Investment Practices and Performance Evaluation Report

The Metropolitan Transit Authority Non-Union Pension Plan

Smart Management Services Inc.
November 29, 2023

Investment Practices and Performance Evaluation Report

Texas Government Code §802.109 requires Texas public retirement systems with at least $30 million in assets to complete an Investment Practices and Performance Evaluation. The Metropolitan Transit Authority Non-Union Pension Plan and the Metropolitan Transit Authority Transport Workers Union Pension Plan are defined benefit pension plans with combined assets totaling approximately $450 million.

An update to the Guidelines on October 6, 2022, provided an example timeline for funds that completed an evaluation in 2020 and if assets were at least $100 million in October 2022 (and October 2025); the evaluation process was to start in 2023 (2026). The expected date for submission to the governing body (METRO Pension Plans) is March 2, 2024 (March 7, 2027). The Report is due to the Texas Pension Review Board (PRB) by June 1, 2024 (June 1, 2027).

They also, added Formal Review-and-comment process:

Formal review-and-comment process

Trigger of review-and-comment

- The evaluating firm has completed its evaluation and the evaluation report is substantially completed.
- The evaluating firm submits a substantially completed report to the retirement system's board.
- The firm requests the system to review and respond on the report within 30 days.

30 days for governing body to respond

- Within 30 days the system's board will review the report and create a written response to the firm's request.
- A response could include a description of actions the system will take or comments regarding any recommendations or findings in the report.

30 days for firm to finalize report with response

- Within 30 days from receipt of the system's response, the evaluating firm will provide to the system a final report.
- A final report by the evaluating firm is the firms completed report including the system's response.

31 days for system to provide final report to the PRB

- The system must provide the final report to the PRB not later than 31 days from receiving the final report from the firm.

The review and comment process includes the timelines for reports received sooner than the March 2, 2024, date outlined in the section above.

The updated Required Disclosure by the Independent Firm is now:

1) a summary outlining the qualifications of the firm in evaluating institutional investment practices and performance;
2) a statement that the firm meets the experience requirements;
3) a statement indicating the nature of any existing relationship between the firm and the system being evaluated;
4) a statement acknowledging that the firm, or its related entities, is not involved in directly or indirectly managing investments of the system;
5) a statement identifying any potential conflict of interest or any appearance of a conflict of interest that could impact the analysis between the independent firm and the system or any current/former member of the system's governing body;
6) a list of the types of remuneration received by the firm from sources other than the retirement system for services provided to the system; and
7) an explanation of the firm's determination regarding whether to include a recommendation for each of the evaluated matters in the report or a lack thereof.

The scope of our review was in conjunction with the Texas Pension Review Board (PRB) Guidelines and the Metropolitan Transit Authority of Harris County (METRO) Pension scope of work. Per the PRB, a thorough evaluation would include the following **elements**:

1) Identify and review existing investment policies, procedures, and practices. This should include any formally established policies (e.g., Investment Policy Statement) as well any informal procedures and practices used to carry out the investment activities of the system. It is not necessary to review past policies, procedures, and practices that are no longer applicable unless they are deemed helpful to understand current policy or practice.

2) Compare the existing policies and procedures to industry best practices.

3) Generally, assess whether the board, internal staff, and external consultants are adhering to the established policies.

4) Identify the strengths and weaknesses of the current policies, procedures, and practices and make recommendations for improvement.

5) Include a detailed description of the criteria considered and methodology used to perform the evaluation, including an explanation of any metrics used and associated calculations.

The PRB further determined Components of the Evaluation. The five areas required to be covered in each evaluation are:

1. An analysis of any **investment policy or strategic investment plan** adopted by the retirement system and the retirement system's compliance with that policy or plan;

2. A detailed review of the retirement system's **investment 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 system;

4. A review of the retirement system's **governance processes related to investment activities**, including investment decision-making processes, delegation of investment authority, and board investment expertise and education;

    A. Transparency;
    B. Investment Knowledge/Expertise; and
    C. Accountability.

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

Required Disclosure by Independent Firm

Smart Management Services, Inc. (SMS)

SMS is an established and respected professional services firm based in Houston, Texas. Our firm was founded 30 years ago, in 1993. SMS has been involved in varied engagements for a wide range of clients including the Metropolitan Transit Authority of Harris County (METRO), Houston Independent School District (HISD), City of Houston, City of Dallas, City of San Antonio, Washington, D.C., the Harris County-Houston Sports Authority, and the State of Texas. Previously, SMS served as a member of the audit team for METRO. We performed federal compliance reviews under OMB Uniform Guidance and Circular A-133 in accordance with standards for risk assessment for federal funding for other designated programs. In addition, SMS performed the agreed upon procedures for the review of METRO's submission to the Department of Transportation National Transportation Database (NTD). We have a proven successful track record with multiple governmental entities. SMS is a certified Small Business Enterprise (SBE), Minority Business Enterprise (MBE), and Women Business Enterprise (WBE). We prepared the 2020 evaluation of institutional Investment practices and performance for the Metropolitan Transit Authority Non-Union Pension Plan and our personnel are experienced with pension plans.

Our engagement team's experience and qualifications include previous high-level governmental financial experience, which involved monitoring investment activity and oversight of large municipal retirement plans. One team member has long-term pension plan administration experience which includes managing a pension administration department that handled more than 330 retirement plans, reviewing the preparation of quarterly and annual valuations for both defined benefit (DB) and defined contribution plans, preparing specialized plan investment tracking reports, creating and implementing an internal control manual for the plan administration department, and managing the system installation, implementation and training for the transformation from annual to a daily valuation trust and pension system for a benefits consulting firm. One team member has the distinct qualification of having served on the Texas Pension Review Board. SMS meets the experience requirements.

SMS had no existing relationship with the Metropolitan Transit Authority Non-Union Pension Plan prior to undertaking the evaluation in 2020 or this evaluation. We have not had any relationship with the plan since then, prior to undertaking this review. SMS nor its related entities are involved directly or indirectly in managing investments in the system. SMS has no conflict of interest that could impact the analysis between SMS and the Metropolitan Transit Authority Non-Union Pension Plan nor any current/former member of the system's governing body. We received no remuneration from sources other than the retirement system for services provided to the System.

SMS used professional judgement to determine whether to include a recommendation for each of the evaluated matters in the report or lack thereof. All recommendations were discussed with the administration for confirmation of our understanding of events. We reviewed the Code and the recommendations by the Texas Pension Review Board and evaluated investment duties and responsibilities. We have reviewed the following materials:

- Investment Policy Statements,
- Asset Allocation Study,
- Monthly and quarterly performance reports from Marquette,
- Committee meeting minutes,
- Plan ACFR (audit),
- Plan document,
- Vendor contracts,
- Data on the Pension Plan website, and
- Data on the Texas Pension Review Board website.

Please see, also, the Description of Criteria Considered and Methodology Used at the end of the report.

The Metropolitan Transit Authority of Harris County Non-Union Pension Plan is a noncontributory, single employer, defined benefit plan and was closed to new participants on October 1, 2007. The plan is authorized under Chapter 810 of the Government Code with the authority to determine plan provisions locally.

The following table describes a few facts about the Plan as of December 31, 2022:

Funded Ratio	61.1 %
Remaining Amortization Period	20 years
Rate of return (based in the geometric method and net of fees):	
1 year	-14.0%
3 Year	2.3%
5 Year	3.2%
10 Year	5.4%
Assumed rate of return	6.25%
Actuarially Determined Contribution (ADC) amount	\$12,852,876
Actual Employer Contribution amount	\$13,447,958
Unfunded Actuarial Accrued Liability (UAAL)	\$125,789,388
UAAL as a percent of covered payroll	383.9%

METRO makes monthly contributions to this plan which are authorized annually by METRO's Board of Directors during the annual budgeting process.

Funding policy for the defined benefit pension plans is to contribute each year the independently calculated, actuarially determined contribution in equal payments over a 12-month period using the following key assumptions:

- Actuarial cost method – Entry age normal
- Amortization method – Level percentage of payroll, closed
- Asset valuation method – five-year smoothed market value
- Inflation – 2.30%
- Salary increases – 3.00% compensation increase
- Actuarial assumed rate of return 6.25% is a net of an explicit assumption for expected administrative expense
- Mortality

Information about the plan on METRO's website is significantly outdated. On October 20, 2023, the data is there for December 31, 2021.

1 Analysis of the Investment Policy and Compliance with the Policy

SMS (We) reviewed the Metropolitan Transit Authority Non-Union Pension Plan's Investment Policy Statement (IPS) dated December 8, 2020 against the Government Finance Officers Association (GFOA) Investment Policies for Defined Benefit (DB) Plans. The Policy states that policies should address the following:

- **Statement of goal, purpose, or mission**: Articulate the rationale for having the policy, as well as the investment goals (e.g., to meet or exceed a certain benchmark for the overall portfolio while taking into consideration the appropriate level of risk).
- **Statement on managing risks of investments**: Identify investment guidelines for investment professionals to follow (e.g., limits on holdings of individual securities and credit ratings).
- **Asset allocation strategy**: Identify the factors that fiduciaries should continuously monitor and review in assessing whether they are adhering to the plan's long-term asset allocation strategy, as well as specifying the plan's rebalancing policy;
- **Liquidity of investments:** Identify the process the system will take to identify its liquidity requirements, balancing the need to maintain cash flow with maximizing returns.;
- **Guidelines for other investment-related service providers**: Define guidelines for selection and periodic performance evaluation of professionals, such as investment consultants and custodians. Measures of evaluation may include service quality, cost, and communications.
- **Investment management guidelines**: Define selection criteria and manager watch list/termination guidelines, which may include criteria and procedures related to specific benchmarks for placing an investment on a watch list or terminating an investment.
- **Cost management**: Define expectations for evaluation of total cost and fee transparency (e.g., transaction cost, investment management fees, custodial fees, performance-based fees, and other investment-related expenses).
- **Performance measurement (benchmarking) and reporting**: Define measurement and reporting criteria such as the frequency of reporting and monitoring, the way external and internal parties report investment results, the evaluation process (with clear definitions of strategies); and the performance benchmarks for permissible asset classes, expectations, and criteria for investment manager performance measurement.

In addition:

- If the plan has foreign assets, identify parameters for establishing foreign currency positions and how they will be managed (e.g., a position of no more than a certain amount hedged in foreign currency).
- If the plan has alternative investments, review GFOA's Alternative Investment Checklist.
- Outline the guidelines for transaction or brokerage trade transactions to avoid any real or perceived conflicts of interests and to avoid all revenue or expense sharing (soft dollar) arrangements between the plan and its service providers.

The Metropolitan Transit Authority Non-Union Pension Plan IPS has most of the elements contained in the GFOA Investment Policies for Defined Benefit (DB) Plans including the elements of a Statement of Purpose; Asset Allocation Strategy; Guidelines for other investment-related service providers; Investment Management Guidelines; Cost Management; and Performance Measurement (benchmarking) and Reporting. The IPS does not discuss Liquidity of Investments. It does discuss risk throughout; but does not have a Statement on Managing Risks of Investments.

The Metropolitan Transit Authority Non-Union Pension Plan IPS includes a **Funding Policy** "to provide a roadmap to fully fund its long-term obligations and to help the plan achieve the three fundamental goals of public pension funding: benefit security, contribution stability, and intergenerational equity". The Funding Policy meets the GFOA Best Practice for Core Elements of a Funding Policy.

The Funding Policy section includes the following statements: "The overall objective of the Plan's investment pool is to achieve the actuarial assumed rate of return. A 5 to 7-year period is appropriate in measuring progress toward achieving this objective." "The returns (net of manager fees and other related fees and expenses) on the traditional asset classes within the Plan investment pool (Total Domestic Equity and Total Fixed Income) should exceed the return on a composite of non-managed market indices weighted in proportion to the actual structure of the Plan portfolio." "Total Liquid and Private Alternatives should exceed the current actuarial assumption which is 6.50% in 2019. In brief, the investment portfolio should benefit from active management." Neither the Plan document nor the IPS is updated when the actuarial assumptions on rates are adjusted. The Plan document was amended twice on March 17, 2021.

Milliman prepares an annual Pension Plan Review. The most recent one, 2022 Pension Plans Review, dated November 1, 2022, states:

- MTA funding policy is compliant with the latest Texas Pension Review Board Funding Guidelines;
- Assumptions are individually reasonable and reasonable in aggregate; and
- The Trustees can have a high degree of confidence that the actuarial condition of the Pension Plan is being accurately measured and that benefit promises will be met.

The roles and responsibilities are clearly outlined and discussed more in Section 4 Governance. They are designed to meet the needs and objectives of the Plan consider 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 [e.g., pay-based vs. flat $ benefit, automatic COLAs, DROP, etc.].

The IPS has a section on **Portfolio Structure and Asset Allocation**. The section includes a discussion on Asset Allocation with maximum and minimum ranges and a target allocation. This area is covered in depth in Section 2 of this evaluation.

