Via Electronic Mail

May 23, 2023

City of Oakland Police and Fire
Retirement System Board
150 Frank H. Ogawa Plaza
Oakland, CA 94612

Re: Issues Related to the Wind-Down of the Plan

Dear Members of the Board:

This memo provides an overview of the key issues related to the wind-down of the City of Oakland Police and Fire Retirement Plan (PFRS) in accordance with Article XXVI of the Oakland City Code. It discusses the meaning of "actuarially funding all liabilities," the challenges in determining the funding status by the deadline, and the considerations for de-risking the plan's assets. Additionally, it highlights the ongoing experience study being conducted by Cheiron to review the Plan's assumptions.

Background

As per Article XXVI of the Oakland City Code, the City of Oakland is required to "actuarially fund all liabilities for all members prior to July 1, 1976, by July 1, 2026." This memo aims to provide guidance on the necessary steps and challenges involved in meeting this requirement and successfully winding down the PFRS.

To actuarially fund all liabilities means that the plan's assets must exceed or match its liabilities. In simpler terms, the plan should have sufficient funds to cover all present and future benefits owed to its members. Actuaries use various assumptions to estimate the amount required, including life expectancy, retirement age, and investment returns. Meeting this requirement ensures that all members receive their promised benefits and that the plan remains financially stable.

Challenges in Determining Funding Status by the Deadline

Determining whether the PFRS is fully funded by the July 1, 2026 deadline poses several challenges. An actuarial valuation, which measures the plan's assets and liabilities, cannot be completed until several months after the deadline. This is due to the time needed to gather and analyze data, such as investment performance, member data, and changes in actuarial assumptions.

Furthermore, there is currently a 12-month delay between the valuation date and the contribution effective date, in order to provide time to incorporate the required contribution into the City's budget. As a result, the contribution expected to be made during Fiscal Year 2025-2026, which is the last contribution prior to the required full funding date, will be based on the actuarial valuation performed as of July 1, 2024. Consequently, under current practices, any changes that occur between July 1, 2024 and June 30, 2026 will not affect the contributions until after July 1, 2026. This delay in incorporating updated information could lead to potential discrepancies between the plan's actual funding status and the projected funding status based on the July 1, 2024 valuation.

As a result, it will not be possible to determine with certainty whether the plan has met the funding requirement by the specified deadline. Instead, the trustees must make decisions based on the most recent actuarial valuation and ongoing monitoring of the plan's financial status. One possible approach for increasing the likelihood of the Plan being fully funded as of July 1, 2026 would be to target a funded status *above 100%*, and using that margin as a buffer in case there are actuarial losses in the future (i.e., investment returns below the assumed return, or benefit payments exceeding expectations).

Maintaining Full Funding Status After 2026

While the statute does not explicitly mention the requirements for the plan after the July 1, 2026 deadline, it is essential to consider how the plan can remain fully funded in the long term. As asset and liability gains and losses will inevitably occur after the full funding date, there is a possibility that the plan's funding status will drop below 100% in a future valuation.

If the plan's funding status drops below 100%, it raises the question of whether the resulting unfunded liabilities need to be paid off immediately or can be amortized over a period of time. While the statute does not provide specific guidance on this matter, it is generally advisable for the trustees to establish a funding policy that addresses potential fluctuations in the plan's funding status.

Actuarial vs. Market Assets

In addition to the challenges discussed above related to the timing of funded status measurements vs. the calculation and implementation of contributions, there is another issue that must be addressed when determining whether the Plan is considered fully funded related to the measurement of the assets. There are two asset measurements that can be used to determine the funded status: the Market Value of Assets and the (smoothed) Actuarial Value of Assets. The plan has traditionally used the smoothed asset value and the resulting Unfunded Actuarial Liability (the UAL) – calculated as the difference between the Actuarial Value of Assets and the Plan’s Actuarial Liability, or funding target – to determine the contributions to the plan. In contrast, the financial statements of the Plan report the unfunded liability, known as the Net Pension Liability, using the market value, as required under governmental accounting standards.

The actuarially smoothed value of assets defers the recognition of a portion of prior-years’ investment gains or losses until future years. As a result, the plan could appear fully funded on an actuarial basis but still have an unfunded liability if measured on a market basis (or vice versa), particularly if the plan has recently experienced a period of investment returns below the assumed rate of return.

