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April 9, 2012

Mr. Stephen G. Olish
Executive Director
The Police Retirement System of St. Louis
2020 Market Street
St. Louis, MO 63103

Subject: Fifteen-Year Deterministic Contribution Projections

Dear Steve:

This letter summarizes the results of our fifteen-year deterministic contribution projections for The Police Retirement System of St. Louis (the System). Also described are the data, assumptions, methods and plan provisions used to determine the projected amounts.

Data, Assumptions, Methods and Plan Provisions

Census data as of October 1, 2011 was provided by The Police Retirement System of St. Louis. Asset information as of September 30, 2011 was provided by Hochschild, Bloom & Company LLP (the System's auditors).

All assumptions, methods and plan provisions used for the projections are the same as those described in the October 1, 2011 valuation report with the following exceptions:

- Return scenarios for the market value of assets (MVA): 5.0%, 7.75%, 10.0% per annum
- Annual payroll increase: 3.5%
- New entrant liabilities are assumed to be an average of historical experience
- Liabilities are projected using generally accepted actuarial methods and no demographic gains or losses other than the new entrant liability described above

Note that the 5.0% and 10.0% return assumptions were chosen by the System and are outside of Mercer's reasonable range of returns, but are included as alternate scenarios to show the degree to which results would be different if the market value of assets earns less or more than expected for an extended period of time.

The future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions.

Changes to the assumptions in the future could cause significant or material differences from the results presented in this projection.

Results

Exhibit 1 - Contributions: All Scenarios

Exhibit 1 provides a summary of the projected contribution results for each scenario.

The black bars represent contributions already determined. Under the expected return scenario of 7.75% (yellow), contributions are expected to increase until 2015-2016. This expected increase is due to the significant asset losses from prior years being phased in over time. If it were not for the "smoothing" of asset gains and losses, contributions in the current year would be much higher as would the expected contributions for the near term. In other words, the phasing in of gains and losses doesn't materially impact the total amount of contributions required over time but does affect the timing of the contributions.

After 2015-2016, under the 7.75% return scenario, contributions gradually decrease. Contributions are lower in the later years because, if all assumptions are met, the contributions result in asset accumulations that reduce the normal cost of the plan over time.

As expected, under the 5.0% return scenario, contributions are expected to increase during the projection period. Under the 10.0% return scenario, contributions are expected to decrease, with a projected contribution equal to zero in 2026-2027.

Exhibit 2 - Projected Assets and Liabilities: Expected Return Scenario

The projected changes in asset and liability values are shown in Exhibit 2. This projection is based on the 7.75% return assumption on the market value.

The present value of future benefits (PVFB) is expected to increase steadily as additional benefits are earned. The market value of assets is expected to grow at 7.75% throughout the projection period. As the asset gains and losses from prior years are phased in, the actuarial value of assets approaches the market value of assets. (If the market value return would always equal the expected amount, there would be no gains or losses and the market value would equal the actuarial value.) In addition to changes due to investment income, the market value and actuarial value of assets change throughout the period due to the expected benefit payments and expected contributions.

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The difference between the PVFB and the actuarial value of assets is the amount that needs to be contributed to the plan over time. The larger this difference, the larger the contribution.

Exhibit 3 - Projected Assets and Liabilities: 5.0% Return Scenario
The projected changes in asset and liability values based on the 5.0% return assumption on the market value are shown in Exhibit 3.

The PVFB projection does not change as a result of the asset return scenario assumption. In this scenario, the market value of assets increases due to significant contributions (again, this takes into account projected benefit payments and contributions as well as expected investment income). The actuarial value of assets is consistently higher than the market value because the 5.0% return is less than the expected 7.75% and resulting losses would continue to be smoothed into the actuarial value of assets.

Exhibit 4 - Projected Assets and Liabilities: 10.0% Return Scenario
The projected changes in asset and liability values based on the 10.0% return assumption on the market value are shown in Exhibit 4.

Again, the PVFB projection does not change as a result of the asset return scenario assumption. In the scenario, the market value of assets grows to roughly $1.4 billion by the end of the forecast period. Also, the gap between the PVFB and the assets shrinks and by the end of the period the assets are greater than the PVFB. The projected market value of assets is consistently larger than the actuarial value of assets because gains are being smoothed in over time.