The Investment Consultant, Marquette, performs stress tests on the Plan's asset allocations to test that the Plan will be able to sustain a commitment to the IPS under stress test scenarios. These tests show that the Plan's long-term objectives are reasonable and are expected to be achieved over the long term. The expected target rate of return is currently being reviewed and discussed by the Board/Committee and Milliman. Should the discount rate be revised downward, the asset allocation will be revisited. The stress tests are discussed in more detail under Asset Allocation in Section 2, but the Plan should be able to sustain a commitment to the Investment Policy under stress scenarios and the Investment Policy should achieve its stated investment objectives. Further, the Investment Managers should be able to maintain commitment to the Investment Policy under the stress-tested scenarios.

As a strength, there is evidence that the System is in compliance with following its IPS because Marquette advises the Board/Committee by reporting on compliance with the IPS. At each monthly Board/Committee meeting**,** Marquette provides reports which address the status of investments and provide an indication of whether the investment objectives are being met and the System's IPS is being followed. The full executive summary report Marquette provides and discusses with the Board/Committee includes the following:

- Market environment overview by asset class;
- Summary of the overall investment pool since the last report;
- Total fund review and performance attribution;
- Overview of the performance of the individual managers;
- List of outstanding action/decision items;
- Analysis of the overall asset allocation;
- Historical performance; and
- Performance attribution summaries of each individual manager.

SMS reviewed the documentation provided by Marquette during Board/Committee meetings. We also reviewed the audit opinion on the Comprehensive Annual Financial Report for the year ending 2021; the 2021, 2022, and 2023 Actuarial Valuation Reports; the Investment Consultant contract; and the contracts of the Investment Managers and found no indication of non-compliance. Recommended changes to the Investment Policy may result from changing market conditions or changing financial objectives or the needs of the Plan.

2 Review of the System’s Investment Asset Allocation

(A) The Process for determining target allocation

Although there is no written policy for determining and evaluating the System’s asset allocation, the System’s practice is similar to the GFOA Best Practice for Asset Allocation for Defined Benefit Plans, which states: “Asset allocation, the practice of dividing an investment portfolio among the major asset categories of equities, fixed income, cash equivalents, and alternatives is a fundamental principle of sound investing. Diversifying the investment portfolio by including asset categories with investment returns that increase or decrease under different market conditions can protect a DB plan against significant investment losses. That is because historically, the returns of the major asset categories have not all experienced investment gains and losses at the same time. A portfolio should be diversified not only among asset categories, but also within asset categories. The key is to identify investments in segments of each asset category that may perform differently under different market conditions (for example, equity investments would be divided among large-cap, mid-cap, and small-cap stocks, and those investments would be further divided between growth and value).”

We recommend that the System include in its IPS a written policy for determining and evaluating the asset allocation similar to the GFOA recommendation. The GFOA recommends that retirement systems establish, within their overall investment policy, an asset allocation plan based on the following best practices:

> 1) Prior to developing an asset allocation plan, review and evaluate the following issues: legal framework and fiduciary standards; actuarial return and risk expectations; need for growth of principal; need for income; need for liquidity (the ability to convert an asset to cash quickly); tolerance for risk; tolerance for volatility (the amount of uncertainty or risk about changes in the value of a security); investment time horizons (the length of time over which an investment is made or held before it is sold); monitoring guidelines; and compliance procedures.
>
> 2) Work closely with actuaries and other advisors to determine the plans expected rate of return (estimated long-term investment yield for the plan, net of fees, with consideration given to the nature and mix of current and expected plan investments), the expected variation or level of volatility of returns, cash needs for several years out, and the expected time horizon for achieving return objectives.
>
> 3) Develop a long-term strategic asset allocation policy that identifies the broad mix of assets (equities, fixed income, cash equivalents, and alternatives) necessary to achieve the plans investment return and risk objectives. Evaluate all investments in light of the system’s time horizon, which will help determine the proper balance between equity and fixed-income investments. When determining the number of investments to be chosen,

and their complexity, consider the ability of plan decision makers to properly monitor the strategies.

4) Review the portfolio performance, at least annually (preferably quarterly), to ensure compliance with the strategic and annual investment targets. Avoid market timing (buying and selling securities based on an attempt to predict the future direction of the market).

Marquette provided the Board/Committee with an Asset Allocation Study. The most recent Asset Allocation Study for the Non-Union Plan is dated October 2, 2019, with data as of June 30, 2019. The asset allocation was developed over a six-month period and was discussed at three Board/Committee meetings. Marquette's asset allocation studies evaluate potential client portfolios under a variety of macroeconomic environments, which directly impact the performance of asset classes. The studies are built to analyze features of portfolio construction, including liquidity, rebalancing, and net cash flow. Their asset allocation studies offer an analysis that formulates effective portfolios to achieve the Plan's goals. Specifically, the following initiatives are included in their asset allocation studies:

- Identify and quantify sources of risk, beyond the use of standard deviation as the sole risk metric
- Establish a forward-looking methodology that is not anchored by pre-determined expected returns, standard deviations, and correlations
- Recognize the illiquid nature of alternative asset classes, along with the liquidity needs
- Incorporate the return goals, liabilities, and cash flows
- Allow for portfolio re-balancing to keep asset allocations within target ranges
- Allow for non-normal return patterns
- Reflect current economic conditions in the analysis

Marquette's software is based on a Monte Carlo simulation of macroeconomic factors, which are used to model monthly return outcomes of capital markets. The simulations are created by an economic scenario generator ("ESG"), which is the driving force behind their asset allocation model. The economic scenario generator simulates the future performance of the capital markets and macro-economy; the underlying models are calibrated based on the long-term historical record, so that they will reproduce the kinds of volatility and stress scenarios that have been observed over the 20th and 21st centuries. The models are linked and correlated so that the behavior of different asset classes and economic variables is consistent within each random scenario.

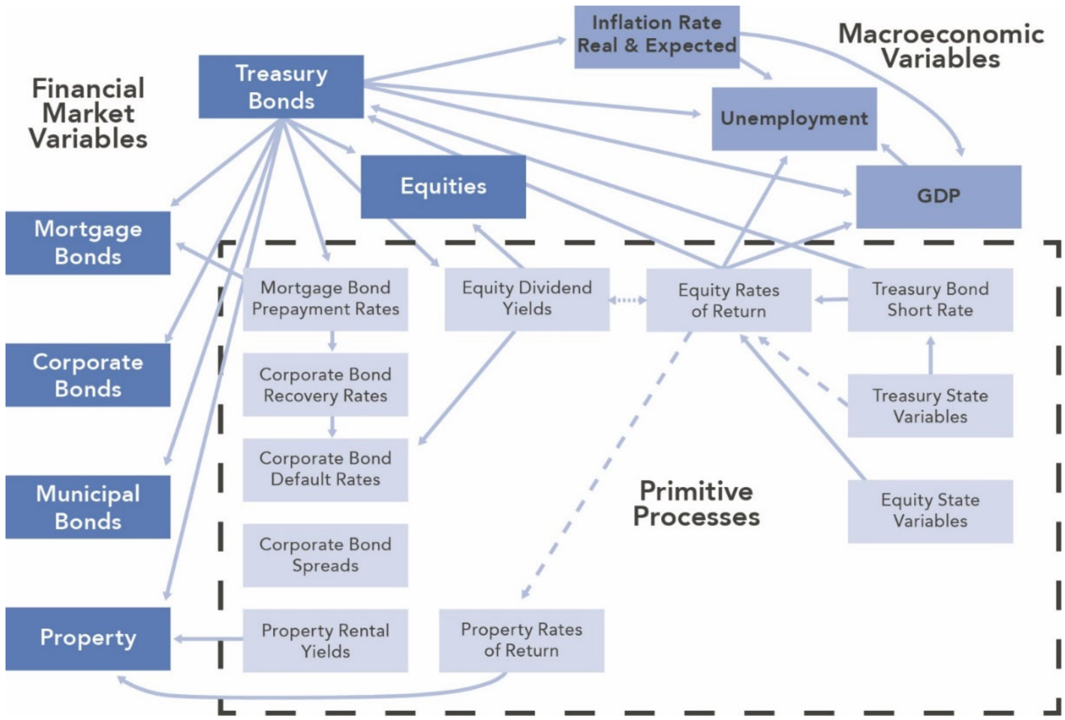
The ESG utilized in their studies is the GEMS® Economic Scenario Generator, which is developed and managed by Conning, a risk solutions group based in Hartford, Connecticut. Conning's Risk Solutions Group has been developing and using financial modeling systems since 1995 to perform economic capital analyses, strategic asset allocation analyses, and other types of risk analyses for a wide range of institutional clients. Their software products, including the GEMS® Economic

Scenario Generator, are licensed and run internally by insurance companies, pension funds, and consulting firms across Europe, North America, and Asia. It has won InsuranceRisk's "Best ESG Software" award three times.

The primary models that drive the analysis are the following:

- Interest rates and non-defaultable bonds
- Equity indices and dividends
- Corporate bonds, credit spreads, prices and transition and default
- Sovereign debt, including spreads and defaults
- Inflation (core, medical, wage)
- GDP
- Unemployment
- U.S. Mortgage-backed bonds
- U.S. Municipal bonds
- Covered Bonds
- Real Estate
- FX

These models are the most commonly used for evaluating asset allocation structures. They are introduced through a cascade structure, wherein each economic model forms an interconnected network. In a cascade structure, scenario generation is governed by a well-defined sequence in which variables at the top of the structure can only influence those below. The exact sequence of the variables is to some extent arbitrary; however, interest rates are often used as a starting position, and since one may need to calculate discounted cash flows through the life of a simulation, it is for practical reasons an obvious choice. Within the GEMS® ESG the cascade structure, shown below, begins with the non-defaultable term structure model, proceeds through equities and macroeconomic variables to end with unemployment (see the diagram below). The result of this approach enables GEMS® to show realistic relationships between variables on average, over different time horizons, and in tail events.



The results of the simulations are then used to calculate a variety of risk and return statistics which allow for a comparison of portfolios in the study. The following statistics most useful in evaluating portfolios against each other:

- Risk adjusted return
- Downside probability and risk
- Risk and return distributions
- Risk and return decomposition by asset class
- Risk and return decomposition by market factor
- Funding ratio projections (pensions only)
- Pension surplus projections (pensions only)
- Spending projections (rate and dollar amount; endowments/foundations only)

Statistics are developed annually and for the cumulative horizon of the study (typically ten years); results are shown graphically as well as numerically.

Using the resources and advice of the Investment Consultant, the Board/Committee is responsible for making the decisions regarding strategic asset allocation. The System's overall risk tolerance is discussed during the asset allocation review and during monthly performance updates. The asset allocation is reviewed at each monthly Board/Committee meeting. *The asset allocation is tailored to meet the desired actuarial expected return on assets.* In practice, the Board/Committee uses information from the actuarial valuation and works with the Investment Consultant to determine the System's target allocation.

Milliman Inc. (Milliman) the System's actuary, prepares a Valuation Assumption Report annually for the System outlining the actuarial methods and assumptions used for The Governmental Accounting Standards Board GASB 67 and 68 Disclosures for the Plans. Milliman Inc., also, prepares a Valuation Assumption Report for the System outlining the actuarial methods and assumptions used for GASB 75 Disclosures for Postretirement Benefits. The methods and assumptions to be considered for the December 31, 2022, measurement of liabilities is in the Valuation Assumptions Report.

Pension assumptions are then approved by the Board/Committee. Milliman uses the approved assumptions to provide the **annual actuarial valuation** which provides an actuarially determined contribution. In general, the annual actuarial valuation determines the current level of employer contributions that, considering prior funding, will accumulate assets sufficient to meet benefit payments when due under the terms of the Plan. More specifically, the valuation determines the minimum contribution for the current plan year sufficient to fund the cost of benefits accruing during the year (normal cost) plus an additional amount to fund the excess of plan liabilities over plan assets (unfunded accrued liability) over a period not to exceed the remaining amortization funding period, which was 20 years for the January 1, 2023 Actuarial Valuation. The Non-Union plan was 61.1% funded as of January 1, 2023.