When determining whether the PFRS is fully funded, a decision will need to be made as to whether the definition of full funding should be based on the actuarial and/or market value asset measurements. We note that retaining the use of the actuarial value (as has been past practice) would confer a significant advantage with respect to the volatility in future funded status and contribution amounts, as will be shown in the projections which follow.

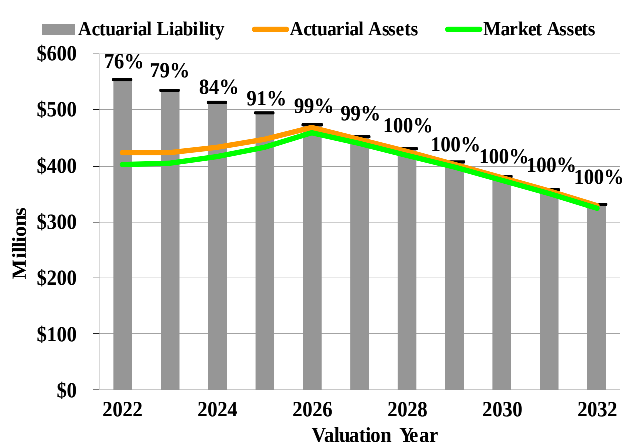
Projections

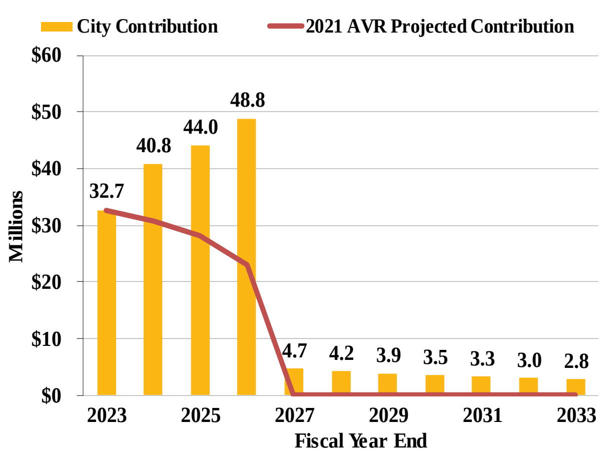
The sample projections that follow illustrate the difficulty of attaining full actuarial funding with absolute certainty at a specific date. The chart on the left side of these projections shows the expected funded status of PFRS. The gray bars represent the Actuarial Liability (AL) on July 1 of each valuation year. The green line represents the Market Value of Assets, while the orange line represents the (smoothed) Actuarial Value of Assets. The percentages above each column show the Actuarial Funded Ratio which is calculated by dividing the Actuarial Value of Assets by the Actuarial Liability.

The chart on the right shows the expected Actuarially Determined Contribution (the ADC) amount for PFRS each fiscal year. The red line represents projected contributions based on the assumptions and data used for the valuation in the legend of each chart. The gold bars represent the expected contributions under each scenario based on the July 1, 2022 Actuarial Valuation. Unless noted, all assumptions, methods, and data used are the same as those disclosed in our July 1, 2022 Actuarial Valuation Report for PFRS.

Under the funding policy set by the PFRS Board, the annual ADC amounts for PFRS are equal to the payment necessary to amortize the Unfunded Actuarial Liability (UAL) plus expected Administrative Expenses for each fiscal year. The amortization period is set so that the projected unfunded liability is expected to be fully amortized by July 1, 2026. For the purposes of these projections, we have assumed that any unfunded liability existing on or after July 1, 2026 is expected to be amortized *in a single year*.

<u>Baseline Scenario: Investment Returns Equal to the Expected Return for all Years</u>



