

RVK Portland Office  
1211 SW 5<sup>th</sup> Avenue  
Suite 900  
Portland, Oregon 97204  
[www.RVKInc.com](http://www.RVKInc.com)



# Fort Worth Employees' Retirement Fund

## Evaluation of Investment Practices

Pursuant to Texas Government Code 802.109

June 2020



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To	Board of Trustees – Fort Worth Employees' Retirement Fund
From	RVK, Inc.
Subject	Evaluation of Investment Practices – Government Code 802.109

## INTRODUCTION

RVK was hired to conduct an independent evaluation of the current institutional investment practices and performance, with a focus on the appropriateness, adequacy, and effectiveness of the Fort Worth Employees' Retirement Fund ("FWERF" or "the Fund") investment practices and performance and to make recommendations for improving the FWERF investment policies, procedures, and practices. Per Texas Government Code 802.109, each evaluation must include:

- (1) An analysis of any investment policy or strategic investment plan adopted by the retirement fund and the retirement fund's compliance with that policy or plan;*
- (2) A detailed review of the retirement fund's investment asset allocation, including:*
  - (A) The process for determining target allocations;*
  - (B) The expected risk and expected rate of return, categorized by asset class;*
  - (C) The appropriateness of selection and valuation methodologies of alternative and illiquid assets; and*
  - (D) Future cash flow and liquidity needs;*
- (3) A review of the appropriateness of investment fees and commissions paid by the retirement fund;*
- (4) A review of the retirement fund's governance processes related to investment activities, including investment decision-making processes, delegation of investment authority, and board investment expertise and education; and*
- (5) A review of the retirement fund's investment manager selection and monitoring process.*

RVK is uniquely qualified to perform this evaluation as we are one of the largest fully independent consulting firms in the world, with over 200 institutional clients and over \$2 trillion of assets under advisement. We are strictly focused on providing our clients with non-discretionary consulting services and do not offer discretionary management of assets, nor do we offer any investment products. Since our founding in 1985, RVK has been an industry leader in adhering to a strict no-conflicts of interest policy, with 100% of our revenue generated from client fees; we do not accept fees of any kind from any investment manager or other service provider which our clients may ask us to evaluate.

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### BACKGROUND INFORMATION

FWERF provides benefits for full-time employees of the City of Fort Worth and was established in 1945. It serves approximately 6,700 active members, plus an additional 4,600 retirees and beneficiaries, and is managed by a thirteen-member Board of Trustees ("Board" or "Trustees"), as well as professional full-time Operational and Investment Staff. As of December 31, 2019, the market value of Fund investment assets was approximately \$2.4 billion.

The Fund's stated mission is to be "dedicated to providing retirement benefits and exceptional services while sustaining our members' trust" and is strengthened by a set of guiding principles:

#### ***Guiding Principles***

*Act for the sole benefit of members and beneficiaries*  
*Conduct business with honesty and integrity*  
*Be accountable for our actions*  
*Demonstrate prudence in decision making*  
*Act strategically and be innovative*  
*Maintain transparency*  
*Strive for continuous improvement*  
*Value diversity*  
*Empower our employees*

#### ***Vision***

*To be a recognized leader in public pension fund management.*

The majority of this evaluation will focus on investment practices and program management, with RVK providing an independent review of policies, procedures, and specific considerations as described in Texas Government Code 802.109. Outlined below is a review of the resources and approach employed by the RVK team in executing this evaluation. Supplementary details on the background and experience of the RVK project team can be found in Appendix A.

In addition to drawing upon RVK and its employees' institutional knowledge of investment programs, the RVK team used several methods to conduct research and gain insight into the FWERF organization, its decision making process, and overall efficacy. The first method employed was a detailed review of numerous documents provided and produced by FWERF. These documents covered a comprehensive array of topics including, but not limited to:

- Governance Documents
- Board and Committee Charters
- Investment Policy Statement
- Organizational Chart
- Background of Key FWERF Professionals and Investment Team
- Asset Allocation Studies
- Asset/Liability Study
- Performance Reports and Related Analyses

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- Actuarial Valuation Reports
- Related Investment Documents (asset class reviews, investment manager due diligence, etc.)
- Investment Committee and Board Meeting Minutes

A note of appreciation to the Trustees and Investment Staff of the FWERF, as well as the Fund's specialty consultants Hamilton Lane, Albourne, and Alignium, whose cooperation with our numerous requests for data and organizational information were critical in the execution of this project.

*The RVK FWERF Team*

Spencer Hunter  
Janelle Booth, CFA  
Jake Derrah  
Jim Voytko  
Marcia Beard  
Joe Ledgerwood, CFA  
Jonathan Kowolik  
Julie Maybee



## Executive Summary



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## **EXECUTIVE SUMMARY**

### **Observations and Recommendations for Consideration**

What follows is a summary of key observations that are detailed in the five key sections throughout this report. It is immediately followed by a summary list of recommendations, the background and rationale for which are also contained in the body of the report.

#### **Section 1 Observations:**

The FWERF's investment program is governed by the Investment Policy Statement, which serves as the overarching program document detailing the guidelines for overall management of Fund assets. The IPS clearly articulates the delegation of authority, expectations for each party involved, as well as applicable guidelines and performance benchmarks for the investment portfolio. The Board reviews this document at least annually, making updates based on recommendations from the Investment Consultant(s), Investment Staff, as well as feedback from the Investment Committee. The current IPS follows industry standards and is well articulated in its purpose, structure, and overall mission. We do believe there may be room for incremental improvement through the creation of an implementation policy, but would not classify this as a shortfall of the current structure.

#### **Section 2 Observations:**

The efforts from the Board, Investment Committee, Investment Staff, and Investment Consultant are evident throughout the asset allocation process, with a particular focus on creating a blend of assets which attempts to best match the Fund's unique liability structure. The last asset/liability study was performed in 2014; since that time, contribution and benefit policies – as well as capital market expectations – have changed materially, warranting a new asset/liability study. Based on our understanding, the Board has agreed to begin this process later in 2020 to ensure the updated actuarial valuation is included in the analysis.

#### **Section 3 Observations:**

The reasonableness of fees can be demonstrated by the comparison to similar sized mandates in the public markets, plus the emphasis on performance-based fees in alternatives. While the overall level of fees may be higher than some public pension peers, that is due to the asset allocation decision made in attempt to create a smoother return pattern through the use of alternatives, rather than a lack of effort to control fees for each manager. We also note that the use of trade cost analysis providers has become less common in the public pension universe, meaning the FWERF is likely part of the majority in its choice not to undertake this effort consistently. However, should a more thorough analysis of commissions paid be required by future reports relating to Code 802.109, it is likely the FWERF should consider hiring a third party trade cost analysis vendor.

#### **Section 4 Observations:**

Through our review of approved policies and charters, along with meeting materials and Board education, it is clear the FWERF's investment decision making process and governance structure is in line with other public pensions of similar size. We also understand the Board underwent a more detailed governance review with a third party consultant, which may result in material changes to a variety of processes, policies, and responsibilities. For the purpose of this report, we focused on the current structure, noting our belief

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that it is well documented and articulated, with clear delegation and reporting lines.

## ***Section 5 Observations:***

The FWERF's investment manager selection and monitoring process varies depending on the asset class in question, but is well defined for each. The IPS outlines expectations and guidelines for both public and private asset classes, but allows for ample flexibility in sourcing and monitoring managers. The ongoing due diligence process of the Investment Staff is notable, further strengthened by the use of outside Investment Consultants, some of which are tasked with a single asset class. We do note that other forms of investment manager selection processes are available and worth consideration, specifically the idea of a "premier list" or manager "bench", but believe those could be long-term changes to governance structure and would require additional education to the Board before adoption.

## ***Table of Specific Recommendations:***

Section	Recommendation	Suggested Timeframe
1: Investment Policy	Creation of "Implementation Policy" to assist in documentation of processes and procedures.	Next Update to Policies
2: Asset Allocation	Conduct asset/liability study once updated actuarial valuation data is available.	Fall 2020
5: Manager Selection and Monitoring	Document formal manager review process and procedures.	Next Update to Policies
5: Manager Selection and Monitoring	Separate reporting requirements by asset class.	Next Update to Policies
5: Manager Selection and Monitoring	Revisit Watch List language for alternatives.	Next Update to Policies



**Section 1: An analysis of any investment policy or strategic investment plan adopted by the retirement  $\bar{Z}$  bX and the retirement  $\bar{Z}$  bX's compliance with that policy or plan.**



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## DOCUMENTS REVIEWED:

- ✓ **Investment Policy Statement**
- ✓ **Presentations to Board and IC**
- ✓ **Review Memorandums from Investment Consultant**

FWERF's investment program is governed by the Investment Policy Statement ("IPS"), which details the objectives and guidelines used for the management of Fund assets. It is important to note that the IPS has been updated recently and is also reviewed on a consistent basis, at least annually, by both the Investment Committee and the Board of Trustees. Below is a snapshot of the policy's most recent adoption dates, some of which contained substantive edits, while others were simple clean-up items.

Investment Policy Statement
<i>Adopted January 24, 2018</i>
<i>Adopted December 14, 2016</i>
<i>Adopted June 24, 2014</i>

## SUMMARY OF THE IPS

The IPS serves as the governing document with respect to the Fund's investment program. The policy is broken up into eleven distinct sections, each detailing a distinct set of oversight components approved and applicable to the Board of Trustees.

- 1. Purpose of the Investment Policy** – Section 1 outlines the purpose and scope of the policy in addition to defining the Fund's investment program. This section states that the IPS document represents the Board's current philosophy regarding the investment of Fund assets.
- 2. Investment Philosophy** – Section 2 outlines the Fund's investment philosophy with respect to funding, risk, and diversification. It is the focus of this section to clearly outline for current and future Boards, a tangible number of investment objectives and goals to be met through appropriate long-term asset allocation policy and diversification for the purpose of achieving the highest level of investment performance that is compatible with the Board's risk tolerance and prudent investment practices.
- 3. Duties and Responsibilities** – Section 3 provides detailed investment responsibilities of Fund fiduciaries such as the Board of Trustees, Investment Committee, Investment Staff, Discretionary Investment Consultant, Advisory Investment Consultant(s), External Investment Managers, and Custodian. While the specifics of the responsibilities differ slightly, the overarching and consistent theme maintains that each party must act in a capacity that places the exclusive benefit of the assets of the Fund at the forefront of the decision making process when considering any and all investment decisions.

