8.25	9/1/2012	102,340,468	48.53
MSCI AC World Index (Net)	-13.50	-21.37	-11.26	1.50	2.85	6.38			
Northern Trust Global Equity	-14.50	-22.25	-12.01	1.27		5.43	10/1/2015	16,434,935	7.79
MSCI AC World IMI (Net)	-14.39	-22.44	-12.73	0.76		4.93			
Global Equity Composite	-11.08	-17.30	-9.56	2.20	2.89	6.27	9/1/2012	210,862,879	100.00
MSCI AC World Index (Net)	-13.50	-21.37	-11.26	1.50	2.85	6.38			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Acadian Global Low Vol.	-13.12	-20.79	-11.01	0.74		3.60	7/1/2015	176,725,963	49.24
MSCI AC World Index (Net)	-13.50	-21.37	-11.26	1.50		2.93			
MSCI ACWI Minimum Volatility Index (Net)	-10.26	-16.00	-7.52	3.72		5.25			
BlackRock Global Low Vol.	-11.28	-16.94	-8.30	3.74		5.47	7/1/2015	182,201,217	50.76
MSCI ACWI Minimum Volatility Index (Net)	-10.26	-16.00	-7.52	3.72		5.25			
Global Low Volatility Composite	-12.20	-18.89	-9.67	2.24		4.54	7/1/2015	358,927,180	100.00
MSCI ACWI Minimum Volatility Index (Net)	-10.26	-16.00	-7.52	3.72		5.25			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees						Allocation		
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Atlantic Trust CIBC Alerian MLP Index	-41.65 -47.23	-49.84 -57.19	-54.10 -60.95	-23.93 -28.91	-16.96 -20.66	-3.88 -10.05	1/1/2012	49,096,071	47.90
Harvest Fund Advisors MLP Alerian MLP Index	-38.25 -47.23	-46.48 -57.19	-49.55 -60.95	-21.21 -28.91	-15.61 -20.66	-3.57 -10.05	1/1/2012	53,399,699	52.10
MLP Composite Alerian MLP Index	-39.91 -47.23	-48.13 -57.19	-51.83 -60.95	-22.52 -28.91	-16.25 -20.66	-3.55 -10.05	1/1/2012	102,495,770	100.00

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Securian Asset Management	-6.04	-2.69	2.85	3.22	2.85	4.44	7/1/2007	219,232,245	42.40
Blmbg. Barc. U.S. Aggregate	-0.59	3.15	8.93	4.82	3.36	4.53			
Aberdeen Global Fixed Income	-2.70	1.16	6.93	4.11	3.07	4.76	5/1/2007	227,069,963	43.92
Blmbg. Barc. U.S. Aggregate	-0.59	3.15	8.93	4.82	3.36	4.39			
Garcia Hamilton *	-1.73	1.13	5.71	3.80	2.78	3.62	11/1/2013	70,707,615	13.68
Blmbg. Barc. U.S. Aggregate	-0.59	3.15	8.93	4.82	3.36	3.64			
Global Fixed Income Composite	-4.02	-0.51	4.99	3.68	2.93	4.99	10/1/1995	517,009,823	100.00
Blmbg. Barc. U.S. Aggregate	-0.59	3.15	8.93	4.82	3.36	5.27			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Neuberger Berman	-14.48	-15.15	-10.29	-0.31		2.93	2/1/2016	152,562,294	
Custom Benchmark	-12.69	-13.21	-7.84	0.07		3.78			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Oaktree Capital Management	-10.34	-12.69	-7.58	-0.33	1.62	6.03	2/1/1997	159,751,726	49.73
FTSE High Yield Cash Pay	-11.57	-13.08	-7.65	0.45	2.43	6.19			
BlackRock	-9.94	-11.48	-4.84	1.26	2.61	5.47	10/1/2006	161,507,195	50.27
FTSE High Yield Cash Pay	-11.57	-13.08	-7.65	0.45	2.43	5.80			
High Yield Composite	-10.14	-12.08	-6.22	0.46	2.35	5.88	1/1/1997	321,258,922	100.00
FTSE High Yield Cash Pay	-11.57	-13.08	-7.65	0.45	2.43	6.20			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Cash Account	0.29	0.58	2.26	1.83	1.19	3.28	1/1/1988	45,736,975	100.00
Managed Short Term Composite	0.29	0.58	2.26	1.83	1.19	2.93	1/1/1990	45,736,975	100.00