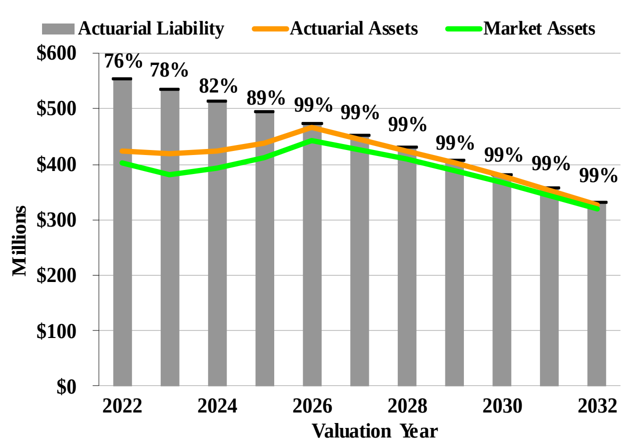


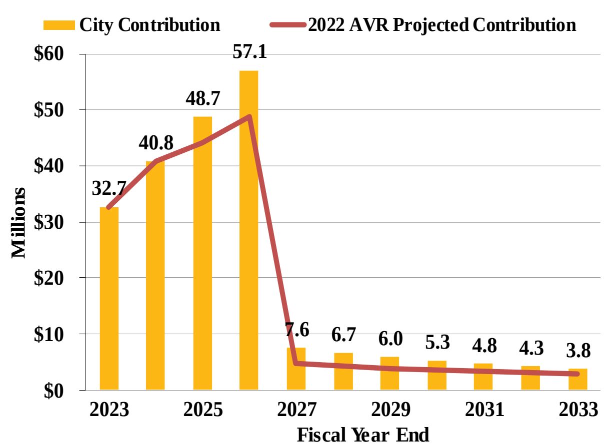
The first scenario shows the baseline contribution projections from the two most recent actuarial valuations, the July 1, 2021 actuarial valuation (with the contributions shown in the red line in the right-hand graph) and the July 1, 2022 actuarial valuation (with the contributions shown in the gold bars in the same graph):

- The July 1, 2021 actuarial valuation expected a funded ratio of 101% as of July 1, 2026, and anticipated that no contributions would need to be made for FYE 2027 onward, as the UAL has been fully amortized, and the expected Administrative Expenses are completely offset by the amortization of a negative (surplus) UAL.
- Lower than expected returns for FYE 2022 resulted in a significantly different scenario for the projected contributions in the July 1, 2022 valuation, causing the FYE 2024 contribution to increase from $30.8 million to $40.8 million for FYE 2024, and increasing further to $44.0 million and $48.8 million over the next two years. These contributions were expected to get the Plan nearly back to being fully funded as of July 1, 2026 (assuming all assumptions are met subsequent to the July 1, 2022 actuarial valuation), but there is a small residual unfunded liability due to the asset smoothing method, as can be seen by the fact that the funded ratio only reaches 99% in 2026. A contribution must also be made to cover the Plan's ongoing administrative expenses.

For the next scenario, we review the impact of a modest actuarial investment loss occurring during the current fiscal year.

