MEMORANDUM

RVKuhns
▶▶▶ & ASSOCIATES, INC.

To: State of Michigan Retirement Systems

From: R.V. Kuhns & Associates, Inc.

Subject: State Employees' Retirement System Asset/Liability Study - Executive Summary

Date: September 6, 2012

The purpose of this memorandum is to summarize the key inferences we draw from the Asset/Liability ("A/L") study of the Michigan State Employees' Retirement System (MSERS or the "System"). While this memorandum refers directly to points raised within the study, we emphasize that a full understanding of the A/L study and its implications requires a close review of the study in its entirety.

As of the fiscal year ended September 30, 2011, the start date of the projections in this study, the System was notably underfunded with assets available to cover 56% of System liabilities on a market value basis. This equates to a shortfall of approximately $6.9 billion. Two major themes emerged among the many conclusions in the study:

(1) Despite MSERS' rather mature population, this study suggests that the System's financial health is likely to improve over the next 20 years due to the strong contribution policy in place coupled with the eventual decline in benefit receiving members. These forces will push, albeit slowly and with significant contributions, the System to full funding and eventually the complete elimination of the System's liabilities.
(2) The early indications that the System's investment strategy will likely need to enter a "glide path" toward a lower volatility asset allocation, incrementally and over many years with periodic readjustments.

Purpose

The central purpose of an A/L study is to examine the probable future consequences, over extended periods of time, of applying alternative asset allocation strategies to the System's investment assets in order to fund the liabilities created by the benefit provisions of the System. A/L studies are unique in their ability to combine in a single analysis the three critical factors that drive the financial health of the System—benefit policy (liabilities), contribution policy, and investment strategy (asset allocation). Certainly this type of forward looking study—nor any others we are aware—cannot indicate with any reliability what will happen in any given year over this extended period of time. However, we have high conviction that the study's results paint a highly reliable view of the core trends in the System's financial health.

In this study, we examined a series of related questions associated with this central purpose, projecting future outcomes under two distinctly different methodologies:

1. a **deterministic** basis (all underlying assumptions, liabilities, contributions and most critically investment returns, are achieved precisely without variance in each and every year); and
2. a **stochastic** basis (outcomes for investment returns vary each year according to estimated volatility with contribution *requirements* following suit while *actual* contribution policy and liabilities remains in their current form).

Key Conclusions

Below you will find a series of important findings, forecasts, and conclusions drawn from the body of the study. While the remarks are presented here to allow a quick assessment of some of the key findings, they represent only a sampling of the fundamental elements of the study. We emphasize that a solid understanding of each of them requires that they be reviewed as they are presented in the study itself within their surrounding context. This is especially important to understanding the findings which represent *probable, but not certain,* outcomes as analyzed in the stochastic section of the study.

At the Outset:

- As of September 30, 2011 (the date of the actuarial valuation used to model liabilities), the System's market value funded ratio (available assets to fund benefit obligations) was 56% (page 6).

- Being a closed mature System, inactive members (non-contributing and, in the case of retirees, benefit drawing) currently exceed total active members (contributing) by more than 3 to 1, a ratio that will increase steadily as the System continues to mature (page 8). This is an important factor and is critical driver of the System's most likely long-term financial path. It is also critical to keep this demographic driver in mind when considering the projected status of plan liquidity below.

Deterministic Analysis: A deterministic analysis assumes full certainty about the future, in particular, certainty of investment returns. Its virtues are that it is simple and that the findings reflect what will happen if the future turns out to be precisely as forecasted—no better, but also no worse.

- Aggregate annual dollar contributions (employer and employee) based on actuarially required rates are expected to decrease by approximately 5% over the next 20 years; from $615 million in 2011 to $586 million in 2031 (page 12). *Please note however*, that precise actuarially required rates as they unfold are the purview of the System's actuary and are affected by factors other than investment returns and resulting asset values of the System.

- Aggregate benefit payments are expected to increase by about 34% over the next 15 years before beginning to fall through the remainder of the study period once the number of benefit receiving retirees also begins to decline (projected to commence in 2024) (page 9).

- Benefit payments currently exceed total contribution inflows by more than 1.8 to 1.0 (page 14). This ratio is projected to gradually increase through the end of the projection period. As benefit payments increase relative to contributions, a larger portion of System assets must be depleted to fund annual benefit payments, and as a result increasing payout ratios. Increased payout ratios can potentially impose liquidity constraints on the management of the portfolio (inhibiting the ability of the System to invest with a long term horizon) therefore limiting the opportunity to invest in less liquid asset classes regardless of the return or risk reducing diversification benefits they offer. However, the payout ratio is projected to not exceed 15% during the projection period, a level that should not significantly inhibit investment opportunities for the System (page 10).

- As assets grow each and every year without exception at the assumed rate of return (8.00%), the funding ratio on a market value basis is expected to gradually increase to about 84% by 2031 from the current value of 56% (page 18).

- Assuming the current contribution policy remains unchanged, the System would need to experience annual returns in excess of 12.20% over the next 10 years or 9.00% over the next 20 years *without exception in each and every year* in order to reach full funding (page 19). Achieving these lofty returns on such a sustained basis is extremely unlikely in our judgment and underscores our conclusion that investment returns alone cannot move the System to full funding or even near it. The current actuarial assumed rate of return for the System is 8.00% (above our estimate of public pension plans generally) and the expected (arithmetic) return of the MSERS Target Allocation using RVK's 2012 capital market assumptions is 7.71% (page 27).

- Experiencing a return of 100 basis points below (7.00%) the assumed rate of return (8.00%) each year for the 20 year projection period would result in a funding ratio of 70% in year 20 versus 84% at the current assumed rate of return (page 20). Given the widely shared concerns about a low return environment in the capital markets over the foreseeable future, this is a conclusion that should be thoroughly understood and appreciated. In the event that capital markets do not support returns commensurate with the assumed rate of return (8.00%), effectively increases the reliance on contributions to complete the payout of the System's liabilities, especially in later years.

- If we assume employer contributions are increased by $50 million per year (approximately 10% above current levels), the end-of-projection period funding ratio nears 90% or about 6 percentage points higher than under the base scenario (page 21). Due to the compounding effects of investment returns, this only equates to a total of approximately $32 million in additional cumulative employer contributions over the 20 year projection period. We realize only too well the fiscal challenges faced at all levels within the public sector. Thus, accelerated pension funding through higher contributions in early years may well be judged unrealistic under current fiscal conditions. However, we would be remiss not to point out that this finding emphasizes the critical importance of the contribution policy to the overall long-term financial health of the System.

Stochastic Analysis: Unlike a deterministic analysis, a stochastic analysis does not assume an unvarying stream of expected investment returns year after year. Instead, it reflects the realistic view that pension plan investment returns are—like the investment markets themselves—volatile and always uncertain. This means that there are a range of possible outcomes for MSERS; some are more likely, others less likely, but still possible.

The deterministic approach is useful for gauging the general direction of change and associated consequences, but adding the element of uncertainty—more specifically year to year variability in the performance of the capital markets and the value of the System's assets over time—can offer additional insights, albeit along with considerable complexity.

Uncertainty in future investment returns is taken into account via a stochastic analysis of six different investment approaches (in the table below and on page 27) ranging from highly conservative (low risk, asset protective) to highly aggressive (high return seeking with substantial associated risk), including the Target Allocation and Current Allocation (as of March 31, 2012) of MSERS. At the heart of the MSERS situation is a simple question that is difficult to answer: whether the System, currently well below full funding, is better off following a strategy that:

(A) Falls in the general category of higher prospective return with greater risk (i.e. potential for more widely varying outcomes – good or bad), or

(B) Falls in the general category of lower prospective return with concomitantly lower risk (i.e. a tighter band of likely outcomes).

	Target Allocation	Current Allocation	Conservative Portfolio	Potential Portfolio 1	Potential Portfolio 2	Aggressive Portfolio
Broad US Equity	31	28	0	26	28	47
Broad International Equity	16	15	0	16	16	20
Int. Duration Fixed Income	15	13	85	22	13	0
Diversified Infl Strat	5	4	5	2	2	0
Real Estate	6	10	0	8	10	10
Absolute Ret Mul Str FoF	4	4	0	6	8	0
Private Equity	16	21	0	15	18	20
Custom Infrastructure	3	0	0	3	3	3
Cash Equivalents	4	6	10	2	2	0
Total	100	100	100	100	100	100
Capital Appreciation	63	63	0	57	62	87
Capital Preservation	19	19	95	24	15	0
Alpha	4	4	0	6	8	0
Inflation	14	14	5	13	15	13
Expected Return	7.71	7.85	4.15	7.56	7.98	8.78
Risk (Standard Deviation)	13.87	14.37	5.13	12.83	14.21	17.98
Return (Compound)	6.83	6.91	4.02	6.80	7.06	7.32
Return/Risk Ratio	0.56	0.55	0.81	0.59	0.56	0.49
RVK Expected Eq Beta	0.72	0.74	0.08	0.67	0.73	0.94
RVK Liquidity Metric	67	64	85	66	61	66

Part of this question is precisely how MSERS and the System's broader constituencies define what "better off" means. The metrics we use for each to determine whether the System is "better off" under one approach versus another are as follows:

(1) The effect on funding ratio (and thus on contribution rates which decline with higher funding ratios).
(2) The effect on System liquidity (i.e. the System's ability to pay annual benefits without major disruption of its strategic asset allocation, the driver of its investment strategy).
(3) The effect on the trend line and stability of annual contributions.
(4) The risk of large, sudden, and highly disruptive short-term declines in the System's assets over the course of time.

The results of this analysis are displayed on pages 28 through 47 of the accompanying A/L study. But for purposes of this summary, the consequences of choosing A versus B, as described above, are summarized most clearly in the tables on pages 34 and 47 of the study (and are copied below followed by explanatory comments).

20 Years	Probability of Full Funding in 2031	Probability of less than 56% Funding in 2031	Probability of 0% Funding in 2031	Maximum 1 Year Portfolio Investment Loss
Target Allocation	36%	28%	0%	-40%
Current Allocation	38%	27%	0%	-41%
Conservative Portfolio	0%	79%	0%	-17%
Potential Portfolio 1	33%	28%	0%	-38%
Potential Portfolio 2	39%	26%	0%	-40%
Aggressive Portfolio	49%	23%	0%	-48%

20 Years	Actuarial Funded Ratio in Year 20			Market Funded Ratio in Year 20			Cumulative Employer Contributions in Year 20 (Billions)			Payout Ratios		
	50th	5th	95th	50th	5th	95th	50th	5th	95th	Year 20 Median	2011-2031 Peak	2011-2031 Trough
Target Allocation	80.1%	33.3%	280.8%	80.3%	28.1%	293.3%	$12.7	$21.1	$3.7	15.6%	44.9%	4.2%
Current Allocation	82.3%	32.9%	302.4%	82.2%	27.6%	320.8%	$12.4	$21.1	$3.6	15.2%	44.9%	3.9%
Conservative Portfolio	49.1%	33.2%	73.0%	44.2%	28.2%	70.5%	$18.3	$21.0	$14.4	28.3%	45.7%	11.9%
Potential Portfolio 1	78.0%	34.6%	241.9%	77.9%	29.2%	252.2%	$13.1	$20.8	$4.0	16.1%	43.1%	4.9%
Potential Portfolio 2	83.8%	34.1%	310.1%	84.6%	28.3%	323.4%	$12.1	$20.9	$3.5	14.8%	43.9%	3.9%
Aggressive Portfolio	97.5%	31.5%	524.8%	98.7%	26.0%	580.7%	$10.4	$21.5	$2.8	12.7%	47.9%	2.1%

- The median expected funding ratio at the end of the 20 year study period is higher than the current funding level for five of the six investment options analyzed. The only exception is the Conservative Portfolio which is significantly below current funding levels.

- With the exception of the Conservative Portfolio all portfolio analyzed show a significant probability of a funding ratio greater than current levels (56%). The Conservative Portfolio shows a 79% probability of funding less than current levels in 20 years.

- All portfolios show at least some probability of prohibitively high payout ratios although only the Conservative Portfolio shows a median ratio that would restrict investment options over the next 20 years.

- Potential Portfolio 1 suggests outcomes that are likely slightly less desirable than the Target Allocation. This can be seen in the tables above with worse median funding levels, higher median payout ratios, and lower probability of full funding. The benefit for accepting these slightly worse outcomes is decreased portfolio volatility. This lower volatility – while not critical to pursue aggressively at this time in our view – will likely become a more important goal as the closed plan's demographics become increasingly weighted toward the payment of benefit payments to retirees (indeed eventually virtually totally dedicated to that end).

- Potential Portfolio 2 offers minimal improvements over the Target Allocation. This can be seen in the tables above with better median funding levels, lower payout ratios, higher probability of full funding, and lower probability of decreased funding levels. The price for these improvements is increased portfolio volatility. It is important to note that these advantages of Potential Portfolio 2 do not lead us to conclude that it is unquestionably the optimal asset allocation. Other factors, besides the ones analyzed here, will certainly play a role in the final strategy determined for the System.

- The cumulative cost of providing the System's benefits is met through a combination of contributions and the investment returns on those contributions. The Conservative Portfolio requires the largest increase in contributions (i.e., the direct funding of benefits). Even under the very unlikely best-case scenario the System would only be in moderately better financial health than it is today by implementing such a strategy. The only redeeming virtue of such an ultra-conservative approach is that the potential for large declines in the value of the fund is significantly mitigated albeit at much higher ongoing costs (contributions) and chronic poor System financial health.

- The Aggressive Portfolio does appear to have the highest *probability* of producing full funding by 2031. *However*, it also has a maximum theoretical one-year portfolio decline of 48%—a loss of nearly one half of the System's assets. This likelihood of notably larger one year declines within the study period gives pause to the desirability of a far more aggressive approach simply from a quantitative viewpoint. It also suggests it may be a strategy that is extremely difficult for decision makers to sustain over a long period of time. Declines in the total fund market value of this magnitude are a disruptive event from all aspects of System management. Yet, the benefit of such an aggressive approach that makes it superficially attractive can only be realized with any probability if the aggressive and highly volatile approach is maintained for several decades through good times, bad times, and unnerving times. Furthermore, this type of strategy could prove difficult to maintain in future years should demographic (additional early retirement incentives for example) or financial events create higher liquidity demands on the fund. For all these reasons, it is not an approach that should be seriously considered without full recognition of the significant risks.

- While RVK supports the conclusions of the study using our current capital market assumptions, we also model for extreme market scenarios to stress test the results of the study. This analysis can be found in Appendices 1 and 2 (beginning on pages 48 and 69 respectively). The first test models the case of extreme market volatility by doubling the

assumed standard deviations of all asset classes. The second test models converging market returns by assuming all assets are perfectly correlated (i.e. correlations equal +1.00). The results of these additional analyses show that the relative portfolio outcomes do not change, but that the range of potential results widens indicating higher risk for all asset mixes given the increased systemic volatility and the reduced dampening effects of total fund diversification we assume under these stress scenarios.

Final Comments

This A/L study shows that while MSERS is currently underfunded, it can improve its most likely outcomes, as well as its best and worst case outcomes, through continued use of a well-diversified investment portfolio. Incremental changes to the Target Allocation are not likely to substantially change the outcomes of the System. Additionally, the study is not supportive of a long-term, ultra-conservative approach. The increasing potential for large one-year declines suggests that there is likely a limit to the net benefits of adding increased risk in pursuit of additional return. Progress should be monitored periodically through studies such as these, particularly if the System encounters a sustained period of lower returns in the capital markets (and thus for the System's assets) as well as material changes in contribution policy or benefit levels.

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

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& ASSOCIATES, INC.

State of Michigan Retirement Systems

Michigan State Employees' Retirement System

Asset / Liability Study

September 2012

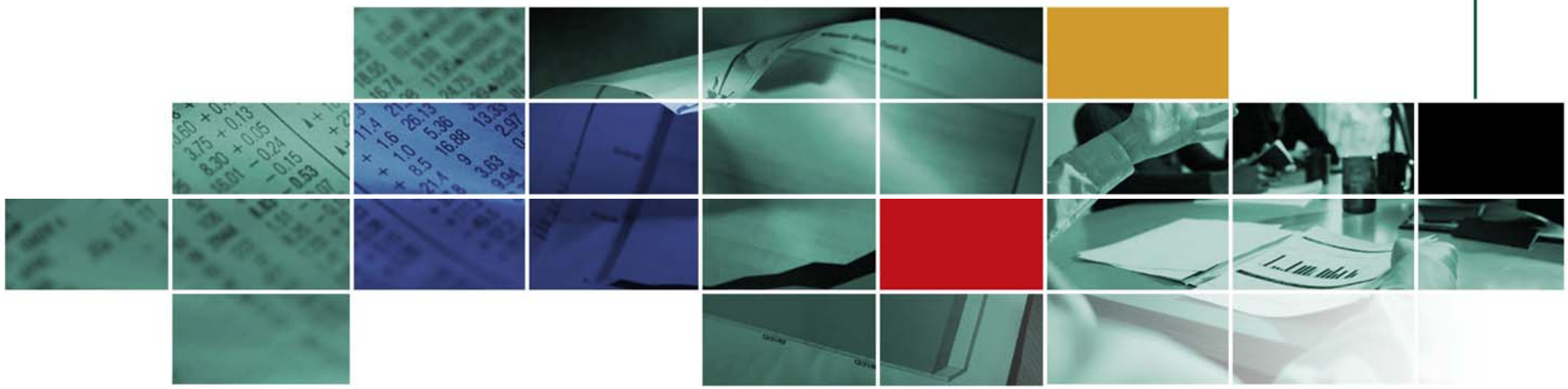

Table of Contents

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Introduction

R.V. Kuhns & Associates, Inc. (RVK) has prepared this report for the Michigan State Employees' Retirement System (MSERS) to:

- Present projected valuation results with respect to the funded status of the Plan.
- Present projected benefit payments of the Plan.
- Investigate asset mixes to determine those which best serve to protect and increase funding levels, while providing adequate liquidity for benefit payments.

The valuation projections are shown using both a deterministic and stochastic process.

The deterministic process provides a closed group analysis of projected valuation results based on a fixed set of future assumptions (see summary in the Assumptions and Methods section of this report).

The stochastic process provides a closed group analysis of projected valuation results under many capital market environments based on expected asset returns and inflation, and their expected volatility. Using a Monte Carlo simulation technique, both assets and liabilities are assumed to vary stochastically, linked together by changes in inflation. Expected values, variances of the returns and inflation, and correlations are used to generate 2000 trials to produce a distribution of potential outcomes. A stochastic analysis can answer questions about the best/worst case outcomes along with the probability of such outcomes.

Introduction (continued)

What is an Asset/Liability Study?

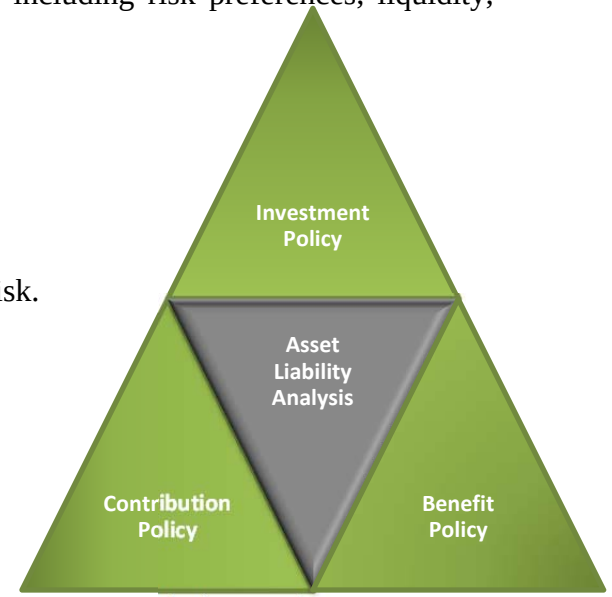
- Investment programs and the strategy they seek to implement (Investment Policy) do not exist in a vacuum. They seek to satisfy one or more investment objectives and operate within a plan framework that includes the investment objectives (Benefit Policy) and plan funding (Contribution Policy).

- The purpose of an Asset/Liability Study is to examine how well alternative investment strategies (i.e., differing asset allocations) address the objectives served by the Plan—the Plan's "liabilities" in the context of the Plan's funding streams—the Plan's Contribution Policy. It is the only standard analysis that fully links all three aspects of the Plan's key financial drivers.

- In doing so, it creates an important "guidepost" for the actual asset allocation for the Plan; the asset allocation chosen by the Plan's fiduciaries will likely reflect the nature of the liabilities but also numerous other factors including risk preferences, liquidity, implementation constraints, etc.

- For the MSERS Asset/Liability Study, we assume the objectives are:

    1. Fund all participants' benefits over time.
    2. Assure sufficient liquidity to pay benefits at all times.
    3. Foster a stable contribution stream consistent with objectives 1 and 2.
    4. Achieve adequate returns without accepting unnecessary or imprudent levels of risk.



An Asset/Liability Study is NOT . . .

- An actuarial study of the MSERS liabilities—that is the purview of the Plan's actuary.

- A prescription for Plan benefits—that is the purview of the elected representatives.

- An assessment of the affordability of contribution levels—that is the purview of the elected officials and their constituents.

- The sole determinant of the final asset allocation adopted for the Plan—there are a number of factors, including insights from an Asset/Liability Study, which will bear on the optimal asset allocation.

Introduction (continued)

Asset/Liability Studies in Practice . . .

- Begin with a forecast of the financial liabilities (i.e., benefit obligations).
- Include a baseline estimation of the financial contributions to the Plan over time.
- Compare alternative investment strategies (i.e., total fund asset allocations to the Plan's financial needs).
- Draw conclusions regarding how well various investment strategies satisfy the Plan's financial needs.

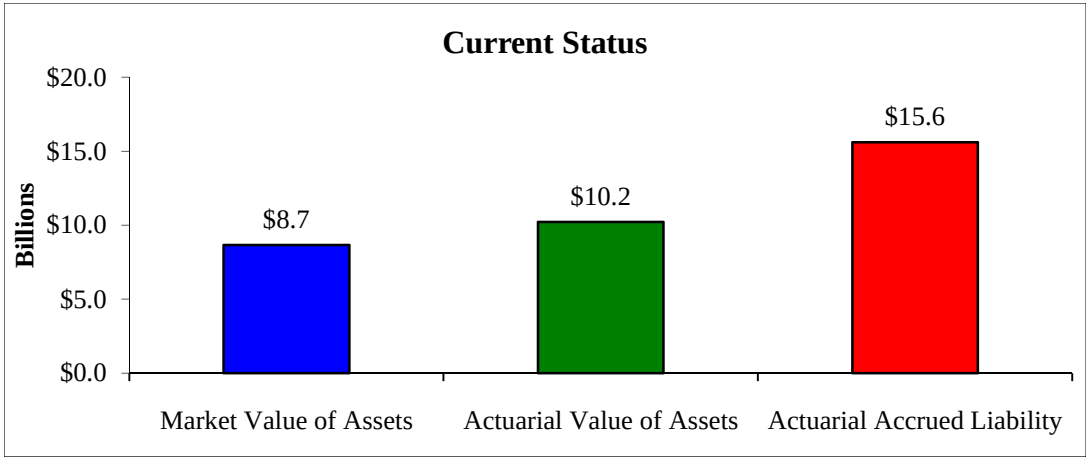
This Asset/Liability Study . . .

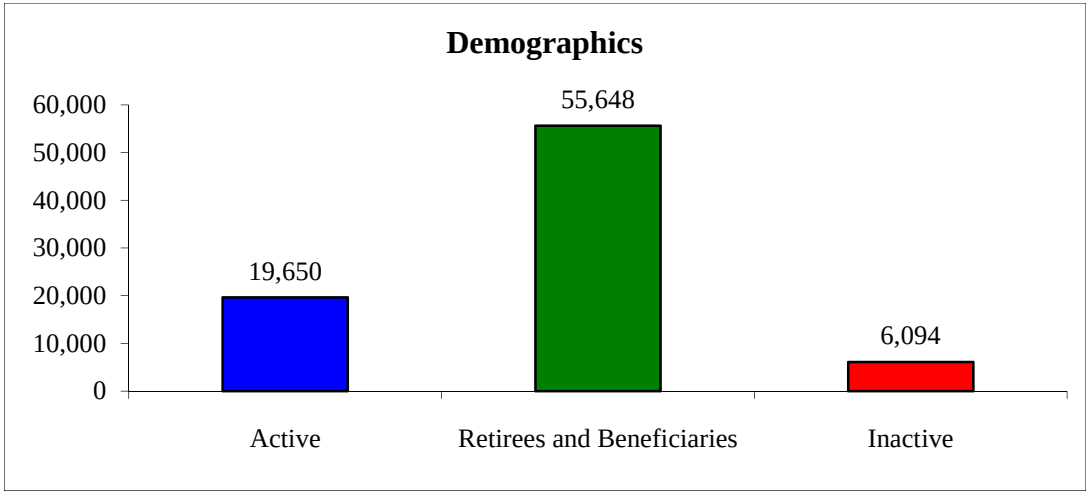
- Uses data from the September 30, 2011 MSERS Actuarial Valuation to project pension liabilities.
- Uses the Actuarial Cost Method and other assumptions described in the September 30, 2011 MSERS Actuarial Valuation.
- Compares these specific investment strategies—(A) Target Allocation, (B) Current Allocation (as of March 31, 2012), (C) a conservative illustrative portfolio (Conservative Portfolio), (D) a diversified lower risk portfolio (Potential Portfolio 1), (E) a diversified higher risk portfolio (Potential Portfolio 2), and (F) an aggressive illustrative portfolio (Aggressive Portfolio)—expressed as total fund asset allocations to the projection of Plan liabilities.
- Assumes the Plan's current benefit policy throughout the entire projection period—changes to the benefit policy are the purview of the elected representatives.
- Note: Does not assume any actuarial adjustments that may take place in future years.

Current Status

A summary of the Plan follows:

Valuation Date	September 30, 2011
Market Value of Assets (MVA)	$8.7 billion
Actuarial Value of Assets (AVA)	$10.2 billion
Actuarial Accrued Liability (AAL)	$15.6 billion
Actuarial Funded Ratio (AVA/AAL)	65.5%
Market Value Funded Ratio (MVA/AAL)	55.5%
Active	19,650*
Retirees and Beneficiaries	55,648
Inactive	6,094





*Includes members who subsequently elected to end participation in the Plan as part of P.A. 264.

Deterministic Analysis

This section provides an analysis of the Plan's assets, liabilities, funded status, and benefit payments based on a fixed set of future assumptions. Each analysis that follows in this deterministic section rests on the critical assumptions below and must be read and interpreted with them in mind—particularly assumptions #3 and #4.

The deterministic assumptions are as follows:

1. Current Plan provisions (see summary of Benefit Provisions in the Assumptions and Methods section of this report).

2. The actuarial data used by Gabriel Roeder Smith & Company (see summary in the Assumptions and Methods section of this report).