WILSHIRE ASSOCIATES

Wilshire Consulting



Employees' Retirement Fund of the City of Dallas

Monthly Investment Summary

April 30, 2020

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Global Equity Composite	10.25	-8.34	-8.83	-3.16	4.99	4.32	7.56	9/1/2012	232,476,627	7.20
Global Low Volatility Composite	7.91	-12.92	-12.47	-3.62	4.35		6.12	7/1/2015	387,330,196	12.00
Domestic Equity Composite	12.62	-14.23	-15.45	-7.72	4.29	6.25	9.47	1/1/1990	416,759,883	12.91
International Equity Composite	9.64	-15.15	-17.48	-11.23	-0.80	0.48	4.87	1/1/1990	366,111,376	11.34
Global Fixed Income Composite	3.13	0.60	2.60	8.10	4.51	3.65	5.10	10/1/1995	533,207,380	16.52
High Yield Composite	8.65	-4.26	-4.48	0.52	2.97	3.82	6.24	1/1/1997	334,001,202	10.35
Credit Opportunities Composite	4.26	-11.99	-11.53	-7.36	0.67		3.88	2/1/2016	158,951,642	4.92
Total Real Estate Composite	2.70	-7.95	-7.53	-1.59	4.40	5.43	6.38	1/1/1990	359,734,595	11.14

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
MLP Composite	34.61	-27.05	-30.18	-34.17	-13.91	-11.97	-0.01	1/1/2012	137,968,908	4.27
Private Equity Composite	0.43	3.02	3.13	12.11	14.32	11.94	13.36	6/1/2009	272,777,730	8.45
Managed Short Term Composite	0.01	0.45	0.58	2.07	1.81	1.19	2.92	1/1/1990	28,872,608	0.89
Dallas Total Fund	7.43	-9.23	-9.69	-3.98	3.08	3.53	8.69	1/1/1985	3,228,192,147	100.00
Policy Index	9.89	-9.19	-9.50	-3.49	3.03	3.39	9.28			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Systematic Financial	11.32	-21.04	-24.83	-19.16	-2.37	3.82	8.83	8/1/2003	53,276,244	12.78
Russell 2000 Index	13.74	-18.47	-21.08	-16.39	-0.82	2.88	7.66			
Redwood Investments *	9.48	-8.41	-6.36	-8.63	1.88		3.79	10/1/2016	31,387,876	7.53
Russell 2000 Growth Index	14.89	-13.76	-14.71	-9.22	4.21		6.60			
Channing Capital *	14.10	-21.01	-24.49	-21.83	-5.86	-0.03	1.14	12/1/2013	26,592,558	6.38
Russell 2000 Value Index	12.34	-23.60	-27.72	-23.84	-6.06	0.30	1.15			
Domestic Equity Small Cap Composite	11.44	-17.84	-20.31	-17.14	-2.08	2.75	7.78	6/1/2003	111,256,678	26.70

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Smith Graham * Russell Midcap Index	15.09 14.36	-26.28 -15.92	-29.74 -16.60	-22.41 -10.00			-10.56 -0.42	1/1/2018	49,958,530	11.99
T. Rowe Price S&P 500	12.53 12.82	-9.97 -9.26	-9.62 -9.29	0.55 0.86	9.50 9.04	9.64 9.12	8.68 8.17	4/1/2006	130,597,400	31.34
Northern Trust S&P 500 (Lending) S&P 500	12.82 12.82	-9.24 -9.26	-9.28 -9.29	0.88 0.86	9.07 9.04	9.16 9.12	9.70 9.65	1/1/1995	124,947,275	29.98
Domestic Equity Composite Custom Benchmark	12.62 13.26	-14.23 -10.19	-15.45 -10.18	-7.72 -0.85	4.29 8.12	6.25 8.55	9.47 9.78	1/1/1990	416,759,883	100.00

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Adelante Capital Management	7.58	-18.48	-17.79	-10.73	1.82	2.85	8.83	10/1/2001	67,156,177	18.67
Wilshire U.S. Real Estate Securities Index	8.44	-20.05	-19.47	-12.53	0.17	2.87	9.04			
CenterSquare	7.64	-19.87	-18.83	-11.60			0.60	6/1/2018	66,756,415	18.56
Wilshire U.S. Real Estate Securities Index	8.44	-20.05	-19.47	-12.53			-0.46			
REIT Composite	7.61	-19.18	-18.31	-11.17	1.23	2.72	8.90	10/1/2001	133,912,592	37.23
Wilshire U.S. Real Estate Securities Index	8.44	-20.05	-19.47	-12.53	0.17	2.87	9.04			
Heitman America Real Estate Trust, LP	0.00	-2.07	-2.07	-2.08	3.49	6.35	9.65	12/1/2010	83,362,320	23.17
NCREIF ODCE NOF	0.00	0.75	0.75	3.93	5.85	7.48	10.03			
Invesco Core Real Estate USA, LLC	0.00	1.65	1.65	7.20	7.83	9.29	10.84	12/1/2010	72,794,467	20.24
NCREIF ODCE NOF	0.00	0.75	0.75	3.93	5.85	7.48	10.03			
Private Core Real Estate Composite	0.00	0.25	0.25	5.01	6.40	7.07	9.57	10/1/2010	225,822,003	62.77
Custom Benchmark	0.00	0.96	0.96	5.81	6.55	6.62	9.00			
Total Real Estate Composite	2.70	-7.95	-7.53	-1.59	4.40	5.43	6.38	1/1/1990	359,734,595	100.00
Custom Benchmark	4.22	-9.41	-9.08	-2.93	3.80	5.12	8.29			