Exhibit 5 - Rate of Return on Assets: Expected Return Scenario
Finally, the historical and projected rates of return on both the market value and the actuarial value of assets are shown in Exhibit 5 based on the 7.75% return assumption on the market value.

The blue dots represent the actual and projected rate of return on the market value of assets. Although the projected market value rate of return shown here remains flat at 7.75%, the actuarial rate of return is lower until the prior asset losses are fully recognized. Again, this is due to the phasing in of gains and losses from prior years.

Important Notices

Mercer has prepared this report exclusively for the Trustees of The St. Louis Police Retirement System (the System); Mercer is not responsible for reliance upon this report by any other party. The only purpose of this report is to present Mercer's actuarial estimates of the Plan's projected assets, liabilities, and contributions. This report may not be used for any other purpose; Mercer is not responsible for the consequences of any unauthorized use.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security and/or benefit-related issues should not be made on the basis of this report, but only after careful consideration of alternative economic, financial, demographic and societal factors, including financial scenarios that assume future sustained investment losses.

The System is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Mercer's actuaries have not provided any investment advice to the System.

A valuation report is only a snapshot of a Plan's estimated financial condition at a particular point in time; it does not predict the Plan's future financial condition or its ability to pay benefits in the future and does not provide any guarantee of future financial soundness of the Plan. Over time, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the period of time over which benefits are paid, plan expenses and the amount earned on any assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

To prepare the projections, actuarial assumptions, as described in the Actuarial Basis section of the valuation report dated March 9, 2012, are used in a forward looking financial and demographic model to present a single scenario from a wide range of possibilities; the results based on that single scenario are included in the valuation. The future is uncertain and the plan's actual experience will differ from those assumptions; these differences may

be significant or material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward looking projection over a very long period of time, no one projection is uniquely "correct" and many alternative projections of the future could also be regarded as reasonable. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future. A "sensitivity analysis" shows the degree to which results would be different if you substitute alternative assumptions within the range of possibilities for those utilized in this report. The only such analyses we were engaged to perform are the differences in projection scenarios as described.

Actuarial assumptions may also be changed from one valuation to the next because of changes in mandated requirements, plan experience, changes in expectations about the future and other factors. A change in assumptions is not an indication that prior assumptions were unreasonable when made.

The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, the lower the estimated liability will be. For purposes of estimating the liabilities (future and accrued) in this report, you selected an assumption based on the expected long term rate of return on plan investments. Using a lower discount rate assumption, such as a rate based on long-term bond yields, could substantially increase the estimated present value of future and accrued liabilities.

Because valuations are a snapshot in time and are based on estimates and assumptions that are not precise and will differ from actual experience, contribution calculations are inherently imprecise. There is no uniquely "correct" level of contributions for the coming plan year.

Valuations do not affect the ultimate cost of the Plan, only the timing of contributions into the Plan. Plan funding occurs over time. Contributions not made this year, for whatever reason, including errors, remain the responsibility of the Plan sponsor and can be made in later years. If the contribution levels over a period of years are lower or higher than necessary, it is normal and expected practice for adjustments to be made to future contribution levels to take account of this with a view to funding the plan over time.

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Data, computer coding and mathematical errors are possible in the preparation of a valuation involving complex computer programming and thousands of calculations and data inputs. Errors in a valuation discovered after its preparation may be corrected by amendment to the valuation or in a subsequent year's valuation.

Assumptions used are based on the last experience study, as adopted by the Board. The System is responsible for selecting the plan's asset valuation method and assumptions. The funding policy and actuarial valuation method are prescribed by statute. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in the Actuarial Basis section of the valuation report dated March 9, 2012. The System is solely responsible for communicating to Mercer any changes required thereto.

To prepare this report Mercer has used and relied on financial data supplied by Hochschild, Bloom & Company, LLP and participant data supplied by the Executive Director of the Board of Trustees and The City of St. Louis, as described in the valuation report dated March 9, 2012. The System is responsible for ensuring that such participant data provides an accurate description of all persons who are participants under the terms of the plan or otherwise entitled to benefits as of October 1, 2011 that is sufficiently comprehensive and accurate for the purposes of this report. Although Mercer has reviewed the data in accordance with Actuarial Standards of Practice No. 23, Mercer has not verified or audited any of the data or information provided.