3. Actuarially assumed rate of return on Plan assets for all projection years: 8.00%.

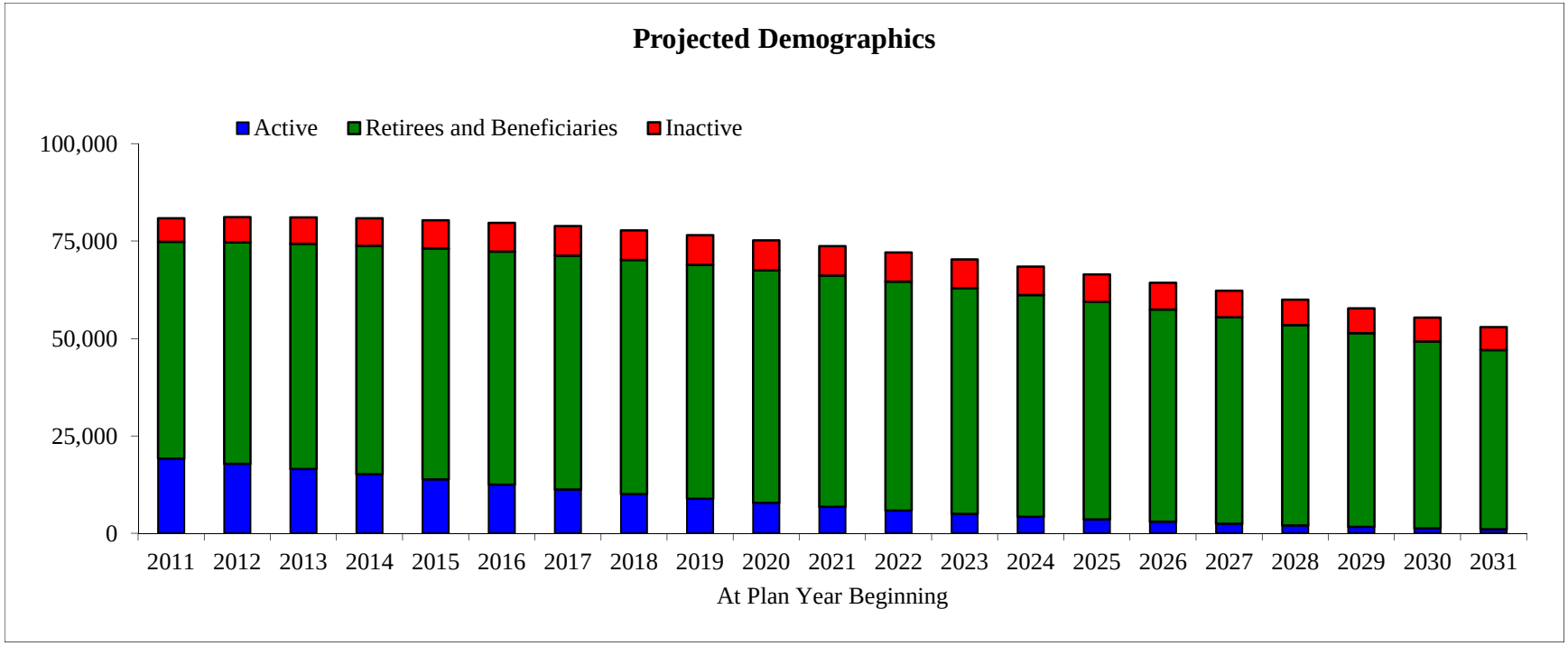
4. Assumes total contributions equal to the actuarially calculated normal cost, plus an amortization of the unfunded actuarial liability, plus assumed future reconciliation payments. Effective April 1, 2012, participants in the plan are required to contribute 4% of their annual compensation. Employer contributions are equal to the total actuarially calculated contribution, less expected employee contributions.

5. Closed group analysis. (The Plan has been closed to employees hired after March 31, 1997.)

Deterministic Analysis (continued)

Demographics

Following are the projected number of active and inactive participants at the beginning of each Plan year from 2011 through 2031 (2011 is actual). These projections are based on a closed group analysis. Using the actuary's assumptions for death, termination, retirement, and disability, current participants are assumed to leave the Plan in the future. The number of total inactive participants (Retirees and Beneficiaries and Inactive) decreases by about 16% during the 20-year projection period shown while the number of active members drop to about one twentieth of the beginning number as the Plan matures.

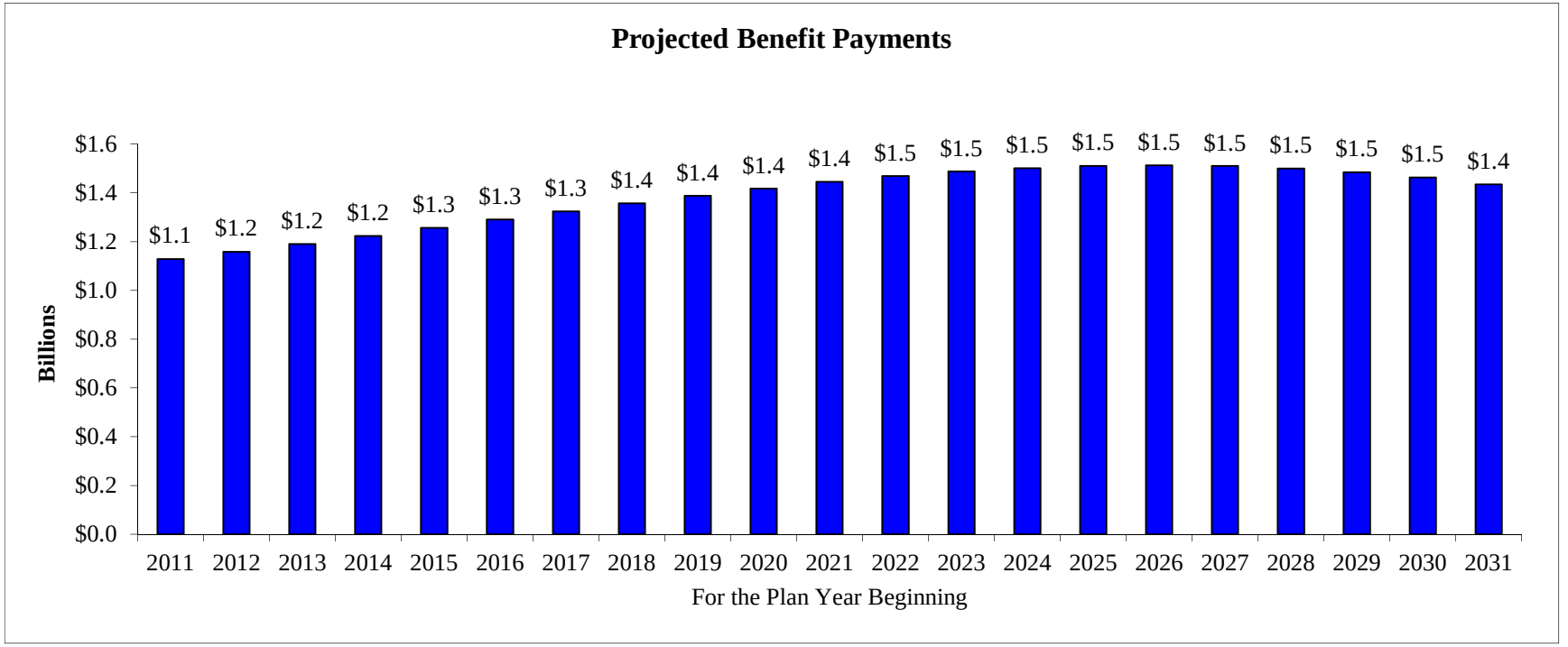


Total Population	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Annual Percent Change	N/A	0.3%	0.0%	-0.3%	-0.6%	-0.8%	-1.1%	-1.4%	-1.6%	-1.8%	-1.9%	-2.2%	-2.5%	-2.7%	-2.9%	-3.1%	-3.3%	-3.6%	-3.8%	-4.1%	-4.4%

Deterministic Analysis (continued)

Benefit Payments

The Plan's projected annual benefit payments are shown in the chart below. The projected benefit payments are expected to increase by about 34% over the next 16 years before beginning to decline as the number of benefit receiving members declines. As a percentage of the market value of Plan assets, benefit payments are expected to gradually increase through the end of the projection period (see next page).

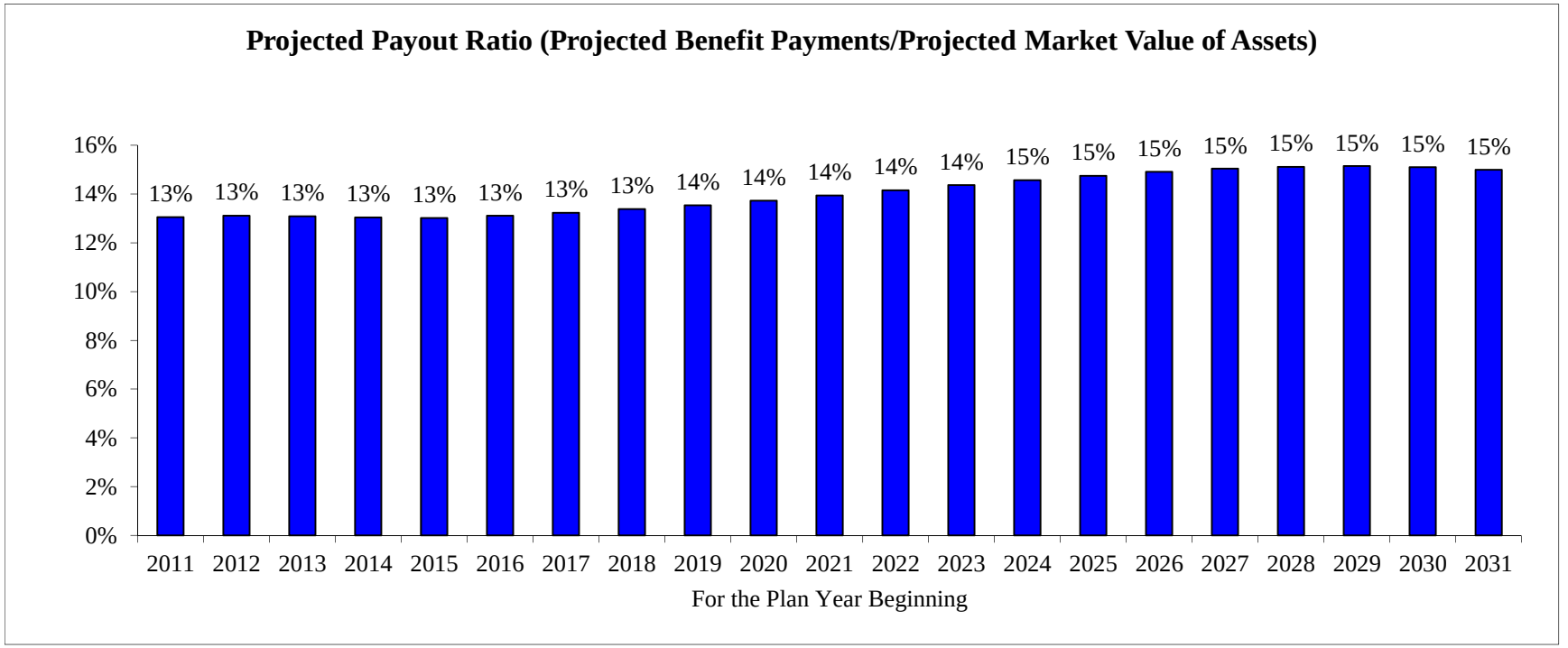


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Annual Percent Change	N/A	2.6%	2.7%	2.8%	2.8%	2.7%	2.6%	2.5%	2.2%	2.1%	2.0%	1.6%	1.3%	0.9%	0.6%	0.2%	-0.2%	-0.6%	-1.0%	-1.5%	-1.9%

Deterministic Analysis (continued)

Payout Ratio (benefit payments/market value of assets)

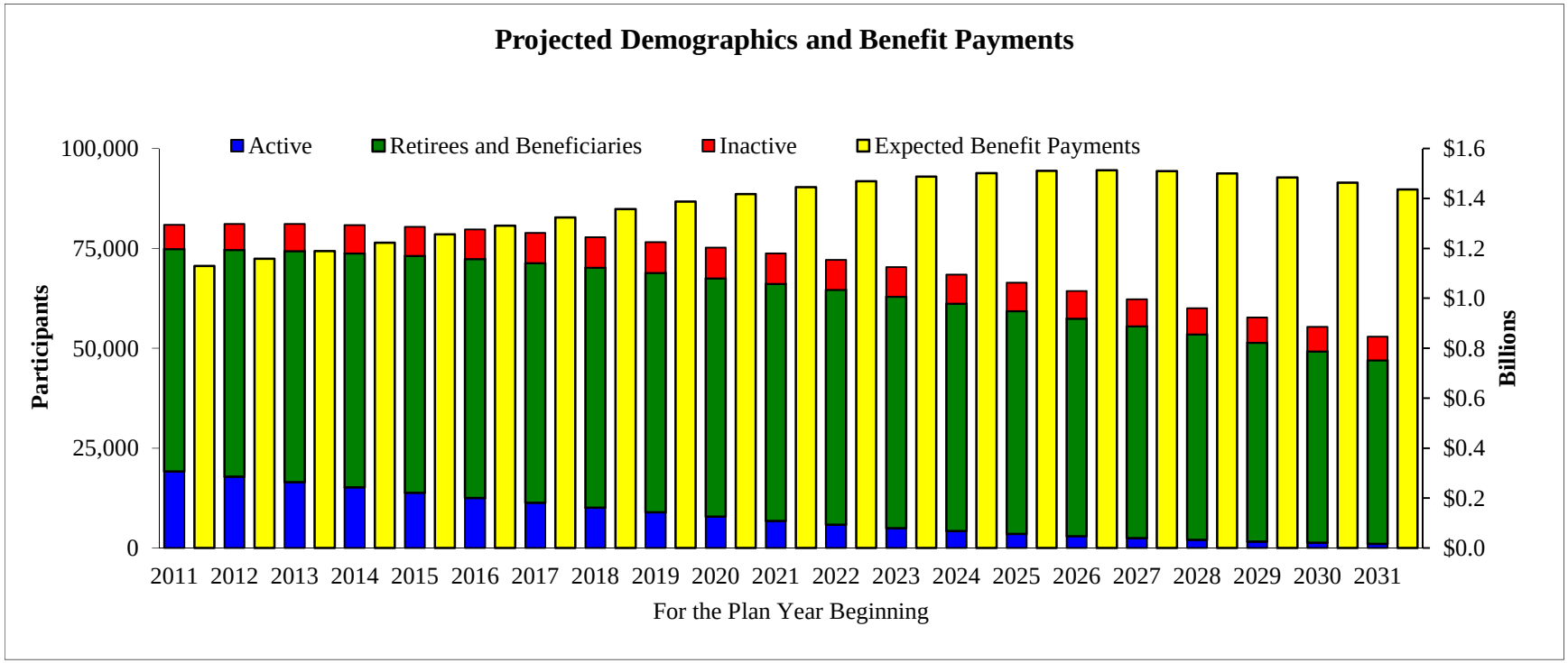
The Plan's projected payout ratios are shown in the chart below. The payout ratios are expected to gradually increase through the end of the projection period. The results assume the current contribution policy remains unchanged and that the Plan's assets return precisely the actuarially assumed rate each year without exception for all projection years.



Deterministic Analysis (continued)

Demographics and Benefit Payments

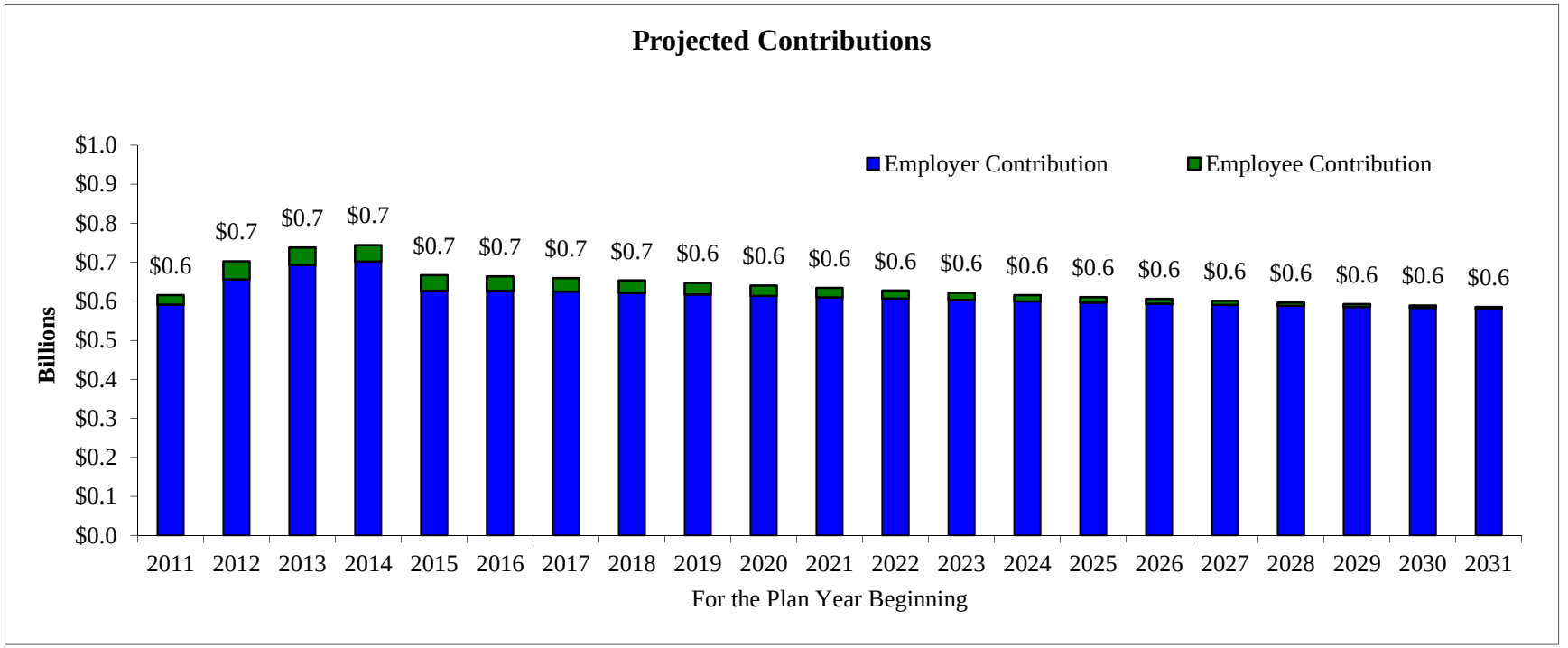
The chart below highlights the demographic and benefit payment projections shown on the prior pages, illustrating the comparison between the projected number of active and inactive participants and the projected benefit payments through the Plan year beginning 2031.



Deterministic Analysis (continued)

Contributions

The Plan's projected contributions, expressed as total dollar contributions, are shown in the chart below. The results assume the current contribution policy remains unchanged and that the Plan's assets return precisely the actuarially assumed rate each year without exception for all projection years.

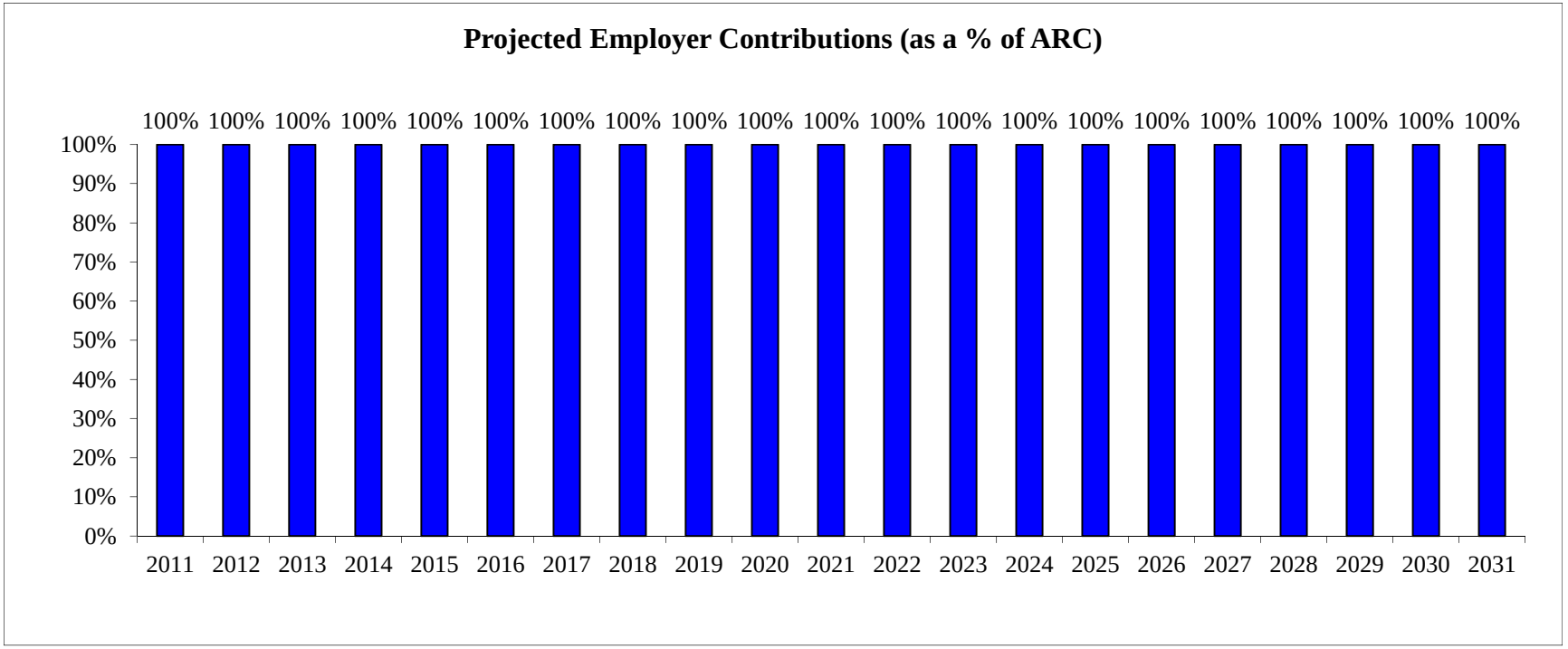


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Annual Percent Change	N/A	14.1%	5.1%	0.8%	-10.4%	-0.4%	-0.7%	-0.9%	-1.0%	-1.0%	-1.0%	-1.0%	-0.9%	-0.9%	-0.9%	-0.8%	-0.8%	-0.7%	-0.7%	-0.6%	-0.6%

Deterministic Analysis (continued)

Contributions

The Plan's projected employer contributions, expressed as a percentage of the Annual Required Contribution (ARC)*, are shown below. ARC is calculated using an open 30 year (beginning in 2006) amortization period. The results assume the current contribution policy remains unchanged and that the Plan's assets return precisely the actuarially assumed rate each year without exception for all projection years.

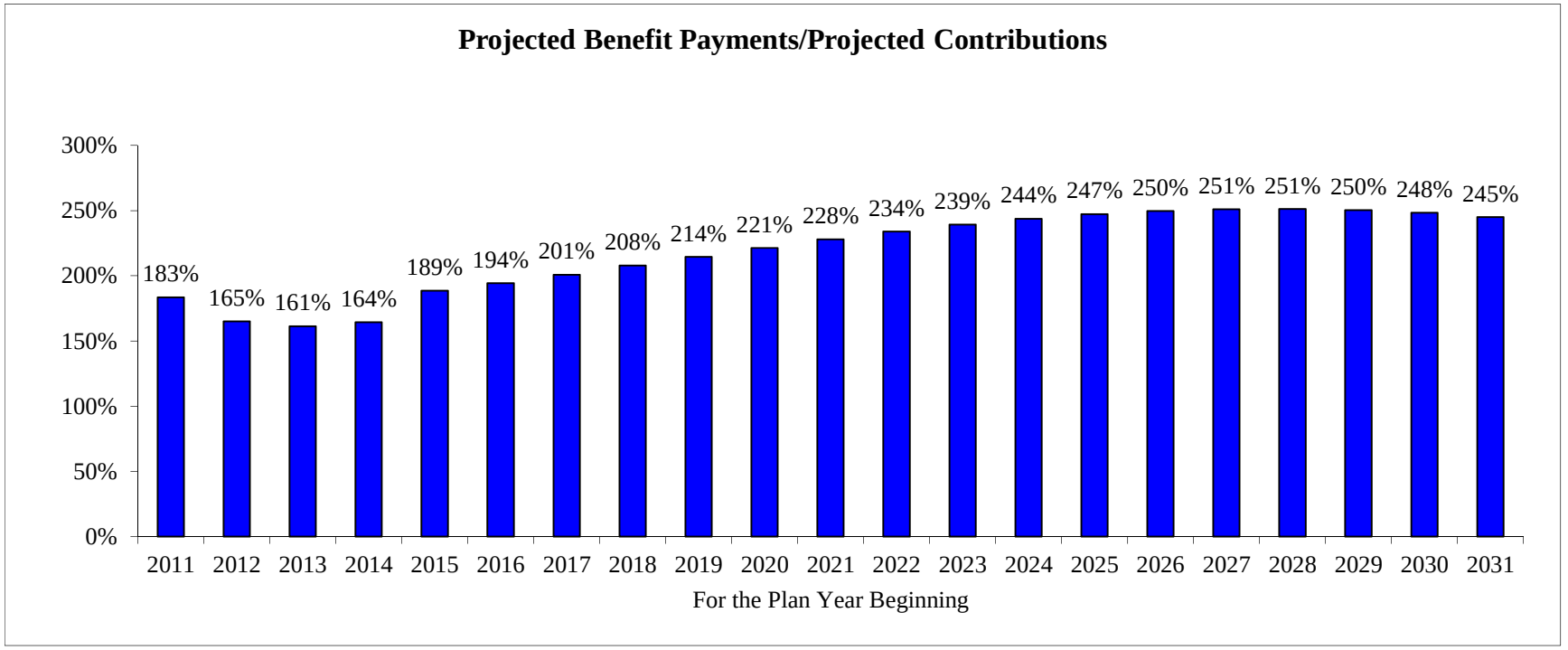


*ARC excludes employee contributions. Employee contributions are assumed to be contributed in full each year.