Employees' Retirement Fund of the City of Dallas
Private Equity & Direct Private Real Estate Monthly Performance and Market Value Summary



Periods Ended 04/30/20

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple ³
Invesco II	69,665,216	65,188,333	65,188,333	5,679,544	Jan-14	4.0%	1.2
Total Direct Private Real Estate	69,665,216	65,188,333	65,188,333	5,679,544	Jan-14	4.0%	1.2

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple ³
Hamilton Lane Secondary Fund II	1,324,190	25,000,000	22,848,181	27,078,689	Jul-09	8.4%	1.2
Hamilton Lane Secondary Fund III	10,511,062	30,000,000	17,764,658	18,603,871	Nov-12	18.5%	1.6
Hamilton Lane Secondary Fund IV	22,020,513	30,000,000	18,667,963	3,099,866	Mar-17	22.6%	1.3
Hamilton Lane Secondary Fund V	800,000	40,000,000	819,890	-	Mar-20		1.0
Hamilton Lane Fund VII Composite	23,275,949	50,000,000	42,992,714	35,118,430	Jan-10	6.4%	1.4
Hamilton Lane Fund VIII (Global)	21,524,925	30,000,000	16,412,837	4,425,140	Nov-12	10.4%	1.6
Hamilton Lane Cash	-	-	-	-	Aug-09	--	--
GCM Grosvenor - Partnership, L.P.	47,627,239	75,000,000	81,752,229	86,497,244	Jun-11	15.2%	1.6
GCM Grosvenor - Partnership II, L.P. (2014)	55,618,332	60,000,000	59,234,526	19,096,084	Jul-14	12.1%	1.3
GCM Grosvenor - Partnership II, L.P. (2015)	38,059,107	20,000,000	29,470,171	3,512,059	Dec-15	17.7%	1.4
GCM Grosvenor - Partnership II, L.P. (2017)	11,437,953	30,000,000	11,796,234	105,389	Jan-18	-1.9%	1.0
GCM Grosvenor Cash	-	-	-	-	Jun-11	--	--
Fairview Capital III *	40,578,460	40,000,000	36,477,216	3,663,353	Aug-15	10.6%	1.2
Total Private Equity Composite	272,777,730	430,000,000	338,236,620	201,200,125	Jul-09	12.8%	1.4

Public Market Equivalent (PME) ²

310,023,073

14.8%

* Next Generation Manager

¹ Total Value to Paid-in Capital ("TVPI") multiple calculation = (market value + distributions) / capital called

² The Public Market Equivalent (PME) approach creates a hypothetical investment vehicle that mimics the private equity composite cash flows. The performance difference between the PME vehicle and the private equity portfolio is determined by their net asset value (NAV) at the end of the benchmarking period. The performance of the "public market" is simulated using the monthly S&P 500 index returns, plus a 300 BPs annual hurdle rate.

³ Private Equity cash account

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Acadian International Custom Benchmark	11.40 12.15	-16.83 -17.81	-19.38 -20.38	-13.78 -13.51	-1.78 -2.15	1.79 0.32	7.54 5.16	4/1/1989	88,129,382	24.07
Ativo International * MSCI EAFE Index (Net)	7.75 6.46	-18.86 -16.09	-19.89 -17.84	-12.81 -11.34			-6.38 -6.06	1/1/2018	30,436,006	8.31
AQR Capital Management Custom Benchmark	9.47 7.58	-12.82 -15.27	-15.42 -17.55	-9.99 -11.51	-1.28 -0.25	0.39 -0.17	2.19 1.73	4/1/2006	100,371,943	27.42
Baillie Gifford MSCI AC World ex USA (Net)	9.16 7.58	-11.86 -15.27	-13.23 -17.55	-3.00 -11.51			1.41 -8.50	4/1/2019	79,747,021	21.78
Earnest Partners MSCI AC World ex USA (Net)	9.10 7.58	-19.04 -15.27	-22.02 -17.55	-17.10 -11.51			-13.39 -8.50	4/1/2019	67,424,597	18.42
BlackRock ACWI Ex U.S.									1,486	0.00
International Equity Composite Custom Benchmark	9.64 8.15	-15.15 -15.61	-17.48 -17.93	-11.23 -11.78	-0.80 -0.50	0.48 -0.10	4.87 3.95	1/1/1990	366,111,376	100.00

