Callan

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Austin Firefighters Retirement Fund

Investment Practices and Performance Evaluation

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Introduction

Callan LLC

- Callan was founded as an employee-owned investment consulting firm in 1973. Today, the firm serves sponsors of defined benefit and defined contribution plans, endowments, foundations, insurers, hospitals, health care systems, and nuclear decommissioning trusts, as well as other large institutional asset pools. Callan's institutional investor clients oversee more than $4.5 trillion in combined assets for which the firm provides discretionary and non-discretionary services.
- The Austin Firefighters Board of Trustees hired Callan, an independent, third-party, investment consultant, to conduct an Investment Practices and Performance Review on behalf of the Austin Firefighters Retirement Fund (AFRF) in accordance with Texas Government Code §802.109. The following documentation was obtained and reviewed in order to complete the review:
  - Pension Statute, Bylaws, and other Governing Documents
  - Investment Policy Statement
  - Operating Procedures
  - Asset Allocation and Asset-Liability Studies
  - Investment Management Fee Reviews
  - Meeting Minutes
  - Quarterly Performance Measurement Reports
  - Manager Search Due Diligence Reports
  - Annual Financial Reports
  - 2022 Actuarial Valuation
- As part of the review process, Callan also conducted due diligence interviews with several Board members, Fund staff and AFRF's ongoing investment consultant, Meketa. Meketa has a multi-year contract with AFRF and assists the Board on asset allocation, manager selection and monitoring, performance reporting and investment governance.

- Callan was retained by the Board through a competitive bid process and has no other relationships with the Fund’s Trustees or Staff. As requested through the bid process, Callan will be paid a flat fee upon completion and submission of the review.
- Callan does not believe there to be any potential or the appearance of conflicts of interest.
- The following areas were included in the review process and Callan had minor suggestions where it felt enhancements could be made to documents or processes:
  - An analysis of any investment policy or strategic investment plan adopted by AFRF, and its compliance with that policy or plan.
  - A detailed review of AFRF’s asset allocation, including 1) the process for determining target allocations 2) the expected risk and return, categorized by asset class 3) the appropriateness of selection and valuation methodologies of alternative and illiquid assets and 4) future cash flow and liquidity needs.
  - A review of the appropriateness of investment fees and commissions paid.
  - A review of AFRF’s governance processes related to investment activities, including investment decision-making processes, delegation of investment authority, and Board investment expertise and education.
  - A review of AFRF’s investment manager selection and monitoring process.

IPPE Summary Matrix

Investment Practices and Performance Evaluation – Summary Matrix

Summary	Current Status	Opinion / Comments
Investment Policy	●	– The Austin Firefighters Retirement Fund maintains a thoroughly written Investment Policy Statement that includes investment goals and objectives, roles and responsibilities, asset allocation ranges, a rebalancing policy, investment guidelines and restrictions, and statements describing the risk tolerance, time horizon, and liquidity requirements of the Fund. It also maintains Operating Procedures that include asset class assumptions, broad and sub-asset class allocation targets, manager selection and termination procedures, fee reconciliation and payment, performance objectives, asset class guidelines and a class action policy. **Compliance with the documents appears adequate.** – The IPS is reviewed at least annually. – **AFRF may consider: 1) combining the IPS and Operating Procedures into a single document 2) including all Fund level benchmarks used in reporting in the documents 3) including a fee management philosophy.**
Asset Allocation	●	– Asset allocation is reviewed annually by the Board and Meketa with the last review in May 2023. – Meketa uses 20-year capital market projections and mean variance optimization to model the asset allocation and evaluate the most efficient mix of assets at a given level of return. – Assets are allocated in accordance with the Fund's risk and return objectives as outlined in the Investment Policy Statement and the asset allocation documented in the Operating Procedures. The assets are appropriately diversified and maintain sufficient liquidity to meet obligations. – **While the Board has requested the investment consultant review the impact of different scenarios on funded ratio and liquidity, it has not conducted a full asset-liability study in the last five years. The Board should consider a full asset-liability study, which integrates different asset allocation mixes and market scenarios with their potential impact on all aspects of the Fund's liabilities (i.e. funded ratio, contribution expectations, amortization period, etc.).**

● – Within Expectations (No concerns)
● – Notable (Noteworthy but no concerns)
● – Cautionary (Noteworthy with concerns)
● – Under Review (Action Required)

Investment Practices and Performance Evaluation – Summary Matrix

Summary	Current Status	Opinion / Comments
Investment Fees	●	– AFRF's Board annually reports on direct and indirect management fees, brokerage fees, and profit share, in compliance with PRB requirements. **Consider a formalized procedure to document performance-based fees.** – Custodial fees, investment consulting fees, and brokerage fees/commissions seem competitive when compared to industry averages. – AFRF's investment management fees appear above industry averages when compared to funds of similar size. However, when considering the asset allocation of the Fund, fees align closely with peers. An annual fee analysis that includes fee benchmarking may be beneficial in assessing the reasonableness of current fees. – AFRF has reduced investment management costs through strategic allocations to passive management and direct investments, demonstrating a proactive approach to fee optimization. – **Consider adding language to the IPS outlining the frequency and requirements of fee benchmarking. Texas law only requires the reporting of absolute investment management fees, which may not provide stakeholders the appropriate context. An annual fee analysis may be beneficial for monitoring manager fees and assessing reasonableness compared to peers.**
Governance Process	●	– AFRF has established a robust governance framework that is outlined in various policies and statutory regulations, ensuring that all operations are carried out with high standards of accountability and transparency. – The governance structure clearly defines the responsibilities of the Board of Trustees, including fiduciary oversight, investment implementation, and ensuring compliance with governance policies. – Governance documents, meeting minutes, annual reports, and investment reports are publicly available on the Fund's website, demonstrating a commitment to transparency and stakeholder engagement. – **The governance process is consistent with industry best practices and many other public funds.**

● – Within Expectations (No concerns)
● – Notable (Noteworthy but no concerns)
● – Cautionary (Noteworthy with concerns)
● – Under Review (Action Required)

Investment Practices and Performance Evaluation – Summary Matrix

Summary	Current Status	Opinion / Comments
Investment Manager Selection & Monitoring	●	– AFRF has a robust process for manager search and selection where the Board is ultimately responsible for selection but generally relies on Meketa, to lead the search process and identify appropriate candidates. – The Board reviews each candidate with Meketa and then chooses finalist candidates for due diligence interviews. The Board makes its selection based on its confidence in the qualitative and quantitative factors presented. – AFRF monitors each investment manager on an ongoing basis, utilizing a performance report produced by Meketa that is reviewed with the Board. Investment results are presented quarterly but can be done more frequently as necessary. The reports show Total Fund, asset class composites and individual managers against appropriate benchmarks over multiple time periods. Total Fund and manager returns are also compared against appropriate peers. – Meketa uses a third-party performance platform, which takes custodial and manager information to calculate performance. The system uses Modified Dietz to calculate performance for public market investments and the dollar-weighted Internal Rate of Return for private market investments. – **Both AFRF's investment manager search and monitoring processes are consistent with best practices and similar to many comparable public pension plans.**
Overall Assessment	●	– **AFRF's investment policy, asset allocation, investment fees and commissions, governance process, and manager search and monitoring procedures appear sufficient with no material issues at this time.**

● – Within Expectations (No concerns)

● – Notable (Noteworthy but no concerns)

● – Cautionary (Noteworthy with concerns)

● – Under Review (Action Required)

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Investment Policy Evaluation

Statement of Investment Policy - Summary

One of the most important actions a Board can take is to develop, follow, and periodically review an investment policy statement (IPS), which should be an active document and provide a “road map” for the ongoing prudent management of the Fund. AFRF has a clearly articulated IPS that outlines the primary goals and objectives of the Fund, investment guidelines and limitations, fiduciary responsibilities, and a rebalancing policy. The policy also clearly delineates the roles and responsibilities of the Board of Trustees, staff, the investment consultant, investment managers, and the custodian. AFRF’s IPS is regularly reviewed and includes a record of all revision dates back to adoption in 2002.

Key observations from Callan’s analysis include:

- The IPS is clear and serves as an effective guide that offers an objective course of action.
- Between the IPS and the Operating Procedures, AFRF’s policies incorporate the primary components outlined by the CFA Institute. However, several key elements generally included in an IPS are outlined in the AFRF Operating Procedures, which is not made publicly available on the website.
- The IPS outlines the Fund’s core investment objectives and beliefs:
  - The purpose of the Fund is to provide sufficient return and liquidity to pay the benefit obligations of the Fund on a timely and regular basis.
  - The Fund seeks to achieve consistent growth and limit excessive volatility.
  - Asset allocation is the primary tool in achieving investment goals.
  - The Fund has a long-term investment horizon and should emphasize long-term (20-years or more) returns over short-term fluctuations.
  - The primary return objective is to achieve a high likelihood of attaining a 7.3% nominal return over a long-term time horizon.
- The primary risk objectives are to:
  - Accept the minimum level of risk required to achieve the Fund’s return objective.
  - Minimize the likelihood of experiencing a loss over any full market cycle.
  - Use diversification to minimize exposure to company and industry-specific risks.
- The IPS does not outline a process for conducting integrated asset-liability studies.