Mercer has also used and relied on the plan documents, including amendments, and interpretations of plan provisions, supplied by the System as summarized in the Actuarial Basis section of the valuation report dated March 9, 2012, and on plan provisions stipulated by statute. We have assumed for purposes of this valuation that copies of any official plan document including all amendments and collective bargaining agreements as well as any interpretations of any such document have been provided to Mercer along with a written summary of any other substantive commitments. The System is solely responsible for the validity, accuracy and comprehensiveness of this information. If any data or plan provisions supplied are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of this report. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and that the different interpretations could lead to different valuation results.
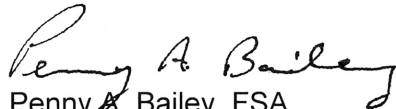
The System should notify Mercer promptly after receipt of this report if the System disagrees with anything contained in this report or is aware of any information that would affect the results of this report that has not been communicated to Mercer or incorporated therein. The report will be

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deemed final and acceptable to the System unless the System promptly provides such notice to Mercer.

We are available to answer any questions on the material in this report or to provide explanations or further details as appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

Respectfully submitted,

Penny A. Bailey, FSA
Partner

Bonita J. Wurst, ASA
Principal

PAB:BJW/pjp

Copy:
Mr. Paul Casolari – Mercer, St. Louis
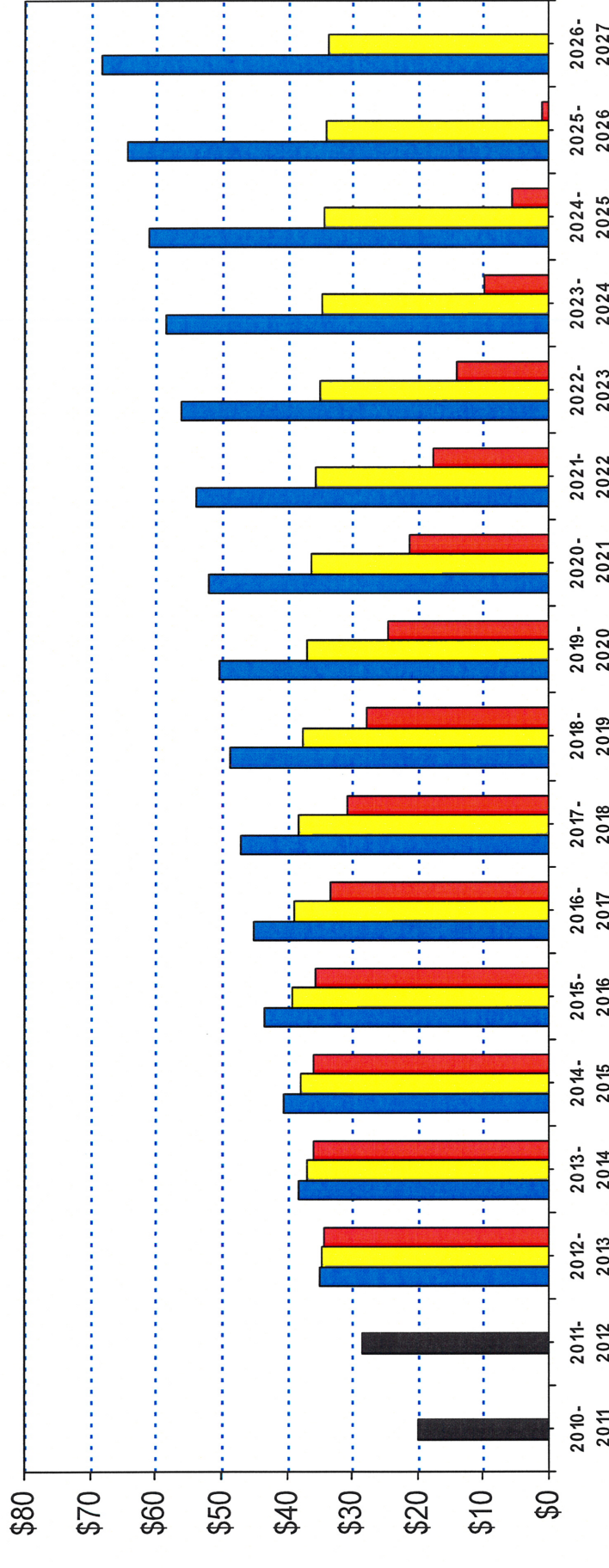Mr. Jeff Pasqualucci – Mercer, St. Louis

Enclosure

The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

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Exhibit 1 - Projected Contribution Requirements for Each Scenario