The IPS provides the minimum and maximum authorized investment exposures and target allocation for the various asset classes in which the Plan may invest as categorized by management style are as follows:

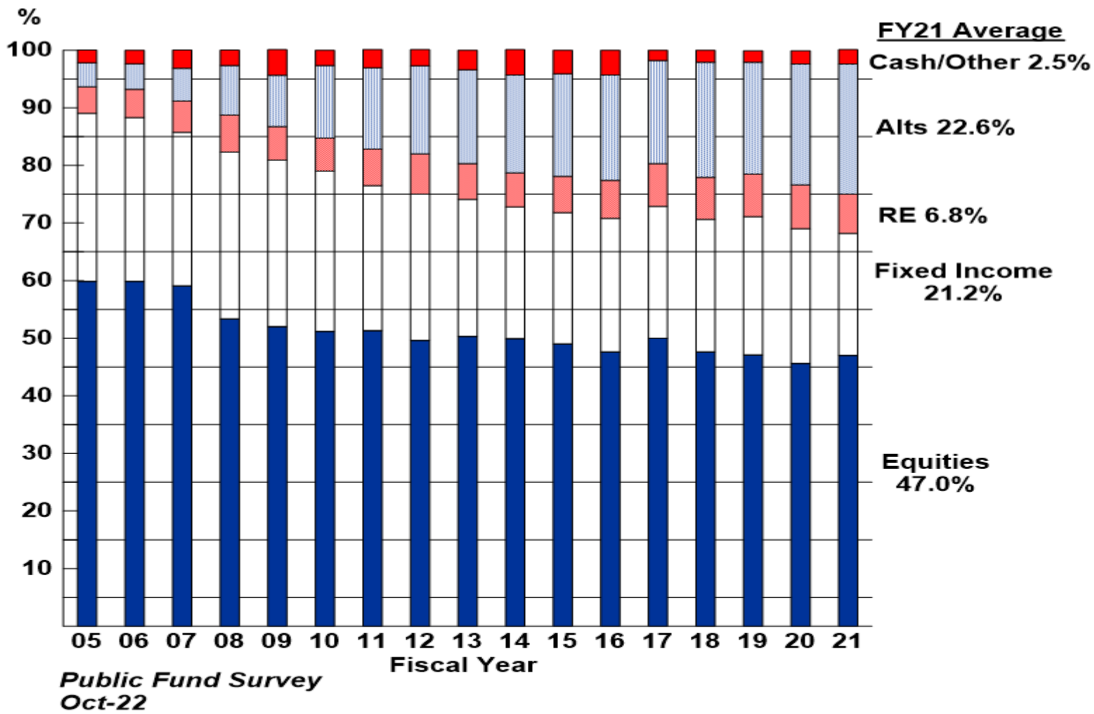
Asset Class	**Target Allocation**	**Maximum**	**Minimum**
Broad Fixed Income	22%	27%	17%
Global Aggregate	8%	13%	8%
Total Fixed Income	30%		
U.S. Large-Cap Core	17%	22%	12%
U.S. Large -Cap Value	4%	9%	0%
U.S. Mid-Cap Core	8%	13%	3%
U.S. Small-Cap Core	3%	8%	0%
U.S. Small-Cap Value	3%	8%	0%
Total U.S. Equity	35%		
Developed Large-Cap	10%	15%	5%
Non-U.S. Small-Cap	5%	10%	0%

Global Low Volatility	10%	15%	5%
Total Non-U.S. Equity	25%		
Real Estate - Core	10%	15%	5%
Total Real Assets	10%		
Total	**100%**		

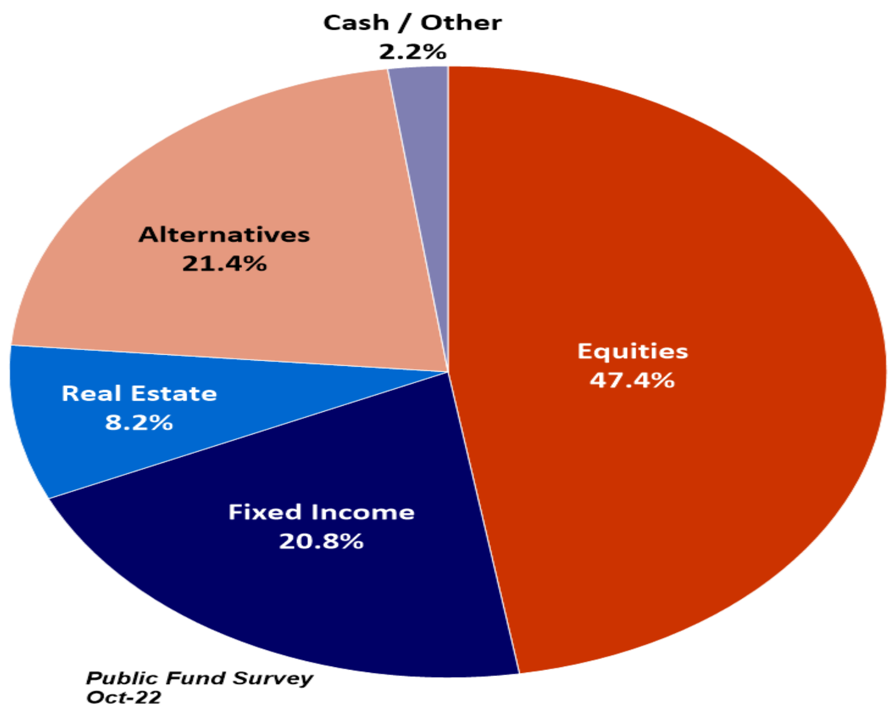
The IPS states: Each quarter, the Plan Administrator and Investment Consultant, review the actual target allocations for each Fund and make any recommended changes to the Board/Committee. The target allocation must be within the minimum and maximum asset class exposure and must conform to all other provisions of this Investment Policy. Any approved changes to the target allocation must be documented in the official Board/Committee minutes.

Marquette does not advocate tactical management of the portfolio. While narrow rebalancing ranges (+/- 5%) exist to allow for market movement and the ability to rebalance in a cost-efficient manner, they do not advocate for tactical timing of the markets.

The National Association of State Retirement Administrators (NASRA) Public Fund Survey plotted the average asset allocation of 90+ funds since its inception. SMS reviewed the NASRA Public Funds Survey dated October 2022 (which is a summary of findings for FY 2021). The data shows the average pension fund asset allocation of 90+ funds in the Public Fund Survey since FY 05. The average allocation to public equities has steadily declined since the major drop in global capital markets in 2008-09. At 47.0 percent in FY 21, the average allocation to equities continues to be noticeably lower compared to the beginning of the measurement period, while the average allocation to Fixed Income declined marginally in FY 21 to 21.2 percent. Sustained low interest rates have contributed to a long-term trend toward more diversified portfolios featuring lower allocations to fixed income in lieu of asset classes expected to produce higher returns, such as Real Estate and other types of Alternative investments. The average allocation to Real Estate in FY 21 declined marginally to 6.8 percent, and the allocation to other types of Alternatives, chiefly private equity, and hedge funds, was 22.6 percent (which marks the highest allocation ever to Alternatives) and marks the second consecutive year in which the average allocation was above 20 percent.



Further, the NASRA Public Funds Survey shows the FY 21 asset allocation weighted by the market value of assets of funds in the Survey. The weighted asset allocation closely matches the non-weighted average allocation, with the weighted allocation reflecting a slightly higher allocation to real estate and a slightly lower allocation to fixed income compared to the non-weighted average.



Texas Public Employee Retirement Systems (TEXPERS) prepared a Report on Asset Allocation and Investment Performance dated August 2023 for periods ending September 30, 2022. Figures 1 and 2 below illustrate the average dollar-weighted* asset allocation of survey respondents as a composite group. The Domestic, International, and Global Equity asset classes include investments such as U.S. and Non-U.S. common stocks. Fixed Income includes investments such as government and corporate bonds from domestic and international issuers.

Figure 1

Market Value $13.41 Billion
As of September 30, 2022

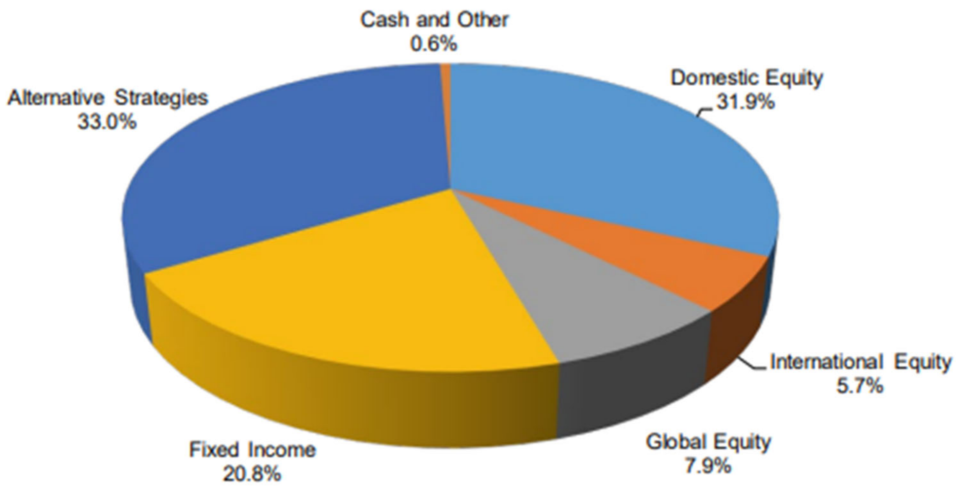
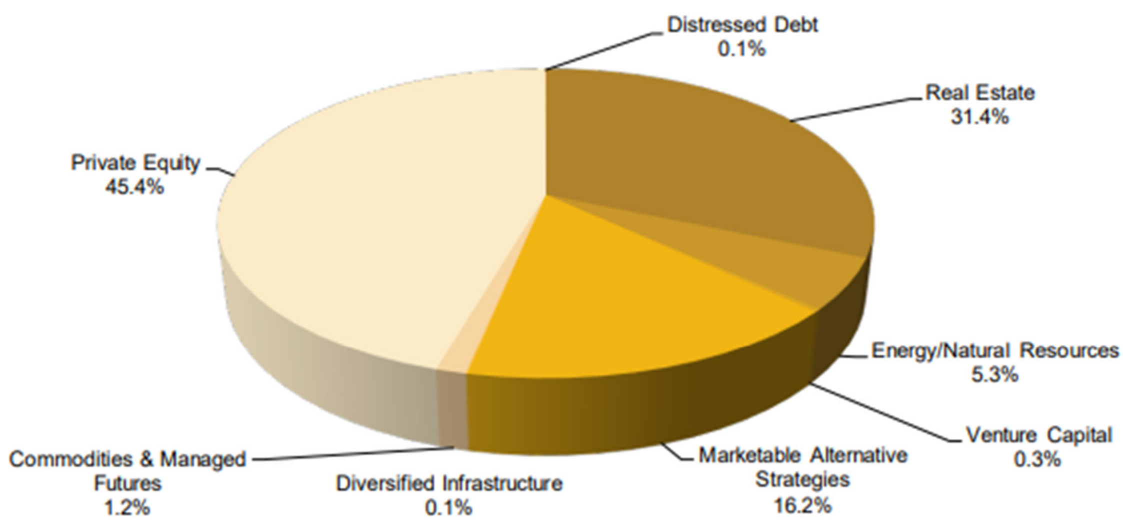


Figure 2

Alternative Strategies Breakout



The asset allocation demonstrates that, in aggregate, the respondents have a level of diversification within the norm for public pension systems.

Alternative Strategies include private equity, real estate, venture capital, marketable alternative strategies, commodities and diversified infrastructure and a breakout of alternative strategies.

From September to December 2022, the National Conference on Public Employee Retirement Systems (NCPERS) undertook a comprehensive study exploring the retirement practices of the public sector. In partnership with Cobalt Community Research, NCPERS has collected and analyzed the most current data available on funds' fiscal condition and steps they are taking to ensure fiscal and operational integrity.

Below is a graph that shows the asset allocations for those funds that reported higher-than-average one-year investment returns.

Current vs. Target Investment Asset Allocations

			Value
Global Equity (%):	Avg. Current Asset Allocation	2022	27.3%
	Avg. Target Asset Allocation	2022	26.4%
Domestic Equity (%):	Avg. Current Asset Allocation	2022	32.6%
	Avg. Target Asset Allocation	2022	31.2%
International Equity (%):	Avg. Current Asset Allocation	2022	15.8%
	Avg. Target Asset Allocation	2022	16.7%
Global Fixed Income (%):	Avg. Current Asset Allocation	2022	11.9%
	Avg. Target Asset Allocation	2022	13.4%
Domestic Fixed Income (%):	Avg. Current Asset Allocation	2022	15.3%
	Avg. Target Asset Allocation	2022	17.4%
International Fixed Income (%):	Avg. Current Asset Allocation	2022	2.8%
	Avg. Target Asset Allocation	2022	2.3%
High-Yield Bond (%):	Avg. Current Asset Allocation	2022	3.5%
	Avg. Target Asset Allocation	2022	3.9%
Real Estate (%):	Avg. Current Asset Allocation	2022	10.2%
	Avg. Target Asset Allocation	2022	11.3%
Private Equity (%):	Avg. Current Asset Allocation	2022	13.9%
	Avg. Target Asset Allocation	2022	12.5%
Hedge Fund (%):	Avg. Current Asset Allocation	2022	5.6%
	Avg. Target Asset Allocation	2022	6.6%
Private Debt (%):	Avg. Current Asset Allocation	2022	3.4%
	Avg. Target Asset Allocation	2022	4.4%
Other Alternatives (%):	Avg. Current Asset Allocation	2022	6.9%
	Avg. Target Asset Allocation	2022	6.2%
Commodities (%):	Avg. Current Asset Allocation	2022	2.3%
	Avg. Target Asset Allocation	2022	1.7%
Cash Equivalents (%):	Avg. Current Asset Allocation	2022	1.5%
	Avg. Target Asset Allocation	2022	0.7%
Other (specify asset below) (%):	Avg. Current Asset Allocation	2022	9.5%
	Avg. Target Asset Allocation	2022	16.6%