Statement of Investment Policy Evaluation

Does the Fund have a written Investment Policy Statement (IPS)?	●	– The Austin Firefighters Retirement Fund (the "Fund") maintains a thoroughly written Investment Policy Statement (the "IPS") that includes investment goals and objectives, roles and responsibilities, asset allocation ranges, a rebalancing policy, investment guidelines and restrictions, and statements describing the risk tolerance, time horizon, and liquidity requirements of the Fund.
Is the IPS readily available to stakeholders?	●	– Yes, the IPS is available at afrfund.org.
Is the IPS reviewed regularly and revised to reflect changes to the Fund?	●	– The IPS dictates that the Board will formally review the Policy annually. • The IPS was reviewed at the February and May Board meetings in 2023. • The IPS was revised in 2022 and 2021. – **Consider outlining key IPS and Operating Procedure changes in the meeting minutes. 2022 meeting minutes (the most recent IPS revision is dated February 2022) reflect motions made to approve the changes without providing detail of those changes.**
Is the policy written clearly and explicitly for fiduciaries and decision makers to follow and implement?	●	– The IPS is clear and serves as an effective guide that offers an objective course of action.
Is there evidence that the system is following its IPS? Is there evidence to the contrary?	●	– Yes, it appears that AFRF is in compliance with the IPS. • No exceptions were noted.
Does the IPS include the primary components outlined by CFA Institute guidelines? **(Continued next slide…)**	●	– Between the IPS and the Operating Procedures AFRF's policies incorporate the primary components outlined by the CFA Institute. – **Consider combining the IPS and Operating Procedures.** – **If they cannot be combined, consider moving and/or adding the following elements to the IPS:** • A list and description of investible asset classes; • A strategic asset allocation framework outlining asset class targets and allowable ranges; • Performance benchmarks for sub asset classes and total policy benchmark. • Manager selection and termination documentation; • An outline of the process, including timeline, used by the Board to evaluate the ongoing appropriateness of all managers and asset classes. – **If some of these elements are expected to need frequent updating, consider including them in an appendix to the IPS, which will have a less procedural review process to update than the rest of the Policy.** – **Consider making the Operating Procedures available to stakeholders.** – **Consider documenting all fund-level benchmarks used in performance reporting in the policy documents. This will allow stakeholders to understand the rationale of including each benchmark and the construction methodology. Currently, two of the total fund benchmarks used in performance reports are not outlined in the policies.**

Statement of Investment Policy Evaluation

Does the IPS include the primary components outlined by CFA Institute guidelines? **(…Continued)**	●	– **Consider adding an investment management fee philosophy that outlines how the Board considers fees when seeking to achieve the most attractive risk-adjusted net return for the Fund.** – **It appears the Operating Procedures III. Asset Allocation Targets may be intended to reference Section VII instead of Section VI in the IPS.**
Does the policy follow industry best practices? If not, what are the differences?	●	– The IPS is generally aligned with industry best practices.
Are the roles and responsibilities of those involved in governance, investing, consulting, monitoring and custody clearly outlined?	●	– The IPS clearly defines the roles and responsibilities of the Board of Trustees, staff, investment consultant, investment managers, and the custodian.
Does the IPS outline the key tenets of the Board's investment beliefs and objectives?	●	– Yes, the IPS emphasizes the following core investment objectives and beliefs: • The Fund seeks to achieve consistent growth and limit excessive volatility. • Asset allocation is the primary tool in achieving investment goals. • The Fund has a long-term investment horizon and should emphasize long-term (20-years or more) returns over short-term fluctuations. – **We understand that the Board is updating the IPS to include its philosophy on active and passive management.**
Does the IPS address current Pension Review Board statutes?	●	– The Texas Pension Review Board (PRB) is mandated to oversee AFRF, in regard to the Fund's actuarial soundness and compliance with state reporting requirements under Chapter 802, Texas Government Code. – **Consider including an acknowledgement that AFRF will look to meet the policies as defined by the PRB.** – **Consider adding a risk objective to consider how the volatility of assets may impact the Fund's liability amortization period. This may provide additional guardrails to better enable the Fund to stay under the 30-year time frame to amortize the unfunded actuarial liability set by the Pension Review Board.**
Does the policy take into account the current funded status of the plan, the specific liquidity needs associated with the difference between expected short-term inflows and outflows, the underlying nature of the liabilities being supported?	●	– The asset allocation is designed to maintain sufficient liquidity to meet at least three years of anticipated beneficiary payments. – The Fund maintains a target allocation of 60% or higher to liquid assets. – **Consider modelling plan liabilities and conducting integrated asset-liability studies on a periodic basis, typically every 3-5 years, to ensure that the Fund's asset allocation is designed to meet its liabilities and liquidity needs. Asset-liability studies illustrate the potential implications that asset allocation decisions have on future contribution policies. Most of Callan's public defined benefit plan clients, especially those of AFRF's size, conduct regular asset-liability studies.**

Statement of Investment Policy Evaluation

Does the IPS contain measurable outcomes for managers? Does the IPS outline over what time periods performance is to be considered?	●	– The IPS requires that investment managers maintain a consistent philosophy, perform well versus peers, add incremental value net of fees, and comply with the IPS and governing documents. – While the IPS does not contain specific performance monitoring criteria for investment managers, the Operating Procedures contain measurable outcomes and state managers will be evaluated over a full market cycle or five-year period, whichever is shorter. – **Consider adding an appendix or table that defines the benchmarks used for individual managers.** – **Consider defining shorter term periods and specifying how relative performance against peers will be evaluated.** – **Consider outlining the process for new manager selection and criteria for manager termination.**
Are stated investment objectives being met?	●	– The primary objective of the Fund is to provide sufficient return and liquidity to pay the benefit obligations of the Fund on a timely and regular basis. ● There have been no issues paying benefits. – The plan has broadly met its objectives, which are: ● Achieve a high likelihood of attaining a 7.3% nominal return over a long-term time horizon. ▶ *Meketa uses mean variance optimization on an annual basis to predict the likelihood of the Fund achieving its return objectives. In the 2023 asset allocation study, Meketa predicts that the mean expected annualized return for the Fund over the next 20-years will be 8.6%.* ▶ *As of the last three calendar year-ends (2022, 2021, 2020), the Fund had achieved its nominal return target of 7.3% annualized over the trailing 10-year periods.* ▶ *Based on Callan's capital market assumptions, the AFRF portfolio is expected to have a 52% chance of achieving its return target over the next 20-years.* ● Accept the minimum level of risk required to achieve the Fund's return objective. ▶ *The Board and consultant use efficient frontier analysis to determine an efficient asset mix.* ● Minimize the likelihood of experiencing a loss over any full market cycle. ▶ *As of the last three calendar year-ends (2022, 2021, 2020), the Fund had not incurred a negative return over the trailing 5-year or 10-year periods.* ▶ *Based on Callan's capital market assumptions, the AFRF portfolio is expected to incur a nominal loss in only 1% of scenarios over a 20-year period, a 5% chance over 10-years, and a 12% chance over 5-years.* ● Use diversification to minimize exposure to company and industry-specific risks. ▶ *The portfolio is highly diversified across asset classes, sub asset classes, and investment managers.* ● Outperform the policy index over a market cycle. ▶ *As of the last three calendar year-ends (2022, 2021, 2020), the Fund outperformed its Static Benchmark net of fees over the trailing 5-year periods.*
Will the Board be able to sustain a commitment to the polices under capital market stress?	●	– Scenario analysis, downside risk analysis, projected range of outcomes, and liquidity analysis are included in the Full Asset Allocation Reviews conducted by the consultant.

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Asset Allocation Evaluation

Asset Allocation - Summary

A Fund's strategic asset allocation policy serves as the foundation of the investment program and is often the primary determinant of long-term returns and risks. A well-designed asset allocation policy balances the need for asset growth, income, liquidity, and risk mitigation specific to the asset pool's objectives.

The primary return objective of the Fund is to achieve a high likelihood of attaining a 7.3% nominal return (the actuarial assumed rate of return) over the long term. The main risk objectives are to take the least amount of risk possible to achieve the return objective, minimize the risk of loss over a full market cycle, and to diversify industry and company specific risks. AFRF has established a strategic asset allocation process designed to meet these objectives. Key observations include:

- Asset allocation is reviewed annually by the Board and the consultant (Meketa). The last review took place in May 2023.
- The consultant uses 20-year capital market projections and mean variance optimization to model the asset allocation and evaluate the most efficient mix of assets at a given level of return (7.3%).
- Assets are allocated in accordance with the Fund's risk and return objectives as outlined in the Investment Policy Statement. The assets are appropriately diversified and maintain sufficient liquidity to meet obligations.
- AFRF's asset allocation policy is aligned with the GFOA's asset allocation best practices for defined benefit plans.
- The Fund's asset allocation is documented in the Operating Procedures.

Asset Class	Target (%)	Range (%)
Private Domestic Equity	20	13-27
Public Foreign Equity	22	15-29
Private Equity	15	5-25
Investment Grade Bonds	13	10-20
TIPS	5	0-10
High Yield/Bank Loans	5	0-10
Emerging Market Debt	7	0-10
Core Real Estate	5	0-10
Value Add Real Estate	5	0-10
Private Natural Resources	3	0-5
Cash	0	0-5

Asset Allocation Evaluation

Does the Fund have a formal and/or written policy for determining and evaluating its asset allocation? Is the Fund following this policy?	●	– Yes, AFRF's Investment Policy Statement outlines specific procedures for determining and reviewing the Fund's asset allocation. Compliance with the asset allocation process dictated in the IPS appears adequate.
Who is responsible for making the decisions regarding strategic asset allocation?	●	– As outlined in the IPS, the Board is responsible for asset allocation decisions. It exercises its duty with assistance from the investment consultant.
How often is the strategic asset allocation reviewed?	●	– Per the IPS, the strategic asset allocation is reviewed annually. AFRF was able to provide copies of the annual strategic asset allocation reviews.
How are the Fund's overall objectives expressed and measured? What methodology is used to determine and evaluate the strategic asset allocation?	●	– The Fund's risk and return objectives, as identified in the IPS, are expressed through its strategic asset allocation, which is evaluated through the asset allocation process where the Board reviews current and alternate target allocations. – The return objective is to achieve a high likelihood of attaining a 7.3% nominal return over the long-term. Risk objectives are to take the minimum level of risk to achieve the return objective, minimize the risk of loss over a full market cycle and to diversify industry and company specific risks. – The Fund's investment consultant uses its annual capital market assumptions and mean variance optimization to review portfolios with the best risk adjusted returns along the efficient frontier. Worst case return expectations and stress testing using both historical examples and hypothetical scenarios are run and reviewed. The Board is able to evaluate different target allocations and determine the best fit to meet its objectives.
Does the Fund's investment consultant communicate their future expectations?	●	– Yes, the Fund's investment consultant reviews its capital market assumptions with the Board, which are then documented in the Fund's Operating Procedures. – Asset allocation alternatives reflect the Board and investment consultant's expectations for the markets moving forward.
How does the current actuarial assumed rate of return factor into the discussion and decision-making for setting the asset allocation? **(Continued next slide…)**	●	– The actuarial assumed rate of return is the sole return objective for the Fund as outlined in the IPS. – The annual asset allocation study uses the consultant's capital market projections in conjunction with mean variance optimization to evaluate how effective the current asset allocation target is in meeting the Fund's goals. – The full asset allocation study evaluates the likelihood of the Fund's asset allocation meeting the actuarial assumed rate of return as well as the full range of expected potential outcomes, including worst-case-scenarios. This framework also compares other optimized mixes and evaluates them against the Fund's risk and return objectives.