Millions

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
5.00% Return	N/A	N/A	$35.1	$38.2	$40.4	$43.5	$45.2	$46.9	$48.6	$50.3	$52.0	$54.0	$56.1	$58.4	$61.1	$64.3	$68.1
7.75% Return	$20.0[1]	$28.5[1]	$34.7	$37.0	$38.0	$39.3	$38.9	$38.3	$37.6	$36.9	$36.3	$35.6	$35.1	$34.6	$34.2	$33.9	$33.7
10.00% Return	N/A	N/A	$34.4	$36.0	$35.9	$35.7	$33.3	$30.6	$27.6	$24.5	$21.1	$17.6	$13.9	$9.9	$5.7	$1.1	$0.0

■ 5.00% MVA Return   ■ 7.75% MVA Return   ■ 10.00% MVA Return

[1] Actual contribution requirement.

Exhibit 2 - Change in Asset and Liability Values: Expected Return

October

Legend:
— Market Value
- - Projected Market Value
— PVFB
— Actuarial Value
- - Projected Actuarial Value
- - Projected PVFB
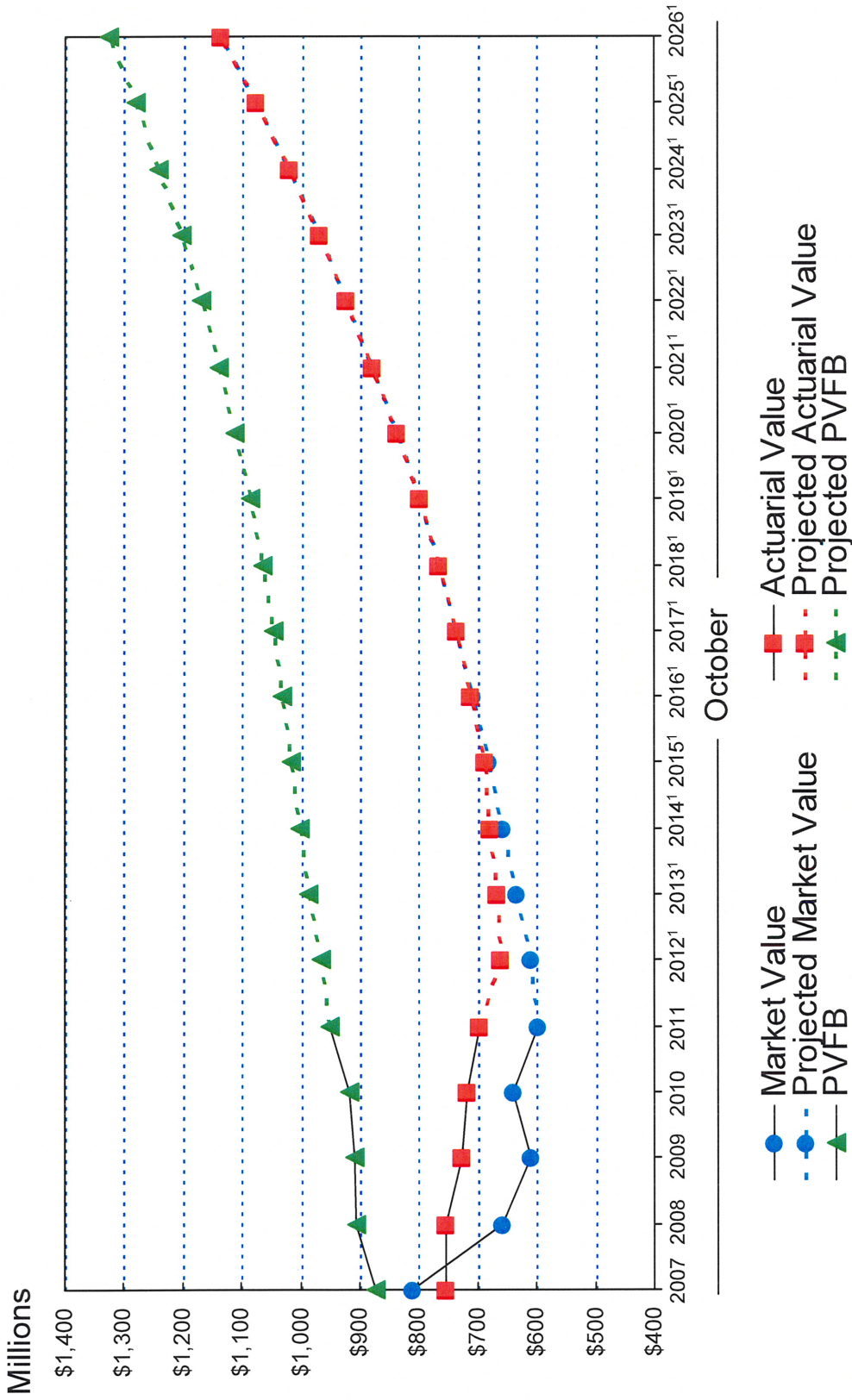
[1] Assumes a 7.75% rate of return on MVA (net of expenses).