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Ariel Global *	8.73	-5.77	-6.46	-0.94			1.75	1/1/2018	100,122,302	43.07
MSCI AC World Index (Net)	10.71	-11.97	-12.94	-4.96			-0.07			
Wellington	11.54	-9.79	-9.99	-4.58	4.32	4.33	9.71	9/1/2012	114,143,818	49.10
MSCI AC World Index (Net)	10.71	-11.97	-12.94	-4.96	4.46	4.37	7.73			
Northern Trust Global Equity	10.77	-12.56	-13.87	-5.79	4.22		7.71	10/1/2015	18,210,508	7.83
MSCI AC World IMI (Net)	11.01	-12.74	-13.90	-6.22	3.77		7.25			
Global Equity Composite	10.25	-8.34	-8.83	-3.16	4.99	4.32	7.56	9/1/2012	232,476,627	100.00
MSCI AC World Index (Net)	10.71	-11.97	-12.94	-4.96	4.46	4.37	7.73			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Acadian Global Low Vol.	8.39	-13.86	-14.14	-4.87	2.85		5.28	7/1/2015	191,549,916	49.45
MSCI AC World Index (Net)	10.71	-11.97	-12.94	-4.96	4.46		5.06			
MSCI ACWI Minimum Volatility Index (Net)	7.46	-10.98	-9.73	-1.49	5.84		6.73			
BlackRock Global Low Vol.	7.45	-11.97	-10.75	-2.34	5.85		6.95	7/1/2015	195,780,280	50.55
MSCI ACWI Minimum Volatility Index (Net)	7.46	-10.98	-9.73	-1.49	5.84		6.73			
Global Low Volatility Composite	7.91	-12.92	-12.47	-3.62	4.35		6.12	7/1/2015	387,330,196	100.00
MSCI ACWI Minimum Volatility Index (Net)	7.46	-10.98	-9.73	-1.49	5.84		6.73			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Atlantic Trust CIBC	38.47	-27.19	-30.54	-35.44	-14.75	-12.24	-0.01	1/1/2012	67,983,430	49.27
Alerian MLP Index	49.62	-32.14	-35.95	-40.79	-18.34	-15.03	-5.49			
Harvest Fund Advisors MLP	31.06	-26.94	-29.86	-32.91	-13.15	-11.76	-0.35	1/1/2012	69,985,478	50.73
Alerian MLP Index	49.62	-32.14	-35.95	-40.79	-18.34	-15.03	-5.49			
MLP Composite	34.61	-27.05	-30.18	-34.17	-13.91	-11.97	-0.01	1/1/2012	137,968,908	100.00
Alerian MLP Index	49.62	-32.14	-35.95	-40.79	-18.34	-15.03	-5.49			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Securian Asset Management	3.25	-1.45	0.47	5.96	4.07	3.55	4.67	7/1/2007	226,363,642	42.45
Blmbg. Barc. U.S. Aggregate	1.78	3.00	4.98	10.84	5.17	3.80	4.65			
Aberdeen Global Fixed Income	3.26	2.28	4.46	10.19	4.97	3.81	4.98	5/1/2007	234,463,037	43.97
Blmbg. Barc. U.S. Aggregate	1.78	3.00	4.98	10.84	5.17	3.80	4.50			
Garcia Hamilton *	2.37	1.82	3.52	8.31	4.42	3.43	3.95	11/1/2013	72,380,702	13.57
Blmbg. Barc. U.S. Aggregate	1.78	3.00	4.98	10.84	5.17	3.80	3.88			
Global Fixed Income Composite	3.13	0.60	2.60	8.10	4.51	3.65	5.10	10/1/1995	533,207,380	100.00
Blmbg. Barc. U.S. Aggregate	1.78	3.00	4.98	10.84	5.17	3.80	5.32			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Neuberger Berman	4.26	-11.99	-11.53	-7.36	0.67		3.88	2/1/2016	158,951,642	
Custom Benchmark	3.52	-10.75	-10.13	-5.60	0.90		4.56			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Oaktree Capital Management	13.22	-0.84	-1.15	3.29	3.62	3.95	6.58	2/1/1997	165,811,342	49.64
FTSE High Yield Cash Pay	3.55	-9.95	-10.00	-5.64	1.27	2.88	6.32			
BlackRock	4.14	-7.68	-7.82	-2.30	2.28	3.19	5.75	10/1/2006	168,189,860	50.36
FTSE High Yield Cash Pay	3.55	-9.95	-10.00	-5.64	1.27	2.88	6.04			
High Yield Composite	8.65	-4.26	-4.48	0.52	2.97	3.82	6.24	1/1/1997	334,001,202	100.00
FTSE High Yield Cash Pay	3.55	-9.95	-10.00	-5.64	1.27	2.88	6.34			