Asset Allocation Evaluation

How does the current actuarial assumed rate of return factor into the discussion and decision-making for setting the asset allocation? **(…Continued)**

- **Based on Meketa's 2023 asset allocation study, AFRF's expected return was 8.6%, well above the assumed rate of return of 7.3%.**
- **Callan used its 2023 capital market assumptions and asset allocation model to review AFRF's current asset allocation. Callan's model predicts a median expected return of 7.4% over the next 20-years. This assumption is below Meketa's predicted return, but still above the Fund's return target.**
- **Callan's model predicts that the current asset allocation has a 52% likelihood of achieving a 7.3% or higher return over the next 20-years and only a 1% chance of incurring a loss over that period.**

Asset Class	AFRF Target	7.3% Target Ret Port
Public Domestic Equity	20%	29%
Global ex-US Equity	22%	21%
Private Equity	15%	13%
Core US Fixed	13%	21%
TIPS	5%	0%
High Yield/Bank Loans	5%	5%
EMD	7%	0%
Core Real Estate	5%	10%
Value Add Real Estate	5%	3%
Private Natural Resources	3%	0%
	100%	100%
Expected Return	7.44%	7.30%
Standard Deviation	14.04%	13.41%
Sharpe Ratio	0.32	0.33

- **While the Board has requested the investment consultant review the impact of different scenarios on funded ratio and liquidity, it has not conducted a full asset-liability study in the last five years. The Board should consider a full asset-liability study, which integrates different asset allocation mixes and market scenarios with their potential impact on all aspects of the Fund's liabilities (i.e. funded ratio, contribution expectations, amortization period, etc.).**

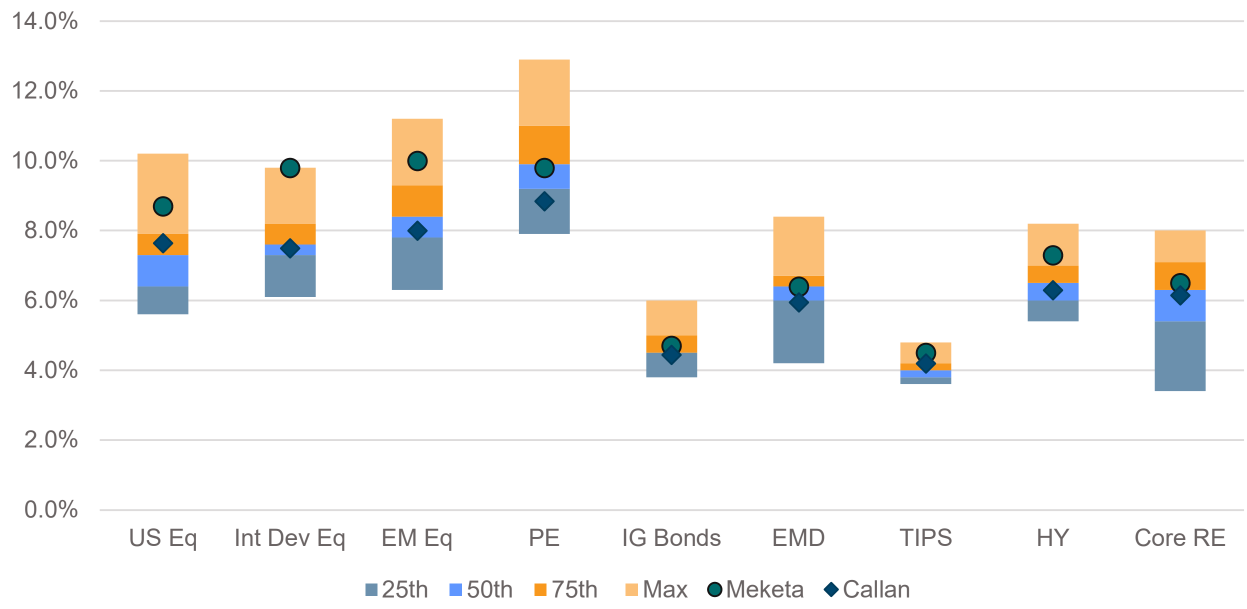
Asset modelling assumptions: 1. Private Natural Resources were modelled as Private Equity 2. Value Add Real Estate was modelled as Private Infrastructure

Asset Allocation Evaluation

Is the asset allocation approach based on a specific methodology? Is this methodology prudent, recognized as best practice, and consistently applied?

- The investment consultant develops 20-year projections of capital market performance at the start of each year. These projections are an integral component of the asset allocation studies as they incorporate the current economic and financial environment in which pension plans and investment managers operate.
- The investment consultant integrates information on the yield curve, key economic indicators, and qualitative assessments on the current environment to develop projections that are sound, defensible and consistent. Individual asset classes (equities, fixed income, cash, real estate and alternative investments) are analyzed as part of a larger system, acknowledging both the interaction between asset classes and the influence of larger macroeconomic themes.
- The capital market assumptions are used in the mean variance optimization that produces the risk and return metrics for the current and alternative portfolios.
- The investment consultant's capital market assumption development is reasonable and consistent with industry standards. Callan also reviewed the assumptions against the Horizon Actuarial Services survey (Meketa does this as well) and the assumptions appear reasonable.

20 Year Return Expectations vs. Horizon Survey Ranges



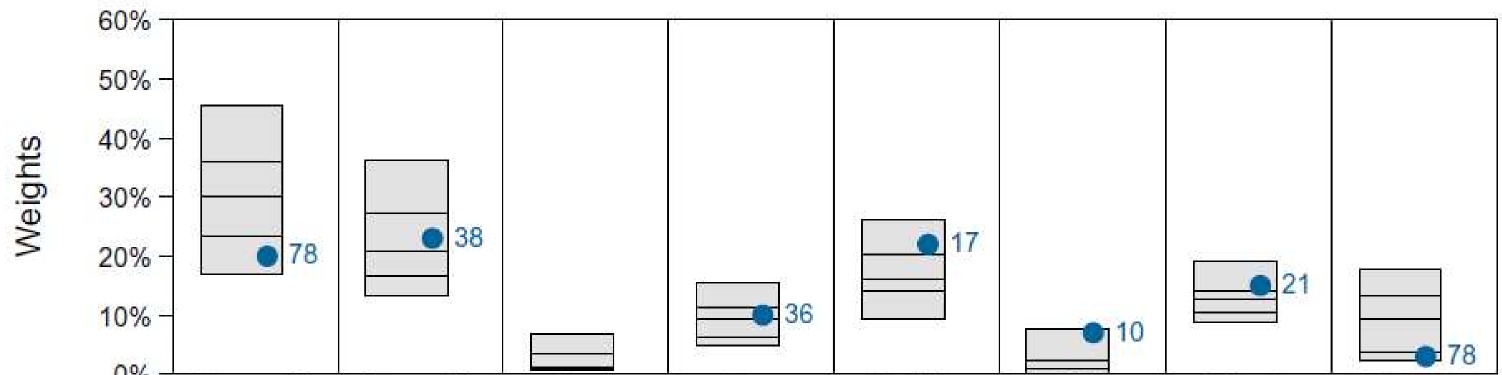
- Mean variance optimization is a fundamental industry standard that looks to balance the trade-off between expected returns and risk in developing an optimal asset allocation.

Asset Allocation Evaluation

How does the asset allocation compare to peer systems?

- Callan compared AFRF's asset allocation against a public plan peer group comprised of 129 Callan client and non-client portfolios with over $1 billion in assets. The Fund's target allocation to domestic equity is below median while its allocation to international equity is above. The total fixed income allocation is above median but diversified into higher risk, higher expected return strategies. The remainder of the portfolio is very diversified with allocations to core and core plus real estate, private equity, and natural resources.
- **Despite the differences with peer group medians, the Fund's portfolio is well diversified and designed to meet AFRF's long-term risk and return objectives.**
- **A recent NASRA study found the average public pension fund allocation to be 41.7% public equity, 19.7% fixed income, 11.1% real estate, 24.7% alternatives and 2.8% cash/other.**

Asset Class Weights vs Callan Public Fund Spons - Large (>1B)



	Domestic Equity	Domestic Fixed	Cash Equiv	Core Real Estate	Public Foreign Equity	Intl Fixed-Inc	Private Equity	Private Natural Resources
10th Percentile	45.57	36.34	6.84	15.48	26.15	7.66	19.14	17.86
25th Percentile	36.11	27.17	3.58	11.31	20.16	2.37	14.04	13.38
Median	30.11	20.72	1.33	9.34	16.08	0.81	12.85	9.26
75th Percentile	23.24	16.77	0.81	6.24	14.00	0.11	10.49	3.84
90th Percentile	16.97	13.19	0.52	4.89	9.41	0.02	8.89	2.20
Fund ●	20.00	23.00	-	10.00	22.00	7.00	15.00	3.00
% Group Invested	98.31%	96.61%	88.14%	79.66%	96.61%	44.07%	18.64%	13.56%