Exhibit 3 - Change in Asset and Liability Values: 5.00% Return

Millions

Legend:
- Market Value
- Actuarial Value
- PVFB
- October
- Projected Market Value
- Projected Actuarial Value
- Projected PVFB
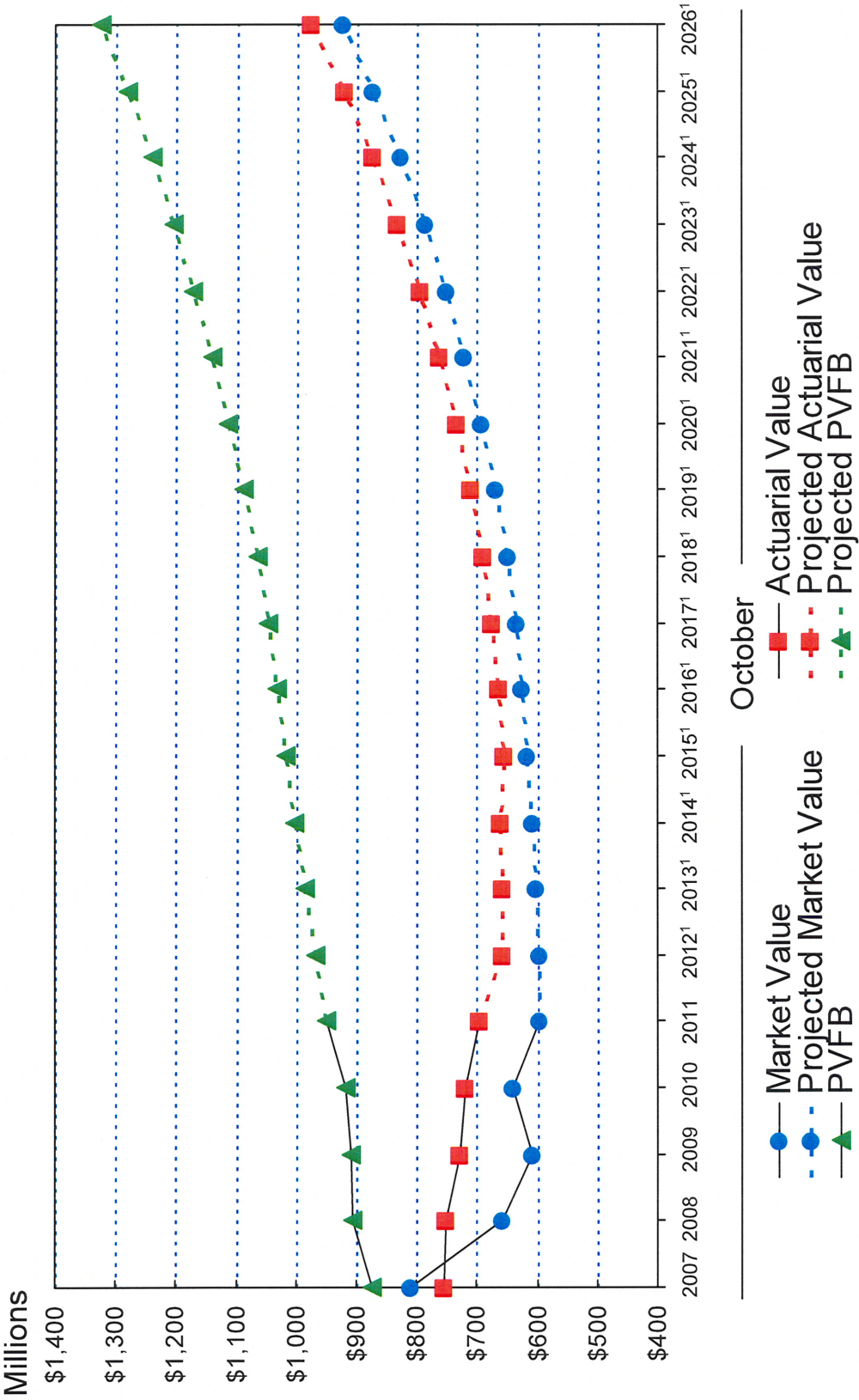