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4. **Asset Allocation Strategy** – Section 4 describes the Fund's asset allocation and rebalancing policy. Specific asset class target allocations and rebalancing procedures can be found in Appendix A to the Policy.
5. **Investment Return Objectives and Benchmarks** – Section 5 details the Fund's investment performance objectives as adopted by the Board. Investment performance relative to peers is measured over a minimum period of 5 years. Short-term investment performance is measured over a period of 3-5 years, relative to the Fund's "Implementation Benchmark". Long-term investment performance is measured over a period of 5 years or longer, relative to the Fund's "Target Benchmark". Both policy benchmark details are approved by the Board and detailed in this section. Additionally, this section outlines the investment objectives and performance goals of the Fund's six thematic asset classes. Similar to the total investment performance objectives, each thematic asset class is measured relative to a short-term benchmark, long-term benchmark, and peer universe. Total return objectives for individual manager or strategy within each thematic asset class are also outlined.
6. **Responsibilities of Public Markets Managers** – Section 6 outlines the duties and responsibilities of public markets managers retained by the Board. Responsibilities include, but are not limited to, compliance with the IPS, reporting requirements to the Board, Investment Staff and Consultant, authorized use of derivatives, and various investment restrictions.
7. **Monitoring, Evaluation and Review** – Section 7 describes the investment manager review process, including the review frequency and various metrics managers shall be compared to. Investment managers will be reviewed by the Board, who may appoint investment consultants to assist in the on-going evaluation process.
8. **Placing Managers on "Watch List" Status** – Section 8 details the Fund's Watch List Policy, including both quantitative and qualitative factors resulting in watch list additions. The watch list does not necessarily lead to any needed action but rather is intended to place a manager under increased scrutiny based on failure to meet quantitative or qualitative standards.
9. **Use of Commingled Fund and Mutual Fund Vehicles** – Section 9 states that the Board may choose to invest in various pooled investment vehicles if they are invested substantially in a manner consistent with policy guidelines. These investments are ultimately governed by the investment vehicle's established guidelines and restrictions, as outlined in the prospectus, subscription agreements, or other offering documents prepared by the investment manager.
10. **Reporting Requirements** – Section 10 outlines reporting requirements for each respective group to the Trustees, allowing them to operate their core duties most effectively.
11. **Appendices** – Section 11 includes various appendices to the IPS related to the implementation of the investment strategy set forth by the Board:
  - a. Thematic Asset Class Policy Target Allocations, Ranges and Rebalancing
  - b. Real Estate Portfolio Investment Guidelines
  - c. Private Equity Portfolio Investment Guidelines
  - d. Absolute Return Strategy Portfolio Investment Guidelines

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- e. Fund Asset Class Guidelines
- f. Investment Manager Transitions
- g. Securities Lending

### **EVALUATING THE IPS, COMPLIANCE WITH THE IPS & EDITS FOR CONSIDERATION**

RVK believes the FWERF IPS is consistent with industry best practices, representing clearly defined language aimed at providing the Board governance standards when instituting their investment program. In RVK's review of Board and Investment Committee meeting minutes, the Board has reviewed, edited where necessary, and/or approved changes at least on an annual basis over the last three years. As RVK has been an active member within the updating of this policy alongside the Board and Investment Staff, we have no material edits outside those listed in later sections for consideration at this time.

RVK does recommend the Board consider developing an Investment Implementation Policy ("IIP") document as a complement to the IPS. The IIP is meant to expand on the IPS, providing more details on *specifics relating to operational components of the Fund, contracting terms, individual mandates, etc., all of which are crucial to the success of the overall program*. RVK recommends the IIP include the following process procedures and guidelines:

- Strategy and Philosophy
- Fiduciary Conduct
- Manager Responsibilities
- Manager Selection and Due Diligence
- Manager Contracting, Portfolio Guidelines
- Permissible Investments
- Reporting, Evaluation and Monitoring
- Retention
- Transition Management
- Proxy Voting
- Manager Reporting Requirements
- Third Party Marketing
- Political Contributions
- Improper Influence
- Placement Agents and Finders

RVK observes that the majority of items mentioned above are already included in the IPS, so the adoption of an IIP is unlikely to generate brand new policies and procedures for Board approval. Rather, it will serve as an opportunity to detail policies and procedures that may be too prescriptive for an IPS, while simultaneously ensuring that the Investment Staff has authority to act on the Board's behalf in a manner that is mutually agreed upon.



**Section 2: A detailed review of the retirement Z bX's investment asset allocation.**



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### DOCUMENTS REVIEWED:

- ✓ Investment Policy Statement
- ✓ Investment Staff and Investment Consultant Presentations to the IC and Board
- ✓ Asset/Liability Study (September 2015)
- ✓ Actuarial Valuation
- ✓ Asset Allocation Studies and Accompanying Presentations

### (A) The process for determining target allocations.

FWERF'S target allocation is ultimately driven by the liabilities of the Fund including expected cash flow and liquidity needs. The primary method for analyzing the projected liabilities in the context of asset allocation is through an Asset/Liability ("A/L") Study. The FWERF performs A/L studies on an as needed basis, with the most recent study performed in September 2015 based on the December 31, 2014 actuarial valuation. These studies are the primary basis for informing appropriate risk levels and any large shifts in target allocation, though smaller changes can occur in between A/L studies based on changes to market environment, capital markets assumptions, and the needs of the Fund. Specific cash flow and liquidity information from the most recent A/L Study can be found in section D.

FWERF Investment Staff, in concert with the Investment Consultant, RVK, review asset allocation on an annual basis for reasonableness relative to significant economic and market changes or to changes in the Fund's long-term goals and objectives. A formal asset allocation study is conducted at least every three years. Each year, RVK publishes capital market assumptions for a large array of asset classes. These assumptions drive the asset allocation process and are long-term in nature (20 years), net of fees, and assume passive management for asset classes where passive implementation is possible. Custom thematic asset class assumptions, which are constructed by blending RVK's standard capital market assumptions, are used to best reflect the structural differences of the FWERF'S investment portfolio, as well as desired future exposures, from standard assumptions. A detailed description of RVK capital market assumptions and their construction can be found in the 2020 RVK Capital Markets Assumptions White Paper, which is available upon request.

Using the A/L Study as a guide, Investment Staff and the Investment Consultant perform detailed analyses on current allocations and potential target allocations. Analyses regularly performed includes, but is not limited to, long-term risk and return characteristics, correlation and diversification relationships between asset classes, Monte Carlo simulations over the short and long-term, stress testing, and liquidity analysis. Once FWERF Investment Staff and RVK complete the first round of analysis, a target allocation recommendation is presented to the FWERF Investment Committee for feedback. After incorporating any Investment Committee feedback, the proposed target allocation is presented to the Board for approval. Finally, once the Board has approved a target allocation, FWERF Investment Staff begins to work on implementation of the approved target, with assistance from RVK and Specialty Consultants as necessary.

The target allocation ultimately drives a vast majority of the Fund's investment performance (and risk), and as such, the Board, Investment Committee, Investment Staff, and Investment Consultant spend considerable time and effort throughout this process. While the ultimate recommendation for the Target Allocation is often presented to the Board in a single meeting, it is important to note that the analysis leading up to the recommendation often takes place over the span of multiple Investment Committee meetings, sometimes covering the majority of any given calendar year.



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The high level thematic asset allocation policy targets are defined in the Investment Policy Statement (see figure 2.2). Within each thematic asset class, the structure is comprised of sub-targets of “traditional” asset classes. Thematic asset class structures are reviewed individually, typically every 1-2 years. RVK works in conjunction with Investment Staff to analyze the target mix of strategies within the asset class, with the goal of formulating an asset mix that maximizes the probability of achieving the respective asset class objectives over the long-term. Structure studies include, but are not limited to, a review risk and return characteristics, holdings-based data, fees, and other characteristics relevant to the specific thematic asset class.

The thematic asset allocation targets were adopted in December 2016 and have remained the same since then. Sub-asset class targets are reviewed and revised more frequently, as a result of changes in capital markets assumptions, market conditions, and Investment Staff’s view on potential enhancements to the portfolio.

**Figure 2.1: Summary of Recent Changes to Target Allocation as approved by the Board**

Date	Description of Changes Made
<b>December 2016</b>	<b>Thematic Asset Allocation Targets Adopted</b> Increased High Growth, Growth, and Inflation Decreased Diversification, Capital Preservation, Liquidity
<b>February 2019</b>	Eliminated Public REITs, increased Global Equity
<b>February 2019</b>	Eliminated Commodities, added Diversified Inflation Strategy (DIS)

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**(B) The expected risk and expected rate of return, categorized by asset class.**

**Figure 2.2: Summary of Expected Risk and Return by Asset Class**

Asset Class	Target Allocation* (%)	Arithmetic Return Assumption (%)	Compound Return Assumption (%)	Standard Deviation Assumption (%)
High Growth	22%	9.04%	7.54%	18.28%
Growth	44%	7.52%	6.20%	17.02%
Capital Preservation	15%	3.75%	3.58%	6.00%
Diversification	10%	5.10%	4.95%	5.62%
Inflation	8%	6.32%	5.78%	10.73%
Liquidity	1%	3.00%	2.96%	3.00%

Composition of Asset Classes:

- High Growth consists of 45% Private Equity, 30% Non-Core Real Estate, 17.5% Emerging Markets Equity, 7.5% Long/Short Equity Hedge Funds.
- Growth consists of 82.9% Global Public Equity, 8.5% Long/Short Equity Hedge Funds, 4.6% Emerging Markets Debt, 4% High Yield Fixed Income.
- Capital Preservation consists of 100% Intermediate Duration Fixed Income.
- Diversification consists of 20% Multi-Strat Hedge Funds, 55% Equity Market Neutral Hedge Funds, 25% Managed Futures.
- Inflation consists of 65% Core Real Estate, 20% Diversified Inflation Strategies, 15% MLPs.
- Liquidity consists of 100% Cash Equivalents.

\*As of December 31, 2019

**(C) The appropriateness of selection and valuation methodologies of alternative and illiquid assets.**

The inclusion of alternative and illiquid assets for the FWERF is based on a variety of inputs, including expected return, risk, correlation, and other pertinent diversification characteristics. In addition, a careful view of current and future liquidity needs is required before additional capital can be committed to illiquid asset classes such as private equity and real estate.

Once these alternative and illiquid asset classes are approved in the Target Allocation and implemented in the portfolio, the process for monitoring these investments begins. This process is described in greater detail later in this report, but can generally be summarized by the following:

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- Ongoing due diligence is performed by both Investment Consultant(s) and Investment Staff to ensure the assets are performing within the range of reasonable expectations.
- The managers provide regular updates on the investments, including audited financial statements on an annual basis.
- Managers also utilize independent valuation firms to ensure the stated value of the investments accurately reflect market conditions.
- The Specialty Consultants play a vital role in this process and provide additional operational due diligence on alternative and illiquid asset classes.