0.0% 10.0% 20.0% 30.0%

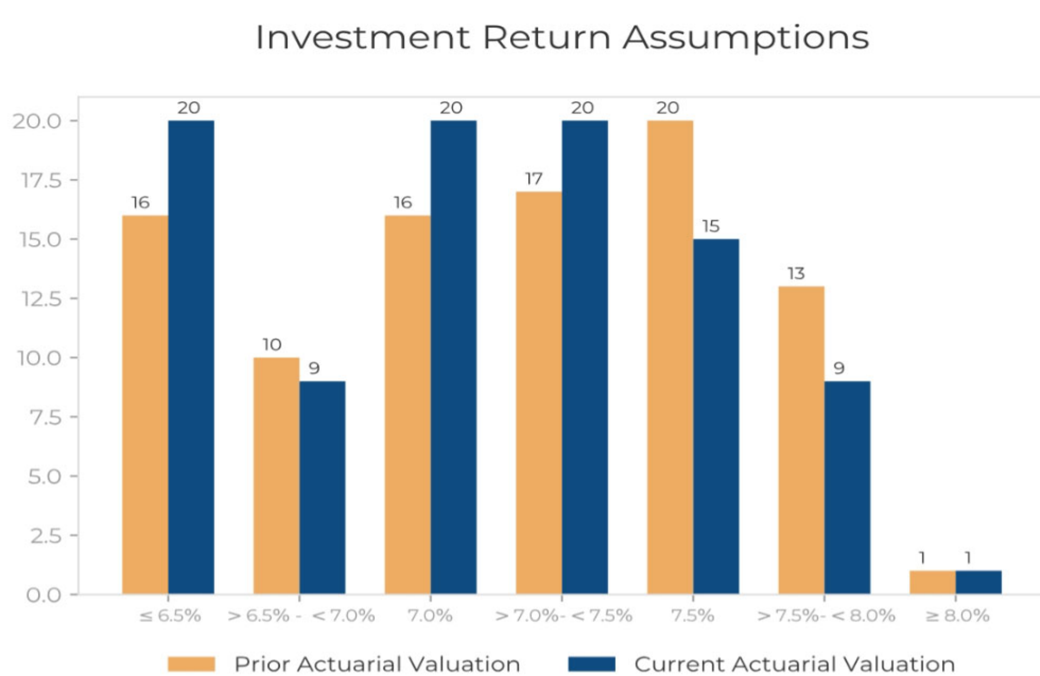
Value

Investment Return Assumption

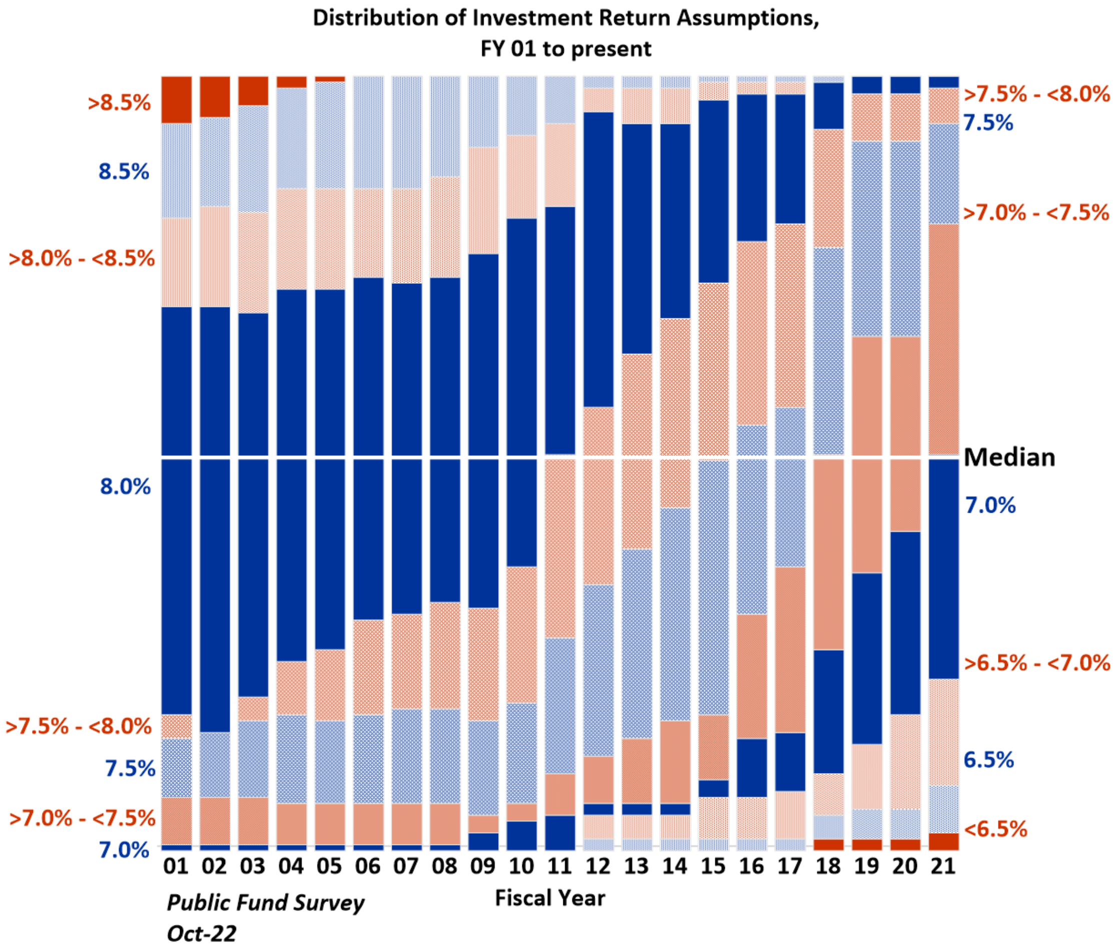
Of all actuarial assumptions, a public pension plan's investment return assumption has the greatest effect on the plan's funding level and its projected long-term cost. Because investment earnings account for a majority of revenue for a typical public pension fund, the accuracy of the return assumption has a major effect on a plan's finances and actuarial funding levels. The investment return assumption is a key actuarial assumption which directly impacts a plan's liability calculation and contribution requirement. A higher return assumption leads to a lower liability calculation, and therefore; a lower contribution requirement and vice versa. In response to projected market conditions and actual plan experience, retirement systems have reduced return assumptions in recent years.

There are 100 actuarially funded defined benefit public pension plans registered with the PRB. The total membership of these public retirement systems is more than 2.95 million active and retired members, and the total net assets of the plans are approximately $301 billion. The PRB's Texas Public Pension Data Center is where the 100 actuarily funded defined benefit public pension plans registered with the PRB report data to the PRB in annual financial reports, actuarial valuations and other studies, and investment and membership reports. This data center presents the reported information by plan and comparatively by plan type and asset group.

Return assumptions are reported in actuarial valuations, which are conducted by Texas plans at least every 3 years, according to Texas law. The chart below shows the Investment Return Assumptions for the aggregate of the 100 actuarially funded defined benefit public pension plans registered with the PRB:



The change in distribution of Public Pension Investment Return Assumptions in the NASRA update - FY 01 to FY21:



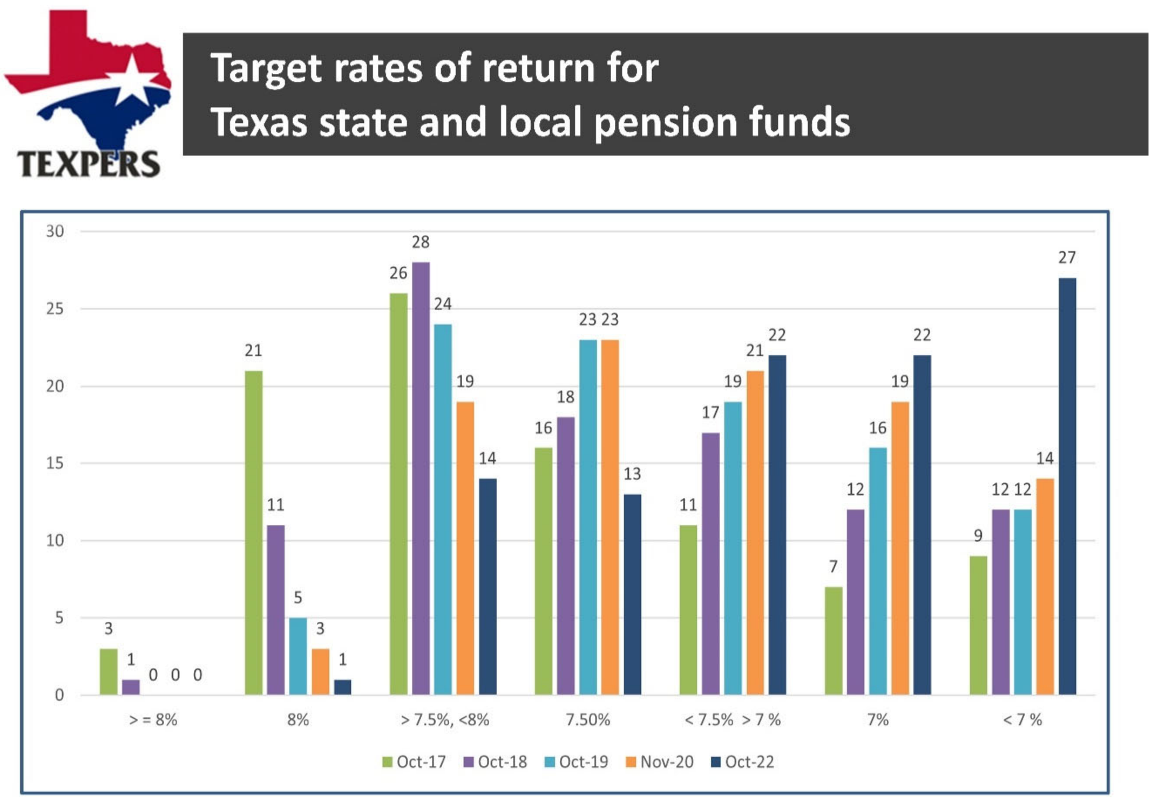
The PRB's **2023 Guide to Public Retirement Systems** shows a summary of the return assumptions for Texas public retirement systems and is included in the Investment Return Assumptions table below:

Investment Return Assumptions				
Return Assumption	Statewide	TLFFRA	Municipal	810
>=8%	0%	2%	0%	0%
> 7.50%, < 8.00%	0%	14%	12%	3%
7.50%	29%	33%	0%	0%
> 7.00%, < 7.50%	14%	26%	35%	12%
7.00%	43%	21%	35%	15%
> 6.50%, < 7.00%	14%	2%	6%	24%
<= 6.50%	0%	0%	12%	47%

The Pension Review Board's October 6, 2022, Actuarial Valuation Report continued to demonstrate pension funds' conscious effort to reduce target/discount rates. These are the return targets they set for investment portfolio performance. Lowering system target rates helps pension systems manage their investments in more conservative ways, but sometimes require additional contributions from public employees and/or their governmental-employer sponsor. Key observations for the last year are:

- Only one (1) system has an eight (8) percent target.
- The number of systems lowering their targets below 7 percent almost doubled in 2021-22, from 14 to 27.
- There are 49 systems at or below 7 percent, which is more than 3 times the 16 systems at the same target in 2016-2017.

The Pension Review Board has informally advised systems that lowering target rates will help them align their forecasts to guidance from industry experts that domestic and global capital markets will have generally lower returns for the foreseeable future. See graph on the following page:



* Prior to the Nov. 12, 2020 Actuarial Valuation Report, the Pension Review Board did not publish summaries of the number of plans equal to or less than 6.5 %.

(B) Expected risk and expected rate of return, categorized by asset class

Public retirement systems manage a variety of risks, including those relating to investments, operational issues, and the funding or financing of pension benefits. Identifying and measuring these risks is key to successful administration of a retirement system.

The expected risk and expected rate of return of each asset class are included in Marquette's Asset Allocation Study as discussed in section (A) above. A weakness in the IPS regarding asset allocation is the lack of a discussion on how the System's overall risk tolerance is expressed and measured. The expected risk is not categorized per asset class. Currently, the Investment Consultant takes risk into consideration. As mentioned on page 8 of this report the IPS does discuss risk throughout; but does not have a Statement on Managing Risks of Investments. *We recommend that the Board/Committee add a discussion of risk to the IPS.*

On a quarterly basis, Marquette analyzes and reports on risk as measured by standard deviation for the total fund portfolio relative to its peers. The fund's absolute risk and relative risk ranks can be monitored over time for as long as the fund has historical data. They can also compare the total fund to all total fund portfolios in the universe to see where the fund plots in the following categories: excess return over investment policy, tracking error, and information ratio.

Risk metrics can also be calculated relative to policy for total fund and investment mandate composites, as well as asset class managers. Relative risk metrics include:

- Sharpe ratio
- Historical beta
- Historical alpha
- R-squared/diversification
- Tracking error
- Information ratio
- Downside probability
- Downside risk
- Sortino ratio

For fixed income, U.S. equity, and non-U.S. equity managers, Marquette evaluates risk concentration by issuer. Risk concentration examines all types of capital exposure to each company in a total fund and is useful when large events occur. For U.S. equity and non-U.S. equity managers, they also look at common holdings between managers on both a number and percentage basis. This is useful to see if managers are selecting stocks from the same universe and not adding diversification to the system's portfolio.

The primary sources of risk are controlled through Marquette's asset allocation studies, investment policy development, investment manager due diligence, and program implementation. Marquette actively manages risk through re-balancing and on-going investment manager due diligence.