Scenario A: 0% Return in FYE 2023, Expected Return Thereafter

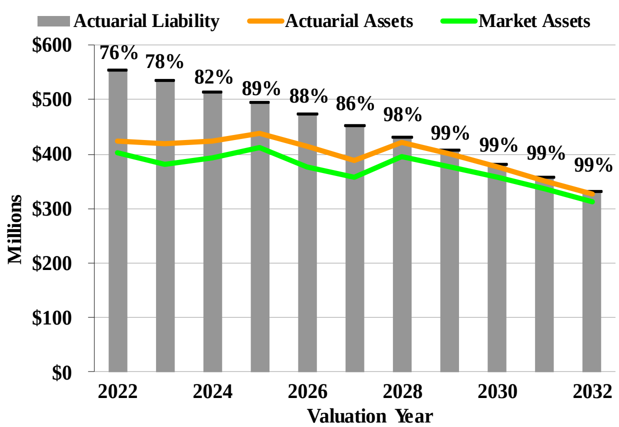


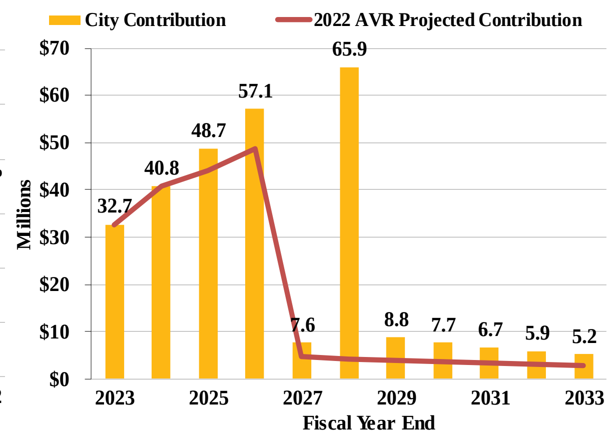


Scenario A shows the expected funded ratios and ADC amounts for PFRS if the return on investments is 0% for the FYE 2023. The expected contribution for FYE 2025 increases from $44.0 million to $48.7 million if there is no investment return in FYE 2023 and all other assumptions are met exactly. Under this scenario, the assets are again expected to approach – but not quite exceed – the liabilities because of the mechanics of the asset smoothing policy (which continuously defers recognition of a portion of the investment returns different than the assumption to future years). In this scenario, the funded ratio is not expected to reach 100% until 2035.

The next two scenarios start from the same baseline and add in a more significant loss in the year leading up to the full funding requirement. These scenarios illustrate the extreme level of volatility in the contributions which could result if the Plan is held to a strict standard to fully fund *and maintain* a 100% funded ratio at every measurement date following July 1, 2026.

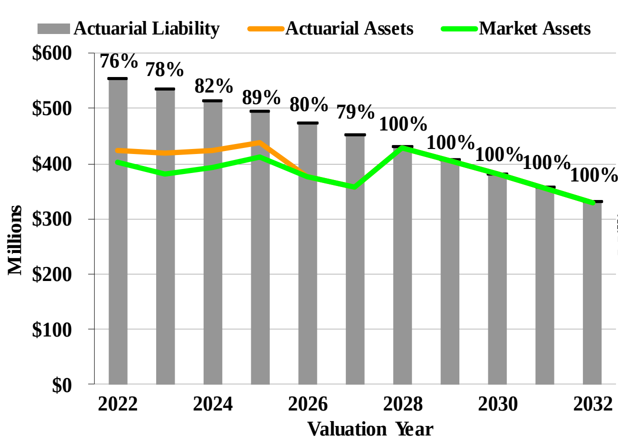
Scenario B: 0% Return in FYE 2023 and -10% Return in FYE 2026, Expected Return all Other Years

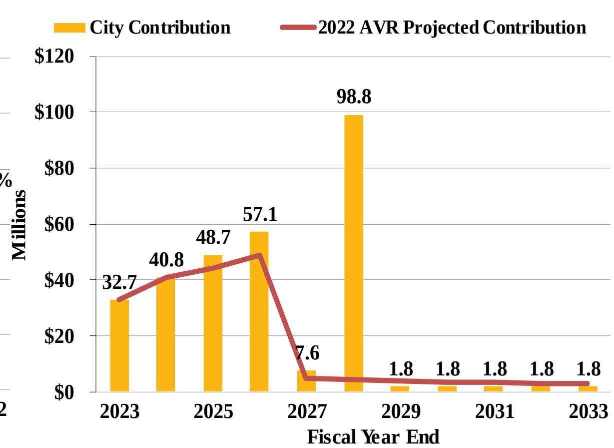




Scenario B considers the expected contributions and funded ratios should there be a 0% return on investments in FYE 2023 and -10% return on investments in 2026. Under current practice, a loss occurring during FYE 2026 won't affect the contributions until FYE 2028, so there is no possibility that an additional contribution could be made to bring the funded status to 100% on July 1, 2026. Under this scenario PFRS would be just 88% funded as of June 1, 2026. In addition, a significant contribution – almost $66 million – would be needed to bring the expected funded status back to approach full funding.

Scenario C: Scenario B with Funded Ratios and Contributions Calculated using MVA from the 2026 Valuation Year Onward





Scenario C mirrors Scenario B (0% in FYE 2023 and -10% 2026) but calculates the funded ratios and contributions based on the Market Value of Assets from the 2026 valuation year onward, rather than using the smoothed Actuarial Valuation of Assets. In this scenario the asset losses occurring during FYE 2026 are recognized immediately in the July 1, 2026 actuarial valuation instead of being smoothed over a 5-year period leading to a $32.9 million increase in FYE 2028 when compared to Scenario B. A massive spike in the contribution – nearing $100 million – would be necessary to bring the funded status back to 100% by July 1, 2028.