Asset Allocation Evaluation

What consideration is given to active vs. passive management?	●	– As is industry standard, the active/passive framework is not expressed through the asset allocation modeling. However, during portfolio construction and implementation discussions, each asset class is examined by the Board in terms of active investment managers' ability to reliably add value over an index on a net of fees basis. Certain asset classes (e.g., U.S. large cap equity) have shown to be areas where investment managers have struggled to add excess returns over a benchmark net of fees due to the efficiency of the asset class. Other asset classes (e.g., U.S. fixed income, U.S. small cap, non-U.S. equity and alternative assets like real estate and private equity) have shown over time that active management is rewarded either due to inherent inefficiencies in the asset class or the inability to access a passive product. – **The AFRF portfolio has a mix of active and passive investment strategies. The Board is also in the process of updating its investment policy to express and document its views on active versus passive implementation.** – **In 2023, the Board moved approximately 10% of total assets to passive strategies in public equity and fixed income.**
Is the approach used by the system to formulate asset allocation strategies sound, consistent with best practices, and does it result in a well-diversified portfolio?	●	– Yes, like many other public pension funds, AFRF employs a multi-step process to arrive at its asset allocation. The Fund uses an independent investment consultant to assist in the process. The Board first develops the IPS, which outlines the process to follow in determining and implementing the asset allocation as well as in setting risk and return objectives. The Board then reviews and confirms the reasonableness of Meketa's annual capital market assumptions. Meketa uses a mean variance optimization tool to look at the risk and return metrics of the current and alternative asset allocations. The Board reviews these with Meketa and determines the most appropriate asset allocation moving forward. The Board and Meketa then engage in a review of the implementation, looking at active versus passive management and if changes need to be made. – **The asset allocation process has resulted in a well diversified portfolio on an absolute basis and relative to peers. It is also structured to meet the Fund's long-term objectives, including flexibility for the DROP program assets, and to reflect the Board's active/passive philosophy.**

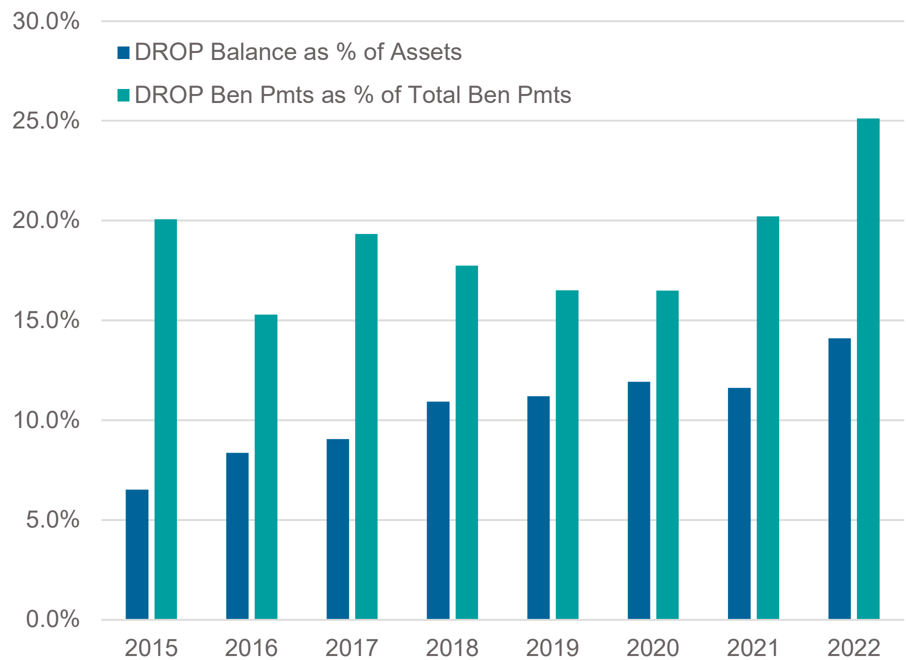
Asset Allocation Evaluation

When was the last time an asset-liability study was performed?		– The last asset-liability review was completed in 2021. In addition to looking at risk and return, it reviewed projected funded status under historical negative scenarios. The review also considered liquidity, including if the DROP program was liquidated in a single year.
	●	– **AFRF has not conducted a full asset-liability study. The Board should consider a full asset-liability study, which integrates different asset allocation scenarios and their impact on all aspects of the Fund's liabilities (i.e. funded ratio, contribution expectations, amortization period, etc.). A full asset-liability study incorporates Fund specific issues into the asset allocation process by using AFRF's specific liabilities, future liability accruals, current and future mix between active and retired participants, and assumptions. The asset-liability model is then able to stress test different combinations of asset returns, contributions and risk outcomes. Asset-liability studies attempt to model asset allocations that better match the liability experience.**
What types of stress testing are incorporated in the process?	●	– The asset allocation review uses mean variance optimization to look at worst-case return scenarios and uses scenario analysis to stress test portfolios using actual historical examples and hypothetical scenarios.
Are the Fund's alternative investments appropriate given its size and level of investment expertise?	●	– Yes, AFRF's allocation to alternative investments is appropriate given its size, governance, and desire to create a diversified portfolio. – The investment in alternatives is consistent with what Callan sees on other public pensions of about $1 billion. NASRA recently found the average public pension has a 24.7% allocation to alternatives.

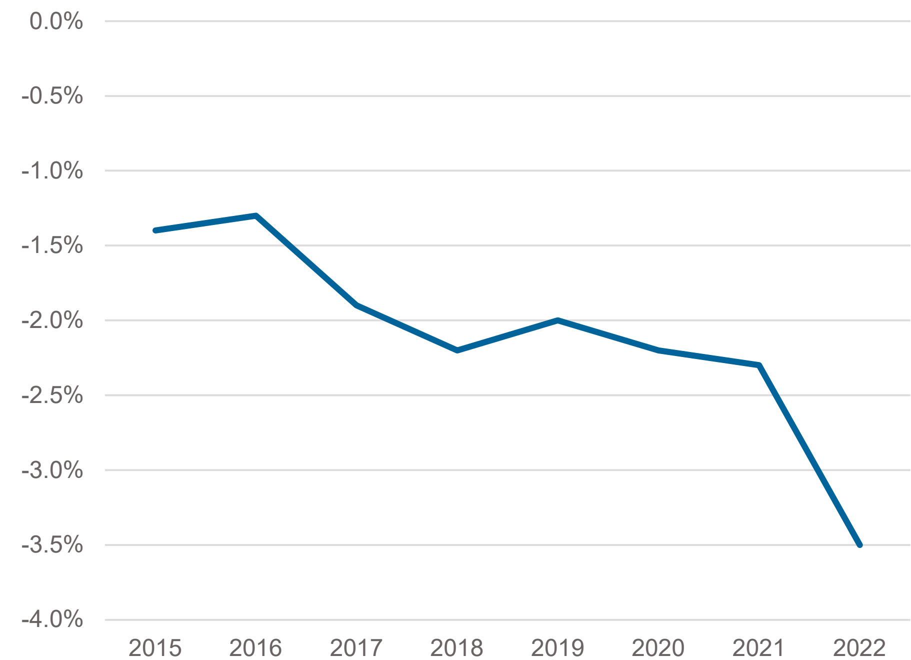
Asset Allocation Evaluation

Does the asset allocation consider the Fund's liquidity needs? Are those needs tested under different conditions?	— Yes, AFRF's asset allocation process considers maintaining appropriate liquidity for benefit payments and expenses and stress tests current and alternate allocations to understand the pressure different market events may put on the portfolio. — The IPS dictates "no more than 40% of the Fund's assets in illiquid vehicles." According to the last review, approximately 60% of AFRF's assets are daily liquid, 10% monthly, 7% quarterly and 23% illiquid. Meketa stressed (100% DROP outflow in one year followed by negative market returns for two) an alternate portfolio with 32% illiquids, and AFRF appears to have sufficient liquidity to pay benefits and expenses. Though, under this scenario, illiquids increase significantly as a percentage of the total asset allocation, which could limit future flexibility.
	— **Callan reviewed the historical net cash flow and DROP program assets. Like most mature pensions, cash flow is negative and has increased from 1.5% of assets in 2015 to 3.5% in 2022. DROP assets and payments have steadily increased as a percentage of the total fund assets and total distributions, respectively. DROP payments account for approximately 25% of distributions. These pressures may impact the Fund's tolerance for illiquids if they continue to increase at this pace.**

DROP as Proportion of Assets and Benefit Payments



Net Cash Outflow



Callan

Investment Fee Evaluation

Investment Fee - Summary

A Fund's fees are a critical component of its financial management, playing a significant role in optimizing operational efficiency and maximizing investment returns. Effective fee management ensures that the Fund's resources are utilized judiciously, contributing to overall financial health and stability.

The fee analysis evaluates the management and monitoring of fees paid to investment managers and service providers. The primary goal of the fee analysis is to ascertain that the fees paid are in line with market standards and to ensure that the Fund achieves its cost-efficiency goals without compromising investment quality.

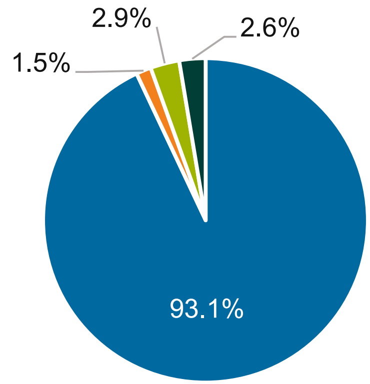
- **Fee Reporting and Monitoring:** AFRF's Board annually reports on direct and indirect management fees, brokerage fees, and profit share, in compliance with PRB requirements. A formalized procedure to document performance-based fees may be useful to guarantee their tracking.
- **Fee Comparison and Benchmarking:** Custodial fees, investment consulting fees, and brokerage fees/commissions seem competitive when compared to industry averages. AFRF's investment management fees appear above industry averages when compared to funds of similar sizes. However, when considering the asset allocation of the Fund, fees align closely with peers. An annual fee analysis that includes fee benchmarking may be beneficial in assessing the reasonableness of current fees.
- **Operational Handling of Fees:** The Fund Staff efficiently manages the fee payment process. However, there are recommendations to amend the Operating Procedures for more practical fee reconciliation and reporting.
- **Cost Management Initiatives:** AFRF has successfully reduced investment management costs through strategic allocations to passive management and direct investments, demonstrating a proactive approach to fee optimization.