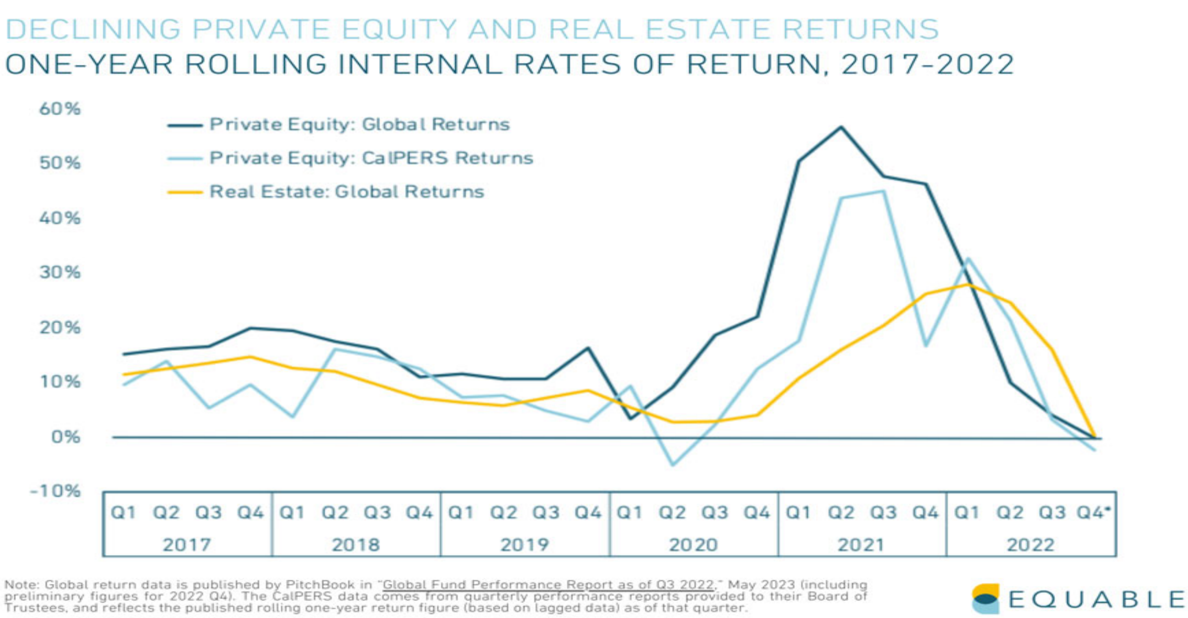
Marquette stress tests portfolios based on various market conditions. This is a way to quantify several types of risk (interest rate risk, etc.) and identify portfolio sensitivities that may not show up in an asset allocation study.

The System uses both active and passive managers within its pools - passive management provides a cost-effective means to gain asset class exposure while active management is used where a manager is believed to be in the best position to outperform over the long term and net of fees.

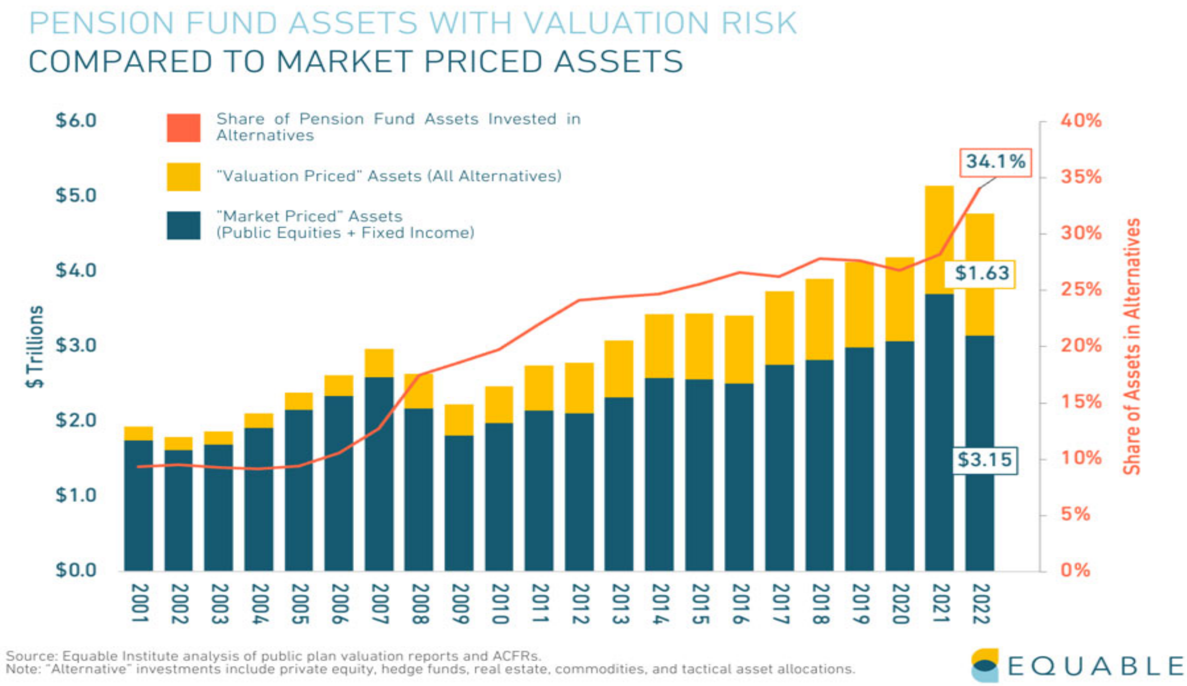
(C) Appropriateness of selection and valuation methodologies of alternative and illiquid assets

State of Pensions is Equable Institute's annual report on the status of statewide public pension systems, put into a historic context. Equable Institute is a bipartisan nonprofit that works with public retirement system stakeholders to solve complex pension funding challenges with data-driven solutions. Their Statement of Pensions 2023 – October Update says:

"Public pension funds are facing an emerging concern: "valuation risk." This is the risk that currently recorded asset values which are based on valuations — as opposed to market prices — eventually turn out to be overstatements. The share of pension fund portfolios exposed to this type of risk has grown significantly in the last two decades – from 9% in 2001 to 34.1% today. The two largest sources of valuation risk are private equity portfolios and real estate portfolios. In both cases, the values of investments held by pension funds are generally based on "fair price" valuations, as opposed to public market prices based on actual transactions. The fair price valuations may be reasonable, or they may overstate values. What is important is that the reported values of these assets are used to determine contribution rates. If these valuations are off, then today's contribution rates have been miscalculated."



Private equity and real estate investments are spread across a complex range of funds and assets. The process of updating the valuation of those investments typically has a three-to-nine-month lag from the point of time being measured. As shown in the figure below, private equity and real estate returns in 2021 were strong and that was reflected in 2022 fiscal year reporting. However, between 2022 and 2023 the returns have been falling and with them the valuation of these investments has declined.



Per the 9/30/2023 MTA Non-Union Flash, the System has exposure to real estate at 14.4%; but does not currently invest in alternative strategies such as private equity and/or hedge funds. The Non-Union Plan's Target Asset Allocation for real estate is maximum 15%.

The System might adjust its asset allocation target or investments for changes in the investment rate of return or if an unexpected, significant change occurred in the asset valuation. Any adjustments would be made taking all relevant facts into consideration.

(D) Future cash flows and liquidity needs

The Plan's anticipated future cash flow and liquidity needs are developed as a part of the **annual actuarial valuation** prepared by Milliman, as they are preparing the actuarily determined contribution. The System uses the actuarial valuation to review cash flow and liquidity needs. Contributions along with investment earnings are the funding source for investments which are governed by the IPS and Asset Allocation guidelines. Investment earnings are a significant part of cash flow for the Plan. When the portfolio returns less than expected, the plans don't have the money they were anticipating, and the plan's sponsor must make up the difference or the unfunded liability rises.

The valuation is presented to the Board/Committee during a monthly Board/Committee meeting. The actuarial valuation addresses the anticipated cash flow and liquidity needs. Cash flow includes contributions, investment returns, benefit payments, and administrative expenses in the report. The Plan is closed to new participants.

As a best practice, the GFOA recommends that those with decision-making authority carefully review and understand the actuarial valuation report and use the information it contains to make policy decisions to ensure that pension benefits are funded in a sustainable manner, consistent with the pension funding guidelines developed by GFOA and other major state and local government professional organizations.

GASB standards, Statements 67 and 68, require plans to calculate and report their funding level based on a projected investment return of plus and minus one percent from their assumed investment return; this also is a basic form of sensitivity testing.

The 2022 Pension Plan Review prepared by Milliman shows the following (Results are based on the full actuarial reports which can be made available on request):

CASH FLOW PROJECTION:

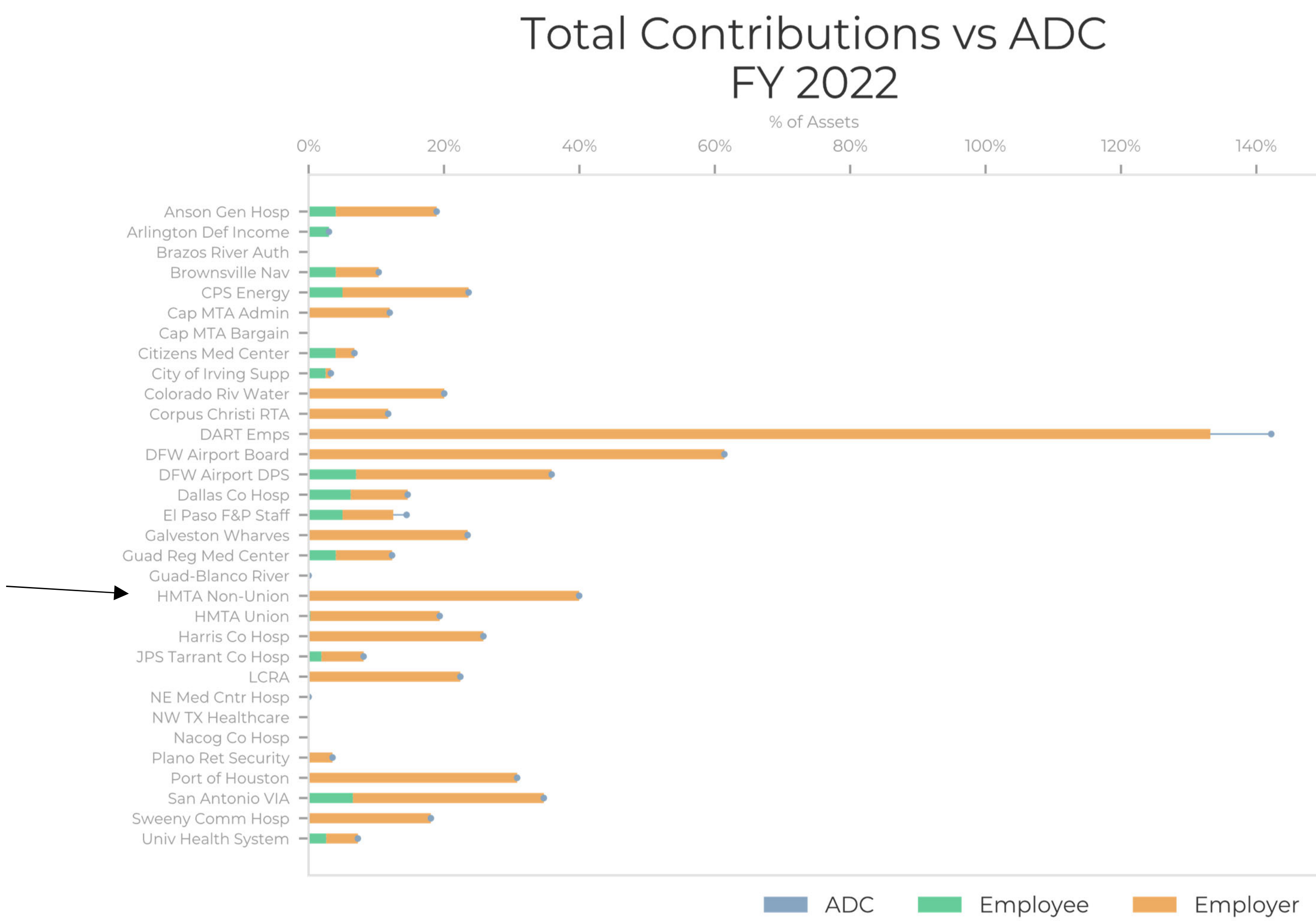
Based on Fiscal Year End 2022 GASB 68 Valuation

In $ Millions

Year	Projected Beginning Fiduciary Net Position	Projected Total Contribution	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position	Projected Ending Fiduciary Net Position
2022	$211.16	$12.03	$20.69	$ 0.33	$ 12.92	$215.08	$215.08
2023	215.08	11.40	20.77	0.33	13.14	218.51	218.51
2024	218.51	10.36	21.10	0.33	13.31	220.75	220.75
2025	220.75	9.68	21.51	0.34	13.42	222.00	222.00
2026	222.00	9.20	22.07	0.34	13.46	222.25	222.25
2027	222.25	8.97	22.58	0.34	13.45	221.75	221.75
2028	221.75	8.76	22.83	0.35	13.41	220.73	220.73
2029	220.73	8.55	23.45	0.35	13.32	218.81	218.81
2030	218.81	8.36	23.47	0.36	13.19	216.54	216.51
2031	216.54	8.19	23.57	0.36	13.04	213.84	213.84
….							
2043	171.63	7.09	19.88	0.40	10.31	168.75	168.75
2044	168.75	-	19.12	0.41	9.94	159.16	159.16

Contributions into a retirement system are often reported as a percentage of payroll and are usually made by the employer and the employees. The actuarially determined contribution (ADC) is the contribution rate for the system to achieve and maintain for an amortization period that does not exceed 30 years.