From a reporting standpoint, FWERF's custody bank – Northern Trust – incorporates updated valuations provided by the managers as they are received. Often these valuations may be “lagged” for some period of time given the need to finalize accounting and performance figures within weeks after month end. Most private equity and real estate funds report final values, but some managers may take up to six months or longer to report final figures to Northern Trust; however, the values stated on a monthly basis include new cash contributions or distributions as those occur. This process is standard within the industry and RVK believes it remains a prudent exercise.

### **(D) Future cash flow and liquidity needs.**

Based on the results from the A/L study conducted in September 2015, FWERF elected to continue to implement a well-diversified investment portfolio, with a focus on increasing liquidity. The results of the study cautioned against adopting an even more aggressive asset allocation to close the funding gap, as high expected return and high expected risk approaches bring with them increased risk of large declines in the value of the Plan. Summary comments from the September 2015 A/L study are shown below.

*This A/L study shows that the Plan is currently underfunded and faces an uncertain future as current contribution rates fall short of actuarially determined Annual Required Contributions (ARC). These annual contribution shortfalls lead to meaningful probabilities that the Plan will deplete assets or, at the very least, face liquidity constraints in the future. This may cause the Plan to take risk to increase expected future returns.*

*The Plan can best meet its objectives through the continued use of a well-diversified investment portfolio that focuses on increasing liquidity. However, positive outcomes are limited due to the current contribution policy. The study is not supportive of a long-term, ultra-conservative approach. The increasing potential for large one-year declines suggests that there is likely a limit to the net benefits of adding increased risk in pursuit of additional return. Progress should be monitored periodically through studies such as these, particularly if the Plan encounters a sustained period of lower returns in the capital markets (and thus for the Plan's assets) as well as material changes in contribution policy or benefit levels.*

*Additionally, this study assumes no further changes are made to the benefit policy at any point during the 20 year projection period. Such changes would fall outside the reach of an Asset/Liability study. However, we do note that even small changes to the benefit policy can have a meaningful long-term impact on the likely future outcomes of the Plan.*

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Figure 2.3 below shows the status of the Fund at the time the A/L study was performed. The large gap between Fund assets and liabilities cannot be closed without significant changes to contribution policy due to increasing Fund liabilities as is shown in figures 2.4, 2.5, and 2.6.

While not shown in this report, it is imperative to note that these figures have changed since the time of the last A/L study. Both benefit and contribution policies have seen significant structural changes, which impact the future health of the Fund. A comprehensive A/L study using new figures will show substantive differences with the data presented herein.

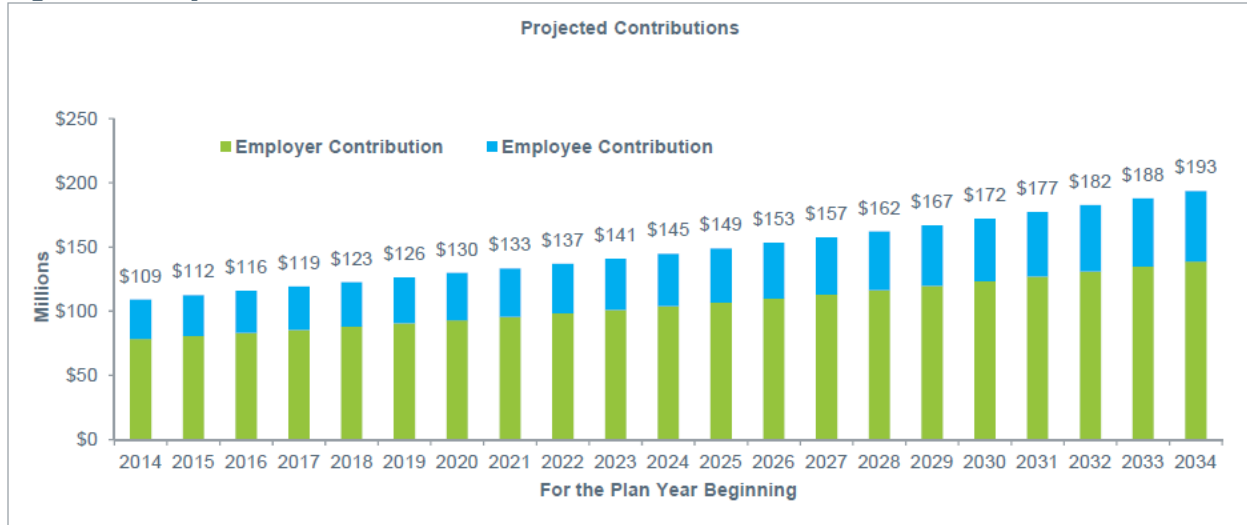
**Figure 2.3: FWERF Funding Status at time of A/L Study**

<b>Fund Summary</b>	<b>December 31, 2014 (Valuation Date)</b>
<b>Market Value of Assets</b>	\$2.1 Billion
<b>Actuarial Accrued Liability</b>	\$3.4 Billion
<b>Deficit</b>	\$1.3 Billion
<b>Market Value Funded Ratio</b>	62%

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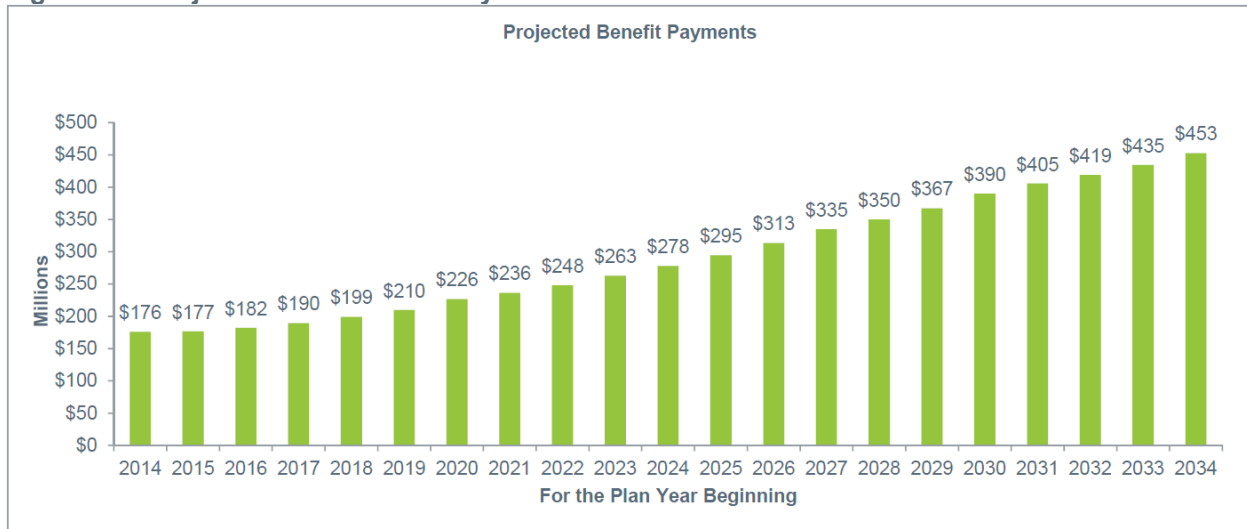


**Figure 2.4: Projected Fund Contributions**



As a result of an increasing number of beneficiaries and inflation, benefit payments to Fund participants are expected to increase by 157% over the next 20 years, as shown in Figure 2.5 below. Annual increases are projected to average approximately 5%.

**Figure 2.5: Projected Fund Benefit Payments**



As shown in Figure 2.6a, the expected net cash outflow increases significantly over the next 20 years. The projected payout ratio is expected to gradually increase through the end of the projection period (Figure 2.6b), however they are projected to remain at healthy levels during the period. This is an important and positive indication, because sustained increases in payout ratios can potentially impose liquidity constraints on the management of the portfolio, therefore limiting the opportunity to invest in less liquid asset classes

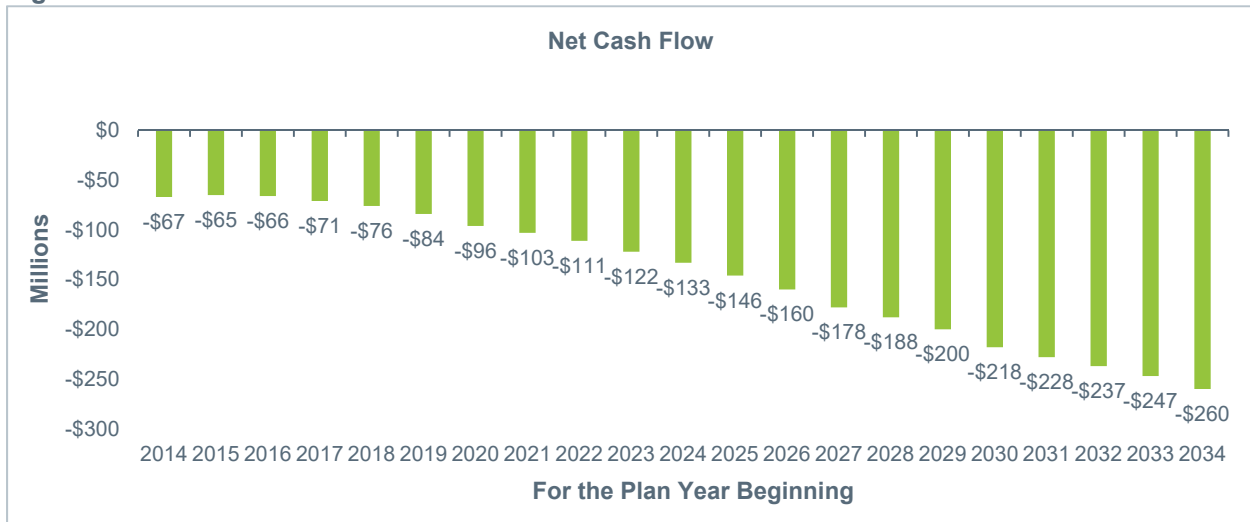
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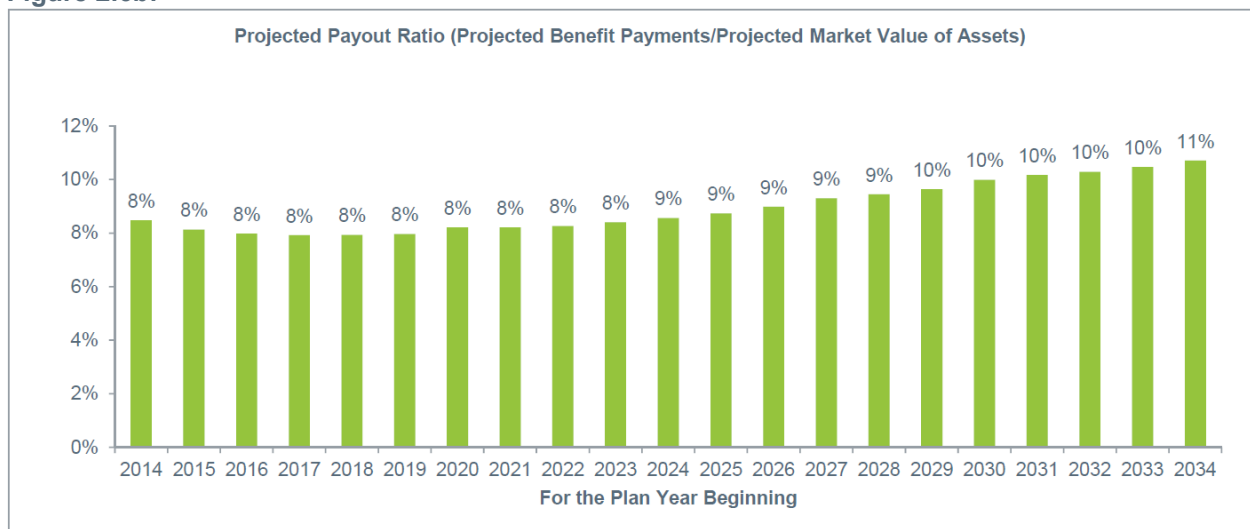
regardless of the return or risk reducing diversification benefits they may offer. The payout ratio is projected to gradually rise from about 8% today to about 11% at the end of the projection period. These levels should not, in our opinion, materially inhibit investment opportunities for the Plan.