Asset Allocation & Performance

Dallas Total Fund

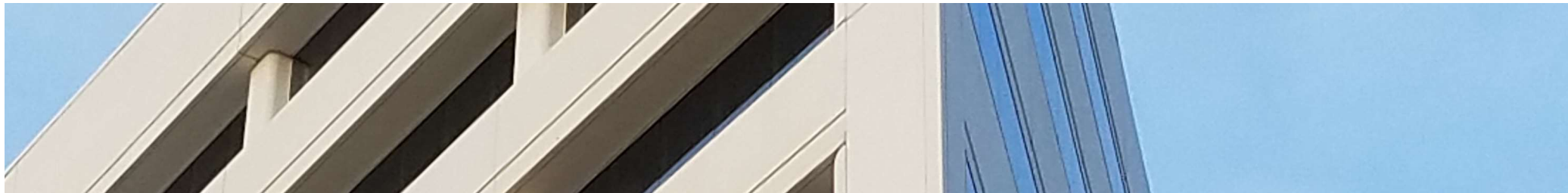
Periods Ended April 30, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Cash Account	0.01	0.45	0.58	2.07	1.81	1.19	3.27	1/1/1988	28,872,608	100.00
Managed Short Term Composite	0.01	0.45	0.58	2.07	1.81	1.19	2.92	1/1/1990	28,872,608	100.00



WILSHIRE ASSOCIATES

Wilshire Consulting



Employees' Retirement Fund of the City of Dallas

Monthly Investment Summary

February 29, 2020

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Global Equity Composite	-6.50	-3.77	-7.00	3.19	6.88	5.03	8.02	9/1/2012	237,148,917	6.89
Global Low Volatility Composite	-8.09	-5.53	-7.62	4.03	7.06		7.59	7/1/2015	347,456,585	10.09
Domestic Equity Composite	-8.89	-7.59	-10.19	2.28	6.98	7.37	9.75	1/1/1990	442,704,691	12.86
International Equity Composite	-8.26	-6.44	-10.77	-0.77	3.46	2.84	5.17	1/1/1990	478,169,761	13.89
Global Fixed Income Composite	1.63	3.68	3.65	11.37	5.11	3.88	5.18	10/1/1995	538,644,558	15.65
High Yield Composite	-1.94	-0.32	-2.16	5.19	4.01	4.45	6.40	1/1/1997	357,524,223	10.39
Credit Opportunities Composite	-1.29	1.16	-0.78	5.74	5.08		7.01	2/1/2016	178,395,824	5.18
Total Real Estate Composite	-2.89	-2.37	-2.46	6.91	6.13	6.57	6.60	1/1/1990	380,794,536	11.06

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
MLP Composite	-9.81	-6.96	-13.68	-16.42	-8.16	-7.59	2.62	1/1/2012	203,798,996	5.92
Private Equity Composite	2.62	3.15	2.73	14.28	14.09	11.96	13.54	6/1/2009	268,327,525	7.80
Managed Short Term Composite	0.15	0.43	0.28	2.19	1.74	1.13	2.93	1/1/1990	8,980,714	0.26
Dallas Total Fund	-4.44	-2.68	-4.93	4.02	5.34	4.85	8.89	1/1/1985	3,441,946,330	100.00
Policy Index	-5.20	-3.06	-5.53	3.85	4.95	4.46	9.46			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Systematic Financial	-9.77	-11.92	-14.10	-6.82	3.04	6.81	9.80	8/1/2003	60,880,842	13.75
Russell 2000 Index	-8.42	-8.80	-11.36	-4.92	3.52	5.12	8.50			
Redwood Investments *	-7.24	-3.56	-5.16	-4.78	3.77		4.37	10/1/2016	31,788,656	7.18
Russell 2000 Growth Index	-7.22	-6.14	-8.24	-0.72	7.85		9.25			
Channing Capital *	-10.56	-11.93	-14.50	-9.98	-2.46	2.02	3.20	12/1/2013	30,111,626	6.80
Russell 2000 Value Index	-9.72	-11.60	-14.59	-9.29	-0.83	3.61	3.92			
Domestic Equity Small Cap Composite	-9.33	-9.90	-12.05	-7.11	1.87	4.68	8.50	6/1/2003	122,781,124	27.73

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Smith Graham * Russell Midcap Index	-11.05 -8.69	-12.31 -7.34	-15.22 -9.42	-4.84 2.34			-3.30 3.41	1/1/2018	60,281,011	13.62
T. Rowe Price S&P 500	-8.11 -8.23	-5.03 -5.50	-7.75 -8.27	9.26 8.19	10.97 9.87	10.01 9.23	8.95 8.36	4/1/2006	133,298,999	30.11
Northern Trust S&P 500 (Lending) S&P 500	-8.23 -8.23	-5.49 -5.50	-8.26 -8.27	8.25 8.19	9.89 9.87	9.27 9.23	9.81 9.77	1/1/1995	126,343,558	28.54
Domestic Equity Composite Custom Benchmark	-8.89 -8.20	-7.59 -5.50	-10.19 -8.19	2.28 7.00	6.98 9.31	7.37 8.89	9.75 9.91	1/1/1990	442,704,691	100.00