Investment Fee Evaluation

Do the system's policies describe the management and monitoring of direct and indirect compensation paid to investment managers and other service providers?	– As required by the PRB, direct and indirect management fees, brokerage fees/commissions, and profit share are reported annually for the previous fiscal year by the Board. • To maintain data integrity in the PRB Fee Report, private market performance-based fees and fees underlying fund commitments for fund-of-fund investments are not included. – **The Board is responsible for monitoring and controlling all investment costs as defined in the Investment Costs section of the IPS.** – **The Operating Procedures also outline the Fund's policies for fee payment and reconciliation of investment manager fees.**

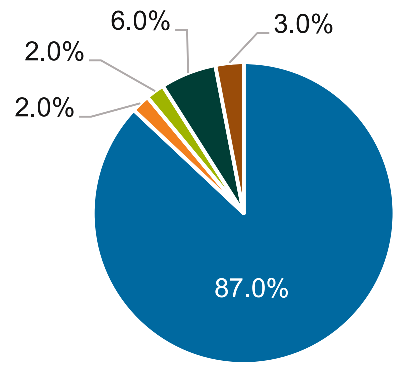
What are the annual fees and expenses paid by the Fund?

AFRF Fees as a Percentage of Total Investment Expenses ($7,044,378)



- Investment management fees: 93.1%
- Custodial fees 1.5%
- Investment consulting fees 2.9%
- Brokerage fees/commissions 2.6%

Callan's 2021 Cost of Doing Business Survey Fee Breakdown



- External investment management fees: 87.0%
- Custodial: 2.0%
- Other external advisor (consultant fees included): 2.0%
- Total investment-related staff compensation: 6.0%
- Other (investment operational, board/staff travel, etc.): 3.0%

– Callan's 2021 Cost of Doing Business survey (completed every five years) looks at investment-related expense trends for institutional organizations for the previous year.

– **AFRF's fee breakdown seems appropriate compared to industry trends.**

Investment Fee Evaluation

How do these fees compare to peer group and industry averages for similar services? How are the fee benchmarks determined? **(Continued next slide…)**

Overall Fees vs Industry Averages

- The AFRF fees listed below are a percentage of total fund assets ($1,114,895,362) as of 4Q 2022.
  - Based on 9/30/2023 market values, Callan estimated the weighted average investment management fees for both public and private markets to be 50 bps.

	AFRF Fees	Callan Survey	NCPERS Survey
Investment Management	0.58%	0.43%	0.39%
Custodial Fees	0.01%	0.06%	n/a
Investment Consulting	0.02%	0.05%*	n/a
Brokerage	0.02%	n/a	n/a

*Fee includes other external advisors in addition to investment consultant

- Callan's 2021 Cost of Doing Business Survey estimates fees based on the average expenses for funds with less than $2 billion in fund assets. These funds had, on average, a 10% allocation to alternatives (hedge funds, private equity, and real assets).
  - Investment manager fees have decreased by 1.9 basis points since the last survey in 2015.
- The NCPERS 2024 Public Retirement Systems Study found that the overall investment management fees were 39 basis points, 10 basis points lower than the previous year.

Investment Management Fees

- The table below summarizes the comparisons between AFRF's investment management fees and industry average investment management fees.

	Investment Management Fees
2022 AFRF PRB Reported Fees	0.58%
Callan Survey	0.43%
NCPERS Survey	0.39%
2023 AFRF Estimated Fees*	0.50%
Callan Peer Median*	0.62%

*Overall fee for both public and private funds

- According to Callan's 2021 Cost of Doing Business Survey and NCPERS Survey, the investment management fees of similar sized funds are ***lower*** than AFRF's investment management fees for 2022 and 2023. However, these surveys do not consider the impact asset allocation decisions may have on fees.
- The Callan Peer Median fee follows the same asset allocation weighting as AFRF and applies the median fee of peer groups for each strategy. The estimated investment management fee of 0.62% is ***higher*** than both 2022 and 2023 AFRF fees. The weighted average peer median fee accounts for the impact asset allocation has on fees; private market and more niche public market strategies tend to demand higher fees on average.
- During 2023, AFRF implemented its active/passive framework. Actively managed funds typically have higher fees than passive funds. The fee differences between 2022 and 2023 may be in part due to the implementation of this framework (i.e., moving 10% of funds from active to passive management).
- Summary fee tables are listed on the following slides.

Investment Fee Evaluation

How do these fees compare to peer group and industry averages for similar services? How are the fee benchmarks determined? **(…Continued)**

-

Public Market Fee Summary Table

Investment Manager	Mandate	Vehicle	Assets as of 9/30/2023	Estimated Fee (%)*	Estimated Fee	Peer 10th %-Tile	Peer Median	Peer 90th %-Tile
SSgA S&P 500	Large Cap Index Equity	Commingled Fund	98,554,754	0.01%	9,855	0.01%	0.02%	0.04%
Westwood Capital Large Cap Value	Large Cap Value Equity	Separate Account	30,195,923	0.50%	150,980	0.43%	0.55%	0.64%
Westfield Small/Mid Cap Growth	SMID Cap Growth Equity	Separate Account	52,850,083	0.68%	359,381	0.48%	0.65%	0.74%
Vaughan Nelson Small Cap Value	Small Cap Value Equity	Separate Account	57,296,092	0.83%	475,558	0.68%	0.80%	1.00%
SSgA MSCI EAFE Fund	International Equity	Commingled Fund	78,728,779	0.06%	47,237	0.04%	0.07%	0.09%
Baillie Gifford International Growth Fund	International Growth Equity	Mutual Fund	29,348,812	0.61%	179,028	0.51%	0.66%	0.85%
Highclere International Small Cap**	International Small Cap Equity	Commingled Fund	36,161,933	1.05%	379,700	0.75%	0.85%	1.03%
TT Emerging Markets Equity	Emerging Markets Equity	Commingled Fund	27,520,708	0.80%	220,166	0.46%	0.74%	0.85%
DFA Emerging Markets Value	Emerging Markets Equity	Mutual Fund	34,981,456	0.38%	132,930	0.46%	0.74%	0.85%
SSgA Bond Fund	Core Bond	Commingled Fund	111,890,676	0.03%	33,567	0.02%	0.04%	0.06%
Pyramis Tactical Bond Fund	Core Bond	Commingled Fund	24,717,732	0.34%	84,040	0.20%	0.23%	0.26%
Loomis Sayles Core Plus Fixed Income	Core Plus Bond	Commingled Fund	43,090,377	0.30%	129,271	0.21%	0.29%	0.35%
Aberdeen Emerging Markets Bond Fund	Emerging Markets Fixed Income	Commingled Fund	54,258,471	0.45%	244,163	0.41%	0.49%	0.60%
Aristotle Pacific	Structured Credit	Commingled Fund	22,177,023	0.41%	90,926	0.39%	0.48%	0.55%
SSgA TIPS	TIPS	Commingled Fund	54,200,727	0.03%	16,260	0.02%	0.04%	0.06%
Cash			4,883,582	-	-	-	-	-
Total			**$ 760,857,128**	**0.34%**	**$ 2,553,061**		**0.35%**	

** Equity and fixed income fees come from the Board Meeting Report provided by AFRF as of 9/30/2023.*

*** Beginning in 4Q Highclere will decrease fees by 10 bps or ~$37,000; 2Q fees were 1.15%.*

Peer Group Source: Callan 2023 Investment Management Fee Study, Callan 2023 Private Credit Fee Study.

Investment Fee Evaluation

How do these fees compare to peer group and industry averages for similar services? How are the fee benchmarks determined? **(…Continued)**

Private Market Fee Summary Table

Investment Manager	Mandate	Vehicle	Assets as of 9/30/2023	Estimated Fee (%)*	Estimated Fee	Minimum	Peer Median	Maximum
Partners Group Distressed Private Equity 2009	Special Situations	Fund of Funds	389,092	1.05%	4,085	0.30%	0.85%	1.00%
LGT Crown Global Secondaries II	Secondary Market	Fund of Funds	118,577	1.00%	1,186	0.75%	1.00%	1.25%
Private Equity Investors V	Secondary Market	Fund of Funds	1,247,181	1.75%	21,826	0.75%	1.00%	1.25%
Cross Creek Capital Partners II – B	Venture	Fund of Funds	11,593,429	1.00%	115,934	1.00%	1.78%	2.00%
LGT Crown Asia II2	Buyout	Fund of Funds	8,272,052	0.75%	62,040	2.00%	2.00%	2.00%
StepStone Global Partners V [1]	Venture	Fund of Funds	7,658,411	0.75%	57,438	1.00%	1.78%	2.00%
57 Stars Global Opportunity 3	Diversified	Fund of Funds	7,952,236	0.90%	71,570	0.30%	0.85%	1.00%
LGT Crown Europe Small Buyouts III	Buyout	Fund of Funds	3,359,674	0.75%	25,198	2.00%	2.00%	2.00%
LGT Crown Global Secondaries III	Secondary Market	Fund of Funds	1,991,780	1.00%	19,918	0.75%	1.00%	1.25%
Private Advisors Co-Investment Fund III	Co-investments	Fund of Funds	1,509,295	1.00%	15,093	0.30%	0.85%	1.00%
HarbourVest 2013 Direct	Co-investments	Fund of Funds	4,724,347	0.80%	37,795	0.30%	0.85%	1.00%
Cross Creek Capital Partners III	Venture	Fund of Funds	11,643,853	1.00%	116,439	1.00%	1.78%	2.00%
Aberdeen Flag Private Equity V	Buyout	Fund of Funds	5,011,563	0.75%	37,587	2.00%	2.00%	2.00%
StepStone Global Partners VI [1]	Venture	Fund of Funds	13,120,839	1.00%	131,208	1.00%	1.78%	2.00%
Constitution Capital Partners Ironsides III	Buyout	Fund of Funds	14,809,781	0.63%	93,302	2.00%	2.00%	2.00%
Deutsche Bank Secondary Opportunities Fund III	Secondary Market	Fund of Funds	1,948,437	1.25%	24,355	0.75%	1.00%	1.25%
Aberdeen Flag Private Equity VI	Buyout	Fund of Funds	13,815,953	0.75%	103,620	2.00%	2.00%	2.00%
Blue Bay Direct Lending Fund II	Private Debt	Direct Fund	1,684,609	1.50%	25,269	0.10%	1.00%	2.00%
Partners Group Emerging Markets 2015	Special Situations	Fund of Funds	8,556,771	0.90%	77,011	0.30%	0.85%	1.00%
LGT Crown Global Opportunities	Diversified	Fund of Funds	37,738,560	0.60%	226,431	0.30%	0.85%	1.00%
HarbourVest Co-Investment Fund IV	Co-investments	Fund of Funds	7,930,262	1.00%	79,303	0.30%	0.85%	1.00%
SVB Strategic Investors Fund IX	Venture	Fund of Funds	14,882,227	0.95%	141,381	1.00%	1.78%	2.00%
Dover Street X	Secondary Market	Fund of Funds	32,586,597	0.85%	276,986	0.75%	1.00%	1.25%
Clarion Partners Lion Properties Fund	Real Estate	Commingled Fund	75,074,827	0.94%	705,703	0.75%	0.85%	0.95%
Portfolio Advisors Global Real Estate V [2]	Global	Fund of Funds	6,220,427	0.63%	39,189	-	1.50%	-
Partners Group Global RE 2011 [3]	Global	Fund of Funds	719,410	0.90%	6,475	-	1.50%	-
Partners Group U.S. Distressed 2009 [2]	U.S. Distressed	Fund of Funds	52,282	0.90%	471	-	1.50%	-
Partners Group RE Secondary 2017 [3]	Global	Fund of Funds	12,742,526	1.25%	159,282	-	1.50%	-
Crow Holdings Realty Partners X [3, 4]	U.S.	Value Add	-	1.45%	-	-	1.50%	-
Aether Real Assets II	Diversified Real Assets	Pooled Vehicle	2,452,130	0.61%	14,958	0.77%	0.95%	1.09%
Aether Real Assets III	Diversified Real Assets	Pooled Vehicle	10,278,285	0.72%	74,004	0.77%	0.95%	1.09%
Aether Real Assets IV	Diversified Real Assets	Pooled Vehicle	10,744,837	0.85%	91,331	0.77%	0.95%	1.09%
Aether Real Assets V	Diversified Real Assets	Pooled Vehicle	8,993,739	0.85%	76,447	0.77%	0.95%	1.09%
Total			**$ 39,823,989**	**0.86%**	**2,932,833**		**1.23%**	