**Figures 2.6a and 2.6b: Projected Net Cash Flow and Gross Payout Ratio for the Fund**

**Figure 2.6a:**



**Figure 2.6b:**



In order to bring the Fund to full funding, an increase of 38%, the Fund assets would need to return nearly 10% each year across a 20 year period as is shown in Figure 2.7. This analysis assumed all other actuarial

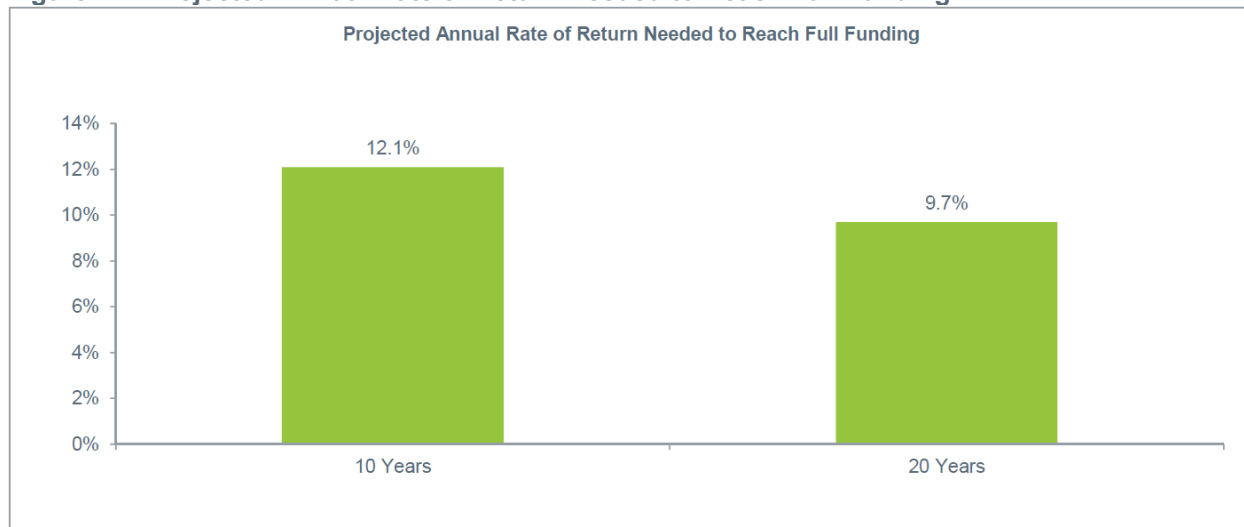


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assumptions (such as contributions) are left unchanged over the same period. Based on expected returns for the portfolio, such a return outcome is unrealistic given current market conditions and the need to maintain a liquid and diversified portfolio.

**Figure 2.7: Projected Annual Rate of Return Needed to Reach Full Funding**



### **RVK RECOMMENDATIONS**

- **Consider Performing Updated Asset Liability Study.**
  - It is RVK's understanding the Board is planning to complete this study later in 2020, once an updated valuation has been performed by the Fund's actuary and approved by the Board.

**Section 3: A review of the appropriateness of investment fees and commissions paid by the retirement Z bX.**



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**DOCUMENTS REVIEWED:**

- ✓ Investment Management Agreements
- ✓ Confirmation Emails of Current Fee Agreements

**Figure 3.1: Current Managers and Investment Management Fees as of December 31, 2019**

**PUBLIC MARKETS MANDATES**

Mandate	Effective Annual Fee (bps)	Universe Median Fee (bps)	Percentile Rank (1= least costly)
Aberdeen Fixed Income Total Return	28	27	55
Frontier Capital Appreciation	75	79	33
Garcia Hamilton Fixed Income	19	25	13
Harvest Fund Advisors MLP Alpha	75	75	50
Loomis, Sayles & Company High Yield	40	50	6
NTAM ACWI Diversified Multi-Factor Index	2	7	1
NTAM ACWI IMI	1.5	7	1
Nuveen Real Asset Income	81	85	32
PIMCO Core Plus	15	27	1
Stone Harbor Emerging Markets Debt	71	75	39
Templeton	83	85	48
Wellington International Horizons	60	68	27
Westwood Small Cap Value	88	82	68
William Blair EM Small Cap Growth	125	133	28
William Blair EM Leaders	78	86	28

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## PRIVATE MARKETS MANDATES

### REAL ESTATE

Management Fee Range	Incentive/Performance Fee Range	Number of Mandates in Range
0 – 1.00%	0% - 20%	12
1.00 – 1.50%	20%	12

Incentive/Performance Fee Range is representative of carry. 13 managers have a preferred return of 9%, 2 managers with a preferred return of 8.75%, 5 managers with a preferred return of 8%, 1 manager with a preferred return of 7%, 1 manager with a preferred return of the CPI+3%, and 1 manager with a preferred return of 0%.

### HEDGE FUNDS

Management Fee Range	Incentive/Performance Fee Range	Number of Mandates in Range
0 – 1.00%	20%	2
1.00 – 1.50%	17.50% - 20%	12
1.50% - 2.00%	20%	4
2.00%-2.50%	20% - 25%	2

## PRIVATE EQUITY

### Management Fee Based on Committed Capital

Management Fee Range	Incentive/Performance Fee Range	Number of Mandates in Range
0 – 1.00%	5% - 20%	4
1.00 – 1.50%	20% - 30%	10
1.50% - 2.00%	20%	12

21 managers have a hurdle rate of 8%, 1 manager with a hurdle rate of 6%, and 4 managers with a hurdle rate of 0%.

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### Management Fee Based on Invested Capital

Management Fee Range	Incentive/Performance Fee Range	Number of Mandates in Range
0 – 1.00%	20% - 25%	8
1.00 – 1.50%	20%	18
1.50% - 2.00%	20% - 25%	6

31 managers have a hurdle rate of 8% and 1 manager with a hurdle rate of 0%.

As part of this review, RVK spent considerable time analyzing the fees paid to individual public investment managers currently in the FWERF portfolio. This analysis included confirmation of fee schedules through interactions with each investment manager, careful review of relevant terms found in investment management agreements (“IMA”), comparison to similar mandates, as well as a comprehensive peer group fee analysis. Each investment manager was ranked against an appropriate eVestment peer group based on mandate type and overall asset size. As shown in Figure 3.1, the majority of effective fees paid by FWERF to public investment managers fall well below the industry median for each respective mandate. Figure 3.2 below summarizes the overall distribution of relative fees:

**Figure 3.2:**

Fee Percentile Range	Number of Investment Managers in Range
1 <sup>st</sup> to 24 <sup>th</sup>	<b>5</b>
25 <sup>th</sup> to 49 <sup>th</sup>	<b>7</b>
50 <sup>th</sup> to 74 <sup>th</sup>	<b>3</b>
75 <sup>th</sup> to 100 <sup>th</sup>	<b>0</b>

As clearly detailed above, FWERF has been successful in negotiating attractive fees with its public investment managers. The process for investment manager selection, more thoroughly explained in Section 5 of this report, has likely created significant efficiencies in this area.

The FWERF's use of alternatives and its ability to negotiate attractive fees is also evident by the data presented. While the absolute level of fees still remains much higher than their public counterparts, many of the agreements have been amended to reflect current market pricing and more performance-based compensation for the managers. In addition, the FWERF's use of specialty consultants has likely led to better pricing power than would be otherwise possible.

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While not critical to the analysis, it is notable that a small number of agreements between FWERF and its managers contain performance-based or incentive-based fees. As these fees are generally predicated on some form of outperformance over a specified benchmark, we believe this can help align interests between parties and ultimately provide more attractive outcomes for FWERF.

### **Review of Commissions**

RVK has reviewed the commissions provided by the managers and believe they fall within a reasonable range. However, a true review of commissions could be beneficial and would be provided by a Trade Cost Analysis firm. These reports can reveal trends and overall costs relative to industry averages and peers. TCA providers were once common practice, but with the adoption of “best execution” standards and de-emphasized focus on directed trades, many public pensions discontinued the practice.

### **Overall Fees**

FWERF, like many of their public peers, periodically engages a third-party to evaluate the Fund’s total fee structure which is presented and discussed with the Board. The peer rankings and results of this benchmarking report are largely a function of asset allocation, use of alternatives and active management, and manager fee negotiations. The FWERF overall fees may be slightly higher than some peers, but that is predominantly due to the use of alternatives, rather than fee negotiations with managers.



**Section 4: A review of the retirement  $\Delta$  bX's governance processes related to investment activities, including investment decision-making processes, delegation of investment authority, and board investment expertise and education.**



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### DOCUMENTS REVIEWED:

- ✓ Investment Policy Statement
- ✓ Investment Committee Charter
- ✓ Investment Staff and Investment Consultant Presentations to the IC and Board
- ✓ PRB Training Requirements – Core and Continuing MET Requirements

Our review of the FWERF investment decision-making process indicates it broadly reflects a comprehensive implementation of best practices. More specifically we would point out the following items that support this conclusion.