This graph displays both employee and employer contribution rates compared to the ADC rate of District / Supplemental retirement systems for the selected fiscal year reporting to the PRB. If an actuarial valuation was not completed for the selected fiscal year, the immediately preceding fiscal year is shown. If a plan does not report covered payroll, no data will appear.



Per Milliman's 2023 Actuarial Valuation Report, the actuarially determined contribution for plan year 2022 was $12,852,876 and $14,831,319 for plan year 2023, respectively. The following chart is in that report:

Normal Cost and Actuarially Determined Contribution

The Normal Cost is the amount allocated to the current plan year under the plan's actuarial cost method. The employer Normal Cost as of January 1, 2023, is determined below. The Actuarially Determined Contribution is also shown with interest to December 31, 2023.

1.	Normal Cost for benefits	
	a. Withdrawal	$664,832
	b. Retirement	2,456,206
	c. Death	27,282
	d. Disability	0
	e. Total	3,148,320
2.	Loading for expenses	278,324
3.	Total Employer Normal Cost [(1e) + (2)]	3,426,644
4.	Past Service Contribution [from Exhibit 10]	10,532,244
5.	Interest rate assumption	6.25%
6.	Interest on contribution to end of year [{(3) + (4)} * (5)]	872,431
7.	Actuarially Determined Contribution as of end of year [(3) + (4) + (6)]	$14,831,319

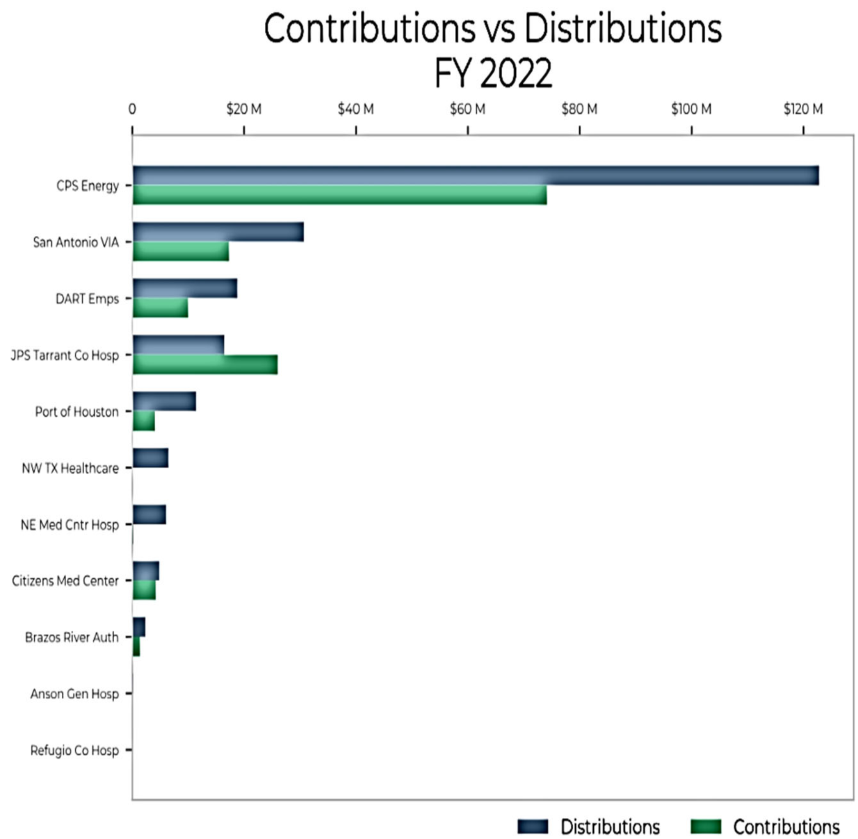
The report also defines the:

Summary of Income and Disbursements

The change in the Fair Value of Assets from December 31, 2021, to December 31, 2022, is shown below.

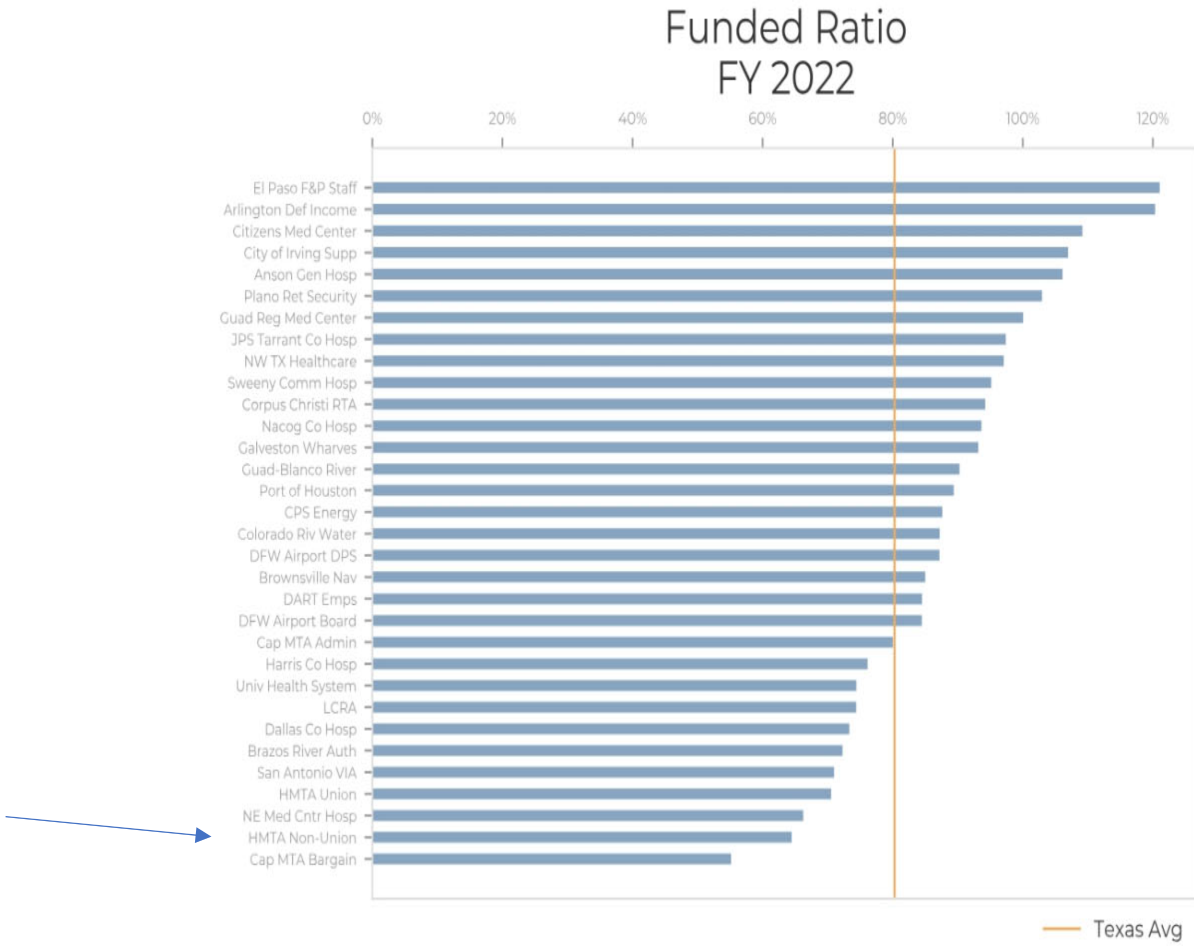
1	Fair Value of Assets as of December 31, 2021	$211,156,385
2.	Income	
	a. Employer contributions for plan year	13,308,196
	b. Realized gain / (loss)	(30,036,962)
	c. Other income	1,045,282
	d. Total	(15,683,484)
3.	Disbursements	
	a. Benefit payments to participants	17,595,120
	b. Investment management fees	549,135
	c. Trustees' fees/expenses	152,388
	d. Other expenses	125,936
	e. Total	18,422,579
4.	Net increase / (decrease) [(2d) - (3e)]	(34,106,063)
5.	Fair Value of Assets as of December 31, 2022 [(1) + (4)]	$177,050,322

This **PRB** graph below displays the contributions and distributions by District / Supplemental retirement systems over the past ten years. Contributions include those from both the employer and employees. Distributions include benefit payments, withdrawals, and refunds to current and former plan members.



2022 Information was not available for the Metro Plans.

The actuarial valuation also contains the actuarial accrued liability (AAL), the actuarial value of assets (AVA), and the unfunded actuarial accrued liability (UAAL). The actuarial value of assets divided by the actuarial accrued liability equals the funded ratio. In other words, how much of the total liability is funded. The PRB report for 810 plans shows the comparison below:


Funded Ratio
FY 2022
0%
20%
40%
60%
80%
100%
120%
El Paso F&P Staff
Arlington Def Income
Citizens Med Center
City of Irving Supp
Anson Gen Hosp
Plano Ret Security
Guad Reg Med Center
JPS Tarrant Co Hosp
NW TX Healthcare
Sweeny Comm Hosp
Corpus Christi RTA
Nacog Co Hosp
Galveston Wharves
Guad-Blanco River
Port of Houston
CPS Energy
Colorado Riv Water
DFW Airport DPS
Brownsville Nav
DART Emps
DFW Airport Board
Cap MTA Admin
Harris Co Hosp
Univ Health System
LCRA
Dallas Co Hosp
Brazos River Auth
San Antonio VIA
HMTA Union
NE Med Cntr Hosp
HMTA Non-Union
Cap MTA Bargain
Texas Avg

3 A Review of the Appropriateness of Investment Fees and Commissions Paid by the System

Per the IPS, the Plan Administrator is charged with negotiating written contracts with the Investment Managers that include fees and approving all Investment Manager, Custodian, and Investment Consultant fees. The Investment Consultant is an active participant in the process of negotiating fees, as well as seeking the lowest-cost account structure. Marquette actively monitors investment manager trading costs, soft dollar trading practices, portfolio rebalancing, and larger multi-asset class transition events to minimize trading costs and control risk. In some cases, a commission recapture is also explored. Marquette reports investment fees in their reports in both expense ratios and hard dollars. They compare actuals versus industry averages to ensure they are continually at the appropriate level. In their performance reports, they include a comparison, by asset class, between the Plan's asset management fees and the industry average. The July 2023 MTA Non-Union Flash includes a Fee Schedule which shows the expense ratios are .28% compared to the 2019 Marquette Associates Investment Management Fee Study-Industry Median of .40%.

Marquette reports performance both as gross-of-fees and net-of-fees. Using a net-of-fees performance evaluation allows the Plan to determine if the Investment Managers can consistently add value after fees. Marquette is willing to recommend that the Plan pay a slightly higher fee level for a manager that exhibits the ability to add value after fees are considered.

Fees include investment management fees, participant reporting and portfolio administration. The Plan does invest in core open-end real estate; however, the funds do not invest in alternative investments such as private equity and private credit. As a result, the sometimes-substantial performance-based fees, known as carried interest, to manage those investments have not been experienced by the System.

GFOA's Best Practice on Investment Fee Guidelines for External Management of Defined Benefit Plans recommends defined benefit plans with alternative investment strategies adopt an investment management fee policy that will allow them to negotiate competitive fees. They recommend the following strategies to ensure the Plan is paying a reasonable, competitive fee:

People: Guidelines should address the roles and responsibilities of internal and external participants involved in the investment management fee negotiations.

Process: Establish guidelines that identify the actions the defined benefits plan should take in negotiating investment fees. The importance of competitive fees should be ranked among the other factors being analyzed when selecting investment managers.

Performance: A defined benefit plan should incorporate strategies regarding anticipated investment performance.

Price: Ensure that the defined benefit plan is paying a reasonable, competitive fee by implementing the following strategies:

1. When using a separate account structure (professional investors managing an investment portfolio solely for the plan), establish fee break points as the portfolio amount increases.
2. Identify all fees and focus on aligning the interests of the plan with those of the investment manager through a performance fee structure, potentially including fulcrum fees, hurdle rates, fee caps, and clawback provisions.
3. Any fees that aren’t directly related to the management of the portfolio should be considered for elimination.
4. Seek access to the lowest-cost share class and require that any fees related to services provided to retail investors be refunded to the plan.
5. Ask if the investment manager offers a performance fee structure and , if so, analyze the provisions to assess whether it meets the defined benefit plan needs.

4 A Review of the System's Governance Processes Related to Investment Activities

Governance is defined as the systems and processes that comprise the oversight and control of an organization. Board/Committee members are, by definition, fiduciaries and operate under rules consistent with general trust principles inherent in common law. These rules stipulate that Board/Committee members shall operate:

a) solely in the interest of plan participants;

b) for the exclusive purpose of providing benefits to participants and their beneficiaries;

c) using the care, skill, and prudence that a prudent person or investor would use under like circumstances, etc.