Deterministic Analysis (continued)

Benefit Payments/Contributions

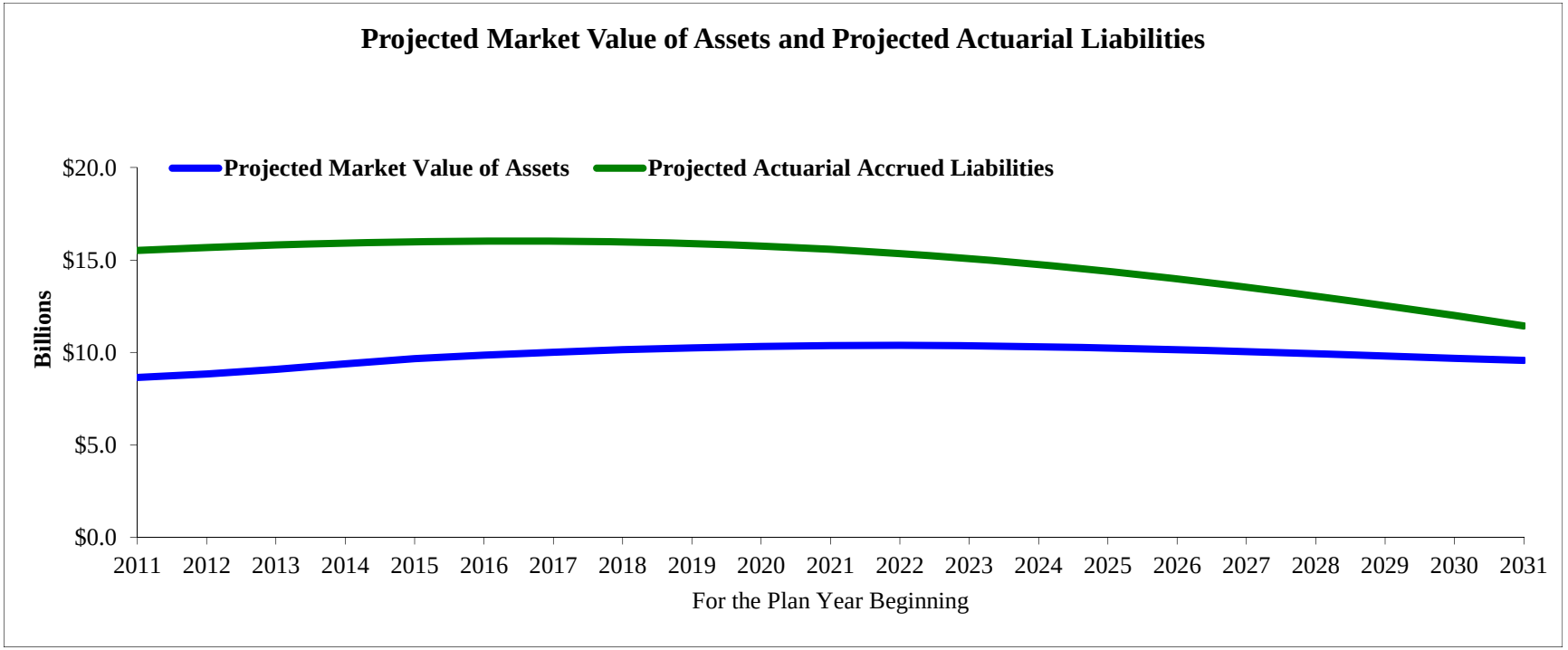
The Plan's projected benefit payments divided by projected contributions are shown in the chart below. The results assume the current contribution policy remains unchanged and that the Plan's assets return precisely the actuarially assumed rate each year without exception for all projection years.



Deterministic Analysis (continued)

Actuarial Accrued Liabilities and Market Value of Assets

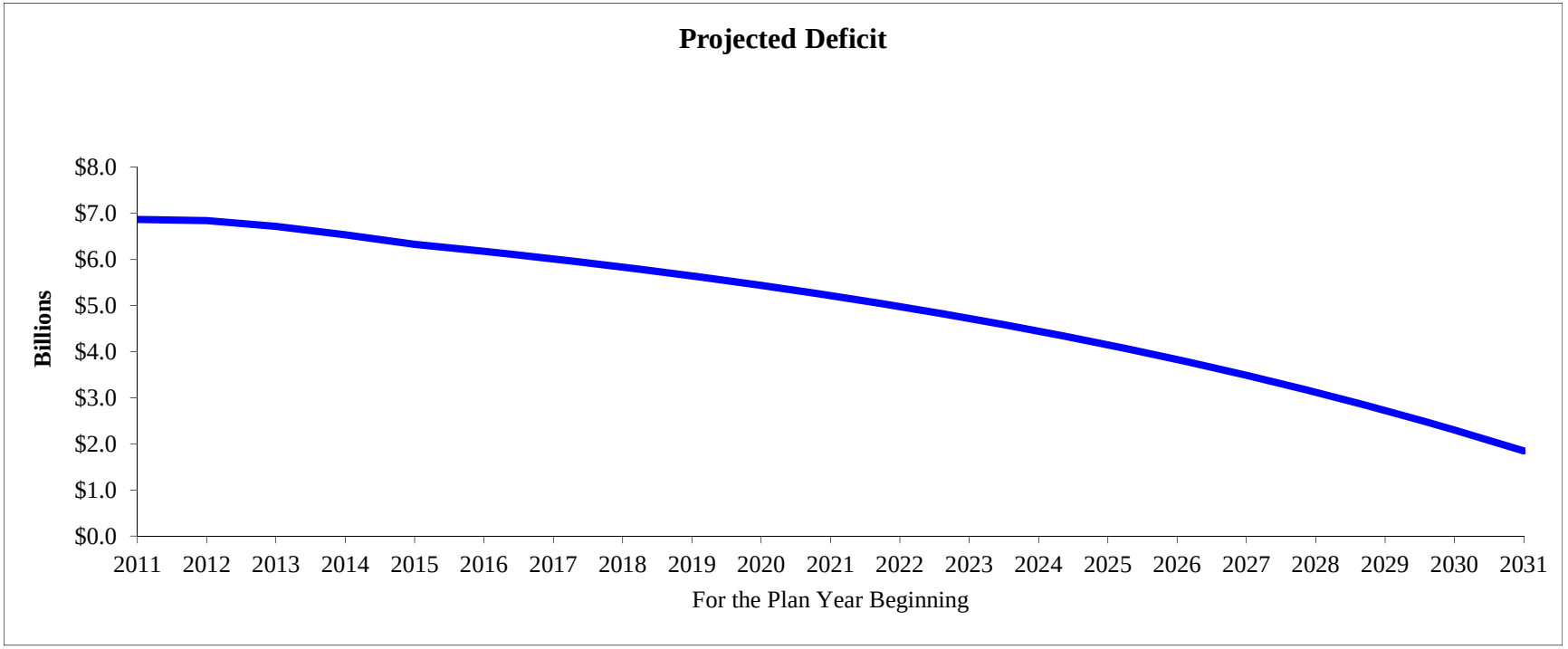
The Plan's projected actuarial accrued liabilities and market value of assets are shown in the chart below. The results assume the current contribution policy remains unchanged and that the Plan's assets return precisely the actuarially assumed rate each year without exception for all projection years. The relative disparity between the market value of assets and Plan liabilities is expected to decrease by over 70% through the end of the projection period. The funded ratio (based on market value of assets) is expected to increase to approximately 84% by the end of the projection period. This is shown more clearly on the following pages.



Deterministic Analysis (continued)

Deficit (market value of assets – actuarial accrued liabilities)

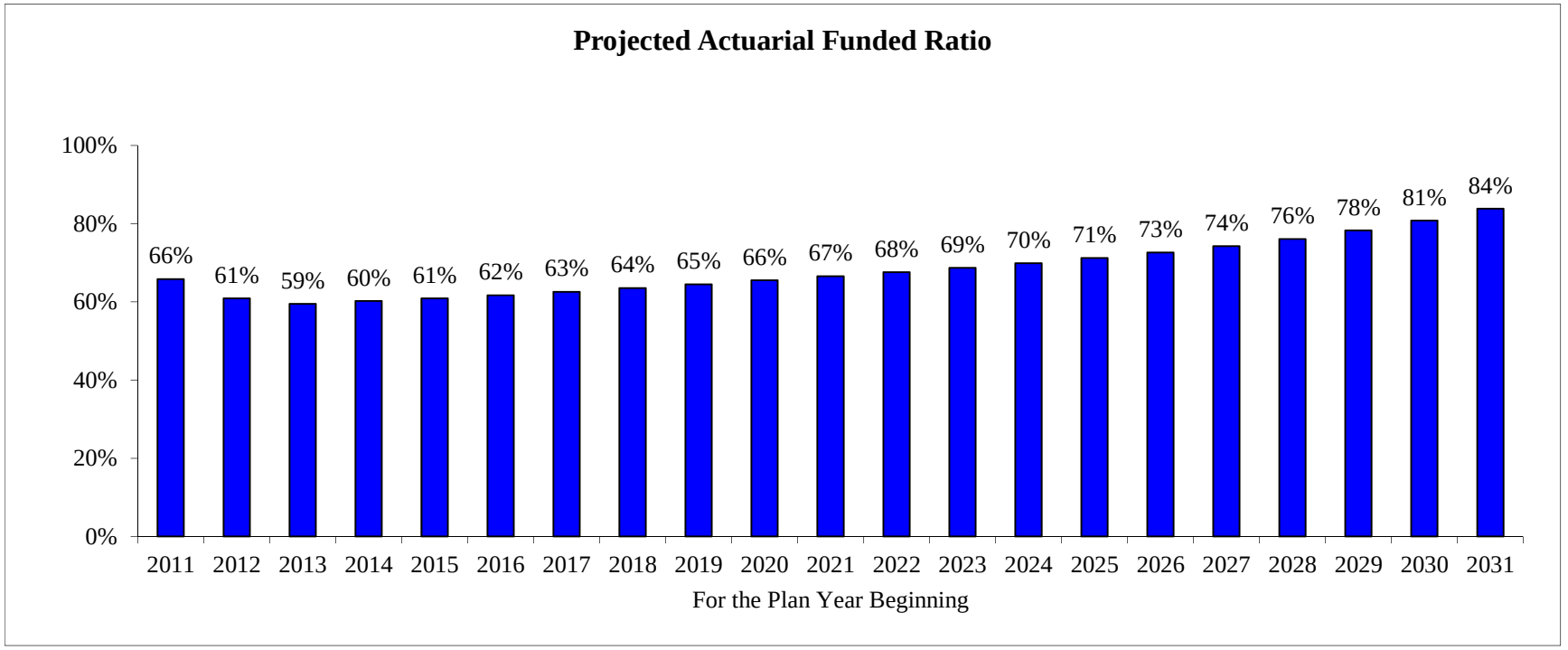
The Plan's projected deficit of assets is shown in the chart below. The results assume the current contribution policy remains unchanged and that the Plan's assets return precisely the actuarially assumed rate each year without exception for all projection years. The disparity between the market value of assets and Plan liabilities is expected to decrease by the end of the projection period by over 70%.



Deterministic Analysis (continued)

Actuarial Funded Ratio (actuarial value of assets/actuarial accrued liability)

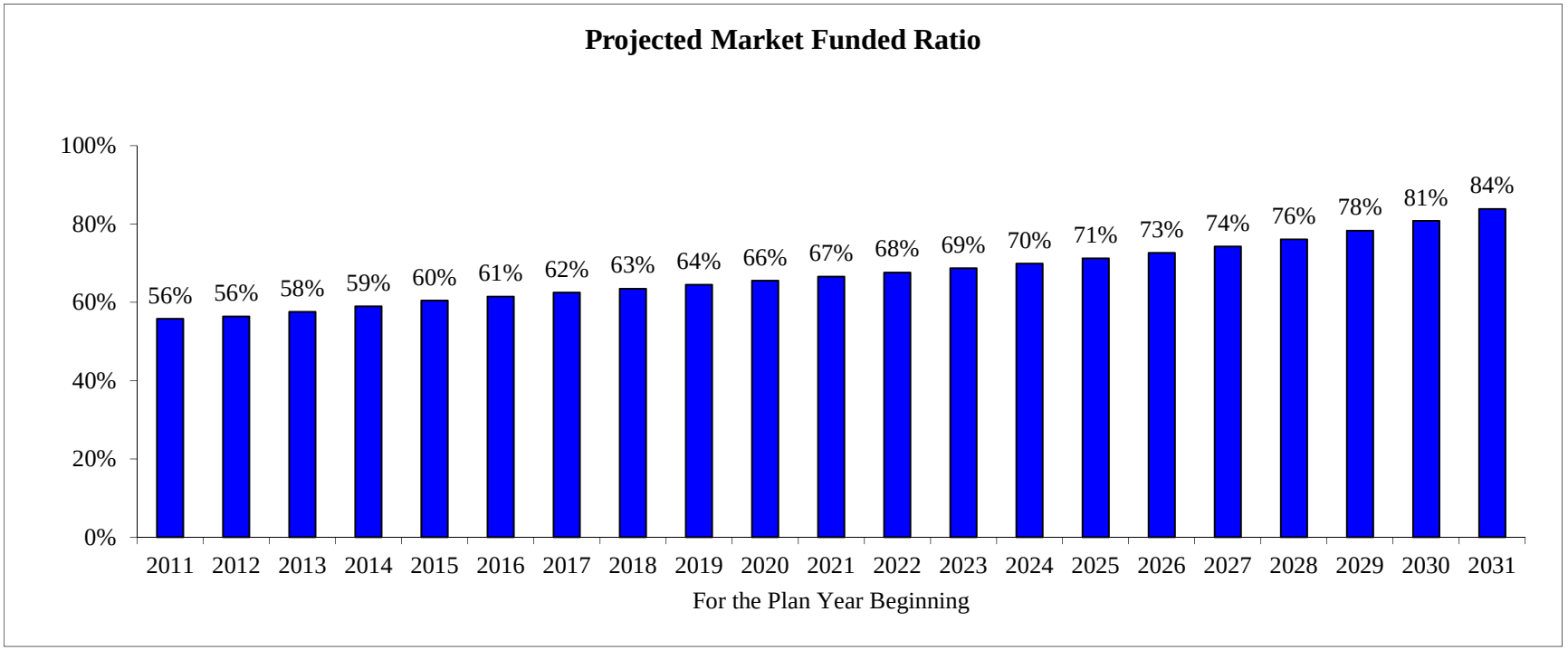
The Plan's projected actuarial funded ratio is shown in the chart below. The Plan is expected to end the projection period at approximately 84% funded. The results assume the current contribution policy remains unchanged and that the Plan's assets return precisely the actuarially assumed rate each year without exception for all projection years.



Deterministic Analysis (continued)

Market Funded Ratio (market value of assets/actuarial accrued liability)

The Plan's projected market funded ratio is shown in the chart below. The Plan is expected to end the projection period at approximately 84% funded. The results assume the current contribution policy remains unchanged and that the Plan's assets return precisely the actuarially assumed rate each year without exception for all projection years.

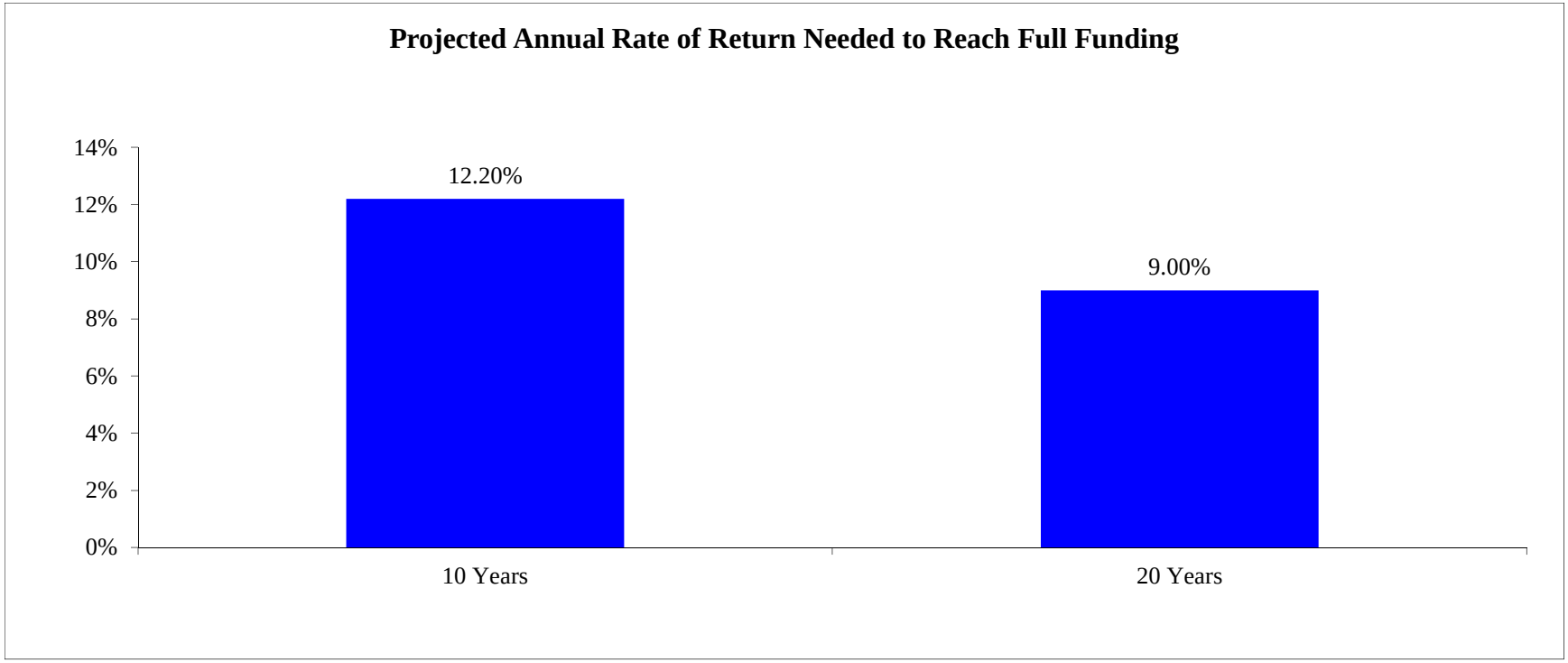


Deterministic Scenario Analysis

Full Funding Implied Returns

The figure below shows the projected investment return for the total fund needed to bring the Plan to 100% funding (on a market value basis) in 10 and 20 years, respectively. The results assume all other actuarial assumptions are precisely met over the time periods shown and that these returns are earned for every year, without variance.

Actuarially assumed rate of return – **8.00%**



Deterministic Scenario Analysis (continued)

Sensitivity Analysis – Decreased Return

Under the deterministic analysis presented in the preceding pages, the Plan is projected to have a market funded ratio of 84% in 20 years. The table below summarizes the projected funded ratio and other key statistics in 2031 assuming the Plan experiences an annualized investment return of 100 basis points lower (7.00%) than the current actuarially assumed rate of return (8.00%). The values assume all other actuarial assumptions are exactly met. The original values are also presented in the table for comparison.

	Value in 2031			
	Actuarially Assumed Rate of Return	Reduced Return (100 bps)	Impact of Reduced Return Assumption	
Projected Payout Ratio	15.0%	17.9%	2.9%	▲
Projected Employer Contributions (millions)	$580.6	$761.2	$180.6	▲
Projected Benefit Payments/Projected Total Contributions	245%	187%	-58%	▼
Projected Actuarial Accrued Liabilities (billions)	$11.4	$11.4	$0.0	↔
Projected Market Value of Assets (billions)	$9.6	$8.0	($1.6)	▼
Projected Deficit (billions)	$1.8	$3.4	$1.6	▲
Projected Market Funded Ratio	84%	70%	-14%	▼
	20 Year Cumulative Total			
Projected Cumulative Employer Contributions (billions)	$12.9	$14.6	$1.7	▲

Values in impact column may not be additive to due rounding.

Deterministic Scenario Analysis (continued)

Sensitivity Analysis – Increased Contributions

Under the deterministic analysis presented in the preceding pages, the Plan is projected to have a funded ratio of 84% in 20 years. The table below summarizes the projected funded ratio and other key statistics in 2031 assuming the Plan increases employer contributions by $50 million (approximately 10%) each year. The values assume all other actuarial assumptions are exactly met. The original values are also presented in the table for comparison.

	Value in 2031			
	Annual Required Contribution	**Increased Contribution**	**Impact of Increased Contributions**	
Projected Payout Ratio	15.0%	14.0%	-1.0%	▼
Projected Employer Contributions (millions)	$580.6	$533.8	($46.8)	▼
Projected Benefit Payments/Projected Total Contributions	245%	266%	21%	▲
Projected Actuarial Accrued Liabilities (billions)	$11.4	$11.4	$0.0	↔
Projected Market Value of Assets (billions)	$9.6	$10.3	$0.7	▲
Projected Deficit (billions)	$1.8	$1.2	($0.6)	▼
Projected Market Funded Ratio	84%	90%	6%	▲
	20 Year Cumulative Total			
Projected Cumulative Employer Contributions (billions)	$12.9	$12.9	$0.0	▲

Values in impact column may not be additive to due rounding.

Stochastic Analysis

In the previous section of this report, we assumed the Plan operated going forward with certain knowledge of the future investment returns earned by the Plan's assets. This section introduces the element of uncertainty in those future investment returns. This part of the analysis examines Plan assets and liabilities under many capital market environments based on expected future asset returns and inflation, and their expected volatility. Using a Monte Carlo simulation technique, both assets and liabilities are assumed to vary stochastically, linked together by changes in inflation.

Using the current expected values and variances of the returns and inflation, along with their correlations, 2000 trials are generated to produce a distribution of results. A stochastic analysis can answer questions about the best/worst case outcomes along with the probability of such outcomes, but the outcomes will change as future return, risk and correlation estimates are periodically revised. This is contrasted with the deterministic analysis that provides an expected value if all current Plan assumptions are exactly met.

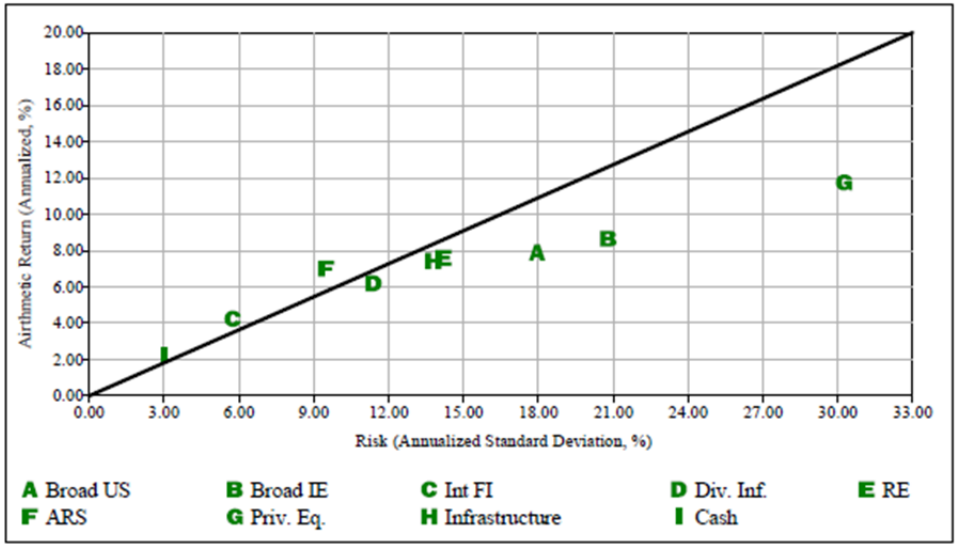
Stochastic Analysis (continued)

Long-Term Return and Risk Assumptions

In order to perform a stochastic analysis and create asset allocation alternatives, it is necessary to estimate, for each asset class, its probable return and risk. The expected returns are our best estimates of the average annual percentage increases in values of each asset class over a prospective long period of time, and assumed to be normally distributed. The risk of an asset class is measured by its standard deviation, or volatility. If asset returns are normally distributed, two-thirds (67%) of all returns are expected to lie within one standard deviation on either side of the mean. For example, we expect Broad US Equity to return, annually on average, 7.90% with a standard deviation of 17.95%, meaning that two-thirds of the time we expect its return to lie between –10.05% (= 7.90 – 17.95) and 25.85% (= 7.90 + 17.95). Moreover, we expect 95% of all return outcomes to lie within two standard deviations of the mean return, implying only a one-in-twenty chance that the return on Broad US Equity will either fall below -28.00% or rise above 43.80%. The risk and return assumptions used in this study are outlined in the charts below:

Asset Class	Arithmetic Return Assumption	Standard Deviation Assumption
Broad US Equity	7.90	17.95
Broad International Equity	8.65	20.80
Int. Duration Fixed Income	4.25	5.75
Diversified Infl Strat	6.20	11.40
Real Estate	7.60	14.20
Absolute Ret Mul Str FoF	7.00	9.50
Private Equity	11.75	30.25
Custom Infrastructure	7.43	13.79
Cash Equivalents	2.25	3.00

Real Estate is a blend of 80% Core Real Estate and 20% Non-Core Real Estate.



Stochastic Analysis (continued)

Correlation Between Asset Classes

Creating a diversified portfolio of asset classes enables the investor to achieve a high rate of return while minimizing volatility of the portfolio. As defined on the previous page, volatility is "risk" or standard deviation. By minimizing the volatility of a portfolio, we produce asset returns that vary less from year to year. Diversification exists because the returns of different asset classes do not always move in the same direction, at the same time, or with the same magnitude. Correlation values are between 1.00 and –1.00. If returns of two asset classes rise or fall at the same time and in the same magnitude, they have a correlation value of 1.00. Conversely, two asset classes that simultaneously move in opposite directions, and in the same magnitude, have a correlation value of –1.00. A correlation of zero indicates no relationship between returns. The assumed correlations are largely based on historical index data, with some qualitative analysis applied. For instance, where appropriate, we have weighted current history more heavily. The correlation matrix used in this study is shown below:

	Broad US Equity	Broad International Equity	Int. Duration Fixed Income	Diversified Infl Strat	Real Estate	Absolute Ret Mul Str FoF	Private Equity	Custom Infrastructure	Cash Equivalents
Broad US Equity	1.00	0.84	0.20	0.64	0.31	0.51	0.73	0.24	0.03
Broad International Equity	0.84	1.00	0.01	0.76	0.34	0.71	0.72	0.24	-0.08
Int. Duration Fixed Income	0.20	0.01	1.00	0.23	-0.03	0.14	-0.21	-0.04	0.24
Diversified Infl Strat	0.64	0.76	0.23	1.00	0.43	0.63	0.52	0.29	-0.06
Real Estate	0.31	0.34	-0.03	0.43	1.00	0.36	0.51	0.91	0.03
Absolute Ret Mul Str FoF	0.51	0.71	0.14	0.63	0.36	1.00	0.60	0.28	0.21
Private Equity	0.73	0.72	-0.21	0.52	0.51	0.60	1.00	0.45	0.08
Custom Infrastructure	0.24	0.24	-0.04	0.29	0.91	0.28	0.45	1.00	0.05
Cash Equivalents	0.03	-0.08	0.24	-0.06	0.03	0.21	0.08	0.05	1.00

The fact that the correlations shown in the table are nearly all positive does not imply that these asset classes do not diversify one another. Their correlations are significantly less than 1.00, meaning we expect a measurable number of instances when the underperformance of one or more of the asset classes will be offset by the outperformance of others. This point is demonstrated on the following pages, which illustrate that diversification into less correlated asset classes can decrease the expected overall volatility of a portfolio.