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Adelante Capital Management	-7.53	-7.52	-6.75	4.95	5.31	4.65	9.66	10/1/2001	76,171,791	20.00
Wilshire U.S. Real Estate Securities Index	-7.78	-7.71	-7.11	3.94	4.25	5.03	9.97			
CenterSquare	-7.60	-6.98	-6.40	5.54			9.20	6/1/2018	76,981,005	20.22
Wilshire U.S. Real Estate Securities Index	-7.78	-7.71	-7.11	3.94			7.95			
REIT Composite	-7.57	-7.25	-6.57	5.25	4.93	4.67	9.78	10/1/2001	153,152,796	40.22
Wilshire U.S. Real Estate Securities Index	-7.78	-7.71	-7.11	3.94	4.25	5.03	9.97			
Heitman America Real Estate Trust, LP	0.00	-1.01	0.00	1.32	4.60	7.52	10.08	12/1/2010	85,733,884	22.51
NCREIF ODCE NOF	0.00	1.27	0.00	4.39	6.13	7.98	10.13			
Invesco Core Real Estate USA, LLC	0.00	2.31	0.00	6.64	8.15	9.66	10.85	12/1/2010	72,242,640	18.97
NCREIF ODCE NOF	0.00	1.27	0.00	4.39	6.13	7.98	10.13			
Private Core Real Estate Composite	0.51	1.19	0.51	7.94	6.95	7.76	9.78	10/1/2010	227,641,740	59.78
Custom Benchmark	0.37	1.61	0.37	7.58	6.77	6.89	9.10			
Total Real Estate Composite	-2.89	-2.37	-2.46	6.91	6.13	6.57	6.60	1/1/1990	380,794,536	100.00
Custom Benchmark	-3.71	-3.07	-3.36	5.93	5.74	6.21	8.55			

Employees' Retirement Fund of the City of Dallas



Private Equity & Direct Private Real Estate Monthly Performance and Market Value Summary

Periods Ended 02/29/20

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple ³
Invesco II	69,665,216	65,188,333	65,188,333	5,679,544	Jan-14	4.0%	1.2
Total Direct Private Real Estate	69,665,216	65,188,333	65,188,333	5,679,544	Jan-14	4.0%	1.2

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple ³
Hamilton Lane Secondary Fund II	1,434,007	25,000,000	22,848,181	26,979,853	Jul-09	8.4%	1.2
Hamilton Lane Secondary Fund III	10,784,962	30,000,000	17,764,658	18,329,971	Nov-12	18.8%	1.6
Hamilton Lane Secondary Fund IV	22,020,513	30,000,000	18,667,963	3,099,866	Mar-17	25.3%	1.3
Hamilton Lane Fund VII Composite	25,643,603	50,000,000	42,992,714	32,750,776	Jan-10	6.5%	1.4
Hamilton Lane Fund VIII (Global)	22,297,545	30,000,000	16,412,837	3,652,520	Nov-12	10.8%	1.6
Hamilton Lane Cash	-	-	-	-	Aug-09	--	--
GCM Grosvenor - Partnership, L.P.	47,598,903	75,000,000	81,752,229	86,497,244	Jun-11	15.2%	1.6
GCM Grosvenor - Partnership II, L.P. (2014)	55,618,332	60,000,000	59,234,526	19,096,084	Jul-14	12.1%	1.3
GCM Grosvenor - Partnership II, L.P. (2015)	36,083,245	20,000,000	27,494,310	3,512,059	Dec-15	17.7%	1.4
GCM Grosvenor - Partnership II, L.P. (2017)	9,837,953	30,000,000	10,139,984	105,389	Jan-18	-1.9%	1.0
GCM Grosvenor Cash	-	-	-	-	Jun-11	--	--
Fairview Capital III *	37,008,462	40,000,000	31,975,328	1,630,828	Aug-15	10.1%	1.2
Total Private Equity Composite	268,327,525	390,000,000	329,282,730	195,654,590	Jul-09	12.9%	1.4

Public Market Equivalent (PME) ²

311,613,237

15.4%

* Next Generation Manager

¹ Total Value to Paid-in Capital ("TVPI") multiple calculation = (market value + distributions) / capital called

² The Public Market Equivalent (PME) approach creates a hypothetical investment vehicle that mimics the private equity composite cash flows. The performance difference between the PME vehicle and the private equity portfolio is determined by their net asset value (NAV) at the end of the benchmarking period. The performance of the "public market" is simulated using the monthly S&P 500 index returns, plus a 300 BPs annual hurdle rate.