In addition to fiduciary and prudence standards, public pension trustees also are subject to ethics standards and conflict of interest laws, and to numerous oversight and reporting requirements. Overall governance includes the Texas Pension Review Board which is an independent state agency charged with reviewing state and local retirement systems' actuarial soundness and compliance with state laws.

The IPS clearly **delineates roles and responsibilities of those involved in governance, investing, consulting, monitoring, and custody.** The responsibility for decisions rests with the Board/Committee. The procedures and requirements for Investment Consultants and Investment Managers are included. Investment Consultants are selected by the Board/Committee with the following requirements as stated below:

> The Investment Consultant shall be a Registered Investment Advisor with demonstrated expertise in investing and investment management and will acknowledge that it is a fiduciary with respect to the Plan. For each Investment Manager (a/k/a Money Managers), the Investment Consultant will regularly monitor investment performance, as well as compliance with the Investment Policy, changes in management or ownership structure, and adverse publicity. The Investment Consultant is expected to keep abreast of changing economic trends and issues and provide timely advice to the Plan regarding investment allocation, Investment Manager selection and other matters of importance.

The Investment Consultant's responsibilities are as stated below:

1. Regularly monitor the Investment Managers' performance, including compliance with the Investment Policy.
2. Provide timely and regular investment reports showing the investment performance of the entire investment portfolio and each individual Investment Manager. Regular reports will also include an evaluation of compliance with the Investment Policy. Reports will be a presentation and format acceptable to the Board/Committee.

3. Provide recommended changes to the Investment Policy, including suggested changes to asset allocation ranges and targets, investment objectives, and similar matters.
4. Conduct initial screening in any new Investment Manager search for the consideration and evaluation of the Plan. Assist the Plan in the final selection of Investment Managers, and in the decisions to retain or terminate the services of Investment Managers.
5. Assist in the negotiation of contractual terms and conditions for each Investment Manager, Custodians, or other professionals utilized by the Plan.
6. Regularly meet with the Board/Committee and the Plan Administrator to review reports on investment performance, compliance, suggested changes to the Investment Policy, retaining or terminating specific managers, and other matters.
7. Provide, as requested, information to the Plan to prepare accurate and timely financial statements.
8. Perform special reports or studies as requested.

The Investment Consultant does acknowledge that they will not receive direct or indirect compensation from any Investment Manager whether or not it relates to an investment by the Plan, except for those financial relationships disclosed in the Investment Consultant's Form ADV part II as amended from time to time. The current Investment Consultant is Marquette Associates Inc. (Marquette). Marquette is the 20th largest investment consulting firm in the United States (as of June 2018) with $362 billion assets under advisement as of June 30, 2023.

Investment Managers are selected after interviews with the Board/Committee with the advice and counsel of the Investment Consultant. The Money Managers have separate contracts with the System. These contracts require that the Money Managers state in writing that they are fiduciaries of the Plan. Their responsibilities include:

1. Make all investment decisions and exercise other discretionary authority over the assets allocated to each individual Investment Manager in accordance with the Investment Policy, the written contract with the Plan, and other requirements and restrictions adopted by the Metropolitan Transit Authority Non-Union Pension Plan.

2. Provide written documentation of portfolio activity, valuations, performance data, etc., as requested by the Plan Administrator and/or the Investment Consultant.

3. Cooperate effectively with other professionals involved in the Plan investment portfolio such as Custodians and Commission Recapture Firms.

4. Attend meetings with representatives of the Plan, as requested.

5. Act solely in the interest of the Plan.

State Street Bank and Trust Co. serves as the Custodian. The IPS defines the duties of the Custodian as follows: The Custodian shall act as the receiving and disbursing agent for the investment portfolio and shall hold all investments. Receipts can occur from funds deposited by

METRO. Receipts also result from investing activity such as proceeds from investment sales, and dividend, interest, and principal payments from securities owned by the Plan. Disbursements can arise from instructions from the Plan such as transferring funds between Investment Managers because of portfolio rebalancing, or from the sale of investments.

The Plan's Board/Committee also has authority to set actuarial assumptions, which are projections about future demographic and economic events used to calculate the cost of the Plan and to determine its financial condition. Actuarial assumptions that are especially consequential include the investment return assumption and mortality assumption, which projects how long Plan participants will live. Annually the actuary, Milliman, prepares an Assumption Selection and Methodology Report. We reviewed their report for January 1, 2023, and 2022, for fiscal years ending September 30, 2023, and 2022.

The Board/Committee is also responsible for overseeing the management and investment of System assets and is tasked with developing investment strategies and monitoring investment processes. Michael Drew and Adam Walk who wrote Investment Governance for Fiduciaries published by the Chartered Financial Analysts (CFA) Institute Research Foundation define Investment Governance as "the effective use of resources — people, policies, processes, and systems — by the Board seeking to fulfil a fiduciary duty to a principal or beneficiary in addressing an underlying investment challenge".

The System does not have a written governance policy statement outlining the governance structure; however, the IPS outlines some of the governance structure by including the roles and responsibilities of the Board/Committee, staff, and external participants in oversight and control of the System. See Accountability section below.

Transparency

Regarding transparency, the IPS and investment related processes are not accessible by the public via ridemetro.org or other electronic means. The METRO Intranet and Internet website contains links to the Comprehensive Annual Financial Reports (CAFRs), auditor statements, and actuarial valuations providing access to both the public and Plan participants. Notice of Board/Committee meetings is posted and included on the Intranet under Coming Events. Meeting minutes are not available to the public. Further information on the website and provided to the PRB for 2022 was outdated as October 22, 2023. *We recommend the Board/Committee make additional information available to the public.* At a minimum this information *should include the Investment Policy Statement, meeting minutes, and the Non-Union one-page Flash Report from Marquette*.

Pension Plan Board/Committee meetings are held monthly By VIDEO – CONFERENCE CALL – VIA ZOOM at the same location at the METRO Administration Building. The public may attend the meeting in person at METRO's Administration Building, 1900 Main, Houston, TX 77002 or join the audio webinar, by dialing (346) 248-7799 or (888) 475-4499 (Toll Free) to listen to the meeting. The public may also view a livestream of the meeting.

Topics discussed in the meetings vary, but generally every meeting has a presentation from the Investment Consultant. In most cases, investment discussions are the primary focus of the meetings. The Consultant provides substantial information on the performance of the investments and fees. Marquette representatives lead the discussion with the use of printed materials on the Market Environment overall and then Portfolio Review for approximately 40 minutes covering both Union and Non-Union Plans. Recommendations regarding portfolio changes are also offered by the Investment Consultant. Ample time is allowed for questions during the presentation. Additional time may be devoted to any recommendations brought forth by Marquette.

Upon review of Board/Committee meeting minutes from May 2020 to October 2023, topics include, but are not limited to the following:

- Actuarial assumption proposed changes are voted on by the Committee
- Investment Consultant was asked for recommendations to rebalance the assets by Committee chair
- The committee approved rebalance recommendations by Investment Consultant which included not reinvesting Real Estate dividends and having them received and go to cash.
- Occasionally, the Investment Advisor mentions the plan overweight and underweight to policy targets
- The Committee receives the audited Annual Comprehensive Financial Report and Communications Letter. The auditor noted that the Plan is in-line with the governance of the Plan and they had no management comments
- Committee receives the Actuarial Valuation results from the Actuary including:
    - no concern on funding status and discount rate of 6.25%
    - Funding policy is compliant with PRB Funding Guidelines and new Texas SB 2224 requirements
    - Committee can have high confidence that the actuarial condition of the Plan is being accurately measured and that benefit promises will be met
- Changes to asset allocation are voted on by the Committee
- Retirement package changes are reviewed by the Committee
- Committee approval of the Investment Advisor
- Discussions about fees when interviewing Investment Managers
- Additions to the Committee were announced
- Board approval of a new contract with McConnel & Jones for the audit
- Board approval of Retirement Horizons to perform the Actuarial audit
- Board approval of Smart Management Services, Inc. to perform the Evaluation of the Investment Practice and Performance

The minutes include extensive information regarding the investment presentation data provided by the Investment Consultant.

Investment Knowledge/Expertise

The Board/Committee of the Non-Union Plan has seven (7) members. The current members are:

Name	Position	Continuing Education
Debbie Sechler, Chair	Executive Vice President, Administration - METRO	13 hours at 12/31/21
Thomas Jasien	Deputy CEO - METRO	4 hours at 12/29/2022
Marcus Smith	Partner - Garcia Hamilton & Associates	.75 at 11/3/2022
Renaldo Reza	SVP - Fayez Sarofim & Co.	N/A
Heidi Davis	Managing Director-Linscomb & Williams	4 hours 1/20/22
George Fotinos (appointed 01/26/2023)	Chief Financial Officer - METRO	N/A
Sheron Blaylock (appointed 07/27/2023)	METRO Director Benefits Services & HRIS	none

Not available (N/A)

The members have strong educational backgrounds. Four (4) of the members are employed by METRO, the remaining three (3) work in the private sector. All of the METRO representatives maintain high-level positions. Many of the Board/Committee members have strong financial backgrounds (including portfolio management); some of which hold positions in the financial and/or investment area. The Non-Union Committee's and the Union Board's usual practice is to meet together, so expertise of Non-Union members is available to Union members and vice versa.

Members are not required to have an investment background. For the most part Board/Committee competency involves a completely different skill set. The principal function of a public pension fund trustee is to work with his/her peers on the Board/Committee to establish the strategic direction of the System, to hire the necessary staff and consultants with the expertise to carry out that direction and administer the system on a day-to-day basis, and then to oversee the work being done to ensure the Board/Committee's directions are implemented.

As required by the PRB, Board/Committee members are required to have a minimum of four (4) continuous hours of investment related education every two years. Should an individual have been a member for less than one (1) year, eight (8) hours of basic trustee training is required. The Plan Administrator maintains the records of training for all members to ensure compliance. SMS also noted that within Board/Committee minutes, reminders of training were given to the Board/Committee members. The Plan pays for one training session per year.

As a strength, the System has an Ethics and Conflicts of Interest Policy. The Policy includes all of the recommended areas to be covered under Ethical and Fiduciary Conduct in the American Federation of State, County and Municipal Employees, AFL-CIO (AFSCME) Best Practices Policies for Trustees and Pension Systems except for Prohibitions of Campaign Contributions. The Policy includes a Code of Ethics; General Standards of Conduct; Fiduciary Duties; Conflicts of Interest; Prohibited Transactions and Interests; Disclosure; Confidential Information (Privacy); Nepotism; Gifts; and Training. Information included is follows the PRB Model Ethics Policy.

The Plan's investment management model is to employ external Investment Managers. The Investment Consultant provides impartial investment management advice and guidance. Marquette provides the initial screening of Money Managers who will provide investments within the target allocation of the Investment Policy. The Investment Managers come to be screened by the Board/Committee and discuss their firm and investment strategy. The Board/Committee holds the Investment Consultant accountable who in turn holds the Investment Managers accountable. The Board/Committee is consistent in its use of the structure/delegation of authority. Marquette and the Plan Administrator draft contracts with the Investment Managers which the Board/Committee reviews and approves. Marquette monitors the investments and performance of the Money Managers and notifies the Plan Administrator and the Board/Committee of changes in management or status of the Manager(s).

Accountability

NASRA's Overview of Public Pension Plan Governance defines governance as " the systems and processes that comprise the oversight and control of an organization. Governance of public retirement systems is typically vested with a range of entities; those with a primary role include a legislative body, chief executive, public pension board of trustees, and key staff. An oversight committee or agency and other entities may also have a role." The CFA A Primer for Investment Trustees says "The three legs of the Fund's governance structure are:

- *Roles and responsibilities*—a delineation of functions that the various decision makers are assigned to perform
- *Lines of authority*—a description of the latitude that decision makers have to carry out their responsibilities and a specification of their reporting arrangements.
- *Accountability standards*—a statement of expectations regarding the effectiveness of the decision makers combined with a set of procedures for reviewing and, if needed, responding to the actions of those decision makers to whom responsibility is delegated.

In general, the organizations suggest that the Board/committee articulates the System's governance structure in a formal policy document called the "governance policy statement" (GPS) or "committee charter." For METRO, the roles and responsibilities are in the IPS.

The System already has an Ethics and Conflicts of Interest Policy which includes Standards of Conduct. Section 4 includes a recommendation for documenting the Guidelines for Selection of

External Investment Professionals which is a part of the procurement guidelines. The System does have a Procurement Guideline for Investment Management Services "Garcia Rule" – Emerging Managers which documents that the Plan shall solicit bids, proposals, offers, or other provision of service from at least one Emerging Manager as defined in the Guideline. General procurement practices are not documented.

The effectiveness of the investment program is reviewed at the monthly Board/Committee meetings, during the presentation of the information provided by the Investment Consultant. Overall portfolio performance is also monitored while reviewing the Investment Consultant's information. Although the reviews take place monthly, the Board/Committee is not making monthly adjustments. The performance is being reviewed, over a time horizon that considers current market conditions and how well the objectives are being met, over a five to seven-year timeframe. The Board/Committee responds to recommendations or concerns brought forth by the Investment Consultant.