Stochastic Analysis (continued)

Efficient Portfolios

Each frontier portfolio (optimal allocation) is created using target rates of return both above and below the projected rate of return for the current allocation. This range illustrates the trade-off between return and risk; additional return can only be achieved by undertaking additional risk. The table below shows the possible optimal allocations given the selected asset classes and their constraints listed under "Min" and "Max." The table shows the Target and Current Allocations (as of March 31, 2012) and highlights two potential targets (Potential Portfolios 1 and 2) for consideration throughout this study. Two illustrative portfolios (Conservative and Aggressive Portfolios) are also shown for demonstrative purposes.

	Min	Max	1	2	3	4	5	6	7	8	9	10	Target Allocation	Current Allocation	Conservative Portfolio	Potential Portfolio 1	Potential Portfolio 2	Aggressive Portfolio
Broad US Equity	25	70	25	25	25	25	25	25	25	25	25	40	31	28	0	26	28	47
Broad International Equity	15	20	15	15	15	15	15	15	15	15	16	20	16	15	0	16	16	20
Int. Duration Fixed Income	10	50	36	36	31	25	20	18	16	13	10	10	15	13	85	22	13	0
Diversified Infl Strat	2	10	2	2	2	2	2	2	2	2	3	2	5	4	5	2	2	0
Real Estate	5	10	5	5	10	10	10	10	10	10	10	5	6	10	0	8	10	10
Absolute Ret Mul Str FoF	0	10	0	0	1	6	10	10	10	10	10	0	4	4	0	6	8	0
Private Equity	12	21	12	12	12	12	13	15	17	20	21	21	16	21	0	15	18	20
Custom Infrastructure	0	3	0	3	3	3	3	3	3	3	3	0	3	0	0	3	3	3
Cash Equivalents	2	5	5	2	2	2	2	2	2	2	2	2	4	6	10	2	2	0
Total			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Capital Appreciation			52	52	52	52	53	55	57	60	62	81	63	63	0	57	62	87
Capital Preservation			41	38	33	27	22	20	18	15	12	12	19	19	95	24	15	0
Alpha			0	0	1	6	10	10	10	10	10	0	4	4	0	6	8	0
Inflation			7	10	15	15	15	15	15	15	16	7	14	14	5	13	15	13
Expected Return			6.83	7.00	7.16	7.33	7.50	7.66	7.83	8.00	8.16	8.33	7.71	7.85	4.15	7.56	7.98	8.78
Risk (Standard Deviation)			11.05	11.23	11.54	11.88	12.33	12.91	13.50	14.11	14.75	16.75	13.87	14.37	5.13	12.83	14.21	17.98
Return (Compound)			6.26	6.42	6.54	6.68	6.80	6.89	6.99	7.09	7.17	7.06	6.83	6.91	4.02	6.80	7.06	7.32
Return/Risk Ratio			0.62	0.62	0.62	0.62	0.61	0.59	0.58	0.57	0.55	0.50	0.56	0.55	0.81	0.59	0.56	0.49
RVK Expected Eq Beta			0.59	0.60	0.61	0.62	0.63	0.66	0.69	0.71	0.74	0.88	0.72	0.74	0.08	0.67	0.73	0.94
RVK Liquidity Metric			76	73	70	67	64	62	61	59	57	70	67	64	85	66	61	66

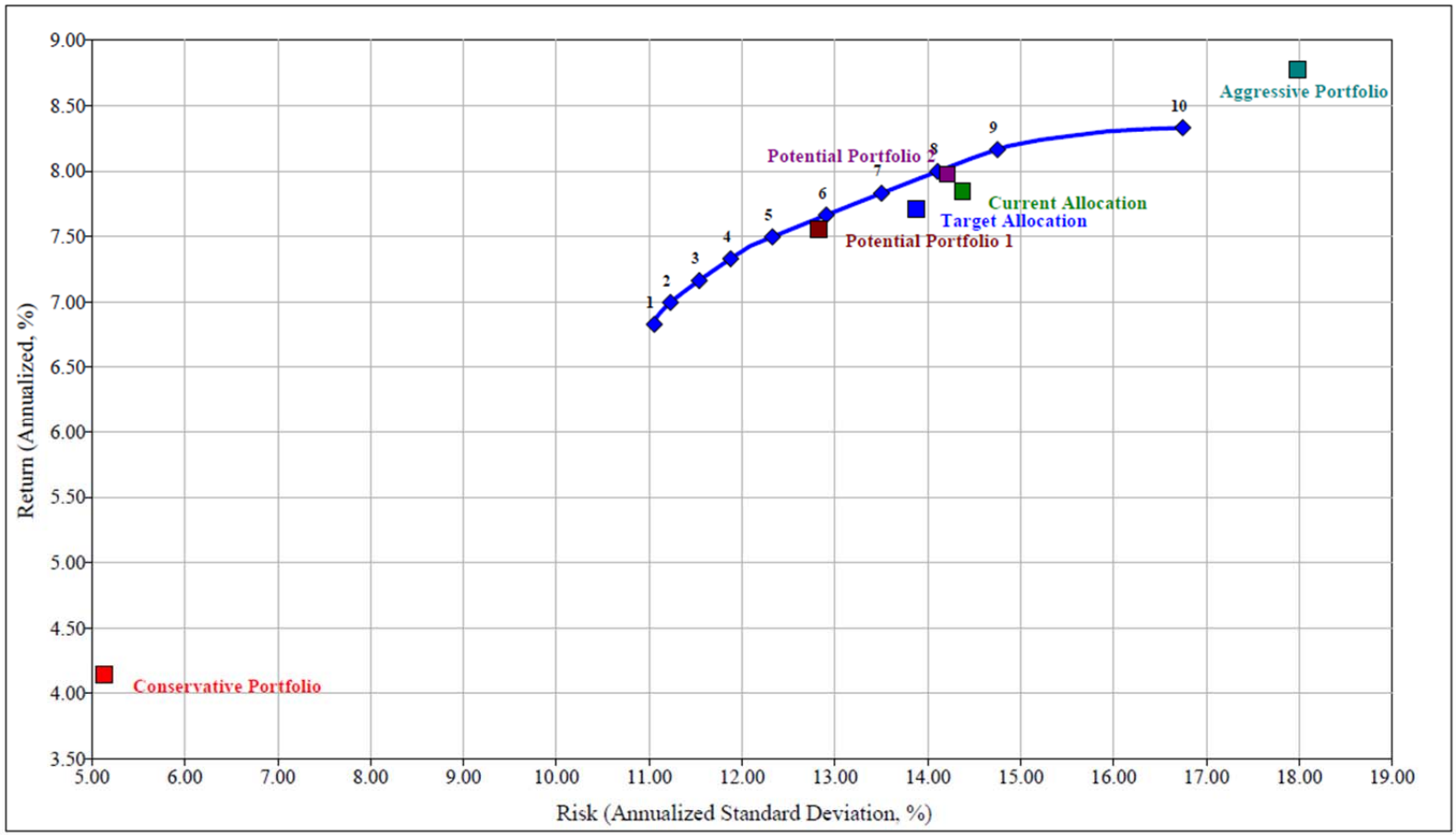
Constraints shown above reflect statutory limits but may be more stringent for certain asset classes. Due to statutory limits Domestic Equity cannot exceed 70%, International Equity cannot exceed 20%, Absolute Return and Real Return combined cannot exceed 20%, and Private Equity cannot exceed 30% of the total Portfolio.

Stochastic Analysis (continued)

Efficient Frontier

The risk of each alternative allocation is plotted against the horizontal axis, while the return is measured on the vertical axis. The line connecting the points represents all the optimal portfolios subject to the given constraints and is known as the "efficient frontier." The upward slope of the efficient frontier indicates the direct relationship between return and risk.

Efficient Frontier



Stochastic Analysis (continued)

Asset Mixes

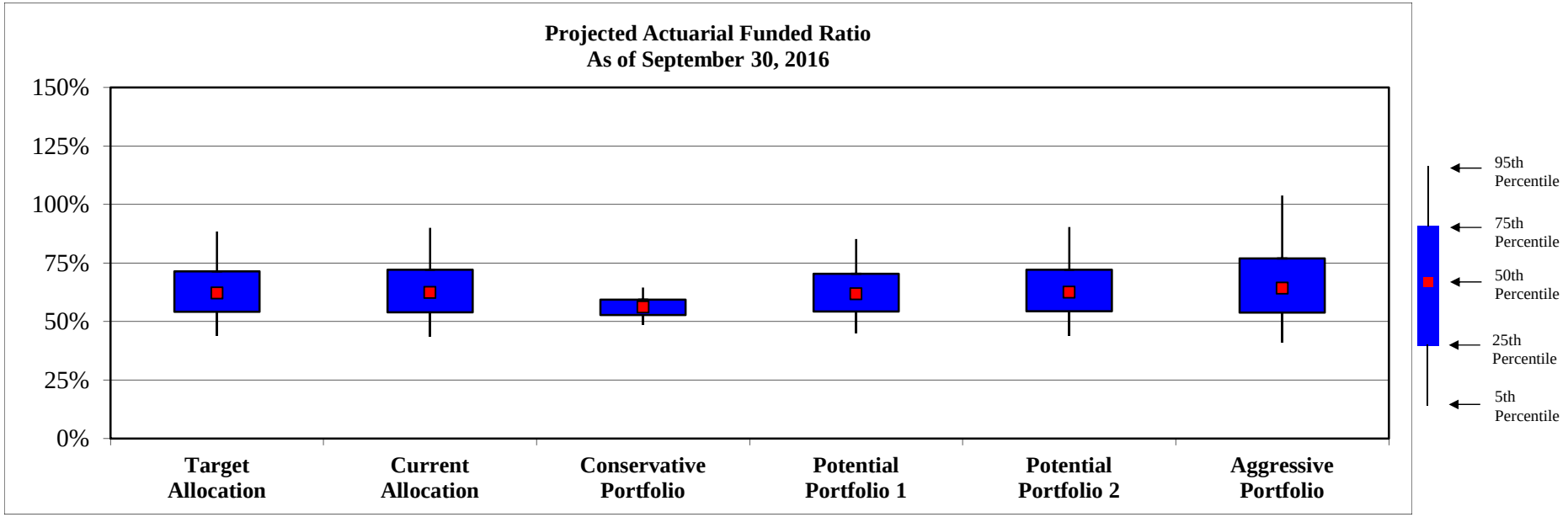
Outlined below are the Target Allocation and Current Allocation and four other mixes to be examined in this stochastic analysis. The expected return, expected risk (as measured by standard deviation), and RVK Liquidity Metric, for each is also shown.

Asset Class	Target Allocation	Current Allocation	Conservative Portfolio	Potential Portfolio 1	Potential Portfolio 2	Aggressive Portfolio
Broad US Equity	31%	28%	0%	26%	28%	47%
Broad International Equity	16%	15%	0%	16%	16%	20%
Int. Duration Fixed Income	15%	13%	85%	22%	13%	0%
Diversified Infl Strat	5%	4%	5%	2%	2%	0%
Real Estate	6%	10%	0%	8%	10%	10%
Absolute Ret Mul Str FoF	4%	4%	0%	6%	8%	0%
Private Equity	16%	21%	0%	15%	18%	20%
Custom Infrastructure	3%	0%	0%	3%	3%	3%
Cash Equivalents	4%	6%	10%	2%	2%	0%
Total Equity	**63%**	**63%**	**0%**	**57%**	**62%**	**87%**
Total Alternatives	**34%**	**38%**	**5%**	**34%**	**41%**	**33%**
Expected Return	**7.71%**	**7.85%**	**4.15%**	**7.56%**	**7.98%**	**8.78%**
Expected Risk	**13.87%**	**14.37%**	**5.13%**	**12.83%**	**14.21%**	**17.98%**
RVK Liquidity Metric	**67**	**64**	**85**	**66**	**61**	**66**

Stochastic Analysis (continued)

Projected Actuarial Funded Ratio (actuarial value of assets/actuarial accrued liability); **5 Years**

The graph below shows the distribution of possible actuarial funded ratios five years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



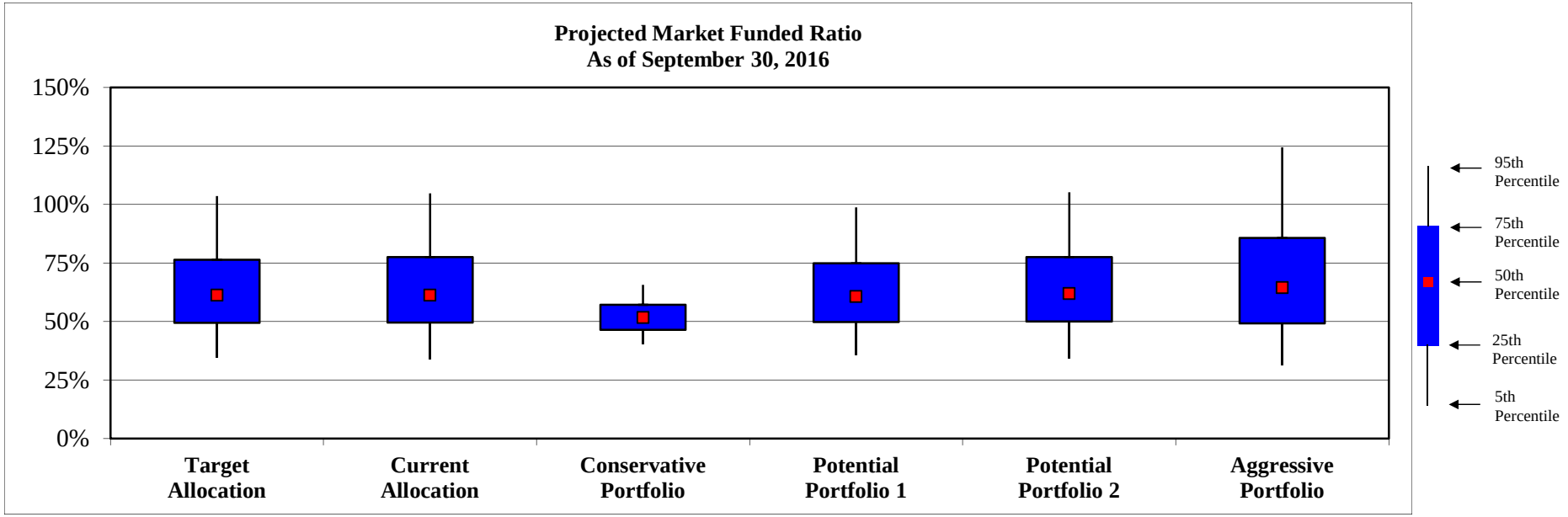
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$8.9	43.9%	$9.0	43.6%	$8.2	48.7%	$8.8	44.9%	$8.9	43.9%	$9.4	40.9%
25th Percentile	$7.3	54.1%	$7.4	53.9%	$7.5	52.7%	$7.3	54.3%	$7.3	54.4%	$7.4	53.8%
50th Percentile	$6.1	62.1%	$6.1	62.4%	$7.1	56.2%	$6.1	61.8%	$6.0	62.5%	$5.7	64.2%
75th Percentile	$4.6	71.4%	$4.5	72.0%	$6.6	59.3%	$4.8	70.3%	$4.5	72.1%	$3.7	76.9%
95th Percentile	$1.9	88.5%	$1.6	90.0%	$5.8	64.5%	$2.4	85.2%	$1.6	90.4%	($0.6)	103.8%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Market Funded Ratio (market value of assets/actuarial accrued liability); **5 Years**

The graph below shows the distribution of possible market funded ratios five years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



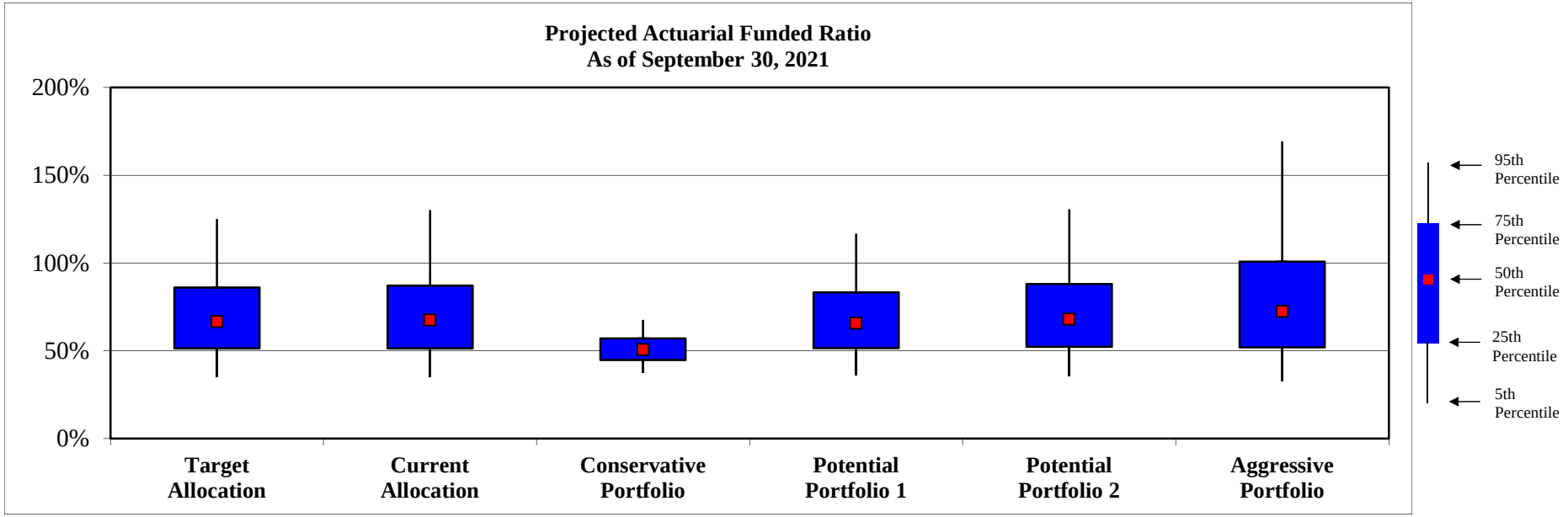
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$10.4	34.5%	$10.5	33.9%	$9.4	40.3%	$10.3	35.5%	$10.4	34.2%	$10.9	31.2%
25th Percentile	$8.1	49.4%	$8.1	49.6%	$8.6	46.4%	$8.1	49.8%	$8.0	49.9%	$8.2	49.2%
50th Percentile	$6.2	61.2%	$6.2	61.3%	$7.8	51.7%	$6.3	60.7%	$6.1	61.9%	$5.7	64.5%
75th Percentile	$3.8	76.3%	$3.6	77.5%	$7.0	57.1%	$4.1	74.8%	$3.6	77.5%	$2.4	85.6%
95th Percentile	($0.6)	103.6%	($0.7)	104.7%	$5.6	65.7%	$0.2	98.8%	($0.9)	105.2%	($4.0)	124.4%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Actuarial Funded Ratio (actuarial value of assets/actuarial accrued liability); **10 Years**

The graph below shows the distribution of possible actuarial funded ratios ten years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



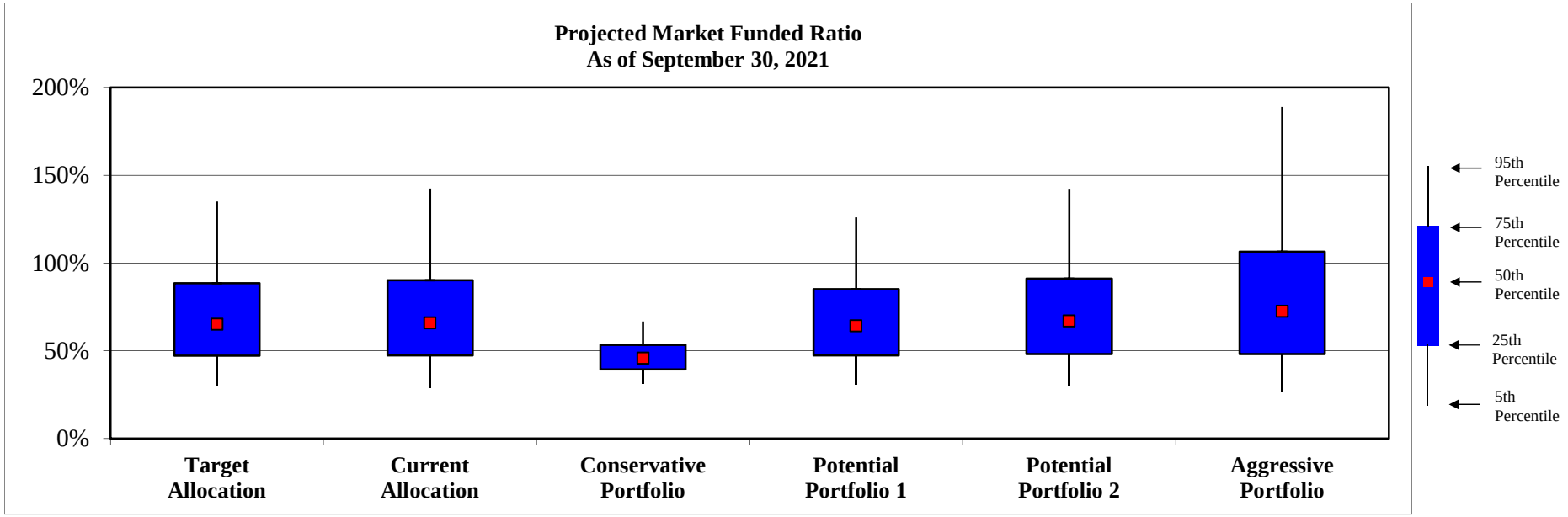
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$9.9	35.1%	$10.0	34.9%	$9.4	37.5%	$9.7	36.1%	$9.9	35.5%	$10.4	32.8%
25th Percentile	$7.5	51.3%	$7.5	51.4%	$8.5	44.8%	$7.5	51.5%	$7.4	52.2%	$7.5	52.0%
50th Percentile	$5.2	66.6%	$5.1	67.5%	$7.7	50.7%	$5.4	65.7%	$5.0	68.0%	$4.3	72.5%
75th Percentile	$2.2	86.0%	$2.0	87.1%	$6.9	57.1%	$2.7	83.3%	$1.9	88.0%	($0.1)	100.7%
95th Percentile	($4.0)	125.1%	($4.8)	130.1%	$5.3	67.6%	($2.8)	116.6%	($5.0)	130.6%	($11.1)	169.2%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Market Funded Ratio (market value of assets/actuarial accrued liability); **10 Years**

The graph below shows the distribution of possible market funded ratios ten years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



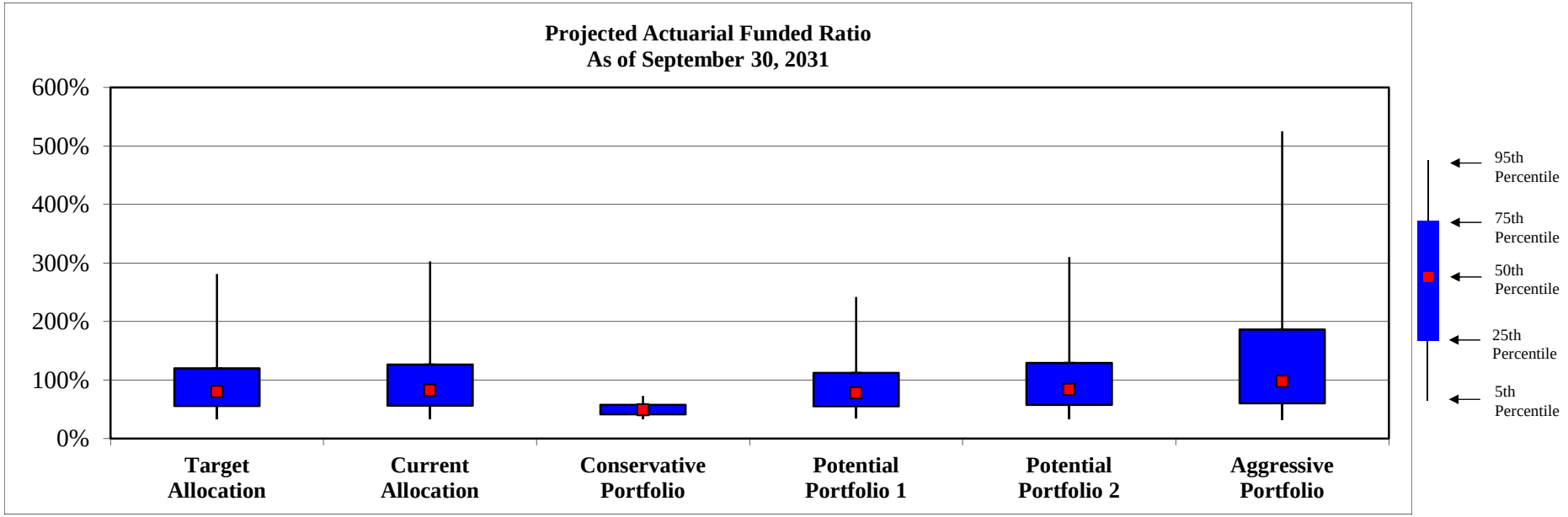
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$10.8	29.6%	$10.9	29.0%	$10.3	31.1%	$10.6	30.7%	$10.8	29.9%	$11.2	26.9%
25th Percentile	$8.2	47.2%	$8.2	47.4%	$9.3	39.4%	$8.2	47.4%	$8.0	48.1%	$8.0	48.1%
50th Percentile	$5.5	65.0%	$5.3	65.8%	$8.5	45.7%	$5.6	64.2%	$5.2	66.9%	$4.3	72.5%
75th Percentile	$1.8	88.5%	$1.6	90.2%	$7.4	53.4%	$2.3	85.1%	$1.4	91.0%	($1.0)	106.4%
95th Percentile	($5.6)	135.0%	($6.8)	142.4%	$5.5	66.7%	($4.2)	126.0%	($6.7)	141.9%	($14.2)	188.8%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Actuarial Funded Ratio (actuarial value of assets/actuarial accrued liability); **20 Years**

The graph below shows the distribution of possible actuarial funded ratios twenty years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



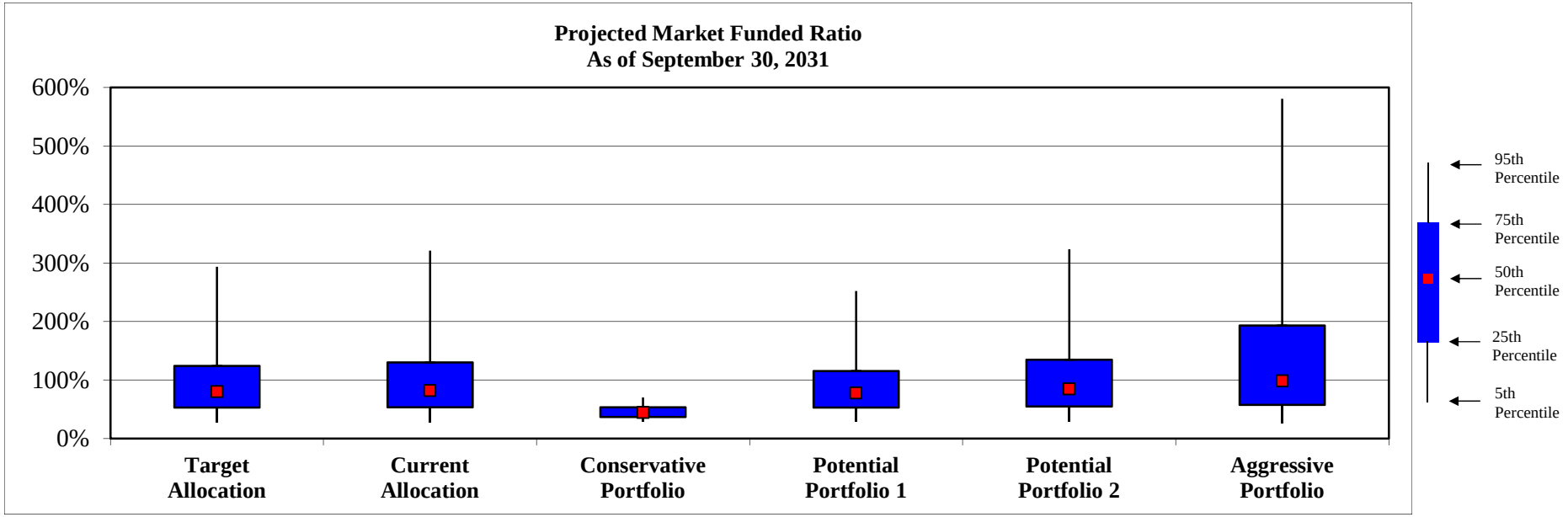
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$7.4	33.3%	$7.4	32.9%	$7.3	33.2%	$7.3	34.6%	$7.3	34.1%	$7.7	31.5%
25th Percentile	$5.0	55.5%	$4.9	56.0%	$6.6	41.5%	$5.0	55.2%	$4.8	57.6%	$4.5	60.2%
50th Percentile	$2.3	80.1%	$2.1	82.3%	$5.9	49.1%	$2.5	78.0%	$1.9	83.8%	$0.3	97.5%
75th Percentile	($2.3)	120.0%	($3.0)	126.5%	$5.0	57.5%	($1.4)	112.3%	($3.4)	129.0%	($10.0)	186.3%
95th Percentile	($21.2)	280.8%	($24.0)	302.4%	$3.2	73.0%	($16.8)	241.9%	($24.2)	310.1%	($50.6)	524.8%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Market Funded Ratio (market value of assets/actuarial accrued liability); **20 Years**

The graph below shows the distribution of possible market funded ratios twenty years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$8.0	28.1%	$8.1	27.6%	$7.9	28.2%	$7.9	29.2%	$7.9	28.3%	$8.1	26.0%
25th Percentile	$5.4	52.6%	$5.3	53.2%	$7.1	36.8%	$5.4	52.8%	$5.2	54.6%	$4.9	57.5%
50th Percentile	$2.3	80.3%	$2.1	82.2%	$6.4	44.2%	$2.5	77.9%	$1.8	84.6%	$0.1	98.7%
75th Percentile	($2.8)	124.1%	($3.5)	130.3%	$5.5	53.1%	($1.9)	115.6%	($4.0)	134.5%	($11.0)	193.1%
95th Percentile	($22.6)	293.3%	($26.0)	320.8%	$3.6	70.5%	($18.0)	252.2%	($26.2)	323.4%	($56.8)	580.7%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Market Funded Ratio and Maximum 1 Year Investment Loss (market value of assets/actuarial accrued liability)

The tables below show the probability that the Plan will be at various funding levels for each of the six different asset mixes highlighted on the prior pages. The tables also illustrate the maximum 1 year investment loss each portfolio is expected to experience during the given time period. The results assume the current contribution policy remains unchanged for all projection years.