### The Investment Policy and Investment Decision-making:

Our key observations regarding the manner in which the FWERF Investment Policy addresses investment decision-making follow below. Our overall conclusion is that the Investment Policy addresses all key issues affecting the investment decision-making process. For example:

**Purpose:** *The purpose of the fund and thus the ultimate objective of investment decision-making is clearly spelled out.*

**Consideration of Risk and Return:** *The policy carefully balances addressing both investment return and risk, a feature we believe is critical to prudent investment decisions affecting fund assets.*

**Adherence to Fundamental Investment Principles:** *Throughout the Investment Policy, there are numerous references to reliance on widely accepted and critically important fundamental principles guiding prudent investment decision-making, including but not limited to (1) diversification, (2) a holistic view including not only expected return and risk, but also liquidity needs, contribution policy, and the general context in which investment decisions must be made, (3) the dominant role of asset allocation decisions, (4) a process of systematic fund rebalancing.*

**Clarity of Roles and Delegation:** *The Investment Policy is clear on where investment decision-making authority lies and the assignment of roles and responsibilities to all parties involved in investment decision-making. Critical roles – that of the Board itself, the Executive Director, the Chief Investment Officer, the General (Advisory) Consultant, the Plan's Custodian and asset managers are all directly addressed. The role of the Discretionary Consultant is more challenging to easily comprehend as their key function – authority to make investment decisions independently without consultation or permission from the Board -- largely classifies them in our view as an investment manager. Any potential confusion that might result, however, is partially mitigated by noting that they are subject to all requirements set in the Investment Policy, including those applying to investment managers.*

**Benchmarking:** *The Investment Policy is quite specific – more than some public funds in our experience – in setting for both general and quantitative objectives for fund performance. Total fund benchmarking in our view is the tangible expression of the Board's path toward achieving the purpose of the fund and the context in which investment decisions are made. We believe in this respect, the Board's policy achieves that purpose.*

The Board has adopted a thematic approach to organizing the fund's major investment exposures. While only a minority of institutional investors adopt this approach, it is completely consistent with best practice

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in fund structuring. Supporting this observation is that the Board's benchmarking approach embedded in its investment policy is synchronized with this paradigm.

**Monitoring:** *The Board's processes and requirements for monitoring both fund performance and that of all entities involved in investment decision-making is thorough.* Those aspects of the Board's policy – ranging from comprehensive quarterly performance reports by the Board's General Consultant, mandatory reporting by all investment managers, and highly detailed Watch List policy, etc. – are thorough and comprehensive in our experience.

**Prohibited and Limited Purpose Investments:** *The Board's policy is unusually clear in the delineation of investments that are either prohibited (e.g., crypto-currencies) or limited (derivatives).* This level of clarity provides both guidance to investment managers and protection to the Fund.

### **Roles and Resources Applied to Investment Decision-Making**

Our review of this area focused on the roles and organizational structure outlined in the Investment Policy and Investment Committee Charter. We did not do a granular census of data streams, software applications or professional credentials. However, we are strongly convinced that the Board, through the roles and resources it has in place, has access to the full array of capabilities necessary to the best practices of investment management. Whether we consider asset allocation studies, asset/liability analyses, alternative investment strategies, risk metrics, etc., we believe the Board can access the necessary expertise through its establishment of the following roles:

- Executive Director
- Chief Investment Officer
- The Investment Committee
- Investment Officer & Analyst
- The General Consultant
- Specialty Consultants across multiple asset classes

These roles and resources are standard, in our view, across institutional investors. One somewhat unique aspect of the manner in which the Board has structured its investment organization is the establishment of a formal (and formally chartered) Investment Committee. The use of an Investment Committee is encountered throughout institutional investment organizations but its composition, charter, authority, and operation vary widely. The Investment Committee as structured by the Board is consistent with the Investment Policy, though as is always the case with organizational structures, its successful contribution to investment decision-making depends on execution.

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Figure 4.1: Current List of Trustees (As of Report Creation Date)

Name	Place/Description	Method
Rick Van Houten	Place 01 – Active Police Officer	Elected
Todd Cox	Place 02 – Active Firefighter	Elected
Loraine Coleman	Place 03 – Active General Employee Group C	Elected
Andrea Wright	Place 04 – Active General Employee Group D	Elected
Tom Lewis	Place 05 – Retired Firefighter	Elected
Kevin Foster	Place 06 – Retired Police Officer	Elected
Marsha Anderson	Place 07 – Retired General Employee	Elected
Jesus Payan	Place 08 – Council Appointee	Appointed
Jarod Cox	Place 09 – Council Appointee	Appointed
Steve Litke	Place 10 – Council Appointee	Appointed
Bryan Barrett	Place 11 – Council Appointee	Appointed
Jim Lacamp	Place 12 – Council Appointee	Appointed
Reginald Zeno	Place 13 – Fort Worth Chief Financial Officer	Appointed

### Investment Staff Biographies

**Benita Harper** serves as the Executive Director of the Fort Worth Employees' Retirement Fund, which includes responsibility for all aspects of the day-to-day administration of the Fund, including implementation of Board policy, strategic planning, investment program oversight, benefit administration, stakeholder outreach and staff development. Previously, she served as General Counsel of the Fund, where she administered all internal legal services to the Fund and the Fund's Board, including private equity and hedge fund investments; training and advising the Board on fiduciary issues; and handling all legal issues pertaining to the operation and administration of the Fund. Prior to joining the Retirement Fund, Benita was presiding Judge for Fort Worth's Southwest Municipal Court. Her law career includes work as an attorney with Akin Gump Strauss Hauer & Feld, LLP, as well as the Fort Worth City Attorney's office. She is admitted to practice before the United States Supreme Court and the District Courts. Benita received her Bachelor of Arts, magna cum laude, from Rice University and earned her Juris Doctorate from the University of

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Houston Law School, where she was a Research Editor for the Houston Law Review. Benita is a member of the State Bar of Texas, the American Bar Association, National Association of Public Pension Attorneys, Texas Association of Public Employee Retirement Systems and the International Foundation of Employee Benefit Plans. She enjoys serving the community through the Rotary Club of Fort Worth South, and the Rotary Foundation Board.

**Robert Hulme** has been with the Fort Worth Employees' Retirement Fund since 1998 and currently serves as Deputy Director of Investments and Operations. He oversees the investment team, accounting team, and facilities. He shares responsibility for management of the investment portfolio, including foreign and domestic equity, real estate, fixed income, private equity and hedge funds. Robert began his career with the City of Fort Worth as Senior Accountant with the Retirement Fund. Prior to joining the Fund, he was Accounting Manager at American Airlines for three years, where he was responsible for general ledger accounting for the cargo accounting division, as well as international airport receivables and inter-airline settlements. He earned a Bachelor's Degree in Business Administration in Accounting, with course work in Finance, at the University of Texas at Austin. He went on to earn his Master's Degree in Public Administration from the University of Texas in Arlington. Robert's earned pension credentials include Accredited Investment Fiduciary and a Certificate in Retirement Plans from the International Foundation of Employee Benefit Plans. Robert was named to the 2019 Sovereign Wealth Fund Institute Public Investor 100.

**Branden George** is the Investment Analyst at FWERF, responsible for measuring investment performance and compliance and working with managers, consultants and custody banks. Prior to joining the Fund, Branden served as Manager of Risk, Research and Resolution at First Command Financial Services in Fort Worth. He is a graduate of Texas A&M University, where he earned a Bachelor's degree in Political Science. He is currently a Chartered Financial Analyst Level II candidate and has earned licenses as a Registered Options Principal, General Securities Representative, General Securities Principal and Registered Municipal Securities Principal.

**Christina Wu** is the Investment Officer at the Fort Worth Employees' Retirement Fund with the responsibility of covering all asset classes in the portfolio. Prior to her current position, Christina was Senior Investment Strategist at Toyota North America. In that role, she oversaw the investment portfolio of Toyota Foundation, provided economic/capital markets updates and analysis to senior management, and was solely responsible for the investment and trading of the company's \$10 billion short-term and long-term liquidity portfolio. Christina started her investment career with the Dallas Police and Fire Pension System as an Investment Analyst covering all asset classes. She was later promoted to Investments Manager, heading up the private real estate and private markets investment portfolio totaling over \$1 billion. Christina earned an MBA in Finance at Southern Methodist University, graduating at the top of her class. She is also a CAIA charter holder. In addition to her business degree, she holds a master's degree in Management Information Systems, and a master's degree in Biochemistry.



**Section 5: A review of the retirement fund's investment manager selection and monitoring process.**





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### DOCUMENTS REVIEWED:

- ✓ Investment Policy Statement
- ✓ Due Diligence Questionnaires
- ✓ Due Diligence Reports from Investment Staff and Investment Consultant
- ✓ Site Visit Meeting Notes
- ✓ Investment Staff and Investment Consultant Presentations to the IC and Board
- ✓ Investment Consultant Monthly Performance Summary and Quarterly Performance Report
- ✓ Investment Manager Watch List Report

### PRIMER ON INVESTMENT MANAGER SELECTION

Generally, the process for selecting an investment manager can take the following forms:

- Single manager selection/recommendation.
- “Premier List” or “Bench” Process
- Short-list candidate search.
- Long-list candidate search/request for information.
- Formal request for proposal.

Each of these processes can be appropriate depending on the asset class, size of investment staff, and/or decision making timeline. In every case, the depth of due diligence completed on the manager or managers under consideration should be the same, whether performed by staff, the investment consultant, or both. Decision makers need to evaluate the credibility of every firm, team, process, and performance track record in order to gain the appropriate level of conviction to support a “buy” recommendation. This conviction is gained through document reviews, interviews, and onsite due diligence. Documentation describing the rationale and extent of due diligence should be easily produced to provide a paper trail and justification for any recommendation. Each investment manager selection process is addressed in greater detail below. For simplicity’s sake, it is assumed that all manager hiring decisions are consistent with asset allocation guidelines and broad portfolio construction considerations.

#### Single Manager Selection/Recommendation

Single manager recommendations are most appropriate when time plays a critical role in the decision making process. There are two scenarios where this is most likely to be true. The first, and more common scenario, is during the selection of managers with finite fund-raising windows. The second, less common scenario, is when a plan is looking to implement an opportunistic investment made possible by a short-term market dislocation.

The first scenario is most likely to occur with investment managers in private markets. Examples include private equity, direct real estate, private credit, and some hedge funds. In general, the firms that manage these strategies announce the launch of a strategy, a target level of funds they hope to raise, and a date which the fund will no longer accept fund commitments. Because of the limited window of time clients have to commit to a new fund, pacing studies and general education are done prior to identifying a specific fund. When the right opportunity appears to present itself (asset-class, sponsor, time-line, etc.), deep due-diligence is conducted on that opportunity. If that due diligence confirms the attractiveness of the opportunity, the single manager is presented to decision makers.