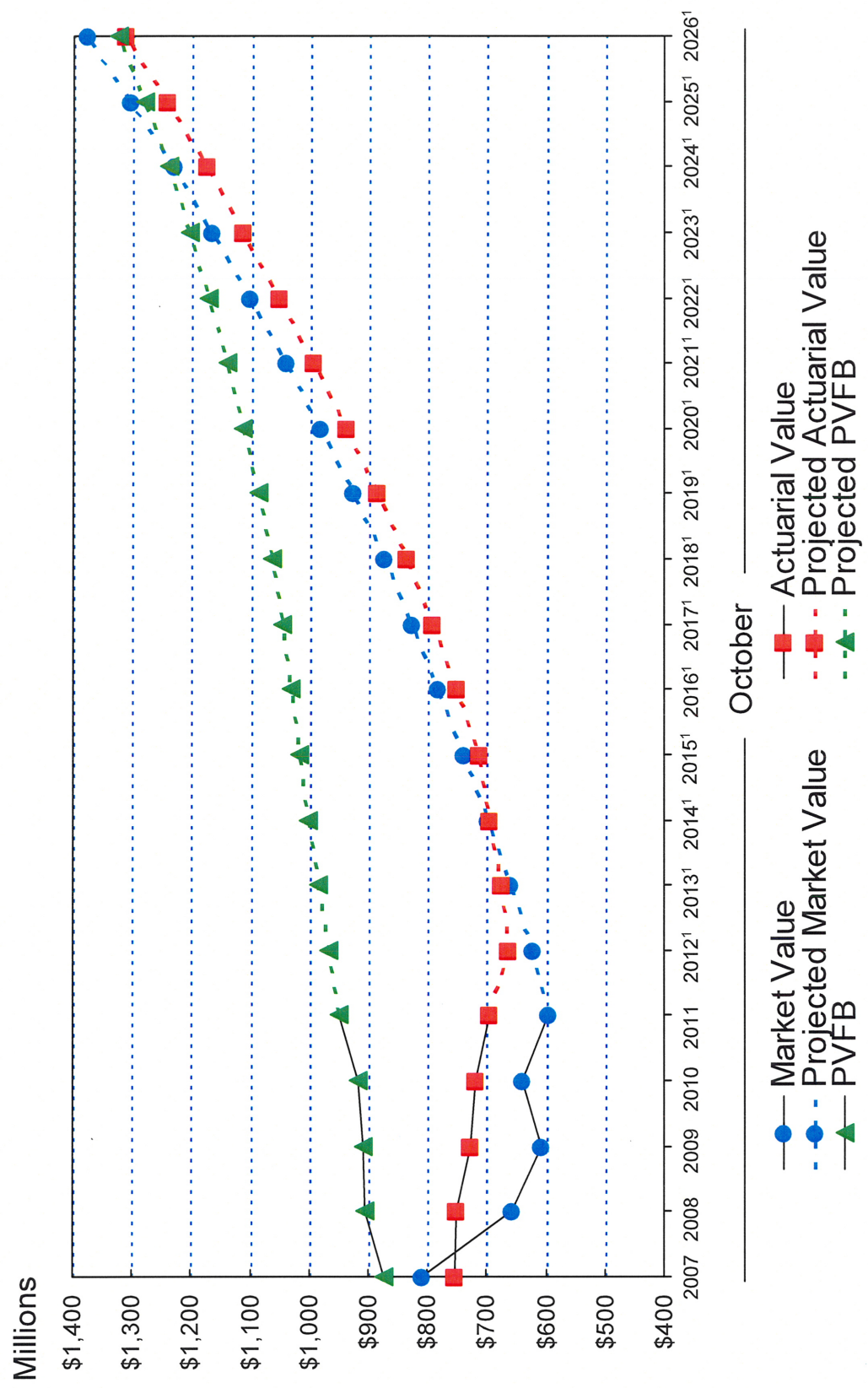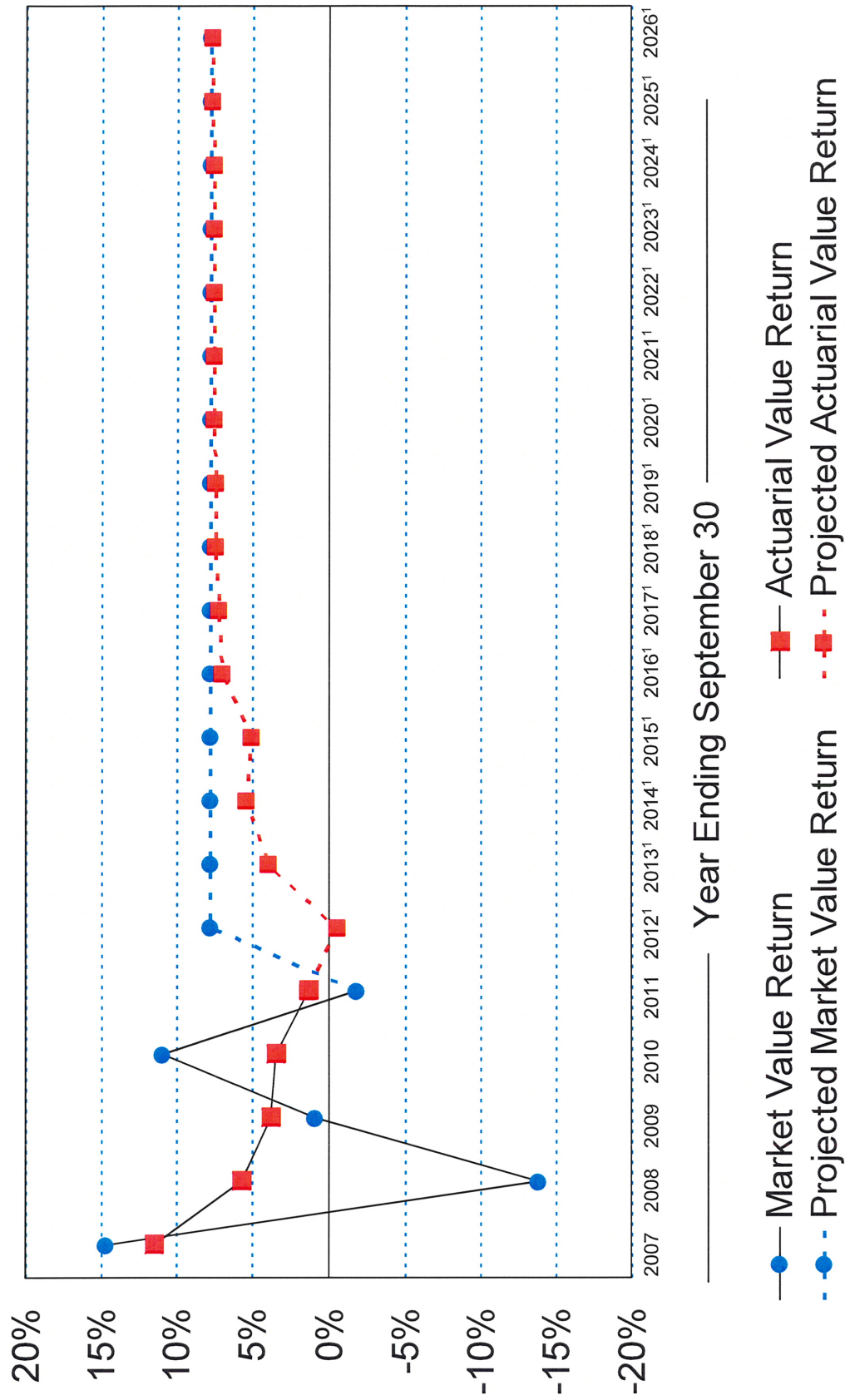[1] Assumes a 5.00% rate of return on MVA (net of expenses).

Exhibit 4 – Change in Asset and Liability Values: 10.00% Return

[1] Assumes a 10.00% rate of return on MVA (net of expenses).

Exhibit 5 - Rate of Return (Net of Expenses): Expected Return

Year Ending September 30

Market Value Return
Actuarial Value Return
Projected Market Value Return
Projected Actuarial Value Return

[1] Assumes a 7.75% rate of return of MVA (net of expenses).

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