5 Years	Probability of Full Funding in 2016	Probability of less than 56% Funding in 2016	Probability of 0% Funding in 2016	Maximum 1 Year Portfolio Investment Loss
Target Allocation	6%	38%	0%	-40%
Current Allocation	7%	37%	0%	-41%
Conservative Portfolio	0%	69%	0%	-17%
Potential Portfolio 1	5%	38%	0%	-38%
Potential Portfolio 2	7%	36%	0%	-40%
Aggressive Portfolio	14%	35%	0%	-48%

10 Years	Probability of Full Funding in 2021	Probability of less than 56% Funding in 2021	Probability of 0% Funding in 2021	Maximum 1 Year Portfolio Investment Loss
Target Allocation	17%	37%	0%	-40%
Current Allocation	19%	36%	0%	-41%
Conservative Portfolio	0%	80%	0%	-17%
Potential Portfolio 1	15%	37%	0%	-38%
Potential Portfolio 2	20%	35%	0%	-40%
Aggressive Portfolio	28%	33%	0%	-48%

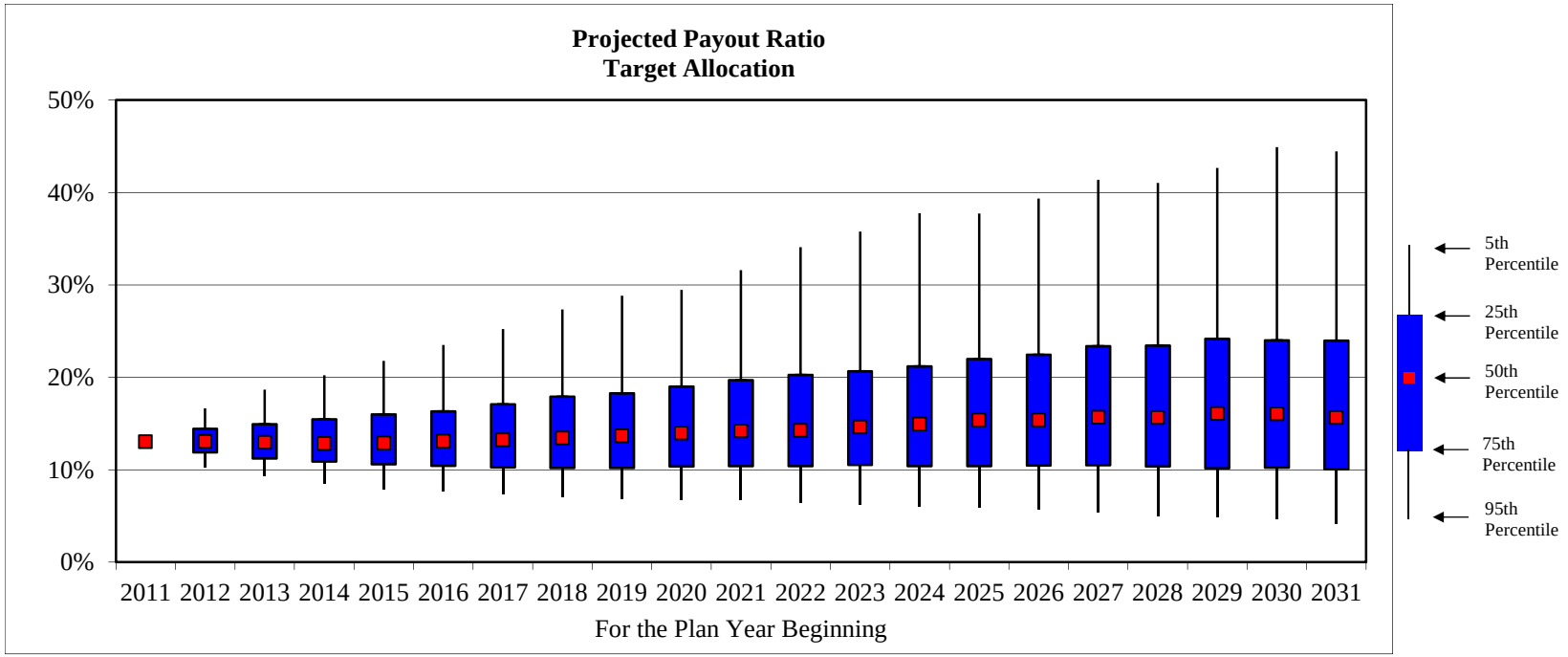
20 Years	Probability of Full Funding in 2031	Probability of less than 56% Funding in 2031	Probability of 0% Funding in 2031	Maximum 1 Year Portfolio Investment Loss
Target Allocation	36%	28%	0%	-40%
Current Allocation	38%	27%	0%	-41%
Conservative Portfolio	0%	79%	0%	-17%
Potential Portfolio 1	33%	28%	0%	-38%
Potential Portfolio 2	39%	26%	0%	-40%
Aggressive Portfolio	49%	23%	0%	-48%

Stochastic Analysis (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Target Allocation**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Target Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.8% and 16.1%. The worst-case scenario could reach 45% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.1%	13.0%	12.8%	12.9%	13.1%	13.2%	13.4%	13.7%	14.0%	14.2%	14.3%	14.6%	14.9%	15.4%	15.4%	15.7%	15.7%	16.1%	16.0%	15.6%

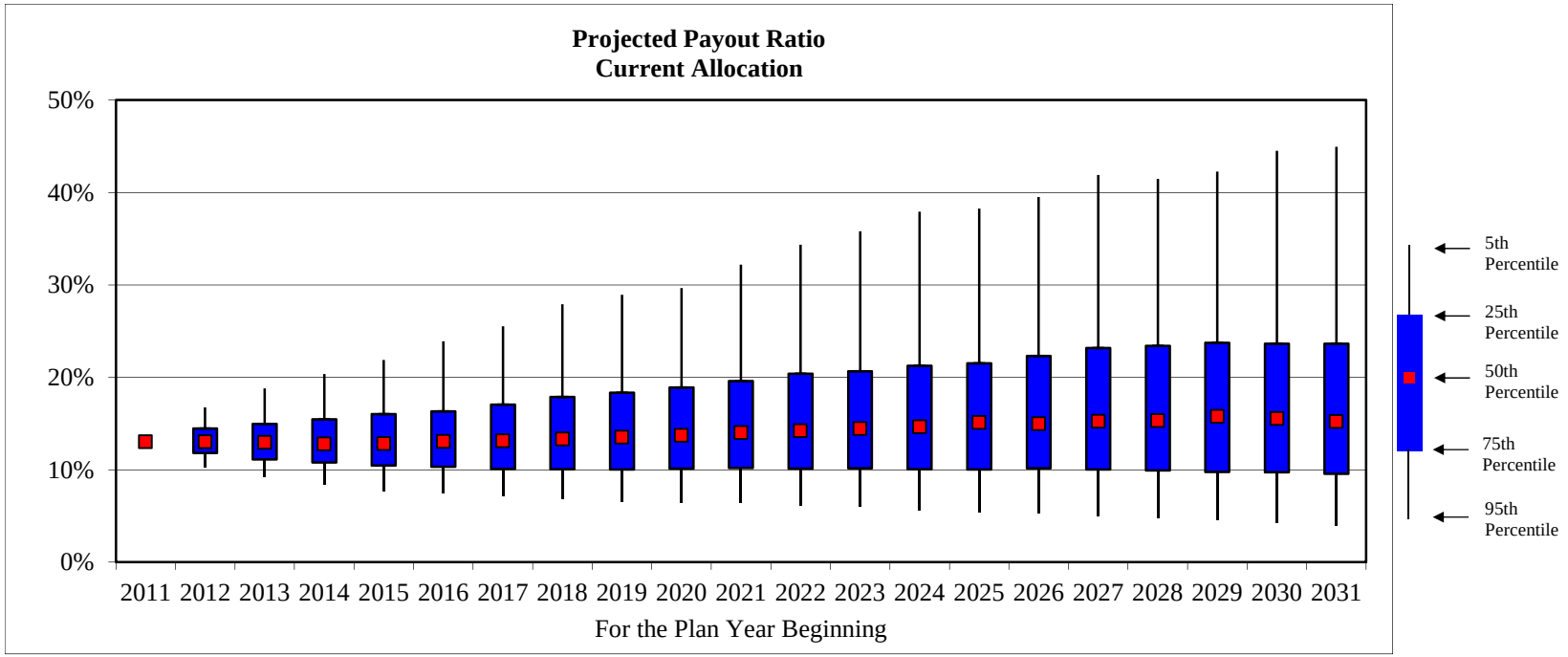
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Current Allocation**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Current Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.8% and 15.8%. The worst-case scenario could reach 45% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.0%	13.0%	12.8%	12.8%	13.1%	13.1%	13.3%	13.5%	13.7%	14.0%	14.2%	14.5%	14.7%	15.1%	15.0%	15.3%	15.3%	15.8%	15.6%	15.2%

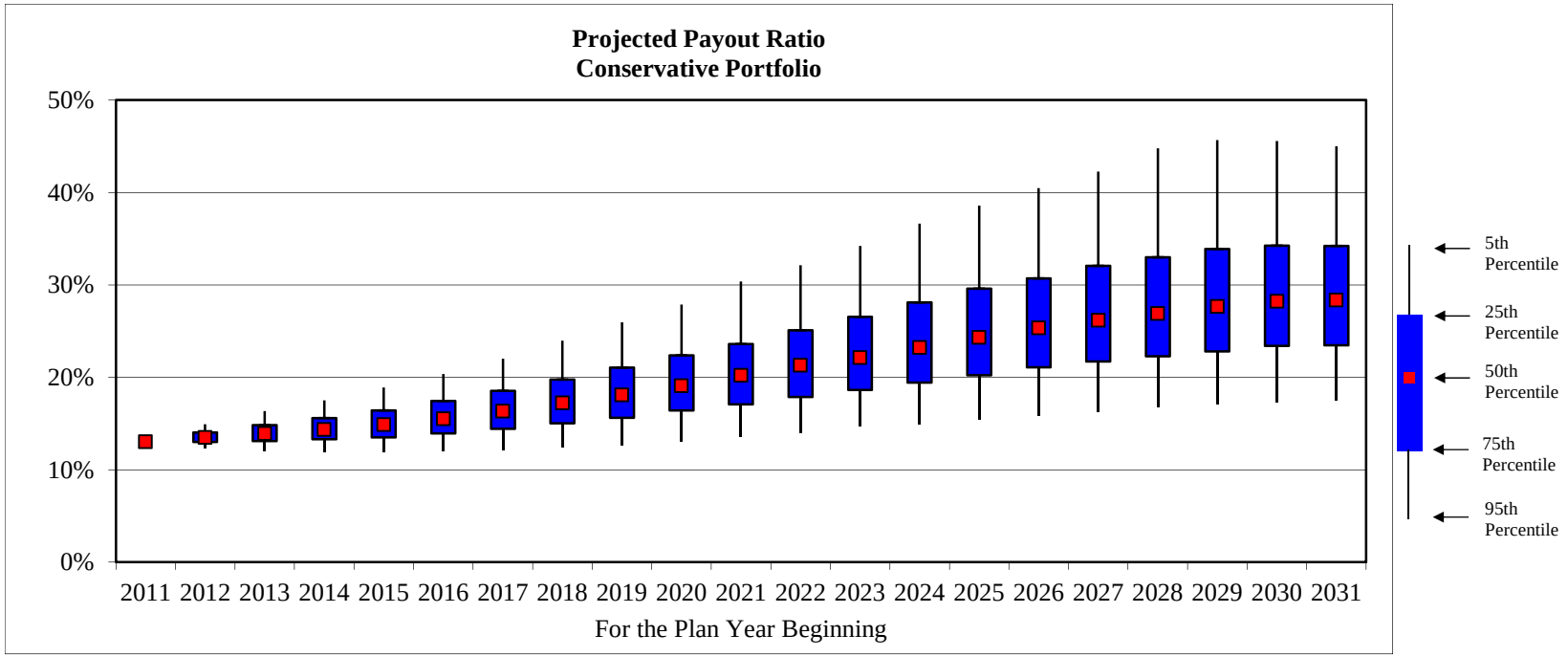
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Conservative Portfolio**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Conservative Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 13.0% and 28.3%. The worst-case scenario could reach 46% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.5%	13.9%	14.4%	14.9%	15.5%	16.3%	17.2%	18.1%	19.1%	20.2%	21.3%	22.1%	23.2%	24.3%	25.3%	26.2%	26.9%	27.7%	28.2%	28.3%

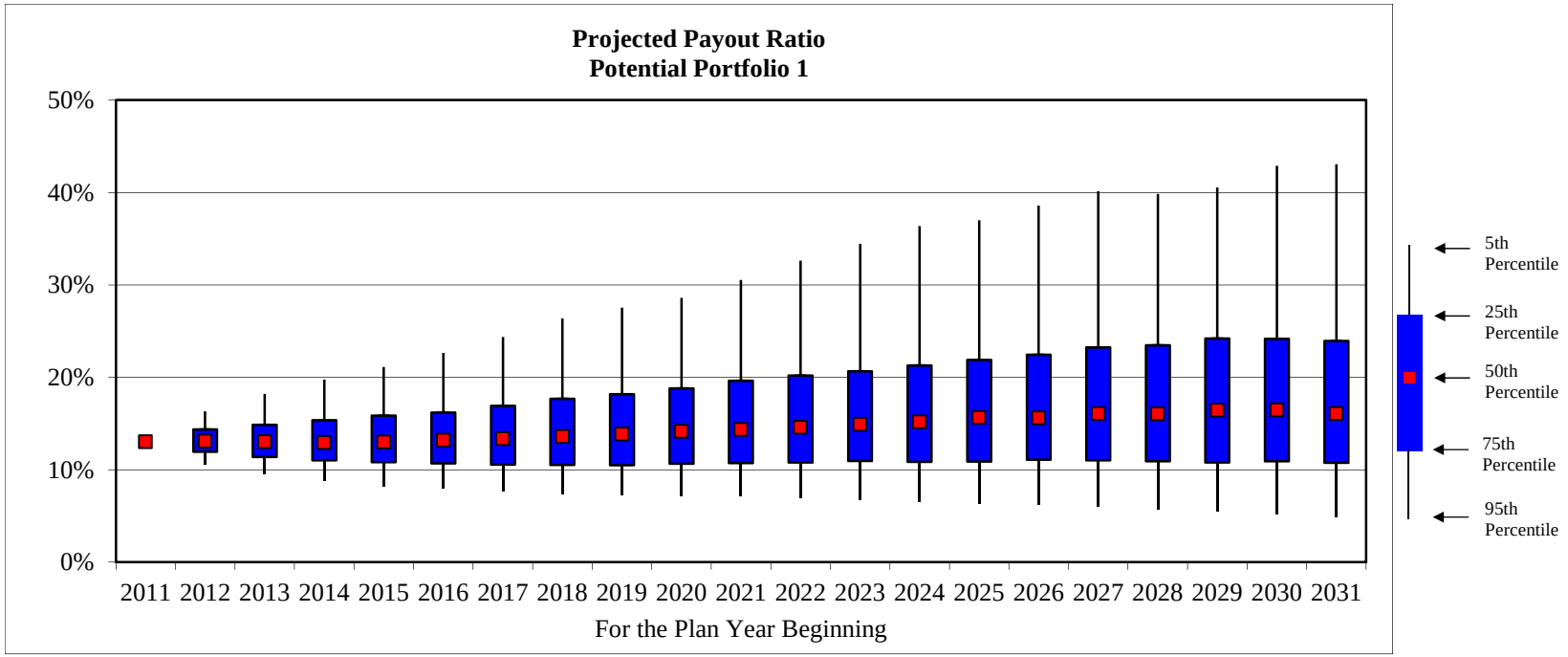
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Potential Portfolio 1**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 1 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.9% and 16.5%. The worst-case scenario could reach 43% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.1%	13.0%	12.9%	13.0%	13.2%	13.4%	13.6%	13.8%	14.2%	14.4%	14.6%	14.9%	15.2%	15.7%	15.6%	16.1%	16.0%	16.4%	16.5%	16.1%

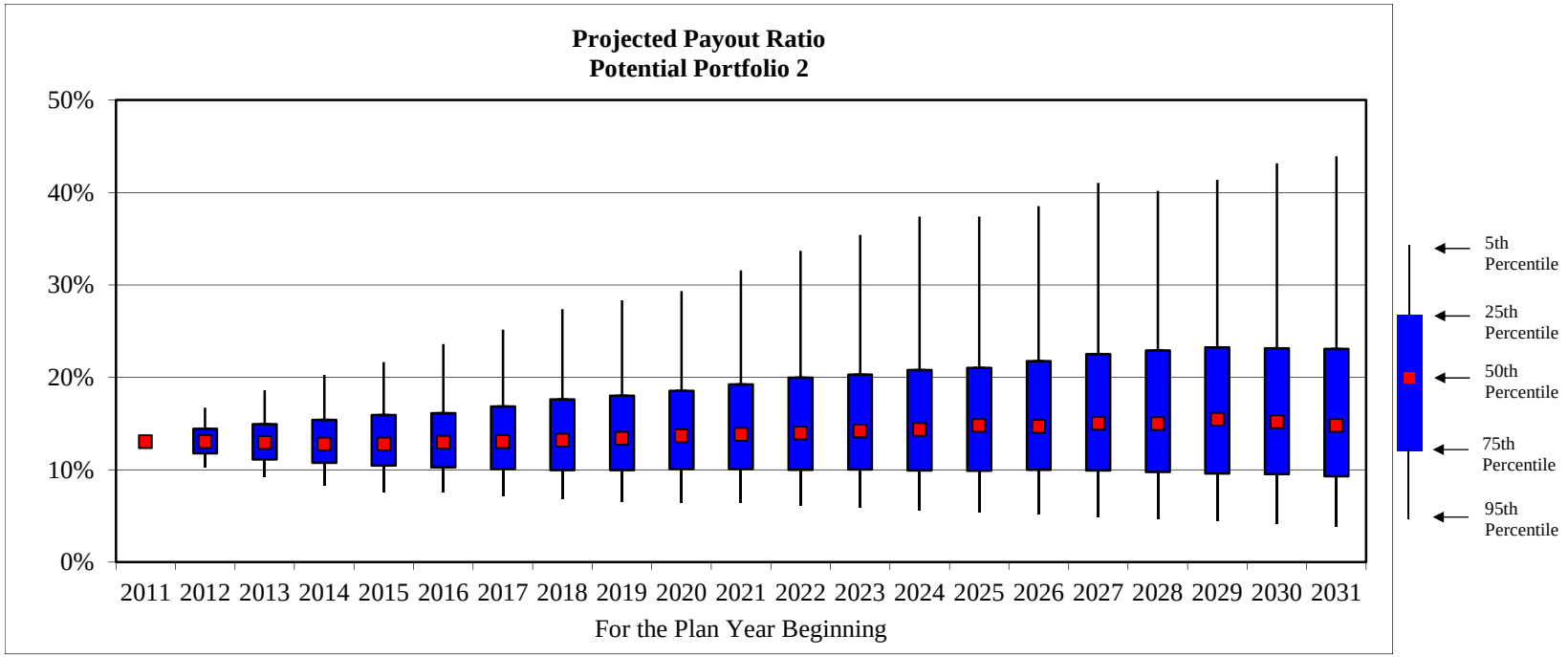
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Potential Portfolio 2**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 2 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.8% and 15.5%. The worst-case scenario could reach 44% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.0%	12.9%	12.8%	12.8%	13.0%	13.0%	13.2%	13.4%	13.6%	13.8%	14.0%	14.2%	14.4%	14.8%	14.7%	15.0%	15.0%	15.5%	15.2%	14.8%

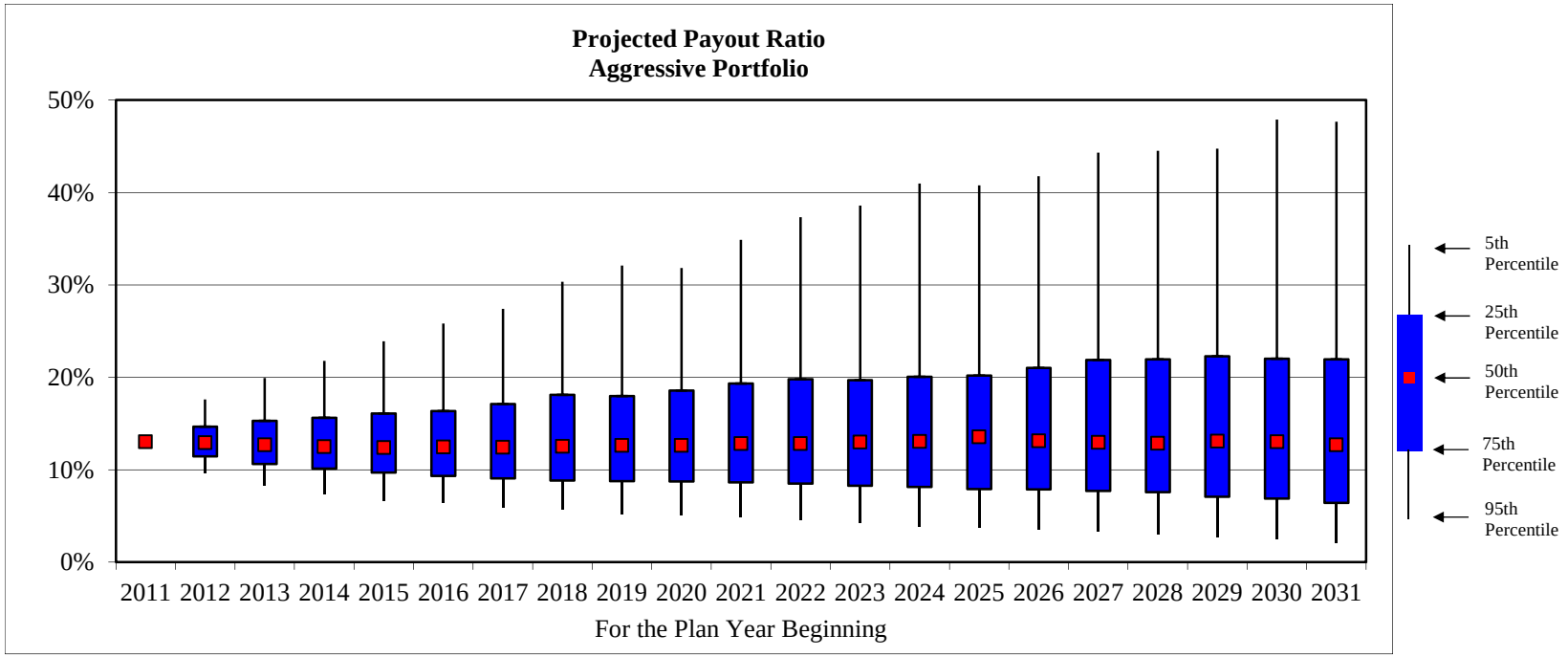
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Aggressive Portfolio**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Aggressive Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.4% and 13.6%. The worst-case scenario could reach 48% or higher.