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For more opportunistic/tactical investments (exploiting relative valuation differences or regional opportunities, for instance), an existing manager taking on a new mandate or a pre-approved manager may be recommended to invest assets for the limited duration of the opportunity.

### *“Premier List” or “Bench” Process*

This approach is largely dependent on the asset owner and can take a variety of forms. Typically, the asset owner will have a preapproved list of candidates, each of which has undergone the full due diligence process by the Investment Staff and/or Investment Consultant(s).

### *Short-List Candidate Search*

Short-list searches are most appropriate in less complicated asset classes (core/core plus fixed income or large cap equity for example), where a single manager will be hired, the opportunity set is relatively static, or when staff lacks the time, expertise, or both to conduct due diligence and relies heavily on the investment consultant to carry out the investment due diligence function. Not all of these characteristics are necessarily present in each instance.

Typical of these searches, the investment consultant maintains a list of managers in each sub-asset class it rates as “buy” or “positive.” Based on specific client circumstances (vehicle preference, minimum investment size, plan type, etc.) the investment consultant presents a sub-set of this “buy” list for the client to consider. Any manager on this buy list should have gone through rigorous and ongoing vetting by the investment consultant prior to being presented to the client. The client selects an option from the list sometimes with, sometimes without, input from the investment consultant.

### *Long-list Candidate Search/Request for Information (RFI)*

Long-list searches are most appropriate in relatively more complicated asset classes (emerging market debt or international small cap equity for example), where more than one manager will be hired, the opportunity set is dynamic, and staff is dedicated to investment due diligence and monitoring as their primary function. Not all of these characteristics are necessarily present in each instance.

Long-list searches generally start with a set of pre-identified characteristics that candidate managers should possess in order to be considered. Some of these characteristics are required, while others may be preferred. Third-party and internal data-basis are screened on these characteristics to generate the first draft of the “long-list.” Normally, the list is refined based on the industry knowledge of staff and the consultant. During this process managers are added and removed from the list based on this qualitative review of the initial screen. The final long-list of candidates is then sent an RFI. Completed RFIs are reviewed, and sometimes scored, by staff and/or the investment consultant in order to determine a short-list for additional interviews and eventually onsite due diligence. The top candidate(s) from this process are recommended to the board for hire.

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### Formal Request for Proposal (RFP)

A formal RFP process is similar in many ways to the long-list candidate search/RFI. Whereas the long-list search begins with screening a broad, unconstrained, universe of potential candidates, the RFPs starting universe is constrained to those managers that respond to the RFP. Like the long-list search, the list managers that respond to an RFP is narrowed using both required minimum qualifications (MQs) and some set of pre-determined preferred qualifications (PQs). Those managers that meet all MQs and most or all PQs move forward in the due diligence process. This can, but does not always, include a formal scoring of RFP responses by staff and/or the investment consultant. The top responses undergo additional due diligence, including interviews and onsite due diligence. Like the long-list search, the top-candidate(s) are recommended to the board for hire.

RFP search processes are typically utilized when they are mandated by law or by a plan's governing documents. Because of this, RFPs are utilized across various asset classes, staff sizes, mandate sizes, and decision making timelines. In most cases, asset owners that utilize the full RFP process have full investment staffs dedicated to investment manager sourcing and monitoring.

### **FWERF - INVESTMENT MANAGER SELECTION**

It is important to note that the manager selection process is often influenced by the asset class under consideration and thus, it is often appropriate to utilize multiple processes to source and select managers. FWERF'S selection process is no exception and can be broadly categorized into four main groups:

- Public equity, fixed income, and other liquid markets
- Absolute return strategies, including hedge funds
- Real estate strategies
- Private equity strategies

### Public Equity, Fixed Income, and Other Liquid Markets

The FWERF process for selecting investment managers in public equity, fixed income, and other markets closely resembles a "Long List Candidate Search" although has remained flexible in its approach over time. Through a combination of meetings and diligence performed by Investment Staff, plus diligence and databases available through the Investment Consultant, FWERF is able to compile a list of viable candidates for discussion. Typically, the Investment Staff and Investment Consultant will have multiple conference calls to discuss the long list of candidates before narrowing. Once a smaller list has been created, the Investment Consultant creates search documents, which details all relevant details for the candidates, including but not limited to:

- Firm and product information
- Trailing, calendar, and rolling performance
- Trailing, calendar, and rolling absolute and relative risk
- Modern portfolio theory statistics
- In-depth profiles detailing management style, personnel, and asset flows

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Generally this search document is then discussed with the Investment Committee and/or Board, with the goal to identify a smaller subset of managers for further due diligence. Depending on the asset class and the opportunity set, three to five potential candidates are notified of the FWERF's desire for an onsite visit.

The onsite visits include both Investment Staff and Investment Consultant, with the goal to obtain more hands-on working knowledge of each candidate's operations, management style, and overall cohesiveness as a team and firm. Typical onsite visits last anywhere from three hours to a full day and cover topics including, but not limited to:

- Senior management and strategic plans
- Portfolio management and research
- Analyst duties and coverage
- Trading and operations
- Compliance
- IT/disaster recovery

Through discussions between Investment Staff and Investment Consultant, candidate(s) are then invited to present to the Investment Committee. Investment Committee members are given a brief introduction of the candidate(s) by the Investment Staff and Investment Consultant, and are often given a set of questions/topics prior to the presentation by the candidate(s).

The selection of an investment manager will be voted on by the Investment Committee, which serves as the final step before taking the recommendation to the full Board for approval.

### *Absolute Return Strategies, Including Hedge Funds*

As part of RVK's independent review, we contacted the FWERF's specialty hedge fund consultant, Albourne America, LLC. Albourne is a global alternatives consultant, primarily focusing on hedge funds, but with meaningful exposure to illiquid alternatives, as well. Albourne serves as a non-discretionary consultant with the FWERF, overseeing approximately \$277 million of hedge fund assets based on December 31, 2019 market values.

Albourne is integral in the manager selection process for the FWERF and has provided the following information as part of this review:

*Albourne's due diligence is based on our independent rating scheme. Factors are evaluated by the relevant IDD or ODD Analyst, including manager's personnel and organization, investment philosophy, investment style(s) and products, research capabilities, financial condition, assets under management, type of clients, client service, back office capabilities, management fees and carried interest. The manager due diligence process can be summarized as follows:*

- Scan universe for new opportunities daily via news, announcements, and word of mouth
- Ascertain trends and best practices
- Enter opportunities into Albourne database
- Assign responsibilities
- Screen strategy

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- Review Albourne legacy information
- Initiate contact with managers
- Review materials
- Screen against peers
- Have initial call or meeting & log notes
- Begin report draft
- Examine key issues & strengths
- Conduct onsite meeting
- Hold additional calls to answer questions
- Complete report
- Present to Committee(s)
- Refine report as needed
- Publish in database
- Update database for:
  - Monthly/ quarterly data
  - News, periodicals
  - Newsletters & memos
  - Quarterly summary
- Update report as needed

*Albourne's overall approach is to perform ODD on a broad range of funds, and make ODD reports available to clients online at any time. We do not keep a narrow "positive list" of funds; rather our philosophy is to have an open door policy whereby we will review any fund on request subject to our resources and availability.*

Overall, we believe Albourne provides top-tier investment manager selection support to the FWERF. Hedge funds and other absolute return strategies are complex and require a unique set of skills and professionals; Albourne has invested in both human and technological capital, allowing it to assist the FWERF in its mission to find attractive investment opportunities in a heterogeneous asset class.

### Real Estate Strategies

As part of RVK's independent review, we contacted the FWERF's specialty real estate consultant, Alignium, LLC. Alignium is Chicago based boutique alternatives consultant, primarily focusing on real estate and real assets consulting with approximately \$11 billion of client capital under advisement. Alignium serves as a non-discretionary consultant with the FWERF, overseeing approximately \$205 million of core and non-core real estate assets based on December 31, 2019 market values.

Alignium is integral in the manager selection process for the FWERF and has provided the following information as part of this review:

*Alignium does not maintain a list of pre-approved managers. As part of our selection process, we draw upon our proprietary network and database of approximately 300 different managers we meet with on an annual basis, across all real estate strategies. Except in very rare instances, we do not perform formal RFP/RFI processes on behalf of our clients.*

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*On at least a weekly basis, our team discusses all manager meetings that have taken place during the prior week and the highlights of the firm, their strategy, macro outlook, and perceived pros and cons are tracked within our internal CRM system and manager database. During this meeting, a preliminary determination is made whether to pursue further diligence based on attractiveness of the investment opportunity and whether it is appropriate for any of our clients. If an opportunity is deemed appropriate, it becomes a "Stage 1" opportunity. During this stage of diligence, Alignium professionals may review fund documentation (LPA, PPM, etc.) as well as other proprietary materials including, but not limited to a due diligence questionnaire and historical performance information. Any investments which Alignium deems potentially attractive for recommendation to clients and are compatible with current client portfolios become "Stage 2" opportunities and are subject to further scrutiny. In this stage of diligence, Alignium will perform an exhaustive due diligence review, covering various quantitative and qualitative aspects of each potential investment opportunity. Our diligence/vetting process typically covers:*

- *Corporate Governance Items*
- *Track Record Review*
- *Legal Reviews*
- *Site Visits*
- *Reference/Background Checks*
- *Property-Level Diligence*

*From start to finish, our due diligence process typically takes between three (3) and six (6) months (but can take upwards to two (2) years in certain circumstances), in order to focus on all elements necessary to make a well supported investment recommendation and to negotiate the most favorable terms for the benefit of our clients.*

*If there is client interest in an opportunity and the investment opportunity proceeds through the firm's vetting process, it is brought to our internal Investment Committee for a vote. At this point, a recommendation is vetted and scrutinized. The opportunity is voted on and either approved, or declined. If approved, the recommendation is made to the client. It is important to note that an investment opportunity for one client may not be suitable for other clients. Alignium serves in a non-discretionary capacity and as a result, individual client commitments are contingent on formal client approval.*

The manager selection process is custom to the FWERF and includes a variety of different inputs from both Specialty Consultant and Investment Staff. The total real estate portfolio is split fairly evenly between open-end core real estate funds and closed-end private funds; the vast majority of Alignium and Investment Staff's time dedicated to the asset class is focused on private funds, as those require consistent underwriting and commitments to keep up with overall target allocations.