*Alternative investment fees (Private Equity, Real Estate, and Natural Resources) come from the Manager Fee Analysis provided by AFRF as of 12/31/2019. The 2019 fee analysis includes Metropolitan Real Estate Distressed II fund in its Private Market Manager Fees, however this fund was not included in later statements, and is excluded from this fee analysis. [1] Previously named Greenspring Global Partners. [2] The carried interest incentive fee structure for opportunistic funds is 8% preferred return hurdle, 20% carried interest with a 60%/40% catch-up for GP/LPs. The 1.5% peer median fee is representative of the market fee. [3] New investment starting in 2024. The carried interest incentive fee structure for value-add funds is a 9% preferred return hurdle, 20% carried interest with a 50%/50% catch-up for GP/LPs. The 1.5% peer median fee is representative of the market fee. [4] The Management Fee Percentage in respect of the Investor shall be an amount equal to 1.45% and the Capital Contributions made by the Investor in respect of the Management Fee shall be determined accordingly. Private equity per group data was collected from partnership documents of funds Callan reviewed form 2018-2021.

Investment Fee Evaluation

How do these fees compare to peer group and industry averages for similar services? How are the fee benchmarks determined? **(…Continued)**

Peer Benchmarking

- In Meketa's 2022 Public Manager Fee Benchmarking analysis, the estimated annual fee for active and passive strategies were compared to the peer median fees of similar investment strategies. Fees were also ranked against these peer groups.
  - Three of the 12 active funds had fees above median, and all passive managers scored in the top percentile ranking.
- When comparing fees to Callan's 2023 peer group data, AFRF's weighted-average investment management fees for both public and private markets were less than the weighted-average peer median fee.
  - Six of the 11 active funds had fees above the peer median (one less active manager fund given termination of Sanderson International Value) and all passive fund manager fees were below the Callan Peer Group Median fees.

- **The investment manager fees for the Fund appear higher than the industry average when compared to both the Callan and NCPERS surveys. However, investment manager fees for the Fund appear lower than industry median on a weighted-average basis, which considers the asset allocation impact of AFRF on total fees.**
- **The implementation of the active/passive framework may explain the decrease in investment management fees from the 2022 reported PRB fees to the 2023 estimated, asset-weighted fees.**
- **The custodial fees for the Fund appear lower than the industry average when compared to the Callan 2021 Cost of Doing Business survey.**
- **AFRF's investment consulting fee is lower than the survey's total for Other External Advisors, which includes other service providers in addition to the investment consultant.**

Investment Fee Evaluation

Who is responsible for monitoring and reporting fees to the board? Is this responsibility clearly defined in the system's investment policies? How are fees handled operationally?	– As outlined in the Operating Procedures, Fund Staff is responsible for the review and payment of all investment manager fees. Additionally, a pre-identified Trustee shall independently verify each manager's fee payment request. Only abrdn, Loomis Sayles, Pyramis, Vaughan Nelson, Westfield Capital and Westwood invoice for their fees. Fees are automatically deducted from all other strategies. – The responsibility of reporting fees to the Board is not specifically defined in the IPS or Operating Procedures. However, Meketa reports on Fund fees annually. – **Consider amending the fee reconciliation and payment section of the Operating Procedures. Only six of the 49 strategies invoice for fees, which makes the current language of reconciliation and then payment impractical. Consider amending to a review and possible reconciliation of fees. Additionally, consider removing the Trustee oversight requirement in the Operating Procedures. Requiring a pre-identified trustee to verify manager's fee payments may cause governance issues. This could be perceived as a conflict as one of the Trustees responsible for broad oversight would be directly involved in the day-to-day mechanics they are responsible for overseeing.** – **Consider naming the party responsible for reporting investment management fees to the Board in the IPS.**
How is manager fee compensation reported and reviewed for reasonableness?	– Public market investment manager fees are reported quarterly in the Meketa investment reports. – Meketa conducted a public markets investment management fee benchmarking review in February 2023 (4Q22). – The most recent private markets fee benchmarking review was conducted in 2020 (4Q19). – Since Texas law began requiring fee disclosure in the annual financial reports, Meketa has amended the way it reports fees. It has been surveying all of AFRF's managers for actual fees paid and detailing those in the State required template. – The PRB Fee Report documents manager compensation by asset class, excluding private market performance-based fees and fees of underlying fund commitments for fund-of-fund investments. – **Consider adding language to the IPS outlining the frequency and requirements of fee benchmarking. Texas law only requires the reporting of absolute investment management fees, which may not provide stakeholders the appropriate context. An annual fee analysis may be beneficial for monitoring manager fees and assessing reasonableness compared to peers.** – **It does not appear that performance-based fees are reported or reviewed on a regular basis, though they are likely evaluated at the time of contracting.**

Investment Fee Evaluation

Does the system have appropriate policies and procedures in place to account for and control investment expenses and other asset management fees?	– Per the IPS, the Board monitors and controls fees through the following: • Negotiating fees • Utilizing passive management when appropriate • Performance-based fees are allowed with specific managers • In-kind asset transfers when possible to eliminate turnover expenses • Manager instruction to seek best execution – As noted above, the Operating Procedures outline that it is the responsibility of Fund Staff to reconcile and pay investment management fees. If an error is found, Fund Staff should request additional information prior to payment. If there is an error, Fund Staff is responsible for requesting the correction. Additionally, a pre-identified Trustee shall independently verify each manager's fee payment request. – **AFRF has consistently reviewed its investment fees with Meketa and reports on them annually per Texas law. However, as drafted, the monitoring and payment procedures in the Operating Procedures may be administratively untenable and result in potential governance issues. AFRF should consider revising as well as documenting a formal fee benchmarking practice both of which are discussed above.**
What steps has the Fund taken to manage investment management costs**?**	– Per the Meketa's 2019 fee report, eliminating hedge funds and increasing the allocation to index funds has helped reduce costs. Subsequent to the review, there have been three additional fee reductions by managers. – AFRF moved 10% of the Fund's investments to passive management. The move saves on fees in asset classes where active management is historically less successful than passive. – **Meketa has been educating the Board on using direct investments to implement the private equity and possibly real assets portfolios. Over time, this implementation may help lower costs as the fund-of-fund fee is eliminated. Callan has seen this trend with other large public pension plans.**
Is an attorney reviewing any investment fee arrangements for alternative investments?	– Yes.

Governance Process Evaluation

Governance Process - Summary

Callan conducted a comprehensive review of the Austin Firefighters Retirement Fund governance processes and documentation. The Board of Trustees of the Austin Firefighters Retirement Fund is responsible for administering the Fund pursuant to the terms of Section 2.01 of Article 6243e.1 of Vernon's Texas Civil Statutes. The Fund is governed by Texas Government Code, the Pension Statute, Fund Rules, Governance Policy, Investment Policy Statement, and Operating Procedures.

- AFRF has established a robust governance framework outlined in various policies and statutory regulations, ensuring that all operations are carried out with high standards of accountability and transparency.
- The governance structure clearly defines the responsibilities of the Board of Trustees, including fiduciary oversight, investment implementation, and ensuring compliance with governance policies.
- The Board's composition and election procedures are clearly defined, promoting structured leadership and continuity.
- Board members and staff are required to complete ongoing education, ensuring they meet state requirements and maintain high ethical standards.
- Independent third parties conduct annual audits and actuarial valuations to monitor the financial stability of the Fund.
- Governance documents, meeting minutes, annual reports, and investment reports are publicly available on the Fund's website, demonstrating a commitment to transparency and stakeholder engagement.