³ Private Equity cash account

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Acadian International Custom Benchmark	-10.37 -9.20	-7.98 -7.69	-13.12 -12.03	-4.74 -2.18	2.50 2.86	4.40 3.31	7.84 5.52	4/1/1989	94,976,988	19.86
Ativo International * MSCI EAFE Index (Net)	-8.44 -9.04	-7.19 -8.05	-9.60 -10.94	2.18 -0.57			-1.51 -2.97	1/1/2018	34,349,363	7.18
AQR Capital Management Custom Benchmark	-7.65 -7.90	-6.21 -6.50	-10.41 -10.38	-2.54 -0.69	2.12 4.15	2.20 2.18	2.64 2.36	4/1/2006	188,338,669	39.39
Baillie Gifford MSCI AC World ex USA (Net)	-7.09 -7.90	-4.22 -6.50	-8.53 -10.38				7.02 -1.28	4/1/2019	84,067,302	17.58
Earnest Partners MSCI AC World ex USA (Net)	-8.23 -7.90	-7.13 -6.50	-11.61 -10.38				-2.98 -1.28	4/1/2019	76,435,022	15.98
BlackRock ACWI Ex U.S.									1,480	0.00
International Equity Composite Custom Benchmark	-8.26 -8.08	-6.44 -6.66	-10.77 -10.60	-0.77 -0.89	3.46 3.98	2.84 2.33	5.17 4.27	1/1/1990	478,169,761	100.00

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees							Allocation		
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Ariel Global * MSCI AC World Index (Net)	-6.37 -8.08	-3.65 -5.89	-7.05 -9.09	1.29 3.89			1.58 1.94	1/1/2018	99,484,787	41.95
Wellington MSCI AC World Index (Net)	-6.40 -8.08	-3.53 -5.89	-6.60 -9.09	4.74 3.89	6.96 6.96	5.50 5.55	10.48 8.53	9/1/2012	118,443,077	49.94
Northern Trust Global Equity MSCI AC World IMI (Net)	-7.68 -8.18	-5.87 -6.19	-9.07 -9.40	4.05 3.00	7.15 6.53		9.35 8.78	10/1/2015	19,221,053	8.11
Global Equity Composite MSCI AC World Index (Net)	-6.50 -8.08	-3.77 -5.89	-7.00 -9.09	3.19 3.89	6.88 6.96	5.03 5.55	8.02 8.53	9/1/2012	237,148,917	100.00

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Acadian Global Low Vol.	-8.53	-6.45	-8.83	2.56	5.89		6.84	7/1/2015	172,822,482	49.74
MSCI AC World Index (Net)	-8.08	-5.89	-9.09	3.89	6.96		6.23			
MSCI ACWI Minimum Volatility Index (Net)	-7.69	-4.68	-6.39	5.13	7.75		7.82			
BlackRock Global Low Vol.	-7.66	-4.61	-6.38	5.52	8.21		8.31	7/1/2015	174,634,102	50.26
MSCI ACWI Minimum Volatility Index (Net)	-7.69	-4.68	-6.39	5.13	7.75		7.82			
Global Low Volatility Composite	-8.09	-5.53	-7.62	4.03	7.06		7.59	7/1/2015	347,456,585	100.00
MSCI ACWI Minimum Volatility Index (Net)	-7.69	-4.68	-6.39	5.13	7.75		7.82			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Atlantic Trust CIBC	-9.89	-7.36	-14.03	-17.78	-8.87	-7.74	2.64	1/1/2012	100,519,617	49.32
Alerian MLP Index	-14.05	-11.95	-18.87	-23.46	-12.41	-10.62	-2.83			
Harvest Fund Advisors MLP	-9.73	-6.57	-13.33	-15.05	-7.53	-7.48	2.25	1/1/2012	103,279,379	50.68
Alerian MLP Index	-14.05	-11.95	-18.87	-23.46	-12.41	-10.62	-2.83			
MLP Composite	-9.81	-6.96	-13.68	-16.42	-8.16	-7.59	2.62	1/1/2012	203,798,996	100.00
Alerian MLP Index	-14.05	-11.95	-18.87	-23.46	-12.41	-10.62	-2.83			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Securian Asset Management	1.58	3.51	3.56	11.58	5.38	4.27	4.98	7/1/2007	233,316,628	43.32
Blmbg. Barc. U.S. Aggregate	1.80	3.69	3.76	11.68	5.01	3.58	4.61			
Aberdeen Global Fixed Income	1.81	4.17	3.97	11.91	5.08	3.70	5.01	5/1/2007	233,372,936	43.33
Blmbg. Barc. U.S. Aggregate	1.80	3.69	3.76	11.68	5.01	3.58	4.46			
Garcia Hamilton *	1.22	2.69	2.91	9.03	4.36	3.28	3.95	11/1/2013	71,954,994	13.36
Blmbg. Barc. U.S. Aggregate	1.80	3.69	3.76	11.68	5.01	3.58	3.79			
Global Fixed Income Composite	1.63	3.68	3.65	11.37	5.11	3.88	5.18	10/1/1995	538,644,558	100.00
Blmbg. Barc. U.S. Aggregate	1.80	3.69	3.76	11.68	5.01	3.58	5.31			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Neuberger Berman	-1.29	1.16	-0.78	5.74	5.08		7.01	2/1/2016	178,395,824	
Custom Benchmark	-1.28	1.30	-0.59	6.35	4.74		7.36			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees							Allocation		
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Oaktree Capital Management	-2.31	-0.95	-2.61	3.89	3.23	3.71	6.56	2/1/1997	178,183,110	49.84
FTSE High Yield Cash Pay	-1.66	0.32	-1.71	5.45	4.57	4.85	6.78			
BlackRock	-1.56	0.32	-1.71	6.51	4.79	4.70	6.33	10/1/2006	179,341,113	50.16
FTSE High Yield Cash Pay	-1.66	0.32	-1.71	5.45	4.57	4.85	6.81			
High Yield Composite	-1.94	-0.32	-2.16	5.19	4.01	4.45	6.40	1/1/1997	357,524,223	100.00
FTSE High Yield Cash Pay	-1.66	0.32	-1.71	5.45	4.57	4.85	6.79			

Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 29, 2020

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Cash Account	0.15	0.43	0.28	2.19	1.74	1.13	3.28	1/1/1988	8,980,714	100.00
Managed Short Term Composite	0.15	0.43	0.28	2.19	1.74	1.13	2.93	1/1/1990	8,980,714	100.00

At A Glance

For period ended April 30, 2020

	2019		2020	
	This Month	YTD	This Month	YTD
Retirements				
Age	24	89	16	62
Service	4	8	3	11
Rule of 78	11	40	4	30
QDRO	1	2	1	2
<i>Total</i>	40	139	24	105
Disability Retirements				
Service	0	0	0	0
Non-service	0	0	0	3
<i>Total</i>	0	0	0	3
Benefits Paid	\$ 22,855,070.72	\$ 90,819,123.92	\$ 23,523,905.50	\$ 94,195,250.75
Refunds	\$ 907,445.41	\$ 3,234,533.65	\$ 485,228.32	\$ 2,633,592.40
Number of refunds	70	250	35	188
*Contributions	\$ 9,157,623.63	\$ 41,230,578.56	\$ 9,144,566.79	\$ 41,597,697.73

Members on record at month end			
	Retirees & beneficiaries	Disabilities	Actives
Jan	7,400	161	7,438
Feb	7,414	161	7,441
Mar	7,445	156	7,461
April	7,446	156	7,495
May			
June			
July			
Aug			
Sep			
Oct			
Nov			
Dec			

At A Glance

For period ended February 29, 2020

	2019		2020	
	This Month	YTD	This Month	YTD
Retirements				
Age	20	32	19	24
Service	3	3	2	3
Rule of 78	4	9	12	18
QDRO	0	1	0	1
<i>Total</i>	27	45	33	46
Disability Retirements				
Service	0	0	0	0
Non-service	0	0	3	3
<i>Total</i>	0	0	3	3
Benefits Paid	\$ 22,699,850.70	\$ 45,144,178.54	\$ 23,539,172.30	\$ 46,899,590.26
Refunds	\$ 688,977.10	\$ 1,203,235.79	\$ 780,661.38	\$ 1,555,021.35
Number of refunds	55	98	61	112
*Contributions	\$ 9,305,465.57	\$ 22,875,523.53	\$ 9,362,493.51	\$ 23,195,358.32

Members on record at month end			
	Retirees & beneficiaries	Disabilities	Actives
Jan	7,400	161	7,438
Feb	7,414	161	7,441
Mar			
April			
May			
June			
July			
Aug			
Sep			
Oct			
Nov			
Dec			

At A Glance

For period ended March 31, 2020

	2019		2020	
	This Month	YTD	This Month	YTD
Retirements				
Age	33	65	22	46
Service	1	4	5	8
Rule of 78	20	29	8	26
QDRO	0	1	0	1
<i>Total</i>	54	99	35	81
Disability Retirements				
Service	0	0	0	0
Non-service	0	0	0	3
<i>Total</i>	0	0	0	3
Benefits Paid	\$ 22,819,874.66	\$ 67,964,053.20	\$ 23,771,879.99	\$ 70,671,345.25
Refunds	\$ 1,123,852.45	\$ 2,327,088.24	\$ 593,342.73	\$ 2,148,364.08
Number of refunds	82	180	41	153
*Contributions	\$ 9,197,431.40	\$ 32,072,954.93	\$ 9,257,772.62	\$ 32,453,130.94

Members on record at month end			
	Retirees & beneficiaries	Disabilities	Actives
Jan	7,400	161	7,438
Feb	7,414	161	7,441
Mar	7,445	156	7,461
April			
May			
June			
July			
Aug			
Sep			
Oct			
Nov			
Dec			