### Private Equity Strategies

The FWERF private equity program utilizes Hamilton Lane as its discretionary investment consultant and has done so for over 10 years. While the FWERF Investment Staff plays a role in the direction of the PE program, its influence is more present in overall pacing and a final legal review as opposed to direct manager selection. RVK works closely with Hamilton Lane on a regular basis, but also interfaced with their service team specific to this report. Hamilton Lane also provided RVK with a detailed process document outlining its manager selection process, excerpts of which can be found on the following page:



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Hamilton Lane's due diligence process is multi-tiered and places significant emphasis on those elements of risk and financial analysis that distinguish the private markets from the more conventional asset classes. The same thorough and time-tested process is utilized for every opportunity regardless of prior investments with the general partner. Our due diligence approach ensures that every important area of analysis is thoroughly reviewed, and it also provides the flexibility to discover new and/or unique areas of potential concern and opportunity. Our due diligence process typically lasts three months from initial screening to final investment recommendation but can be completed in less time depending on our familiarity with the general partner. The process includes the following steps:



Once a screened investment has been approved, preliminary diligence is conducted to delve into details surrounding the fund's most important attributes. A meeting is held with the fund manager in Hamilton Lane's offices, allowing members of our investment team to ask questions regarding the group's investment philosophy, process and view of the market opportunity. Meeting notes are presented to the Investment Committee to decide whether to continue to the next step in the process.

## Full Diligence

A detailed questionnaire, customized for the type of fund under diligence, is issued to the manager for completion and will form the basis of the full due diligence report. We also utilize information gathered from in-office general partner visits, site visits, and reference calls. During the full diligence phase, we focus on the following:

### Track Record Analysis

Assessing investment acumen requires both a quantitative and a qualitative approach. Our quantitative process includes thorough analysis of the general partner's track record, utilizing our proprietary models to identify drivers of success in the past and potential for replicating that performance in the future. We revalue unrealized portfolio companies to ensure that the track record is a true representation of the value of the portfolio. We analyze the track record along multiple dimensions -- deal size, lead investment professional, industry, geography, etc., to determine whether there are any trends or anomalies that are driving returns. We also run a value creation analysis to determine how much of the value generated for each company has come through debt reduction, multiple expansion or EBITDA increase.

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### *Team/Organization*

*From the compensation, development and retention of the general partner's personnel to the back office resources and compliance procedures, it is important to understand how well organized a firm is and that the proper processes and procedures have been implemented to ensure that our clients' capital is safeguarded. The goal is to find a team that can select attractive investments, provide support to enhance those investments during the holding period, and build and manage a well-run organization suited to a long-term asset class. Finding good managers is not sufficient. Our objective is to find the best managers globally.*

### *Site Visits*

*We will conduct a day-long site visit at the manager's office to go through, in detail, the group's track record, portfolio companies and investment strategy/philosophy. Further, this allows us to meet and evaluate the entire team. During meetings at our offices and on-site visits, we seek to meet as many members of the team as possible, as their individual abilities and collective cohesion are often crucial drivers of success. Understanding how staff is developed and compensation distributed across the organization, how the future direction of the firm is considered, and the positioning of the firm in the current market are all crucial to forming a judgment as to the caliber of the organization.*

### *Reference Calls*

*Reference calls go beyond calling from the list provided by the general partner to our large professional network of contacts. We speak with people who have worked directly with the general partner on deals as well as people who have invested in and/or alongside of them and/or competed directly against them on deals. We connect with a diverse set of references to understand how the general partner operates in various capacities. For example, a limited partner may have had a very different experience than the CEO of a portfolio company, and former employees can provide insights not available elsewhere. Assimilating these disparate perspectives gives us a view of the character and quality of the individuals who make up the general partner group.*

### *Decision Making*

*Rather than having one individual responsible for the direction of the fund, the Investment Committee is at the center of our investment decision-making process. Without exception, every investment opportunity that is received is presented to the Investment Committee. As an investment moves through the diligence process, it is brought back to the corresponding committee after each point of contact with the general partner in order to provide updates on the analysis and to gain approval to move forward. Over the course of due diligence, all issues are discussed prior to the final decision. For final approval of an investment, the designated Investment Committee requires a majority. Investments are deemed approved unless more than two Investment Committee member vote against it. These steps prevent any one individual from having undue influence on an opportunity throughout the process. All work during preliminary and full diligence phases is geared toward evaluating the viability of an investment using both a qualitative and quantitative approach. The resulting final report will be reviewed by the Investment Committee and a final decision will be made.*

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Hamilton Lane provides a thoughtful and thorough manager selection process with multiple checks and balances present throughout. In our opinion, Hamilton Lane exhibits notable strength in Operational Due Diligence, which requires a different skillset and personnel from traditional manager selection, especially in public markets. Operational due diligence is often overlooked, but provides the FWERF an additional risk mitigation tool in an asset class with numerous risks otherwise hard to quantify. A summary of Hamilton Lane's operational due diligence can be found below:

## Operational Due Diligence

*In addition, we perform a full operational diligence review each time an investment manager raises a new fund that our Investment Committee approves for full diligence. Hamilton Lane's operational due diligence efforts are led by our dedicated Operational Due Diligence ("ODD") team, with oversight by our Head of Compliance, Risk and Strategic Integrations, Fred Shaw. The ODD Team is a part of our 16-member Compliance & Risk Management group, reflected in the diagram below:*



*Our dedicated ODD Team is independent of our investment due diligence team with a separate reporting line to our CEO. Our ODD process entails issuing a questionnaire to each manager, which focuses on the manager's policies, procedures, and controls within the following key operational areas:*

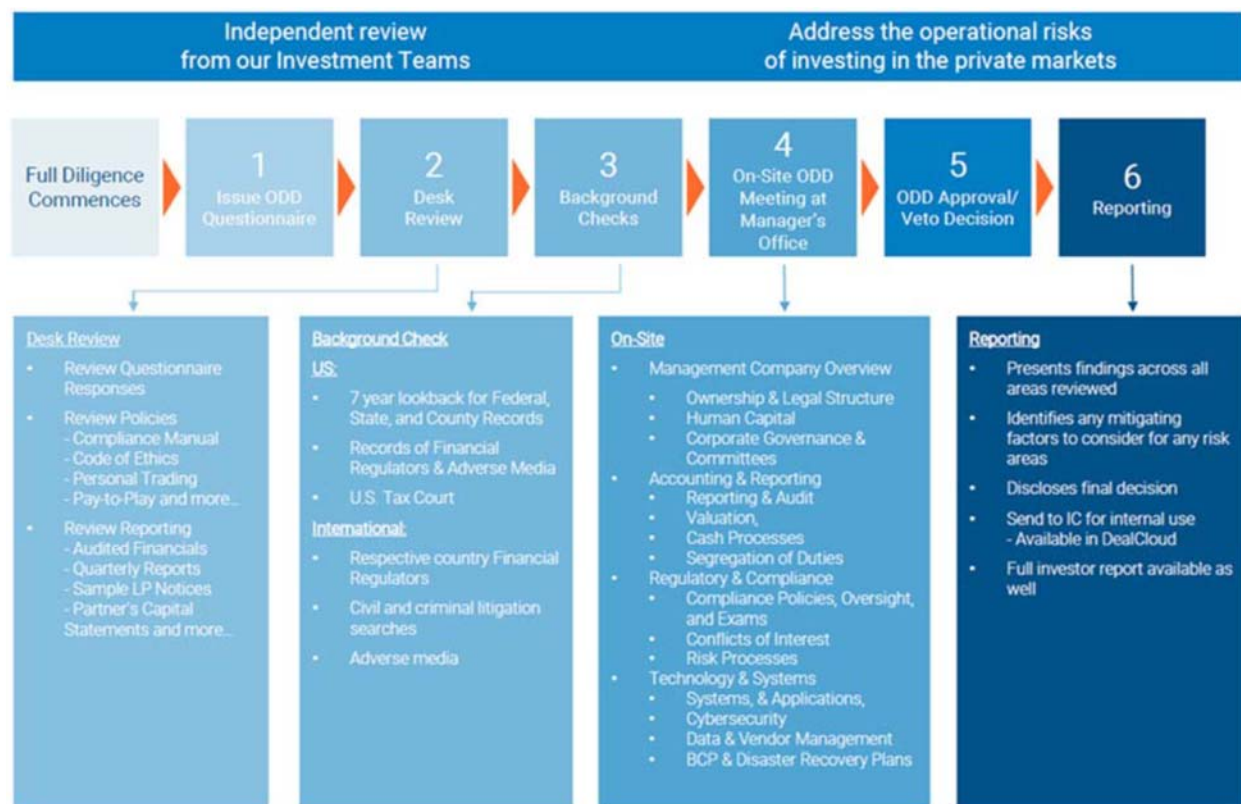
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- Accounting and valuation
- Legal and compliance
- Internal oversight and governance
- Staff and service providers
- Technology

In addition, we request that manager's provide their valuation policy, compliance manual, code of ethics, recent correspondence from regulators, internal and third-party independent exams of internal controls, auditor management letters, litigation questionnaires, recent financial statements, and other applicable policies and procedures. In order to assess the operational and reputational risk of each opportunity, background checks are also conducted on key executives by a third-party service provider we have engaged. A member of the team reviews the responses to the questionnaire and the documentation noted above and prepares a findings memo to discuss with the ODD deal lead assigned to the opportunity. Importantly, the ODD Team has independent authority to veto investment opportunities. Finally, the findings memo is discussed with the manager along with a review of the manager's key operational areas.

Provided below is an overview of the operational due diligence workflow.



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## **FWERF - INVESTMENT MANAGER MONITORING**

The FWERF IPS details reporting requirements for the General Consultant, Specialized Consultant, and Investment Managers:

### **General Consultant Reporting**

*The Fund's General Consultant will provide quarterly reports to the Trustees which, at a minimum, will review the following information about each Manager and the Total Fund:*

- *Overview of the most recent quarter and year-to-date investment indicators;*
- *Total Fund asset allocation;*
- *Attribution of investment return (income, capital appreciation or loss);*
- *Performance results by individual manager and Total Fund compared to appropriate benchmarks.*

### **Specialized Consultant Reporting**

*The Fund's Specialized Consultant(s) will provide at least semi-annual reports to the Trustees, which at a minimum, will review the following information about each Manager and the Total Program:*

- *Overview of the most recent quarter and year-to date investment indicators;*
- *Performance results by individual manager and Total Program compared to appropriate benchmarks.*

### **Investment Manager Reporting**

*Each Manager will provide the Investment Staff and the Advisory Consultant with a quarterly report of their activity no later than thirty (30) days after the end of a quarter. Each report will contain the following information:*

- *Beginning asset value at cost and market.*
- *Ending asset value at cost and market. New contributions should be separately identified. Asset listings should include appropriate information on each equity security position to include name, number of shares, dividend yield, cost, market, current gain or loss and industry or sector. Debt security information should include name, position size, cost, market, coupon, maturity, rating, yield, current gain or loss.*
- *Securities sold and purchased during the quarter.*
- *Quarterly, year-to-date, and since-inception performance results.*
- *Written discussion of most recent quarterly results and near-term investment strategy.*
- *Brokerage fees for the quarter and year-to-date by brokerage firm utilized, including average cents-per-share and total commission dollars expended.*
- *The name and responsibility of key personnel, if any, who have been hired or terminated from the organization. The Manager is to provide verbal and written notice to Investment Staff within ten days from the date a key person is hired or terminated.*

The reporting requirements are clear and concise, with additional details provided for alternative asset classes in Appendixes B, C, and D. During RVK's review of reporting provided by each entity, we note



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that each report is thorough and at a minimum contains all items required by the IPS.