Governance Process Evaluation

Does the Fund have a written governance policy statement outlining the governance structure?	●	– The Board of Firefighters Relief and Retirement Fund Trustees is established in Section 2.01 of Article 6243e.1, Vernon's Texas Civil Statutes and further detailed in the Fund's Governance Policy. – The Investment Policy Statement identifies the Board as the governing body providing fiduciary oversight of the Fund. Responsibilities of the Board, Staff, Consultant, Investment Managers, and Custodian Bank are all outlined in the IPS.
Is the governance structure transparent and available to the public?	●	– Yes, the AFRF Statute, Investment Policy Statement, Fund Rules, Code of Ethics, Governance Policy, Funding Policy, and Annual Financial Report are available on the Fund's website. – Board meeting agendas, minutes and quarterly investment reports are also available on the website.
Is the governance structure transparent and available to the public?	●	– Yes, the AFRF Statute, Investment Policy Statement, Fund Rules, Code of Ethics, Governance Policy, Funding Policy, and Annual Financial Report are available on the Fund's website. – Board meeting agendas, minutes and quarterly investment reports are also available on the website.
What is the composition of the Board? How is the leadership of the board selected?	●	– As detailed in the governance policy, the Board consists of five members: • The City of Austin Mayor, who serves as the presiding officer • The City Treasurer, who serves as the Secretary-Treasurer of Board • Three Elected Trustees to be selected by vote of the members – Annually, the Board elects a Vice-Chairman from among the Elected Trustees to serve as the presiding officer in the absence of the Chairman. – In the absence of both the Chairman and Vice-Chairman, the Secretary-Treasurer shall serve as the presiding officer.
How are action items confirmed?	●	– Three trustees are required for quorum. – Decisions require a majority vote of trustees assuming quorum.
What is the length of Board member terms? Are terms staggered?	●	– The Mayor and Treasurer serve on the Board for as long as they are in office. – Elected Trustees serve staggard 3-year terms with one term expiring each year. – **Staggered board structures are generally preferred as they provide continuity of leadership and preserve institutional knowledge.**

Governance Process Evaluation

What training is provided and/or required of new board members? How frequently are board members provided investment–related education?	– Each Trustee and the Executive Director must comply with the minimum and continuing education requirements under state law, including ethics and fiduciary training. – Trustees are required to complete training courses regarding their responsibilities under TOMA and the Texas Open Records Act. Trustees must complete the training not later than the 90th day after assuming their duties as a Trustee. Certificates of completion are submitted to the Executive Director for proof of compliance. – The PRB's MET program requires seven credit-hours of core content training for the first year of service as a Trustee or Executive Director and at least four credit-hours of continuing education within each two-year period subsequent to the first year of service. Semi-annual reporting of training hours and courses is required to verify compliance. – The Executive Director files required training activity reports to the PRB and monitors compliance. – **Training requirements are sufficient and establish a clear system to monitor compliance.** – **The Trustees and Executive Director have met their training requirements. Verification of completion is provided by the parties conducting the education.**
What are the minimum ethics, governance, and investment education requirements? Have all board members satisfied these minimum requirements?	– All Trustees are required to act as a fiduciary and to comply with the Board of Trustees' Code of Ethics, which includes guidance on Trustee responsibility, professional requirements, conflicts of interest, gifts and benefits, vendor contact during RFP processes, and travel policies. The Code details enforcement policies as well. – Trustees must avoid conflict of interest as outlined in Chapters 171 and 176 of Texas Local Government Code. – **The Fund appears to have adequate polices in place to address ethics, governance, and investment education. The documents and rules clearly describe responsibilities and expectations. The Fund has a standard process for confirming adherence with the requirements.**
How often does the Board meet? Are meeting agendas and minutes available to the public? How detailed are the minutes? **(Continued next slide…)**	– The Board of Trustees meets monthly with agendas developed by the Chairman and Executive Director with input from the Board. Meetings span a range of topics including: • Review of previous meeting minutes • Procedural activities, such as Trustee elections • Discussion of benefits, budget, COLA • Audit related reviews • Actuarial reviews • Investment reviews • Special projects or vendor discussions • Executive Director report • Future agendas

Callan

Governance Process Evaluation

How often does the Board meet? Are meeting agendas and minutes available to the public? How detailed are the minutes? **(…Continued)**	●	– Investments are typically reviewed in detail on a quarterly basis. – All actions taken by the Board are conducted in open session. – **Agendas and meeting minutes are comprehensive and available online. Minutes clearly include thorough documentation of all investment decisions.**
How are Fund assets held and maintained?	●	– All Fund assets are held in trust, separate from the assets of the municipality, and maintained and administered by the Board for the exclusive purpose and benefit of all members, retirees, and beneficiaries of the Fund. – Separate account investment funds are held at AFRF's custodian, State Street, who acts as the book of record. – Commingled investments are held at a custodial institution chosen by the investment manager. AFRF has State Street line-item these accounts, so everything is accounted for in a single location. – **These practices are consistent with industry standard and best practice.**
Are benefits subject to a Cost-of-Living Adjustment (COLA)? If so, how is the COLA determined?	●	– COLAs can be granted annually assuming that the impact on the Fund over a ten-year period does not, as projected by the actuary: • Increase the amortization period of unfunded accrued actuarial liabilities beyond 25 years during the projection period, or • Lower the ratio of the actuarial value of assets divided by the actuarial accrued liability below 80% for any year in the projection period. – If a COLA is deemed appropriate by the Board and actuary, the adjustment will be based on the CPI-U (all items) for the 12-month period ending September 30th. – **According to the November 2023 Board meeting minutes, Elizabeth Wiley, a representative from the Fund's Actuary, stated that the "Fund's benefit policy is much better developed than most public pensions and that the tests are strong without being overly rigorous."** – **By having the actuary project the impact of a COLA prior to granting, it helps ensure the overall integrity of the Fund.**
Will the Board be able to sustain a commitment to the polices under capital market stress?	●	– Scenario analysis, downside risk analysis, projected range of outcomes, and liquidity analysis are included in the Full Asset Allocation Reviews conducted by the consultant.

Governance Process Evaluation

Does the Fund have policies in place to review the investment program?	●	– Yes, several independent third parties conduct audits and evaluations of AFRF. – By statute, the actuary shall conduct a valuation at least once every two years of the assets and liabilities of the Fund and a certified public accountant or firm of certified public accountants shall perform an audit of the Fund at least annually. – AFRF conducts both the audit and actuarial valuation annually. The Fund Audit is done by Montemayor Britton Bender and the Actuarial Valuation by Cheiron. – The Fund undergoes an Actuarial Experience Study every 5 years. – Additionally, Meketa, the Board's Investment Consultant, provides quarterly investment updates to review the Fund's structure and investment manager roster. Meketa will notify the Board of any issues or necessary changes. Annually, the asset allocation is reviewed to determine its continued appropriateness. – **These practices are in line with other public funds and consistent with industry best practice.**
Does the board receive impartial investment advice and guidance?	●	– Yes, the Board contracts with an independent investment consultant, Meketa, who was selected through a formal RFP process in 2014. The Board goes through a formal process as necessary but at least at the end of every contract period. – **This practice is in line with other public funds and consistent with industry best practice.**
Does the Board have policies in place to review the effectiveness of its vendors and staff? **(Continued next slide…)**	●	– As outlined in the governance policy, the Board intends to review its vendors' agreements and contracts on a staggered basis in accordance with the following frequency:

Type of Vendor	Frequency of Review
Actuary	Every 5 Years
Custodial Bank	Every 7 Years
Depository Bank	Every 4 Years
Independent Auditor	Every 5 Years
Investment Consultant	Every 5 Years
Legal Counsel	Every 5 Years

– The Board, at its discretion, may or may not determine that a request for qualifications or a request for proposal is necessary for a vendor review.
– The Executive Director is solely responsible for managing relationships with outside vendors and prospective vendors.

Governance Process Evaluation

Does the Board have policies in place to review the effectiveness of its vendors and staff? **(…Continued)**		– On an annual basis, the Board shall conduct an evaluation of the Executive Director to review performance for the prior year and set goals for the upcoming year. – **These practices are in line with other public funds and consistent with industry best practice.**
Who is responsible for making decisions regarding investments, including manager selection and asset allocation? How is authority allocated between the board, and internal staff members and/or outside consultants? Does the IPS clearly outline this information?	●	– The Board has ultimate responsibility for investment manager selection and asset allocation as delineated in the IPS. The Board utilizes an investment consultant to assist with asset allocation, investment manager selection and ongoing monitoring of the investment program. – The Board has delegated the day-to-day management of the Fund to Staff, which includes oversight of Fund policies and procedures, executing cash flows, oversight of budget and fee payment, and Board meeting preparation and coordination. – **Yes, roles and responsibilities are clearly outlined in the IPS.**
What additional oversight of the Fund exists?	●	– The Texas Pension Review Board provides oversight to the Austin Firefighters Retirement Fund. The primary goal of the PRB is to monitor actuarial soundness and compliance with state reporting requirements. The PRB requires: • Annual financial and actuarial reports be filed with the PRB, including transparency on fees. • An independent party conducts an Investment Practices and Performance Evaluation every three years for plans with over $100 million in assets. • Semi-annual reporting of Trustee training hours to verify education compliance. • A Funding Soundness Restoration Plan if certain actuarial triggers are met.
How often are the investment governance processes reviewed for continued appropriateness?	●	– The Board and the investment consultant review investment processes regularly when updating the IPS. – Policies are also reviewed with any statutory or regulatory changes.

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Investment Manager Selection & Monitoring Evaluation

Manager Search and Selection - Summary

Austin Firefighters Retirement Fund has a robust process for manager search and selection:

- The Board is ultimately responsible for selecting investment managers but generally relies on its independent investment consultant, Meketa, to lead the search process and identify appropriate candidates.
- Meketa employs a team of research professionals that uses a defined process and qualitative and quantitative factors to monitor and review investment managers, which results in a high conviction list of strategies in each asset class.
- Meketa selects three or four candidates from the high conviction list for the relevant investment strategy that best fit the AFRF search criteria and presents those options to the Board.
- Meketa reviews each candidate with the Board, and the Board chooses finalist candidates for due diligence interviews.
- The Board makes a selection based on its confidence in the qualitative and quantitative factors presented.