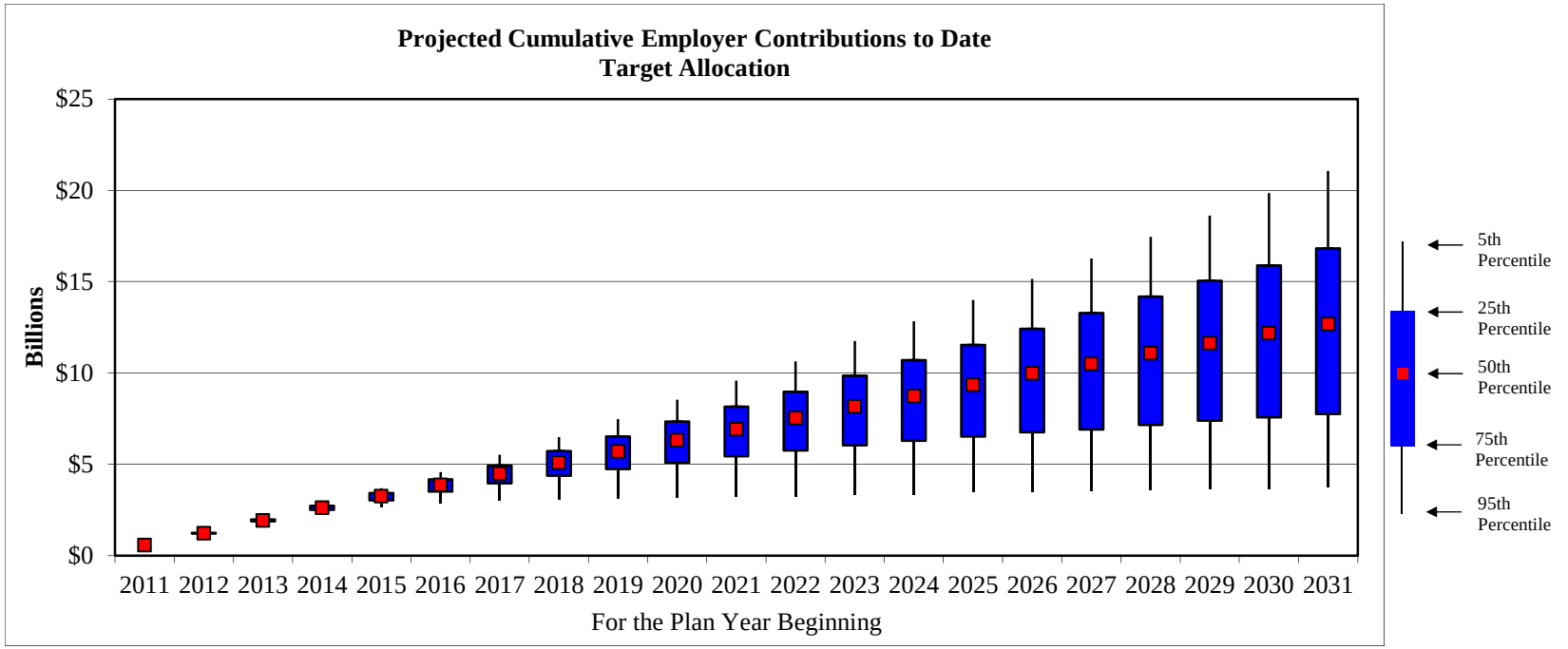
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	12.9%	12.7%	12.5%	12.4%	12.5%	12.4%	12.5%	12.6%	12.6%	12.8%	12.8%	13.0%	13.1%	13.6%	13.1%	13.0%	12.9%	13.1%	13.0%	12.7%

Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Stochastic Analysis (continued)

Cumulative Employer Contributions to Date; Target Allocation

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Target Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



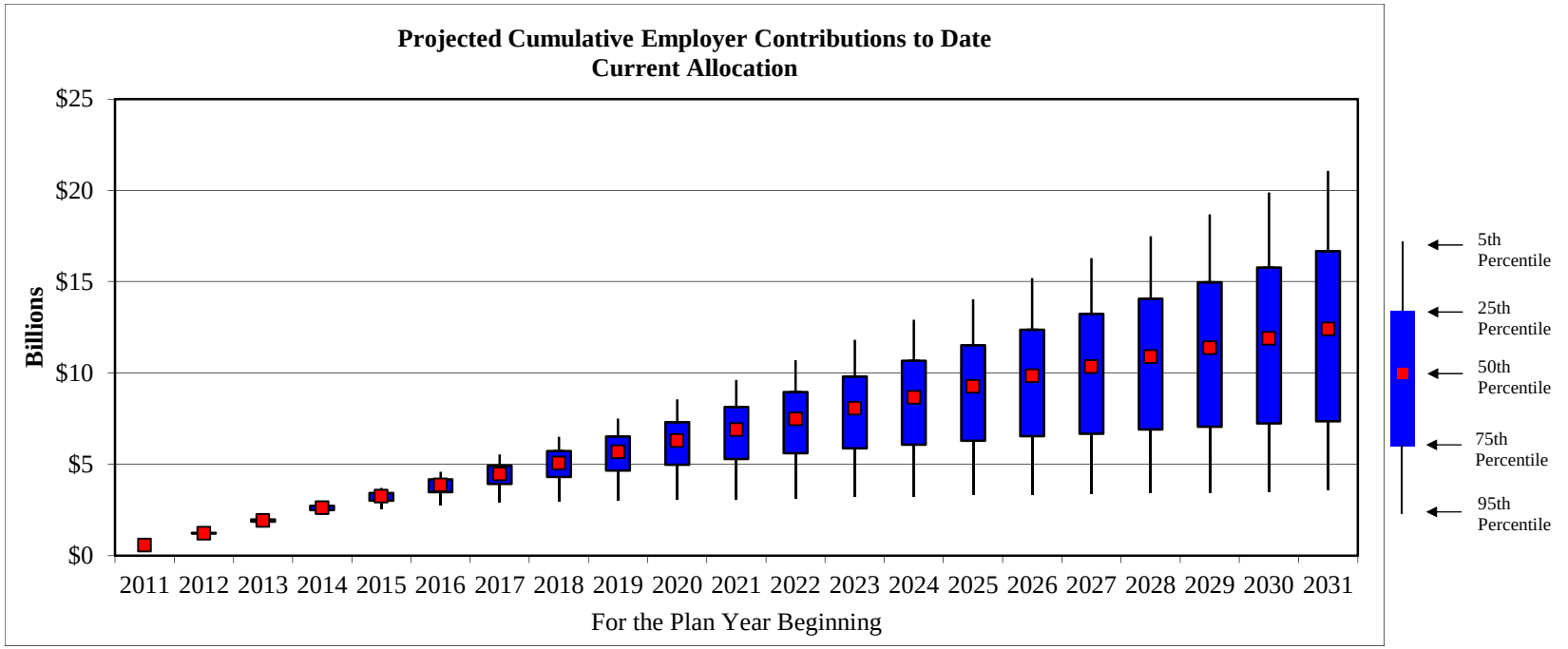
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.0	$2.9	$3.7	$4.6	$5.5	$6.5	$7.5	$8.5	$9.6	$10.6	$11.7	$12.8	$14.0	$15.1	$16.3	$17.4	$18.6	$19.9	$21.1
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.4	$4.2	$4.9	$5.7	$6.5	$7.3	$8.1	$9.0	$9.8	$10.7	$11.5	$12.4	$13.3	$14.2	$15.0	$15.9	$16.8
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.9	$4.5	$5.1	$5.7	$6.3	$6.9	$7.5	$8.2	$8.7	$9.3	$10.0	$10.5	$11.1	$11.6	$12.2	$12.7
75th Percentile	$0.6	$1.2	$1.9	$2.5	$3.0	$3.5	$4.0	$4.4	$4.7	$5.1	$5.4	$5.8	$6.0	$6.3	$6.5	$6.7	$6.9	$7.1	$7.4	$7.6	$7.8
95th Percentile	$0.6	$1.2	$1.8	$2.3	$2.6	$2.8	$3.0	$3.1	$3.1	$3.2	$3.2	$3.2	$3.3	$3.4	$3.5	$3.5	$3.5	$3.6	$3.6	$3.7	$3.7

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Stochastic Analysis (continued)

Cumulative Employer Contributions to Date; Current Allocation

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Current Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



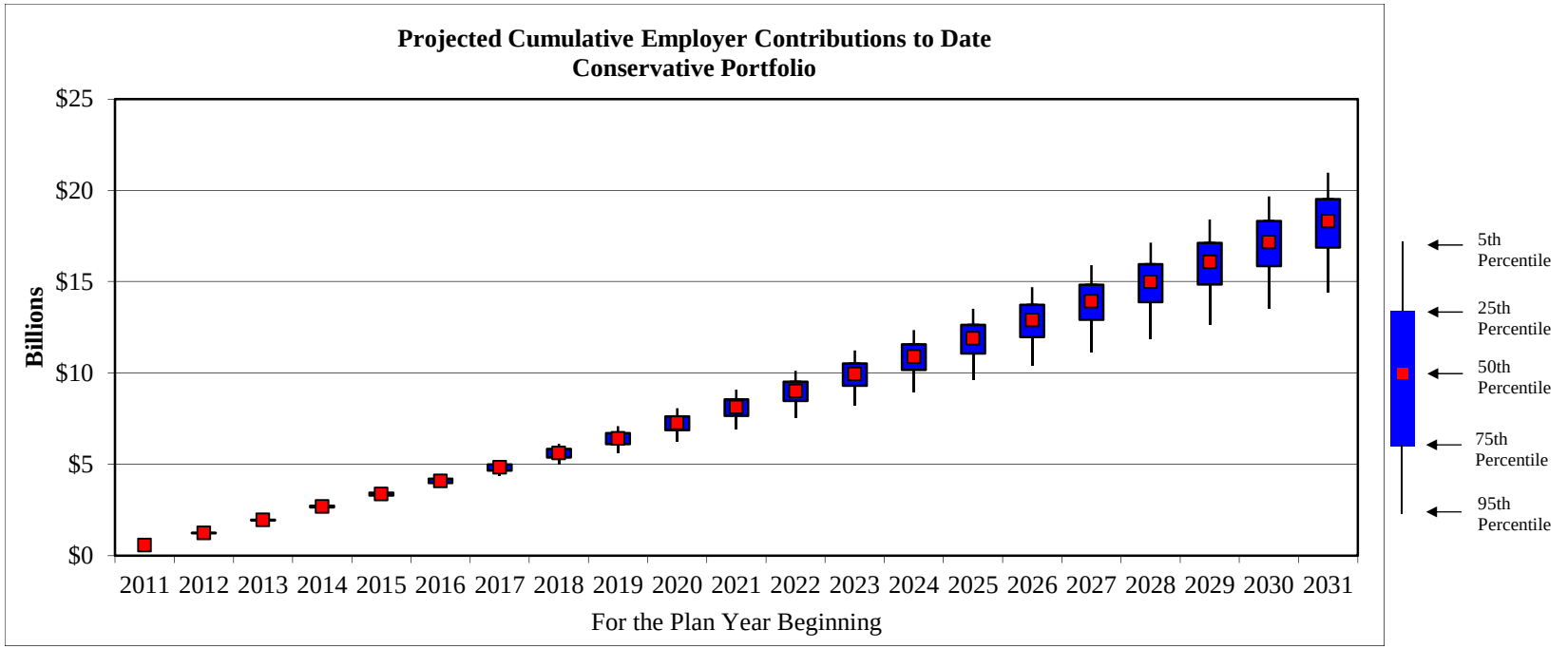
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.0	$2.9	$3.7	$4.6	$5.5	$6.5	$7.5	$8.5	$9.6	$10.7	$11.8	$12.9	$14.0	$15.2	$16.3	$17.5	$18.7	$19.9	$21.1
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.4	$4.2	$4.9	$5.7	$6.5	$7.3	$8.1	$9.0	$9.8	$10.7	$11.5	$12.4	$13.2	$14.1	$15.0	$15.8	$16.7
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.9	$4.5	$5.1	$5.7	$6.3	$6.9	$7.5	$8.1	$8.7	$9.3	$9.8	$10.3	$10.9	$11.4	$11.9	$12.4
75th Percentile	$0.6	$1.2	$1.9	$2.5	$3.0	$3.5	$3.9	$4.3	$4.6	$5.0	$5.3	$5.6	$5.9	$6.1	$6.3	$6.5	$6.7	$6.9	$7.1	$7.2	$7.4
95th Percentile	$0.6	$1.2	$1.8	$2.3	$2.6	$2.8	$2.9	$3.0	$3.0	$3.1	$3.1	$3.1	$3.2	$3.3	$3.3	$3.3	$3.4	$3.4	$3.5	$3.5	$3.6

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Stochastic Analysis (continued)

Cumulative Employer Contributions to Date; Conservative Portfolio

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Conservative Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



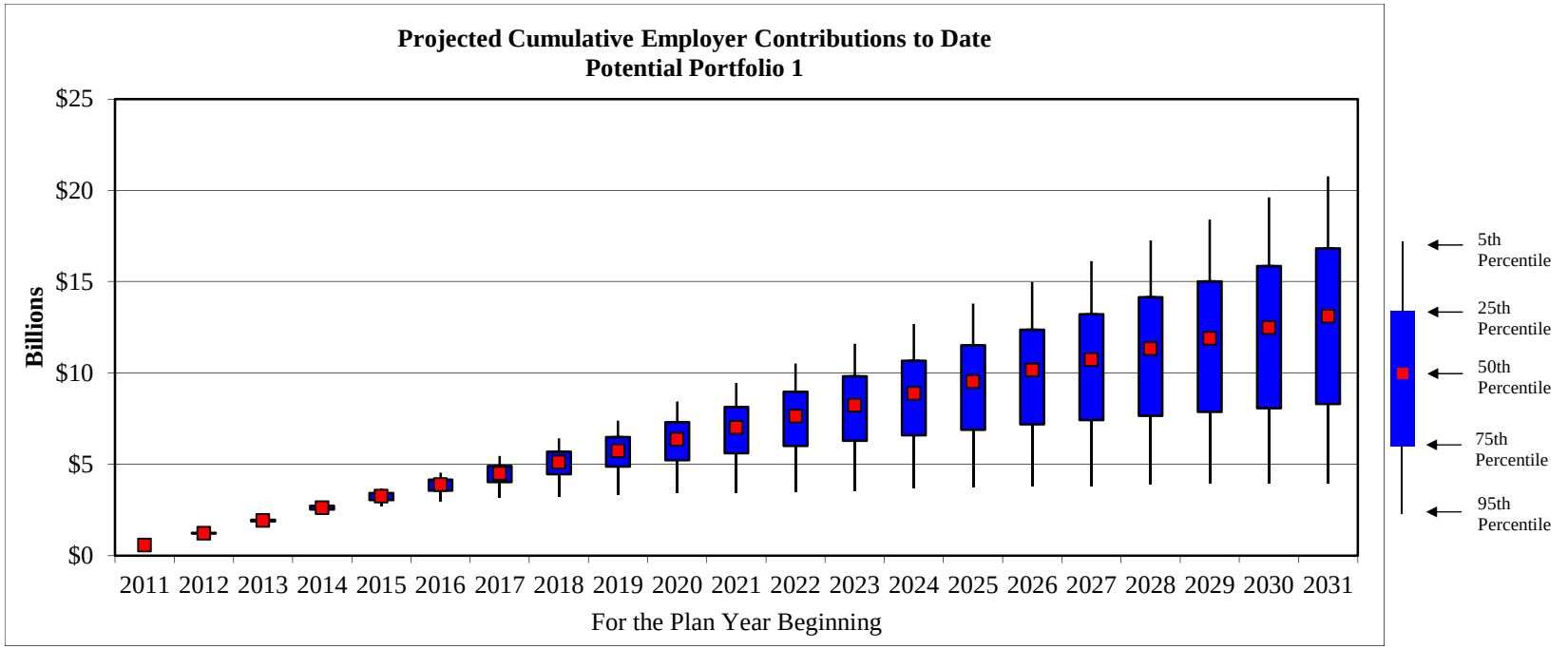
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.2	$2.0	$2.8	$3.5	$4.4	$5.2	$6.1	$7.1	$8.1	$9.1	$10.1	$11.2	$12.3	$13.5	$14.7	$15.9	$17.1	$18.4	$19.7	$21.0
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.4	$4.2	$5.0	$5.8	$6.7	$7.6	$8.5	$9.5	$10.5	$11.6	$12.6	$13.7	$14.8	$16.0	$17.1	$18.3	$19.5
50th Percentile	$0.6	$1.2	$1.9	$2.7	$3.4	$4.1	$4.8	$5.6	$6.4	$7.3	$8.1	$9.0	$9.9	$10.9	$11.9	$12.9	$13.9	$15.0	$16.1	$17.2	$18.3
75th Percentile	$0.6	$1.2	$1.9	$2.6	$3.3	$4.0	$4.7	$5.4	$6.1	$6.9	$7.7	$8.5	$9.3	$10.2	$11.1	$12.0	$12.9	$13.9	$14.8	$15.9	$16.9
95th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.4	$5.0	$5.6	$6.3	$6.9	$7.6	$8.2	$8.9	$9.6	$10.4	$11.1	$11.9	$12.6	$13.5	$14.4

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Stochastic Analysis (continued)

Cumulative Employer Contributions to Date; Potential Portfolio 1

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 1 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



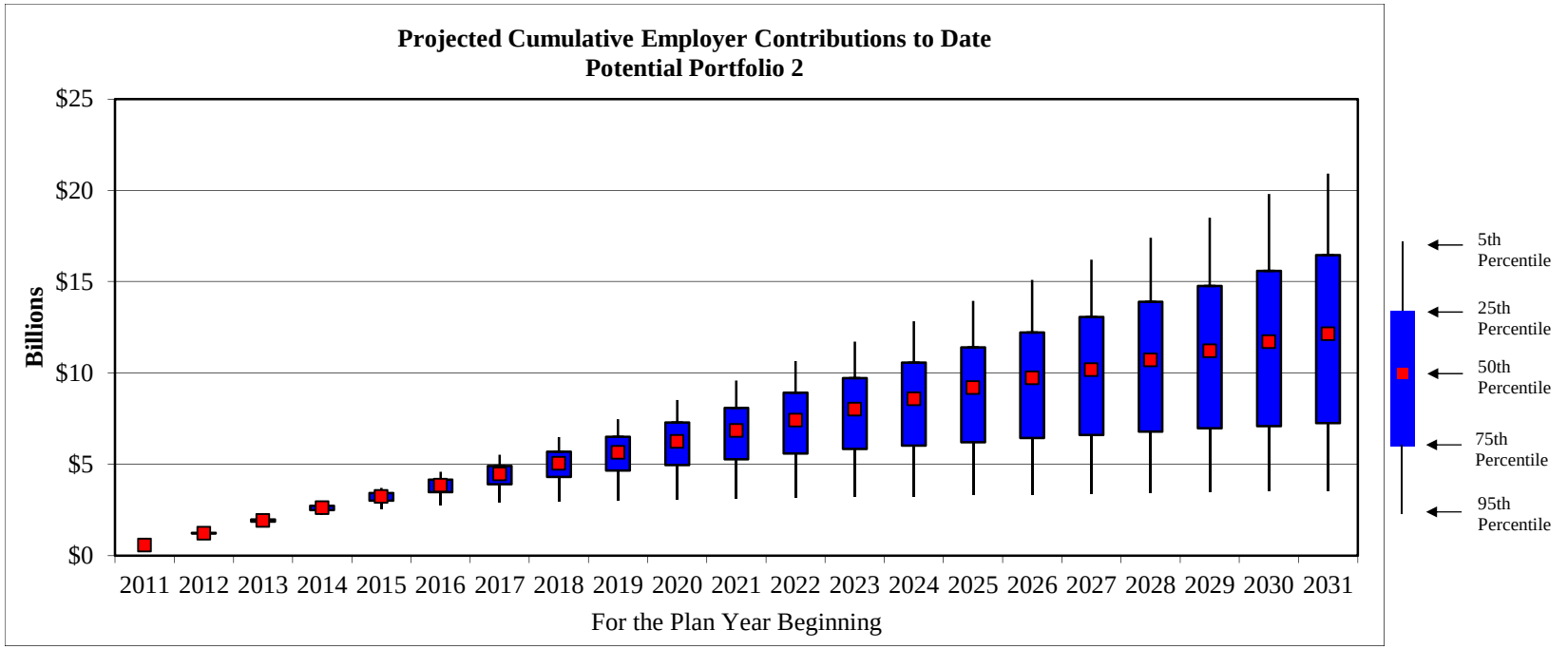
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.0	$2.8	$3.7	$4.5	$5.5	$6.4	$7.4	$8.4	$9.4	$10.5	$11.6	$12.7	$13.8	$15.0	$16.1	$17.2	$18.4	$19.6	$20.8
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.4	$4.2	$4.9	$5.7	$6.5	$7.3	$8.1	$9.0	$9.8	$10.7	$11.5	$12.4	$13.2	$14.1	$15.0	$15.9	$16.8
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.3	$3.9	$4.5	$5.1	$5.7	$6.4	$7.0	$7.6	$8.2	$8.9	$9.5	$10.1	$10.7	$11.3	$11.9	$12.5	$13.1
75th Percentile	$0.6	$1.2	$1.9	$2.5	$3.0	$3.5	$4.0	$4.5	$4.9	$5.2	$5.6	$6.0	$6.3	$6.6	$6.9	$7.2	$7.4	$7.6	$7.9	$8.1	$8.3
95th Percentile	$0.6	$1.2	$1.8	$2.3	$2.7	$3.0	$3.2	$3.2	$3.4	$3.4	$3.5	$3.5	$3.6	$3.7	$3.7	$3.8	$3.8	$3.9	$3.9	$4.0	$4.0

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Stochastic Analysis (continued)

Cumulative Employer Contributions to Date; Potential Portfolio 2

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 2 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



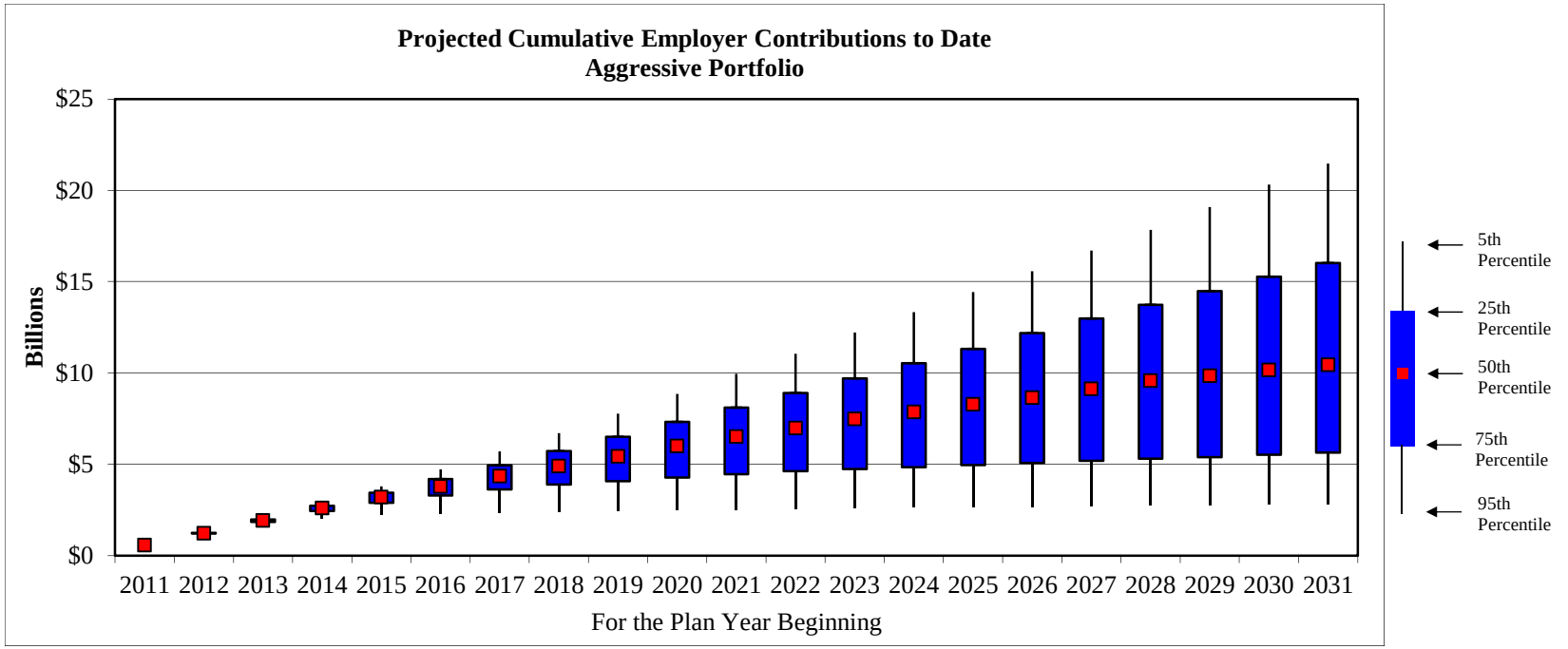
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.0	$2.9	$3.7	$4.6	$5.5	$6.5	$7.5	$8.5	$9.6	$10.6	$11.7	$12.8	$13.9	$15.1	$16.2	$17.4	$18.5	$19.8	$20.9
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.4	$4.2	$4.9	$5.7	$6.5	$7.3	$8.1	$8.9	$9.7	$10.6	$11.4	$12.2	$13.1	$13.9	$14.8	$15.6	$16.5
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.9	$4.5	$5.0	$5.7	$6.2	$6.8	$7.4	$8.0	$8.6	$9.2	$9.7	$10.2	$10.7	$11.2	$11.7	$12.1
75th Percentile	$0.6	$1.2	$1.9	$2.5	$3.0	$3.5	$3.9	$4.3	$4.6	$4.9	$5.3	$5.6	$5.8	$6.0	$6.2	$6.4	$6.6	$6.8	$7.0	$7.1	$7.3
95th Percentile	$0.6	$1.2	$1.8	$2.3	$2.6	$2.8	$2.9	$2.9	$3.0	$3.1	$3.1	$3.2	$3.2	$3.3	$3.3	$3.3	$3.4	$3.4	$3.5	$3.5	$3.5

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Stochastic Analysis (continued)

Cumulative Employer Contributions to Date; Aggressive Portfolio

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Aggressive Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.1	$2.9	$3.8	$4.7	$5.7	$6.7	$7.8	$8.9	$9.9	$11.0	$12.2	$13.3	$14.4	$15.6	$16.7	$17.8	$19.1	$20.3	$21.5
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.4	$4.2	$4.9	$5.7	$6.5	$7.3	$8.1	$8.9	$9.7	$10.5	$11.3	$12.2	$13.0	$13.7	$14.5	$15.3	$16.0
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.3	$4.9	$5.4	$6.0	$6.5	$7.0	$7.5	$7.9	$8.3	$8.6	$9.1	$9.6	$9.8	$10.2	$10.4
75th Percentile	$0.6	$1.2	$1.8	$2.4	$2.9	$3.3	$3.6	$3.9	$4.1	$4.3	$4.5	$4.6	$4.7	$4.8	$5.0	$5.1	$5.2	$5.3	$5.4	$5.5	$5.6
95th Percentile	$0.6	$1.2	$1.7	$2.0	$2.2	$2.3	$2.3	$2.4	$2.4	$2.5	$2.5	$2.6	$2.6	$2.6	$2.6	$2.7	$2.7	$2.7	$2.8	$2.8	$2.8

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Stochastic Analysis (continued)

Drawing Inferences

The tables below compare the projected actuarial and market funded ratios five, ten, and twenty years from now, under the median (50th percentile), worst-case (5th percentile), and best-case (95th percentile) scenarios, assuming the six different asset mixes highlighted on the prior pages. The table also displays for comparative purposes the median, peak, and trough projected payout ratios and cumulative employer contributions assuming the same six asset mixes being examined.