The FWERF IPS also details a manager "Watch List" process and report, which applies to all managers in the various asset classes in high growth, growth, diversification, capital preservation, and inflation. The watch list criteria is split between quantitative and qualitative factors:

### Quantitative Factors:

- Test 1 If the Manager's rolling, five-year return (net of fees) falls below the rolling, five-year benchmark return for three (3) consecutive quarters.*
- Test 2 If the Manager's rolling, five-year return (net of fees) for three (3) consecutive quarters ranks in the bottom third of the Advisory Consultant's peer group universe.*

### Qualitative Factors:

- *Violation of investment guidelines*
- *Deviation from stated investment style and/ or shifts in the firm's philosophy or process*
- *Turnover of one or more key personnel*
- *Change in firm ownership or structure*
- *Significant loss of clients and/or assets under management*
- *Significant and persistent lack of responsiveness to client requests*
- *Litigation*
- *Failure to disclose significant information, including potential conflicts of interest*
- *Chronic violations of the Fund's Investment Policy*
- *Any other issue or situation of which the Investment Staff, the Advisory Consultant and/or Committee/Trustees become aware that is deemed material.*

It is important to note that the FWERF Watch List does not necessarily require any additional action beyond reporting, but does increase the scrutiny placed on the manager(s) in question. A certain amount of discretion is warranted surrounding manager terminations and the current language and practice balances the need for additional monitoring without forced action. Managers may be added to the Watch List at the discretion of the Investment Committee or Board, but typically requires input from both Investment Consultant and Investment Staff. Additional criteria are detailed relating to removing a manager from the Watch List; however, these criteria are long-term in nature to avoid continuous additions and removals. The Investment Committee and Board receive a copy of the Watch List report for public asset classes on a quarterly basis.

Beyond what is detailed in the IPS, a critical piece of manager monitoring is ongoing due diligence performed by both the Investment Consultant(s) and Investment Staff. This process includes conference calls, site visits, in-house meetings, and presentations to the Investment Committee and/or Board. The Investment Staff has detailed due diligence reports on current managers, which are completed biannually and presented to the Investment Committee. These reports serve as the base for the FWERF's ongoing monitoring program, which is supplemented by materials provided by the Investment Consultant(s). This process allows for multiple opinions and analyses, leading to a more thorough and complete view of the manager and its mandate. RVK also reviewed the manager monitoring practices and policies put in place at each Investment Consultant retained by the FWERF and found each consultant to have a thorough and



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systematic approach.

The Investment Staff has intimate knowledge of managers currently in the portfolio, but also has adequate outside resources to conduct additional due diligence and monitoring as needed. The combination of Investment Consultants and longstanding relationships with managers allow the Investment Staff the tools and resources needed to stay apprised of material changes to any manager in the portfolio.

### **RVK RECOMMENDATIONS**

- **Consider the addition of details surrounding a formal review process for managers.**
  - The current practice has been in place and functioning well for many years, but could be documented either in the IPS or a new “implementation policy” as previously recommended.
- **Consider the separation of reporting requirements by asset class, rather than by consultant.**
  - Different asset classes require different forms of reporting and level of detail. The current language indirectly implies that asset classes will line up directly with General and Specialized Consultants, which may not always be the case.
- **Revisit Watch List language for alternative asset classes.**
  - Many alternatives – namely anything with a capital call structure – should have a different form of performance measurement, which would also require unique language for inclusion or removal from the Watch List.

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## Appendix A: Background of RVK Project Team Members



### **Spencer Hunter – Senior Consultant, Principal**

*Spencer joined RVK in 2008 and is located in our Portland office. In 2014, he was promoted to Consultant, in 2017, he was named Department Manager of our Associate Consultant/Investment Associate group, and in 2019, he was promoted to Senior Consultant.*

*Spencer's career at RVK has been focused on providing investment consulting advice to many of the firm's endowment and foundation, public fund, Taft Hartley, and sovereign wealth fund clients. His responsibilities include asset allocation and policy setting, investment manager research and due diligence, forward-looking capital market assumptions, asset class portfolio structuring, and many of the firm's internal research projects.*

*Spencer graduated cum laude from Linfield College with a degree in Finance. He is a shareholder and serves on the firm's Board of Directors.*



### **Janelle Booth, CFA – Consultant**

*Janelle joined RVK in 2011 and is located in our New York office. She has held various roles at RVK, including Senior Investment Analyst, Investment Associate, Associate Consultant, and currently, Consultant.*

*Janelle serves many of the firm's public fund clients as well as endowments and foundations, defined contribution plans, and health organizations. Her responsibilities include asset allocation, investment manager research, forward-looking capital market assumptions, asset class portfolio structuring, and client education presentations.*

*Janelle graduated magna cum laude from the University of Portland with a Bachelor of Business Administration degree in Finance and a minor in Economics. She holds the Chartered Financial Analyst designation and is a member of the CFA Institute and the CFA Society of New York.*

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**Jake Derrah – Investment Associate**

*Jake joined RVK in 2013 and is located in our Portland office. He was hired as an Investment Analyst and currently serves as an Investment Associate.*

*Jake works with a diverse client base including public and corporate pensions, defined contribution plans, endowments and foundations, health organizations, and sovereign wealth funds. As a member of our consulting team, Jake works on a variety of projects including asset allocation studies, manager structure analyses, investment manager evaluation, client education presentations, and portfolio rebalancing.*

*Jake graduated cum laude from Oregon State University with a Bachelor of Business Administration degree in Finance and Marketing.*



**Jim Voytko – President, Director of Research, Senior Consultant, Principal**

*Located in our Portland office, Jim serves as President, Director of Research, and as a Senior Consultant with RVK. He joined the firm in 2004 and has nearly 40 years of industry experience. As a Senior Consultant, Jim has worked with both public and corporate DB plans, foundations and endowments, and insurance funds. A sought after public speaker, Jim has delivered original presentations on multiple topics at numerous institutional investment conferences. He is involved in multiple aspects of RVK's specialty consulting practices, most notably Asset/Liability studies and Board governance/investment program structural reviews. Jim's research responsibilities are focused primarily on capital markets issues and*

*investment decision-making.*

*Prior to joining RVK, Jim served as the CEO/Executive Director of Oregon's statewide pension Fund for all employees of state and local governments, police and fire, teachers and higher education, statewide retiree health care insurance program, and statewide 457 deferred compensation program. He also served on the five-member Oregon Investment Committee, which directed the investment of all statewide funds totaling approximately \$45 billion.*

*Jim's experience also includes serving as Director of Research for PaineWebber, CIO and Managing Director of PNC Asset Management Group/PNC Advisors, and the Deputy Director and Chief Operating Officer of PaineWebber's Investment Banking Division. Jim earned his Bachelor of Arts degree from*

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Carnegie Mellon University, a Master of Public Administration degree from the University of Washington, and Master of Public Policy degree from Harvard University. Jim is a shareholder of the firm and serves on the firm's Board of Directors.



**Marcia Beard – Senior Consultant, Principal**

Marcia is a Senior Consultant with RVK and is located in our Portland office. She joined the firm in 1996 and has 40 years of experience in the investment consulting and asset management industry.

As a Consultant, Marcia has extensive experience working with corporations, government entities, and endowments and foundations. Her experience includes developing investment policy statements, formulating asset allocations, developing and implementing asset class manager structure, conducting manager searches, performance attribution and monitoring, and ongoing investment manager due diligence. Prior to joining RVK, Marcia was a Vice President and Team Leader for U.S. Bank of

Oregon's Corporate Asset Management Team. Earlier in her career, Marcia was an Assistant Vice President at Oregon Bank and worked for U.S. National Bank of Danville, Illinois.

Marcia graduated cum laude from the University of Illinois, earning a Bachelor of Science degree in Agriculture Economics. She is a shareholder of the firm.



**Joe Ledgerwood, CFA – Director of Investment Manager Research, Principal**

Joe joined RVK in 2010 and is located in our Portland office. As RVK's Director of Investment Manager Research, he leads our team of Research Consultants who serve as practice experts for their assigned asset class. Each Consultant determines the most appropriate managers for each client assignment as well as the efficacy of firms currently managing assets for clients. He previously served as Director of Equity Research with coverage across regions, both active and passive.

Prior to joining RVK, Joe worked for a Portland-based registered investment advisor as a portfolio manager, research analyst, and trader.

Joe is a graduate of the University of Portland and has a Bachelor of Business Administration degree (maxima cum laude) with a concentration in Finance. He also holds the Chartered Financial Analyst designation and is a member of the CFA Society of Portland. He is a shareholder of the firm.

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***Jonathan Kowolik – Senior Consultant, Head of IOSG, Principal***

*Jonathan is a Senior Consultant with RVK and is located in our New York office. He joined RVK in 2001 and is currently the practice leader for the RVK Investment Operations Solutions Group. This group has primary responsibility for providing project consulting and research including search and evaluation projects for trust/custody providers, recordkeepers, securities lending programs, transition management, and other operational consulting projects.*

*Jonathan serves as a dedicated resource to many of the firm's largest client relationships while also holding a consulting and advisory role within the general RVK consulting organization.*

*Jonathan earned his Bachelor of Science degree in Economics with dual concentrations in Management and Finance from the Wharton School at the University of Pennsylvania. He is a shareholder of the firm.*

***Julie Maybee – Senior Investment Analyst, Team Leader***

*Julie joined RVK in 2018 and is located in our Portland office. She currently serves as both a Senior Investment Analyst and Team Lead.*

*As a member of our Performance Measurement and Analytics department, Julie works on a variety of client types and focuses on preparing customized performance reports, assisting with portfolio rebalancing, and leading a team of other investment analysts.*

*Julie graduated from the Linfield College with a Bachelor of Arts degree in Finance.*