De-risking the Plan's Assets

De-risking the plan's assets is one option for reducing the likelihood of future shortfalls and to help ensure that the plan remains fully funded. This process involves adjusting the plan's investment portfolio to reduce its exposure to market volatility and other risks. The investment return assumptions used in the actuarial valuations since 2014 have included an assumption that the Plan will begin gradually de-risking after 2026, with the assumed rate of return currently expected to drop from the current rate of 6.00% to an ultimate rate of 3.25% over a 10-year period beginning after the July 1, 2026 actuarial valuation.

Strategies for de-risking may include shifting the asset allocation towards more conservative investments, such as bonds or cash, implementing liability-driven investment strategies (which focus on matching the plan's assets with its liabilities) or transferring the liabilities to an insurance company. However, the latter option may be difficult to implement, due to the post-retirement Cost-of-Living Adjustments promised to the members, which are tied to changes in the salaries paid to the City of Oakland Police and Fire current active employees.

If the Board decides to pursue a de-risking approach, it is crucial for the trustees to work closely with their investment consultant and managers to develop an appropriate strategic asset allocation that balances risk reduction with the need to achieve sufficient returns and other investment considerations (such as liquidity needs).

Experience Study and Assumption Review

As your actuarial consultant, Cheiron is currently performing an experience study to review all assumptions used in estimating the plan's liabilities, including a review of the investment return, cost-of-living adjustment, and mortality assumptions. This process is critical for ensuring that the Plan's funding status is accurately assessed. The experience study may result in adjustments to assumptions, which could impact the Plan's funding status and the actions needed to meet the funding requirement by the deadline.

It is important to note that while changes in the assumptions could lead to changes in the funding targets and contributions; changes in the financing plan – including any expected modifications to the target asset allocation – could conversely result in the actuary making changes to the assumptions. As such, it would be best to integrate the discussions of the funding and investment policy with the experience study to the extent possible.

By closely aligning the experience study with the funding and investment policy discussions, the trustees can ensure that any changes in assumptions or financial strategies are mutually supportive and consistent with the plan's long-term objectives. This integrated approach will help maintain the plan's financial stability and better position it to meet the full funding requirement before and after the specified deadline.

Conclusion

Winding down the City of Oakland Police and Fire Retirement Plan in accordance with Article XXVI of the Oakland City Code presents several challenges, including determining the funding status by the deadline, reviewing the potential and appropriateness of de-risking the plan's assets, updating actuarial assumptions, and maintaining full funding status after 2026. To navigate these challenges, it is essential for the trustees to:

- Establish a clear funding policy that addresses potential fluctuations in the plan's funding status, including setting target funding levels, determining the appropriate amortization period, and outlining contingency plans for significant fluctuations,
- Consider both actuarial and market value measurements when determining the funding status,
- Consider whether to develop and implement an appropriate de-risking strategy that balances risk reduction with the need to achieve sufficient returns,
- Align the experience study with the funding and investment policy discussions to ensure that any changes in assumptions or financial strategies are mutually supportive and consistent with the plan's long-term objectives, and

By proactively addressing these challenges and regularly monitoring the plan's financial status, the trustees can ensure the plan remains financially stable and capable of meeting its obligations to members both in the short term and well beyond the July 1, 2026 deadline.

Disclosures

The purpose of this letter is to present issues related to the wind-down of the plan. This letter is for the use of the Retirement Board. Other users of this letter are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users. The assumptions used in this letter were the same as those used in PFRS' July 1, 2022 Actuarial Valuation Report unless otherwise noted.

The funding ratios in this letter are for the purpose of establishing contribution rates. These measures are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in the assumptions or output of ProVal that would affect this valuation.

Deterministic projections in this valuation report were developed using P-scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the Plan. P-scan uses standard roll-forward techniques. Because P-scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent. We relied on Cheiron colleagues for the development of the model.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.

This letter and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this letter. This letter does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Respectfully Submitted,
Cheiron

Graham A. Schmidt, ASA, EA, FCA, MAAA
Consulting Actuary
703-893-1456, x1137
gschmidt@cheiron.us

Timothy S. Doyle, ASA, EA, MAAA
Associate Actuary
703-893-1456, x1140
tdoyle@cheiron.us

Anne D. Harper, FSA, EA, MAAA
Principal Consulting Actuary
703-893-1456, x1107
aharper@cheiron.us