5 Years	Actuarial Funded Ratio in Year 5			Market Funded Ratio in Year 5			Cumulative Employer Contributions in Year 5 (Billions)			Payout Ratios		
	50th	5th	95th	50th	5th	95th	50th	5th	95th	Year 5 Median	2011-2016 Peak	2011-2016 Trough
Target Allocation	62.1%	43.9%	88.5%	61.2%	34.5%	103.6%	$3.9	$4.6	$2.8	13.1%	23.5%	7.7%
Current Allocation	62.4%	43.6%	90.0%	61.3%	33.9%	104.7%	$3.9	$4.6	$2.8	13.1%	23.9%	7.5%
Conservative Portfolio	56.2%	48.7%	64.5%	51.7%	40.3%	65.7%	$4.1	$4.4	$3.8	15.5%	20.3%	11.9%
Potential Portfolio 1	61.8%	44.9%	85.2%	60.7%	35.5%	98.8%	$3.9	$4.5	$3.0	13.2%	22.6%	8.0%
Potential Portfolio 2	62.5%	43.9%	90.4%	61.9%	34.2%	105.2%	$3.9	$4.6	$2.8	13.0%	23.6%	7.5%
Aggressive Portfolio	64.2%	40.9%	103.8%	64.5%	31.2%	124.4%	$3.8	$4.7	$2.3	12.5%	25.8%	6.4%

10 Years	Actuarial Funded Ratio in Year 10			Market Funded Ratio in Year 10			Cumulative Employer Contributions in Year 10 (Billions)			Payout Ratios		
	50th	5th	95th	50th	5th	95th	50th	5th	95th	Year 10 Median	2011-2021 Peak	2011-2021 Trough
Target Allocation	66.6%	35.1%	125.1%	65.0%	29.6%	135.0%	$6.9	$9.6	$3.2	14.2%	31.6%	6.7%
Current Allocation	67.5%	34.9%	130.1%	65.8%	29.0%	142.4%	$6.9	$9.6	$3.1	14.0%	32.2%	6.4%
Conservative Portfolio	50.7%	37.5%	67.6%	45.7%	31.1%	66.7%	$8.1	$9.1	$6.9	20.2%	30.4%	11.9%
Potential Portfolio 1	65.7%	36.1%	116.6%	64.2%	30.7%	126.0%	$7.0	$9.4	$3.5	14.4%	30.6%	7.1%
Potential Portfolio 2	68.0%	35.5%	130.6%	66.9%	29.9%	141.9%	$6.8	$9.6	$3.1	13.8%	31.6%	6.5%
Aggressive Portfolio	72.5%	32.8%	169.2%	72.5%	26.9%	188.8%	$6.5	$9.9	$2.5	12.8%	34.9%	4.8%

20 Years	Actuarial Funded Ratio in Year 20			Market Funded Ratio in Year 20			Cumulative Employer Contributions in Year 20 (Billions)			Payout Ratios		
	50th	5th	95th	50th	5th	95th	50th	5th	95th	Year 20 Median	2011-2031 Peak	2011-2031 Trough
Target Allocation	80.1%	33.3%	280.8%	80.3%	28.1%	293.3%	$12.7	$21.1	$3.7	15.6%	44.9%	4.2%
Current Allocation	82.3%	32.9%	302.4%	82.2%	27.6%	320.8%	$12.4	$21.1	$3.6	15.2%	44.9%	3.9%
Conservative Portfolio	49.1%	33.2%	73.0%	44.2%	28.2%	70.5%	$18.3	$21.0	$14.4	28.3%	45.7%	11.9%
Potential Portfolio 1	78.0%	34.6%	241.9%	77.9%	29.2%	252.2%	$13.1	$20.8	$4.0	16.1%	43.1%	4.9%
Potential Portfolio 2	83.8%	34.1%	310.1%	84.6%	28.3%	323.4%	$12.1	$20.9	$3.5	14.8%	43.9%	3.9%
Aggressive Portfolio	97.5%	31.5%	524.8%	98.7%	26.0%	580.7%	$10.4	$21.5	$2.8	12.7%	47.9%	2.1%

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility"

This section provides a sensitivity analysis of the original stochastic projections by assuming the risk (as measured by standard deviation) of each asset class is doubled. These modified assumptions are outlined in the table below, compared to the original values:

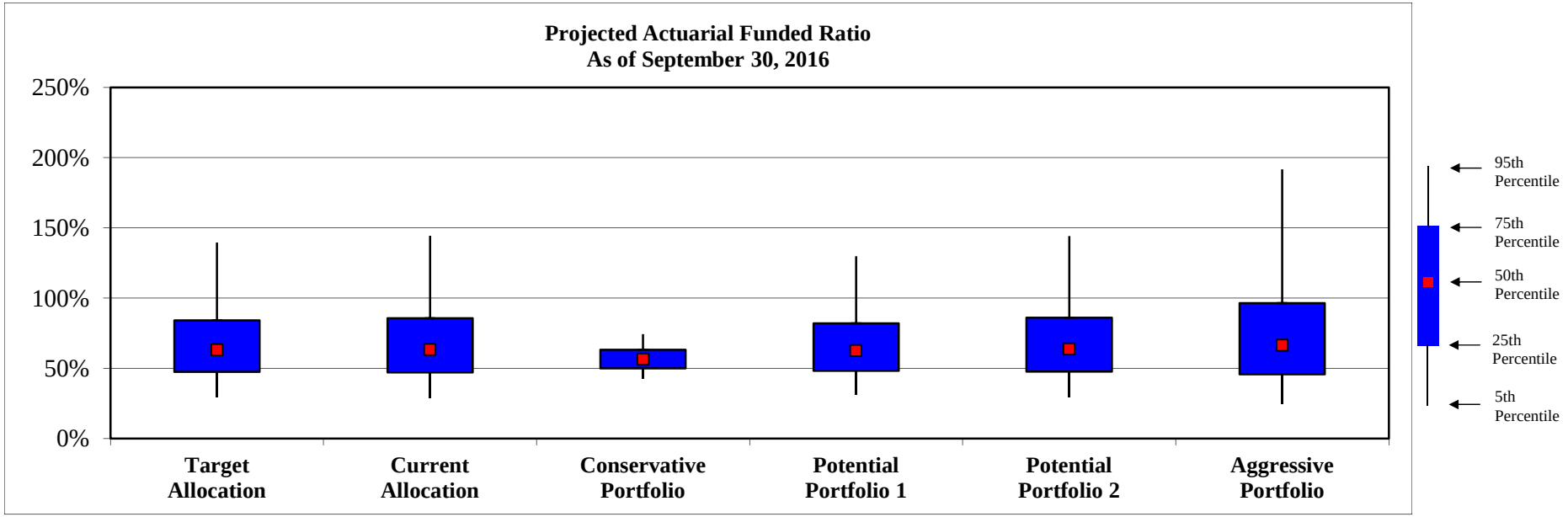
Asset Class	Arithmetic Return Assumption	Standard Deviation Assumption	Standard Deviation Assumption Doubled
Broad US Equity	7.90	17.95	35.90
Broad International Equity	8.65	20.80	41.60
Int. Duration Fixed Income	4.25	5.75	11.50
Diversified Infl Strat	6.20	11.40	22.80
Real Estate	7.60	14.20	28.40
Absolute Ret Mul Str FoF	7.00	9.50	19.00
Private Equity	11.75	30.25	60.50
Custom Infrastructure	7.43	13.79	27.58
Cash Equivalents	2.25	3.00	6.00

RVK supports the recommendations based on the original assumptions shown in the Stochastic Analysis section of this report. However, this stress-testing illustrates that potential increased capital market volatility does not change the asset allocation recommendations, based on the current status of the Plan. Instead it simply widens the range of potential results, exacerbating the potential best and worst-case scenarios.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Actuarial Funded Ratio (actuarial value of assets/actuarial accrued liability); **5 Years**

The graph below shows the distribution of possible actuarial funded ratios five years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



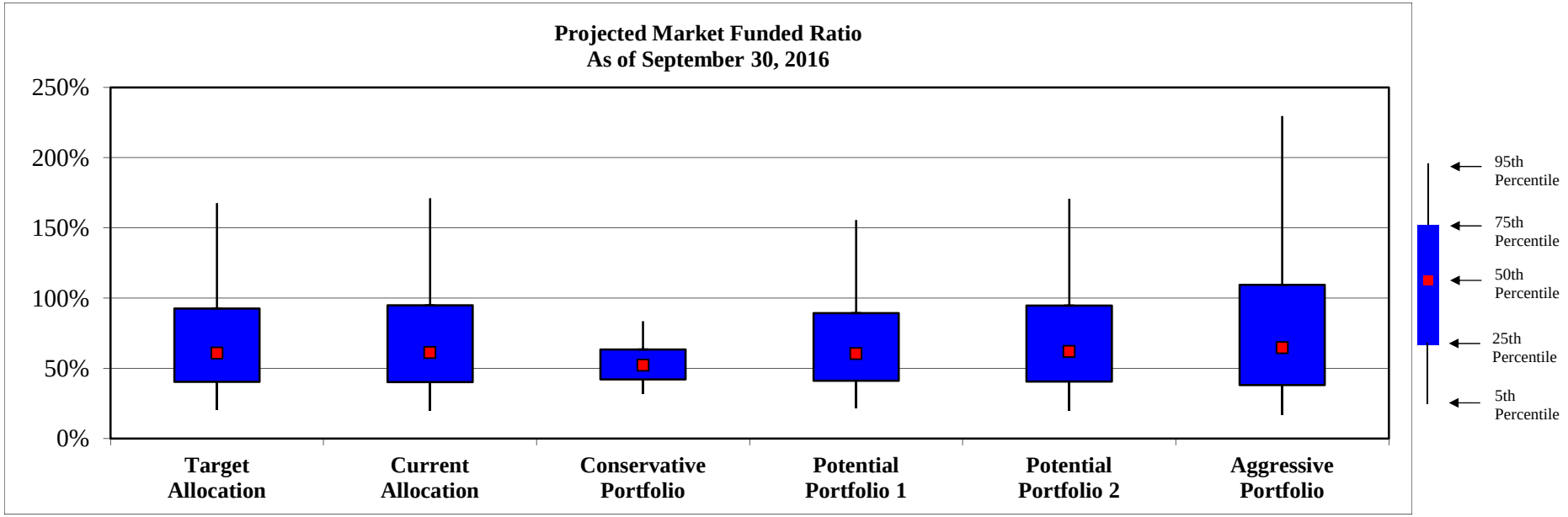
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$11.2	29.7%	$11.3	29.0%	$9.1	42.4%	$10.9	31.2%	$11.2	29.3%	$11.9	24.4%
25th Percentile	$8.4	47.5%	$8.4	47.1%	$8.0	49.9%	$8.3	48.2%	$8.4	47.6%	$8.7	45.7%
50th Percentile	$6.0	63.1%	$6.0	63.3%	$7.1	56.4%	$6.0	62.6%	$5.9	63.7%	$5.5	66.4%
75th Percentile	$2.5	84.1%	$2.3	85.7%	$6.0	63.2%	$3.0	82.1%	$2.3	86.1%	$0.6	96.4%
95th Percentile	($6.6)	139.5%	($7.2)	144.3%	$4.3	74.4%	($4.9)	129.8%	($7.3)	144.2%	($15.3)	191.6%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Market Funded Ratio (market value of assets/actuarial accrued liability); **5 Years**

The graph below shows the distribution of possible market funded ratios five years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



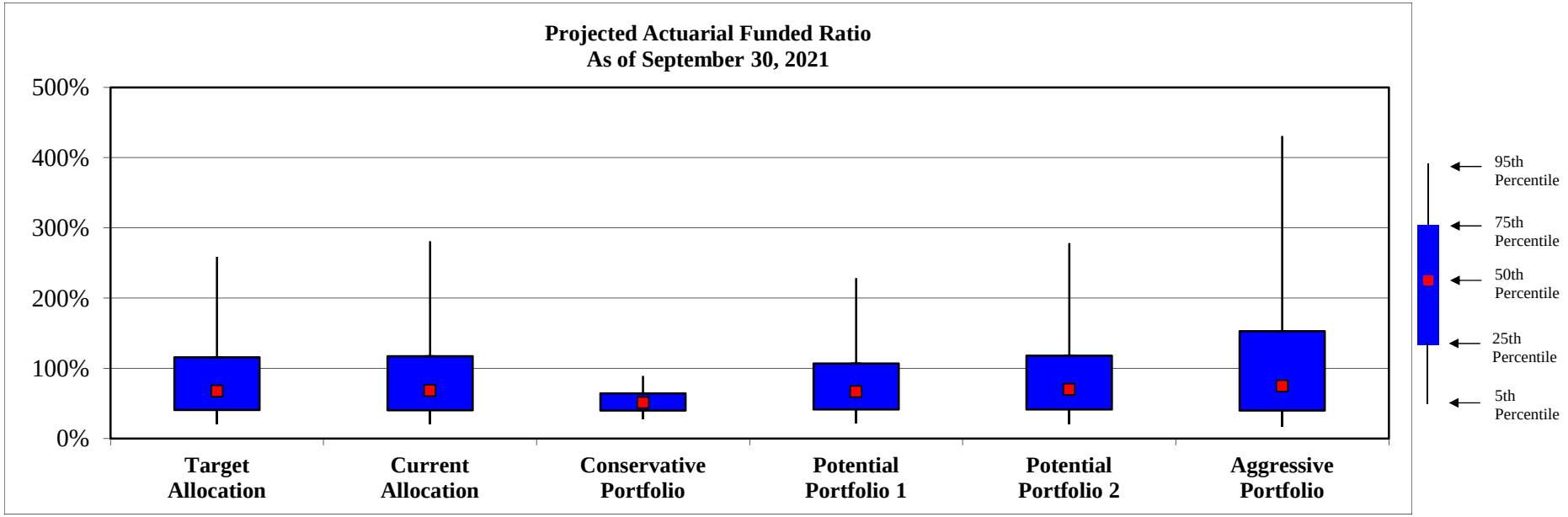
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$12.5	20.5%	$12.6	19.4%	$10.6	31.7%	$12.3	21.7%	$12.6	19.9%	$13.2	16.3%
25th Percentile	$9.6	40.3%	$9.6	40.2%	$9.2	42.2%	$9.5	41.2%	$9.5	40.5%	$9.9	38.2%
50th Percentile	$6.3	60.8%	$6.2	61.2%	$7.7	52.3%	$6.3	60.5%	$6.2	61.9%	$5.6	64.6%
75th Percentile	$1.2	92.6%	$0.8	94.9%	$6.0	63.3%	$1.8	89.3%	$0.9	94.7%	($1.5)	109.4%
95th Percentile	($11.2)	167.7%	($11.9)	171.1%	$2.8	83.5%	($9.0)	155.6%	($11.8)	170.8%	($20.8)	229.6%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Actuarial Funded Ratio (actuarial value of assets/actuarial accrued liability); **10 Years**

The graph below shows the distribution of possible actuarial funded ratios ten years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



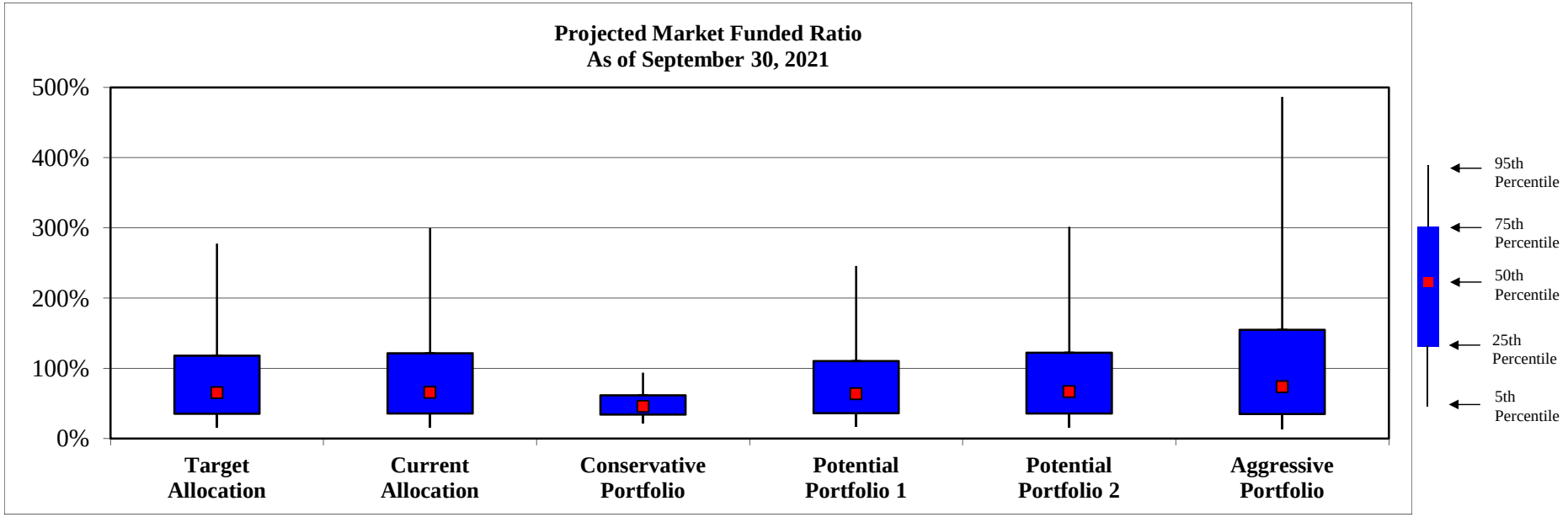
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$12.0	20.3%	$12.1	19.7%	$10.6	27.6%	$11.8	21.4%	$12.1	20.0%	$12.7	16.9%
25th Percentile	$9.1	40.7%	$9.1	40.3%	$9.2	39.8%	$8.9	41.5%	$9.0	41.4%	$9.2	39.8%
50th Percentile	$5.1	67.7%	$4.9	68.5%	$7.7	51.1%	$5.3	66.7%	$4.9	69.7%	$3.9	74.9%
75th Percentile	($2.5)	115.7%	($2.8)	117.0%	$5.9	64.3%	($1.1)	106.8%	($2.9)	117.8%	($8.5)	153.0%
95th Percentile	($26.2)	258.7%	($29.6)	280.8%	$1.8	89.3%	($21.6)	228.5%	($29.7)	278.2%	($54.0)	430.8%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Market Funded Ratio (market value of assets/actuarial accrued liability); **10 Years**

The graph below shows the distribution of possible market funded ratios ten years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



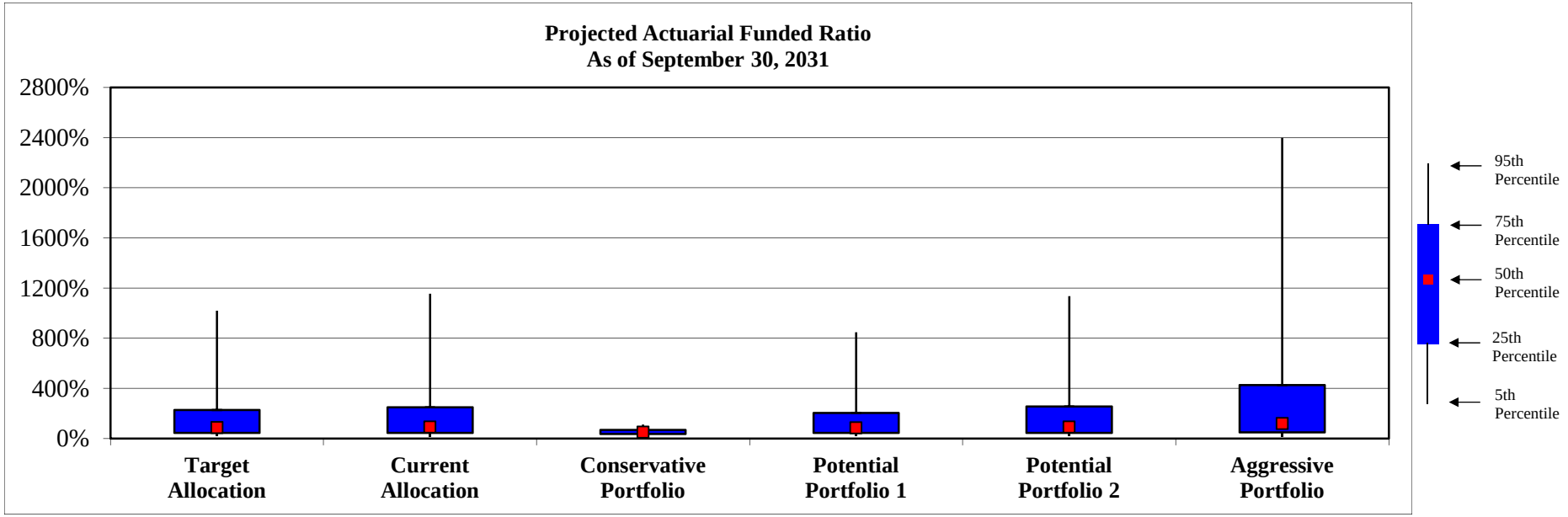
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$12.8	15.4%	$12.9	15.2%	$11.5	21.5%	$12.6	16.4%	$12.8	15.5%	$13.3	12.6%
25th Percentile	$10.0	35.3%	$9.9	35.4%	$10.0	34.0%	$9.9	36.0%	$9.9	35.6%	$10.2	34.8%
50th Percentile	$5.5	65.1%	$5.3	65.8%	$8.5	45.6%	$5.8	63.7%	$5.3	66.8%	$4.0	73.9%
75th Percentile	($3.0)	117.8%	($3.5)	121.5%	$6.2	61.5%	($1.8)	110.5%	($3.7)	122.3%	($8.8)	155.0%
95th Percentile	($30.2)	277.6%	($33.0)	299.7%	$1.1	93.7%	($24.5)	245.7%	($32.0)	301.8%	($61.9)	486.6%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Actuarial Funded Ratio (actuarial value of assets/actuarial accrued liability); **20 Years**

The graph below shows the distribution of possible actuarial funded ratios twenty years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



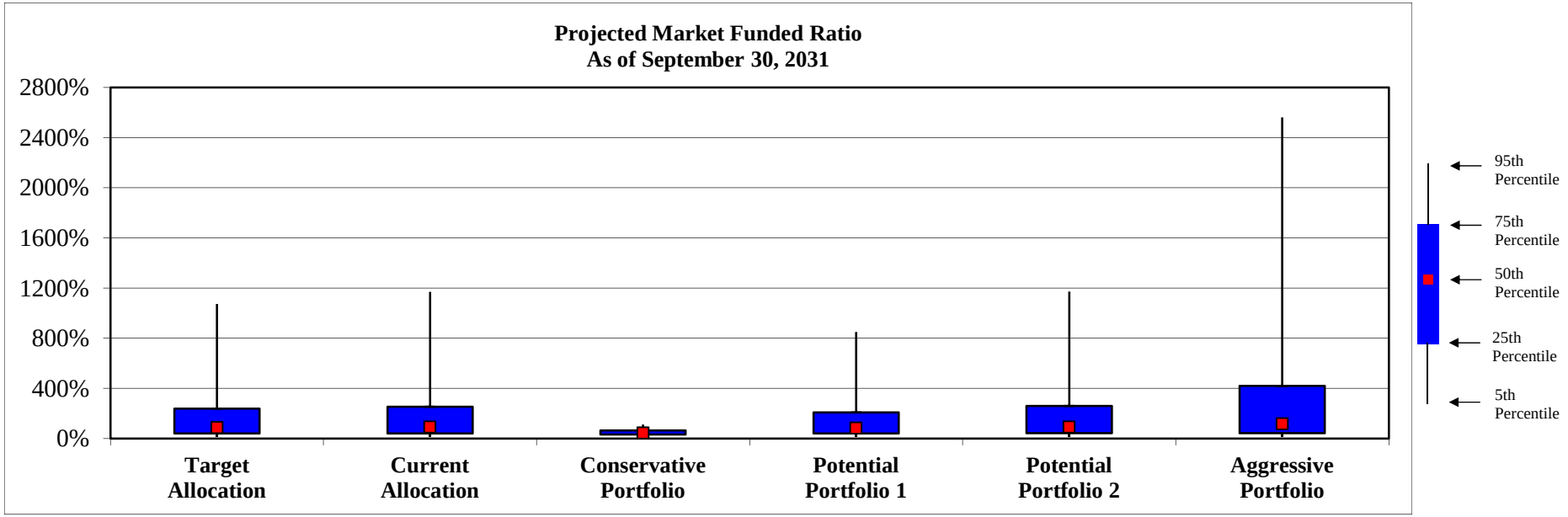
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$9.0	18.0%	$9.0	17.4%	$8.2	23.7%	$8.9	18.7%	$8.9	18.1%	$9.4	14.8%
25th Percentile	$6.2	44.4%	$6.2	44.3%	$7.1	36.0%	$6.2	44.5%	$6.1	45.3%	$6.0	47.8%
50th Percentile	$1.5	87.4%	$1.2	90.1%	$5.9	49.4%	$1.9	83.4%	$0.9	91.5%	($2.1)	118.3%
75th Percentile	($15.7)	228.0%	($18.1)	248.4%	$3.9	67.7%	($12.5)	203.2%	($18.5)	254.9%	($39.4)	427.4%
95th Percentile	($112.7)	1020.1%	($125.9)	1155.4%	($1.4)	110.5%	($91.8)	846.9%	($128.6)	1135.0%	($290.0)	2397.0%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Market Funded Ratio (market value of assets/actuarial accrued liability); **20 Years**

The graph below shows the distribution of possible market funded ratios twenty years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$9.5	13.3%	$9.5	13.2%	$8.7	19.1%	$9.4	14.2%	$9.5	13.7%	$9.9	11.2%
25th Percentile	$6.7	40.1%	$6.8	40.3%	$7.5	31.3%	$6.7	39.4%	$6.6	41.4%	$6.4	43.5%
50th Percentile	$1.6	86.2%	$1.2	89.9%	$6.4	44.4%	$2.0	82.0%	$1.0	91.3%	($2.1)	117.1%
75th Percentile	($16.2)	238.2%	($18.0)	253.8%	$4.5	63.1%	($12.4)	208.7%	($18.6)	258.3%	($39.2)	420.8%
95th Percentile	($119.7)	1073.0%	($136.0)	1170.5%	($1.5)	111.0%	($98.0)	850.2%	($139.6)	1171.8%	($306.5)	2559.8%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Market Funded Ratio and Maximum 1 Year Investment Loss (market value of assets/actuarial accrued liability)

The tables below show the probability that the Plan will be at various funding levels for each of the six different asset mixes highlighted on the prior pages. The tables also illustrate the maximum 1 year investment loss each portfolio is expected to experience during the given time period. The results assume the current contribution policy remains unchanged for all projection years.