5 Investment Manager Selection and Monitoring Process

The GFOA's Selecting Third-Party Investment Professionals for Pension Fund Assets Best Practice recommends that governments exercise appropriate due diligence in their selection of investment professionals. GFOA recommends government pension plans develop investment professional selection policies which address the following:

1. **Selection Method**. The chief executive, responsible public official, or the governing board should appoint a pension investment consultant and/or review committee to conduct the search process. Training should be provided to the governing board so that they may determine appropriate qualifications for consultant or committee suitability. Responsibilities of the review committee and/or pension investment consultant should be stated as should be the method of selection. A competitive, merit-based procurement process should be employed. Responsibilities of the investment professional(s) should be clearly defined in writing.
2. **Sourcing Investment Professionals**. The consultant and/or review committee should determine the sources for candidates to be considered based on procurement rules, including, but not limited to:
    a. consultants' database on investment management firms,
    b. industry reports and articles,
    c. marketing materials,
    d. references from other pension plans or jurisdictions,
    e. existing vendor database or registry, and
    f. other governmental entity resources and information.
3. **Ethics and Potential Conflicts of Interest**. The pension board or administrative officer managing the investment professional procurement and contract should comply with the following ethical considerations:
    a. adherence to all jurisdiction's and pension board's ethics laws, rules and regulations related to procurement and involvement with contractors, including those related to political contributions and procurement quiet period requirements,
    b. disclosure to pension board of any inherent or potential conflicts of interest in dealing with specific investment professionals prior to taking any official action, and
    c. adherence to the GFOA Code of Professional Ethics as well as other professional codes of ethics.
4. **Selection Criteria**. The consultant and/or review committee should determine the criteria to be used in the evaluation and selection process resulting from the Request for Proposals. Criteria should consider local procurement rules and policies, such as vendor preferences, and in addition should include the following considerations:
    a. Organizational overview that includes:
        i. structure of the firm,

    ii. number of years the firm has been in business,
    iii. SEC or other authorizing registrations,
    iv. education and experience level of key personnel in management of institutional assets as well as key staffing changes over at least three years, workforce diversity and turnover, compliance with applicable professional code of ethics,[4] and
    v. potential conflicts of interest with the pension plan.

b. Financial overview that includes:
    i. firm's most recent financial statements,
    ii. dollar amount of assets under management,
    iii. dollar amount of other public pension assets under current management,
    iv. dollar amount of the total assets in the specific style being considered,
    v. number of clients invested in the investment style, and
    vi. past or pending litigation.

c. Investment overview that includes:
    i. firm-specific investment philosophy and process, research, and portfolio management strategies,
    ii. investment performance against various appropriate benchmarks,
    iii. performance for the trailing 3-year, 5-year and 10-year periods for the firm,
    iv. style parameters based on the portfolio, including the asset class and specialty focus, as appropriate, and
    v. confirmation that the firm is willing to act as an ERISA fiduciary as applicable with respect to the pension plan.

d. Operational and compliance overview that includes:
    i. transition and implementation plan,
    ii. system of risk management safeguards and investment policy compliance,
    iii. back office, accounting, report and client service, disaster recovery plan, SOC 2 or other comparable compliance report,
    iv. trading process and total trading costs, and
    v. management fees[5], including favored nations pricing, if applicable, and any other costs or fees which may be charged to your agency.

e. Final evaluation information that includes:
    i. references from other pension clients,
    ii. a list of new clients gained over the prior three years,
    iii. a list of clients lost over the prior three years,
    iv. confirmation of availability for an on-site due diligence visit, as necessary and applicable, and
    v. commitment to deliver investment advisory SEC Form ADV Part I and Part II (including Schedule I) prior to contract execution.

5. **Contractual Considerations**. After the consultant and/or review committee has made a recommendation regarding the selection of the pension plan investment professional, the investment management agreement should include the following:
    a. identification of account management personnel and their fiduciary responsibilities,
    b. certification that the investment professional will adhere to the investment policy,
    c. notification requirements, usually immediate, of any changes in firm ownership or key personnel,
    d. reporting requirements,
    e. determination of professional liability insurance for errors and omissions,
    f. establishment of fee and terms of invoicing and payment,
    g. specifications related to nondiscrimination in contracting and ethics rules,
    h. disclosure of any SEC violation or discipline,
    i. other third-party services agreements required by an investment consultant,
    j. educational services to committee,
    k. adherence to state/provincial law on fee transparency or industry standard, whichever is more stringent, and
    l. termination procedures of the contract by either party.
6. **Performance Monitoring**. The pension board should develop and implement an ongoing risk control program, including ongoing compliance reviews such as:
    a. periodic, but at least annual, due diligence review of compliance with investment policy and investment performance,
    b. independent audits,
    c. compliance with investment guidelines,
    d. timely reconciliations, and other appropriate internal control measures.

The System does not have a formal investment professional selection policy; however, the selection would occur under the procurement guidelines of METRO with the use of an RFP. The current contract is in effect until June 30, 2025, unless terminated earlier.

The Investment Consultant has the responsibility for searching for and screening potential Investment Managers. In conjunction with the Plan, Marquette develops the criteria for the selection process based on the circumstances and allocation preferences. Marquette's research analysts will then identify candidates who best meet these criteria.

Per Marquette, as selection criteria, their asset class analysts use both quantitative and qualitative criteria when evaluating Investment Managers:

Quantitative criteria

- In business for five years or more
- GIPS® verification
- Appropriate use of soft-dollar commission budget

- Reasonable fees
- Favorable risk-adjusted performance results
- Excess Return
- Standard Deviation
- Batting Average
- Up and Down-Market Capture Ratio
- Information Ratio
- Rolling three-year Risk and Return
- Alpha, Beta, R-Squared

Qualitative criteria

During their due diligence process, their asset class analysts will thoroughly question the investment manager on every aspect of the firm and process. The following are examples of some of the criteria used in their evaluations:

- **Does the investment manager's strategy make sense?**
  Gimmicks, "hot" strategies, or otherwise unfounded investment platforms do not make their lists. We look for managers of all types, quantitatively or qualitatively based, who stick to their stated investment strategies, even during challenging times.

- **Are there experienced investment professionals at the helm?**
  Experience counts in the capital markets. They prefer portfolio managers who have been in the business for at least five years with successful track records. A strong staff of analysts or other portfolio managers is also a positive. In addition, they prefer managers who invest heavily in their investment products or are owners of their investment firms.

- **What is the overall strength of the organization?**
  A successful investment firm is about more than just selecting securities; it's also about running a business. They like to see organizations with strong disaster recovery plans and the appropriate technology resources to handle any disruption. They also pay close attention to asset and client growth. Concerns can often arise if a firm has grown too quickly and cannot handle the asset flows. Likewise, they pay careful attention when a firm starts to lose assets.

- **Do they have a solid long-term record?**
  Knowing that every active investment strategy falls out of favor from time to time, they focus on long-term results. They also pay attention to how well a manager has performed during down markets. It's key to also explore how a manager achieved a solid record. A strong five-year annualized return could be four years of poor returns with one year of outstanding returns. They prefer managers with a consistent approach and consistent returns.

Following the search for potential candidates:

- Marquette prepares a side-by-side comparison of candidates, their professional staffs, and historical turnover, portfolio composition, fees, past performance (both absolute and relative), and other firm characteristics.
- Marquette reviews these materials with the System in person to determine which manager(s) the Board/Committee would like to select for interviews.
- Marquette arranges and coordinates Board/Committee interviews with the selected investment firms and ensures the presentations cover all appropriate issues. Marquette discusses the presentations and the candidates' characteristics with the System and assists in making a final determination.

The Plan Administrator is responsible for reviewing Investment Managers' contracts. Marquette assists in fee negotiations with selected managers and assists in the transfer of funds to any new organizations.

The Investment Consultant is responsible for monitoring individual and overall fund performance. Besides performance, they monitor changes in an investment manager's portfolio characteristics, deviation from investment style, change in philosophy, change in ownership, and departure of key investment professionals.

Marquette uses the Investment Metrics (Now PARIS) Portfolio Analytics & Reporting Platform to calculate the System's investment portfolio performance. It is an advanced and comprehensive analysis and performance management platform comprised of over 100 different investment management firms located throughout the United States. Investment Metrics provides investment performance calculation and analysis software and peer group data for roughly 14,000 asset owner plans and over $10 trillion in assets. Their network's statistics also are comprised of accounts ranging from domestic equity to venture capital.

The software uses a returns-based analysis to identify trends and monitor potential deviations versus the stated benchmark for a given investment manager portfolio's style, growth, or value (earnings growth-focused versus valuation-focused), and capitalization (large-cap versus small-cap). This analysis helps Marquette ensure investment management firms are adhering to the mandates for which they were hired.

Each Investment Manager and asset class composite has an appropriate benchmark that it is measured against. The Board/Committee is provided with monthly performance reports by the Investment Consultant. The monthly performance reports provide net-of-fee and gross fee performance. This performance data is a part of the data Board/Committee members use to make investment decisions and it is integrated with the monthly review of the asset allocation and investment risk to make overall decisions about the sustainability of the Plan.

Investment Managers are continuously monitored, and Marquette strives to be proactive about making recommendations to downgrade and eventually terminate Investment Managers that have performance, guidelines, personnel, or organizational issues. On at least a quarterly basis, Marquette notifies the Board/Committee of any changes to the status of the Investment Managers and the reasons why the status needs to be changed. If it is necessary to notify the Board/Committee earlier than on the quarterly cycle, Marquette will draft a memo to the Board/Committee notifying them of the situation with a recommendation for further action.

Marquette uses the following language to communicate each Investment Managers' status to the Board/Committee on a quarterly basis:

- IN COMPLIANCE. To the best of our knowledge, the investment manager is acting in accordance with the Investment Policy Guidelines.
- ALERT. Marquette notifies the investment manager of a problem due to performance (usually related to a benchmark or volatility measure), a change in investment characteristics, an alteration in management style, or key investment professionals, and/or any other irregularities. The investment manager completes a monthly compliance checklist to ensure thorough oversight.
- ON NOTICE. Marquette notifies the investment manager of continued concern with one or more Alert issues. Failure to improve upon stated issues within a specific time frame justifies termination.
- TERMINATION. Marquette formally recommends terminating the investment manager; however, it is up to the Board/Committee to heed their advice.

The typical criteria for placing a manager on "Alert" (notification of concern) and "On Notice" (probation) are changes in the following components:

- Inferior performance versus an appropriate index or peer-group universe
- Significant or inappropriate change in portfolio investment characteristics
- Deviation from investment style or change in philosophy
- Change in ownership, investment professionals, or other irregularities

Typically, the removal from "On Notice" occurs after at least two quarters of assessing the issues of concern (improvement in performance, increased organizational stability, addition of resources, return to appropriate investment style, etc.). Usually, if the manager does not specifically address or improve upon the concern after at least two quarters, Marquette will work with the System to change the Investment Manager status to "Termination." At that point, Marquette will coordinate the details of the transition with the Board/Committee and the terminated Investment Manager. Traditionally, Marquette likes to monitor investment managers throughout an entire business cycle.

Summary of Recommendations

We have summarized our recommendations here for ease of review. Our recommendations are as follows:

Section 2 (A)
We recommend that the System include in its IPS a written policy for determining and evaluating the asset allocation similar to the GFOA recommendation.

Section 2 (B)
We recommend that the Board/Committee add a discussion of risk to the IPS.

Section 4
We recommend the Board/Committee make additional information available to the public. At a minimum, this information should include the Investment Policy Statement, meeting minutes, and the Non-Union one-page Flash Report from Marquette.

Description of Criteria Considered and Methodology Used

Our services were performed in accordance with the Statements on Standards for Consulting Standards issued by the American Institute for Certified Public Accountants (“AICPA”).

In accordance with the Scope of Services, we:

- Identified and reviewed the existing investment policies, procedures, and practices of the Metropolitan Transit Authority Non-Union Pension Plan retirement System;
- Compared the existing policies, procedures, or practices to industry best practices;
- Generally, assessed whether the Board/Committee, internal staff, and external consultants are adhering to the established policies; and
- Identified best practices that would improve current policies, processes, or practices.

Further, we:

- Spoke with the Investment Consultant - Marquette Associates, Inc. and reviewed and documented their processes and reports;
- Met electronically with the actuaries that prepared the Actuarial Valuation from Milliman, Inc.;
- Met electronically with selected Board/Committee members including the Chair;
- Contacted the Plan Administrator regarding processes and practices;
- Reviewed studies performed by several entities on public retirement plans both nationally and statewide for metrics including but not limited to:
    - Funded status,
    - Asset allocation,
    - Expected return assumptions, and
    - Investment performance.
- Reviewed studies performed by several entities on public retirement plans both nationally and statewide for governance, best practices, and policy attributes;
- Reviewed the System’s Ethics and Conflict of Interest Policy; and
- Reviewed the contracts for the Investment Consultant, Investment Managers, and the Actuary.

Appendix – System's Response

The Chair, on behalf of the Committee, stated the System agrees with the recommendations and will develop plans to address the recommendations.