Austin Firefighters monitors each investment manager on an ongoing basis, utilizing a performance report produced by Meketa, that is reviewed with the Board:

- The Board reviews and evaluates reports on the investment performance of the Fund quarterly. However, the Board meets monthly to discuss other items and can review any manager issues as necessary at those meetings.
- The reports show Total Fund, asset class composites and individual managers against appropriate benchmarks over multiple time periods. Total Fund and manager returns are also compared against appropriate peers.
- Meketa uses a third-party performance platform, which takes custodial and manager information to calculate performance. The system uses Modified Dietz to calculate performance for public market investments and the dollar-weighted Internal Rate of Return for private market investments.
- **Both AFRF's investment manager search and monitoring processes are consistent with best practices and similar to many comparable public pension plans.**

Manager Search and Selection Evaluation

Who is responsible for selecting investment managers?	●	— As outlined in AFRF's investment policy statement, the Board is ultimately responsible for selecting investment managers. The Board receives assistance from the investment consultant, Meketa, as needed.
How are the managers identified as potential candidates?	●	— Meketa typically leads the search process and identifies appropriate candidates. It has a research team that monitors and reviews investment managers and has a high conviction list of strategies in each asset class. — The managers on this list have been vetted through Meketa's defined manager search process and evaluated on qualitative and quantitative factors. Meketa selects three or four candidates from the high conviction list for the relevant investment strategy that best fit the AFRF search criteria and presents those options to the Board.
What is the search process?	●	— The Board utilizes a multi-step approach, consistent with principles of procedural due diligence for manager selection. As part of this process, the Board has outsourced key pieces to Meketa. — As noted, once the Board determines, with assistance from Meketa, a new manager is needed, Meketa typically leads the search process. Meketa has an investment manager research team that regularly monitors and reviews investment managers across public and private asset classes. This multi-phase process includes, among other criteria, analysis of a manager's organization, strategy investment team, investment philosophy and process, performance, and fees. The process includes quantitative and qualitative assessment as well as virtual and in-person meetings. Through this research process, the team develops a high conviction list of strategies in each asset class. — AFRF's consulting team at Meketa works with their research group to identify a short list (approximately three to four) of appropriate candidates. These candidates are presented to the Board in a comprehensive side-by-side written analysis. Meketa then reviews the candidates with the Board so they can have a better understanding of the strategies and differences in those presented. Following these discussions, which may take several meetings, the Board generally conducts due diligence interviews with each finalist candidate under consideration. — Final selection between candidates takes into consideration the Board's confidence in the investment philosophy and approach, the depth, structure and experience of the investment team, the portfolio construction process, and the strength of the historical track record relative to expectations. Fees are also scrutinized for competitiveness. — **AFRF's investment manager search process is consistent with best practices and follows a similar process to many comparable public pension plans.**

Manager Search and Selection Evaluation

Who is responsible for developing and/or reviewing investment consultant and/or manager contracts?	●	– Legal counsel is responsible for review of all contracts.
What is the process for determining when an investment manager should be replaced?	●	– While manager replacement is at the discretion of the Board, the decision is typically initiated by Meketa. The recommendation may be for: • Continued underperformance • Significant personnel turnover • Significant changes in assets under management • Change in philosophy • Portfolio construction discipline • Regulatory, and/or litigation issues • Ownership change or change in business philosophy or approach
What is the process for monitoring individual and overall fund performance?	●	– The Board reviews and evaluates reports on the investment performance of the Fund quarterly. – The reports provide an economic and market update followed by an executive summary that reviews high level relative performance. This is followed by a top-down performance attribution analysis, which analyzes the Fund's performance relative to the performance of its policy targets. The report shows the actual versus target asset allocation and compliance with the IPS. Historical, net-of-fee performance for the total fund and each individual manager is examined in detail against appropriate benchmarks and peer groups. Relative returns are looked at for quarter-to-date, year-to-date, 1, 3, 5, 10-year and since inception as well as 10 calendar years. Private equity, private real estate, and natural resources investments are reviewed using more appropriate metrics such as IRR and TVPI. – As necessary, the report also provides the Board with recent portfolio updates, any managers for consideration, and relevant memos.
		– **Quarterly investment reporting is common across the industry. This cadence results in regular, timely meetings for any decision making without being overwhelming. Many Boards, like AFRF, meet monthly to discuss other items.**
Who is responsible for measuring the performance?	●	– Meketa, the Fund's investment consultant, calculates performance for the Trust using custodial and manager information. Meketa uses a third-party performance platform, which uses Modified Dietz to calculate performance for public market investments. Private market investments results are calculated using the dollar-weighted Internal Rate of Return.
		– **The performance platform is used by several large consulting firms, and the calculation methodology for both public and private markets is industry standard and consistent with the CFA Institute's Global Investment Performance Standards (GIPS).**

Manager Search and Selection Evaluation

What valuation methodologies are used to measure private market assets? What alternative valuation methodologies exist and what makes the chosen method most appropriate?	●	– Meketa uses the quarterly capital statements from the private market managers for reporting. These are typically a quarter lagged (i.e. reported 9/30/2023 values in the 12/31/2023 report). – For those investments where liquid, observable market pricing is not available, the managers conduct an appraisal process consistent with what is detailed in their fund documentation and is transparent to the funds' investors. These funds are also audited annually by an independent accounting firm to add further validity to the valuation methodologies.
		– **This is the industry standard approach for valuing private markets. For most investors, there are no avenues to obtain valuation independent from the managers.**

Consolidated Recommendations and Fund Response

Callan Recommendations	AFRF Response
Investment Policy	
Consider outlining key IPS and Operating Procedure changes in the meeting minutes. 2022 meeting minutes (the most recent IPS revision is dated February 2022) reflect motions made to approve the changes without providing detail of those changes.	Due to lack of Fund staff, meeting minutes from 2022 were not that detailed. Since fall of 2022, meeting minutes are more robust and capture any pertinent Board discussion, changes and motions.
Consider combining the IPS and Operating Procedures. – If they cannot be combined, consider moving and/or adding the following elements to the IPS: – A list and description of investible asset classes; – A strategic asset allocation framework outlining asset class targets and allowable ranges; – Performance benchmarks for sub asset classes and total policy benchmark. – Manager selection and termination documentation; – An outline of the process, including timeline, used by the Board to evaluate the ongoing appropriateness of all managers and asset classes. – If some of these elements are expected to need frequent updating, consider including them in an appendix to the IPS, which will have a less procedural review process to update than the rest of the Policy.	We will review the provisions contained in the Operating Procedures and consider moving those that are long-term, policy-related provisions to the IPS. However, some of the provisions of the Operating Procedures require more frequent modification and are more administrative in nature. We believe it is more appropriate for many of these provisions to stay in the Operating Procedures, especially since the Fund's governing statute requires three separate readings and approvals of the IPS by the Board prior to adoption.
Consider making the Operating Procedures available to stakeholders (if it is not combined with the IPS).	Agree. Please note that the Fund has already made the Operating Procedures available on its website to ensure full communication of relevant topics.
Consider documenting all fund-level benchmarks used in performance reporting in the policy documents. This will allow stakeholders to understand the rationale of including each benchmark and the construction methodology. Currently, two of the total fund benchmarks used in performance reports are not outlined in the policies.	Meketa has been working with Board on updates to benchmarking language. All benchmarks will be included in the IPS.

Callan Recommendations	AFRF Response
Consider adding an investment management fee philosophy that outlines how the Board considers fees when seeking to achieve the most attractive risk-adjusted net return for the Fund.	The Fund will consider this recommendation.
It appears the Operating Procedures III. Asset Allocation Targets may be intended to reference Section VII instead of Section VI in the IPS.	Correct. This will be fixed.
Consider including an acknowledgement that AFRF will look to meet the policies as defined by the PRB.	Agree
Consider adding a risk objective to consider how the volatility of assets may impact the Fund's liability amortization period. This may provide additional guardrails to better enable the Fund to stay under the 30-year time frame to amortize the unfunded actuarial liability set by the Pension Review Board.	The Fund will consider this recommendation
Consider modelling plan liabilities and conducting integrated asset-liability studies on a periodic basis, typically every 3-5 years, to ensure that the Fund's asset allocation is designed to meet its liabilities and liquidity goals. Asset-liability studies illustrate the potential implications that asset allocation decisions have on future contribution policies. Most of Callan's public defined benefit plan clients, especially those of AFRF's size, conduct regular asset-liability studies.	AFRF would consider performing an asset liability study moving forward.
Consider adding an appendix or table that defines the benchmarks used for individual managers.	We will consider as part of the IPS overhaul
Consider defining shorter term periods and specify how relative performance against peers will be evaluated.	We will consider tightening up the language
Consider outlining the process for new manager selection and criteria for manager termination.	We will consider tightening up the language

Callan Recommendations	AFRF Response
Asset Allocation	
While the Board has requested the investment consultant review the impact of different scenarios on funded ratio and liquidity, it has not conducted a full asset-liability study in the last five years. The Board should consider a full asset-liability study, which integrates different asset allocation mixes and market scenarios with their potential impact on all aspects of the Fund's liabilities (i.e. funded ratio, contribution expectations, amortization period, etc.).	Agree.
Investment Fees	
Consider amending the fee reconciliation and payment section of the Operating Procedures. Only six of the 49 strategies invoice for fees, which makes the current language of reconciliation and then payment impractical. Consider amending to a review and possible reconciliation of fees. Additionally, consider removing the Trustee oversight requirement in the Operating Procedures. Requiring a pre-identified trustee to verify manager's fee payments may cause governance issues. This could be perceived as a conflict as one of the Trustees responsible for broad oversight would be directly involved in the day-to-day mechanics, they are responsible for overseeing.	Agree. We will amend the language. The existing language was implemented when AFRF had minimal staff
Consider naming the party responsible for reporting investment management fees to the Board in the IPS.	We will consider tightening up the language
Consider adding language to the IPS outlining the frequency and requirements of fee benchmarking. Texas law only requires the reporting of absolute investment management fees, which may not provide stakeholders the appropriate context. An annual fee analysis may be beneficial for monitoring manager fees and assessing reasonableness compared to peers.	We will consider tightening up the language and process

Callan Recommendations	AFRF Response
Governance Process	
None	
Investment Manager Selection & Monitoring	
None	

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