5 Years	Probability of Full Funding in 2016	Probability of less than 56% Funding in 2016	Probability of 0% Funding in 2016	Maximum 1 Year Portfolio Investment Loss
Target Allocation	21%	44%	0%	-66%
Current Allocation	22%	44%	0%	-67%
Conservative Portfolio	1%	58%	0%	-33%
Potential Portfolio 1	20%	44%	0%	-63%
Potential Portfolio 2	23%	43%	0%	-67%
Aggressive Portfolio	28%	42%	0%	-75%

10 Years	Probability of Full Funding in 2021	Probability of less than 56% Funding in 2021	Probability of 0% Funding in 2021	Maximum 1 Year Portfolio Investment Loss
Target Allocation	31%	43%	0%	-66%
Current Allocation	32%	43%	0%	-67%
Conservative Portfolio	4%	66%	0%	-33%
Potential Portfolio 1	29%	43%	0%	-63%
Potential Portfolio 2	32%	42%	0%	-67%
Aggressive Portfolio	39%	40%	0%	-75%

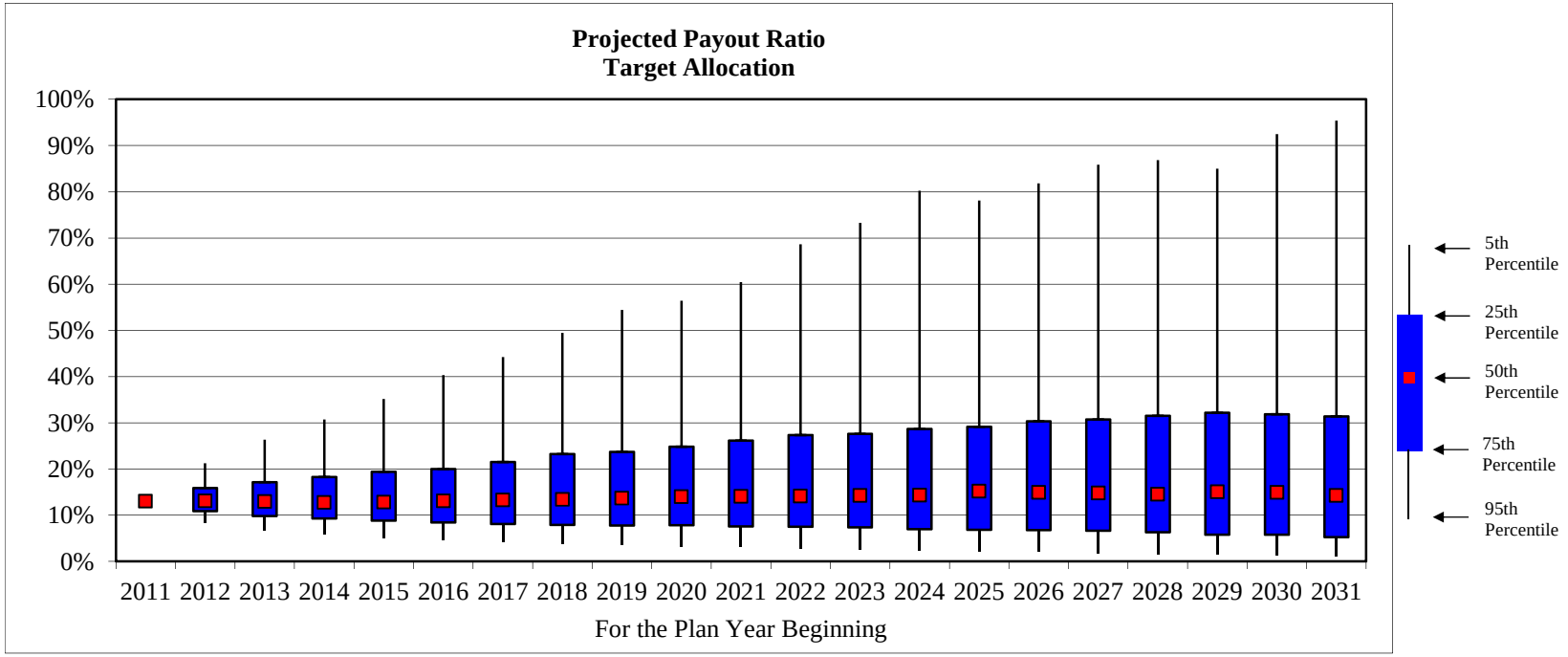
20 Years	Probability of Full Funding in 2031	Probability of less than 56% Funding in 2031	Probability of 0% Funding in 2031	Maximum 1 Year Portfolio Investment Loss
Target Allocation	45%	36%	0%	-66%
Current Allocation	46%	35%	0%	-67%
Conservative Portfolio	8%	67%	0%	-33%
Potential Portfolio 1	43%	36%	0%	-63%
Potential Portfolio 2	47%	35%	0%	-67%
Aggressive Portfolio	55%	32%	0%	-75%

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Target Allocation**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Target Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.8% and 15.2%. The worst-case scenario could reach 95% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.1%	12.9%	12.8%	12.8%	13.1%	13.3%	13.5%	13.7%	14.0%	14.1%	14.1%	14.3%	14.3%	15.2%	14.9%	14.8%	14.6%	15.1%	14.9%	14.3%

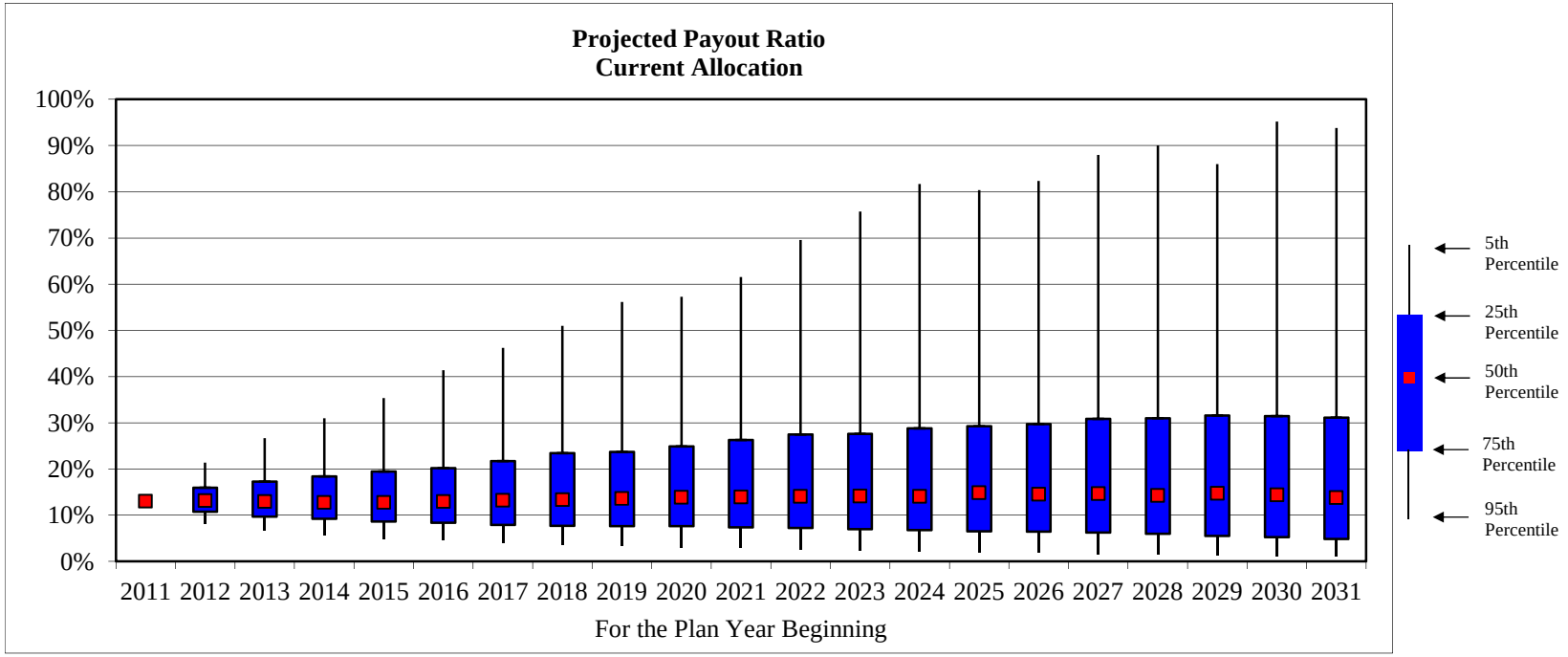
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Current Allocation**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Current Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.8% and 14.9%. The worst-case scenario could reach 95% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.1%	12.9%	12.8%	12.8%	12.9%	13.2%	13.4%	13.6%	13.9%	14.0%	14.1%	14.1%	14.1%	14.9%	14.6%	14.7%	14.3%	14.7%	14.4%	13.8%

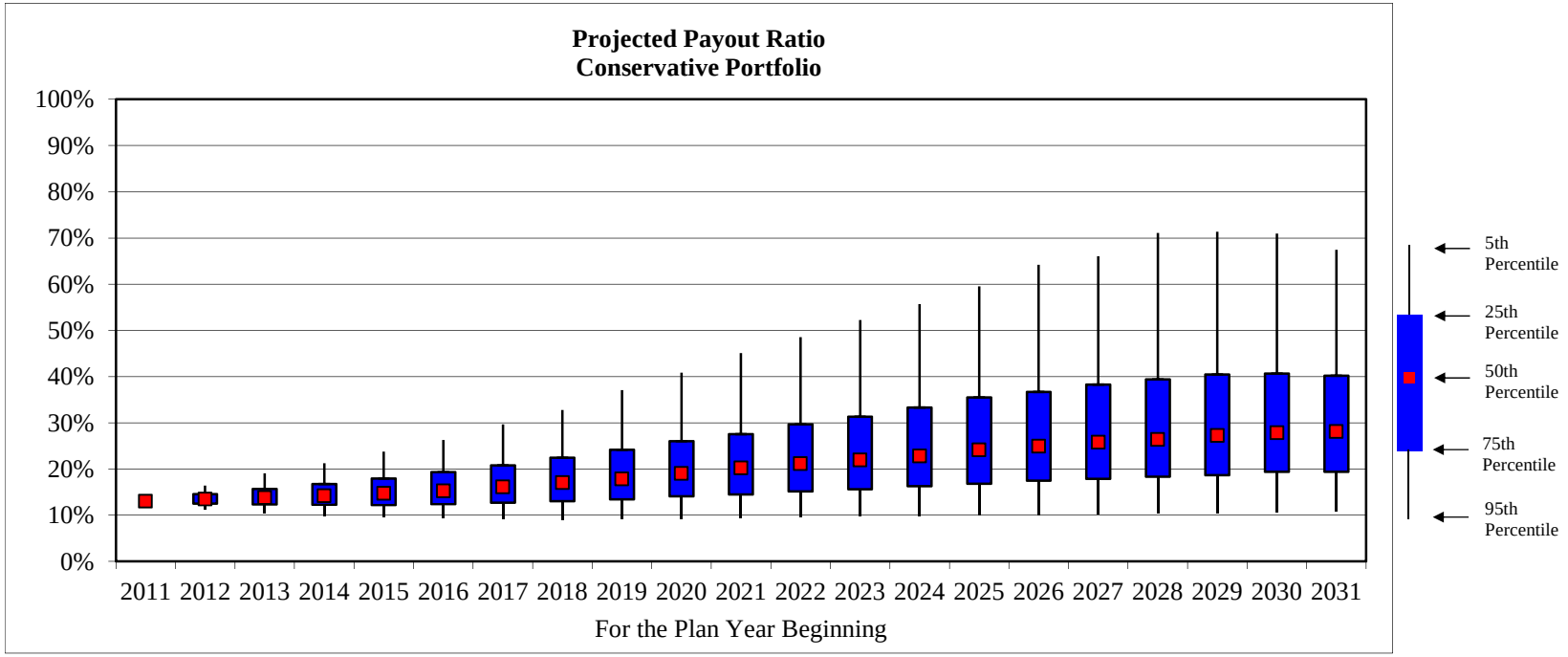
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Conservative Portfolio**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Conservative Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 13.0% and 28.1%. The worst-case scenario could reach 71% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.5%	13.8%	14.2%	14.7%	15.3%	16.2%	17.1%	17.9%	19.0%	20.3%	21.2%	22.0%	22.9%	24.2%	25.0%	25.8%	26.4%	27.3%	27.9%	28.1%

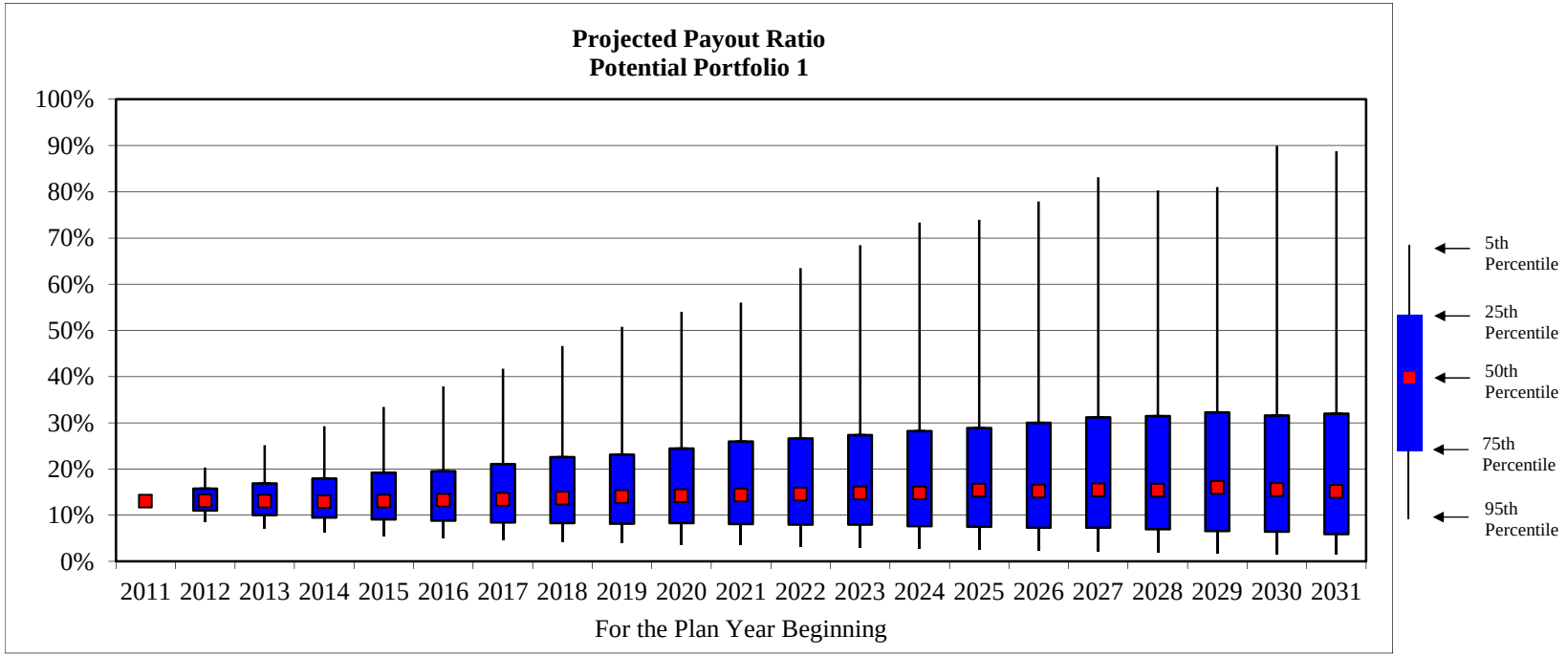
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Potential Portfolio 1**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 1 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.9% and 16.0%. The worst-case scenario could reach 90% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.1%	13.0%	12.9%	13.0%	13.2%	13.4%	13.7%	14.0%	14.2%	14.3%	14.5%	14.8%	14.8%	15.4%	15.2%	15.5%	15.4%	16.0%	15.5%	15.1%

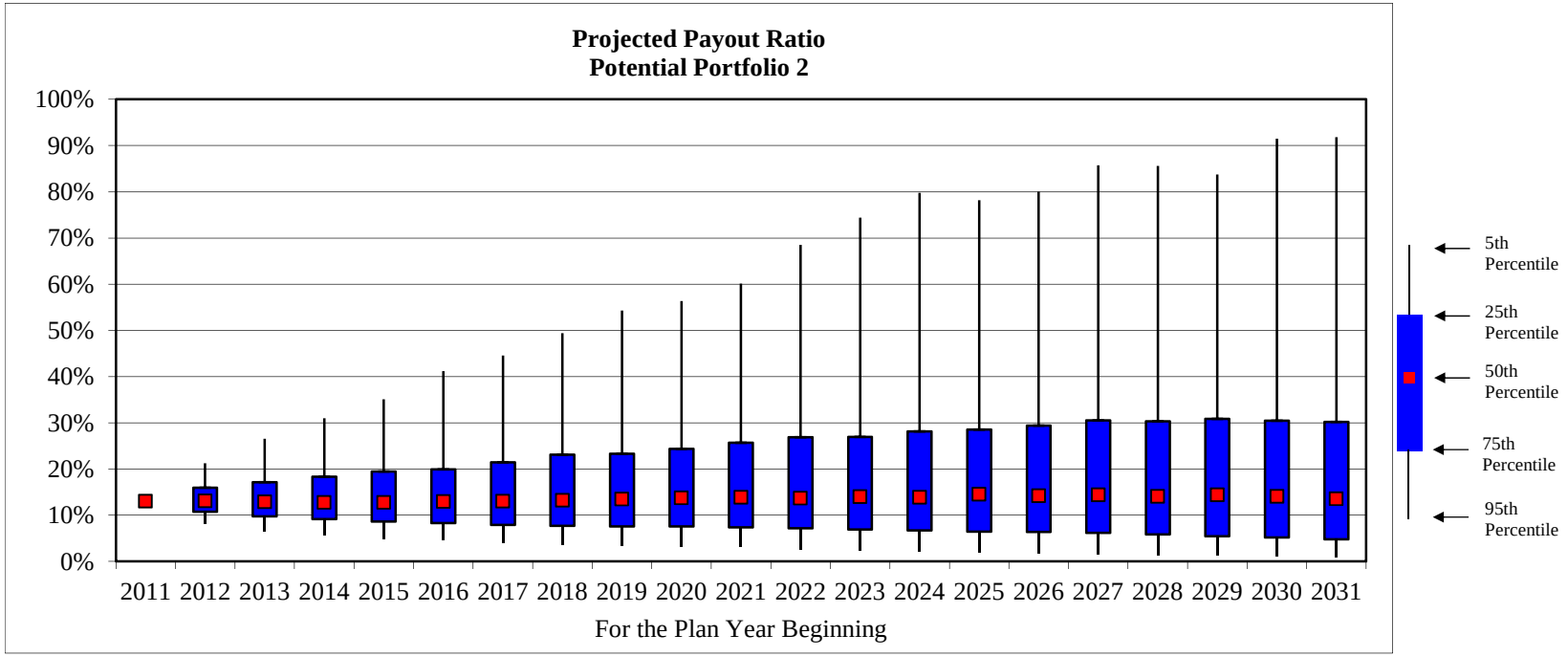
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Potential Portfolio 2**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 2 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.7% and 14.5%. The worst-case scenario could reach 92% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.1%	12.9%	12.7%	12.8%	13.0%	13.1%	13.2%	13.5%	13.7%	13.9%	13.7%	14.0%	13.9%	14.5%	14.2%	14.4%	14.1%	14.4%	14.1%	13.6%

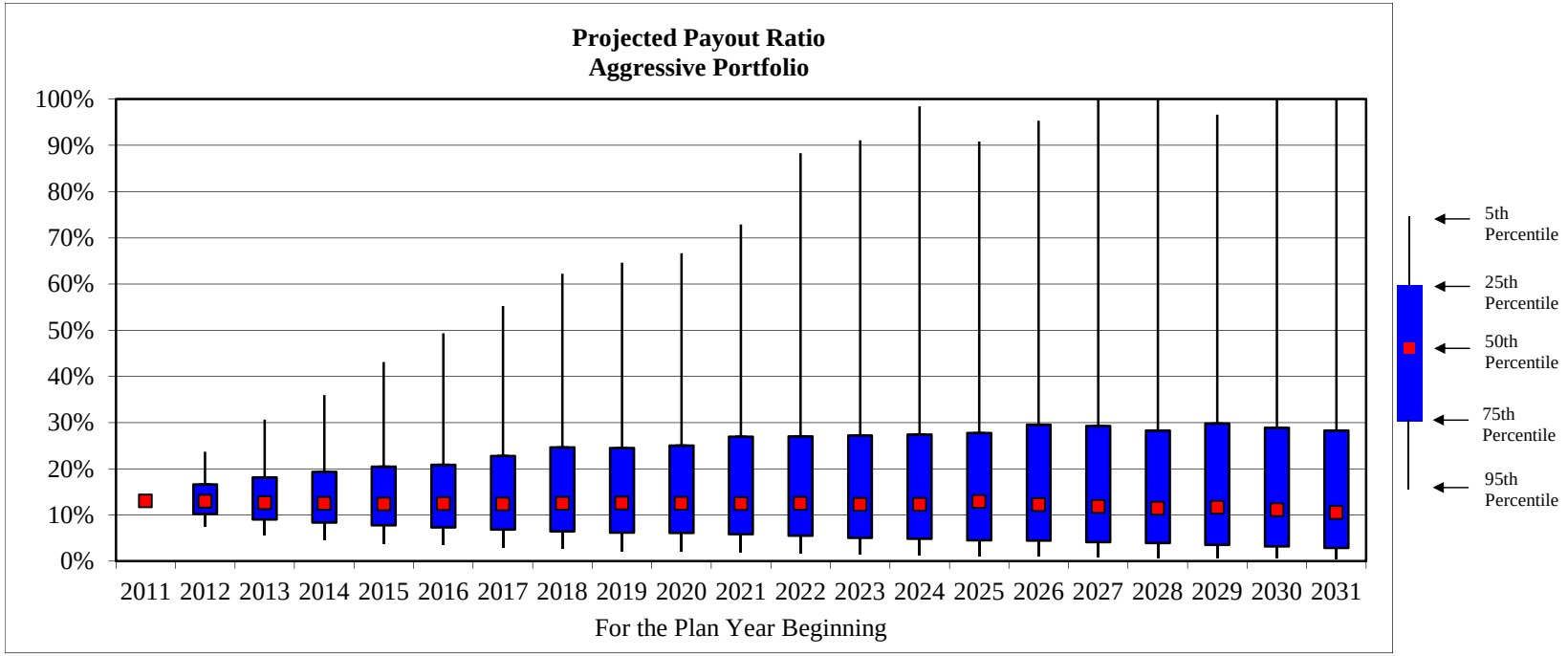
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Aggressive Portfolio**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Aggressive Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 10.5% and 13.0%. The worst-case scenario could reach 100%. A payout ratio in excess of 100% indicates that plan assets would be insufficient to make the current year's benefit payments. Payout ratios displayed in the table below are capped at 100%.



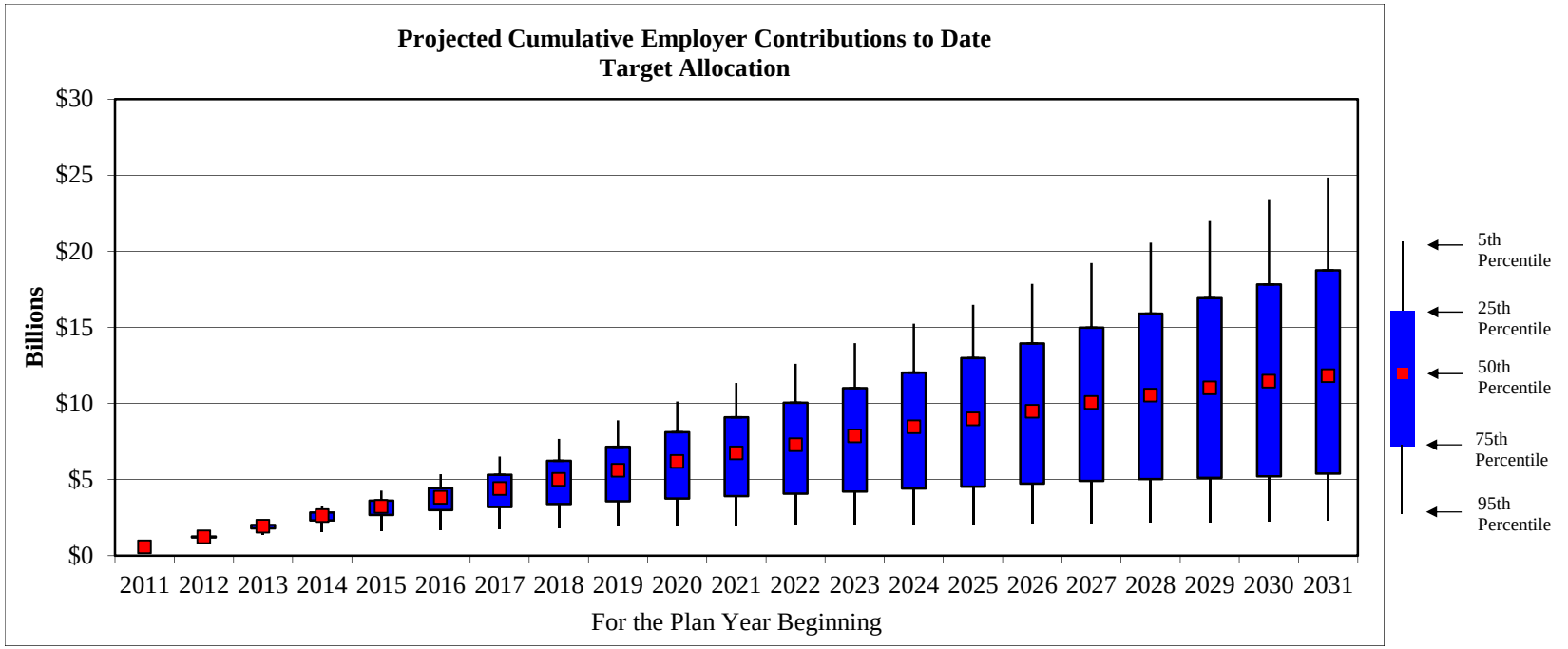
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.0%	12.6%	12.5%	12.3%	12.4%	12.4%	12.5%	12.6%	12.5%	12.5%	12.5%	12.3%	12.3%	12.9%	12.2%	11.8%	11.4%	11.7%	11.1%	10.5%

Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Cumulative Employer Contributions to Date; Target Allocation

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Target Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



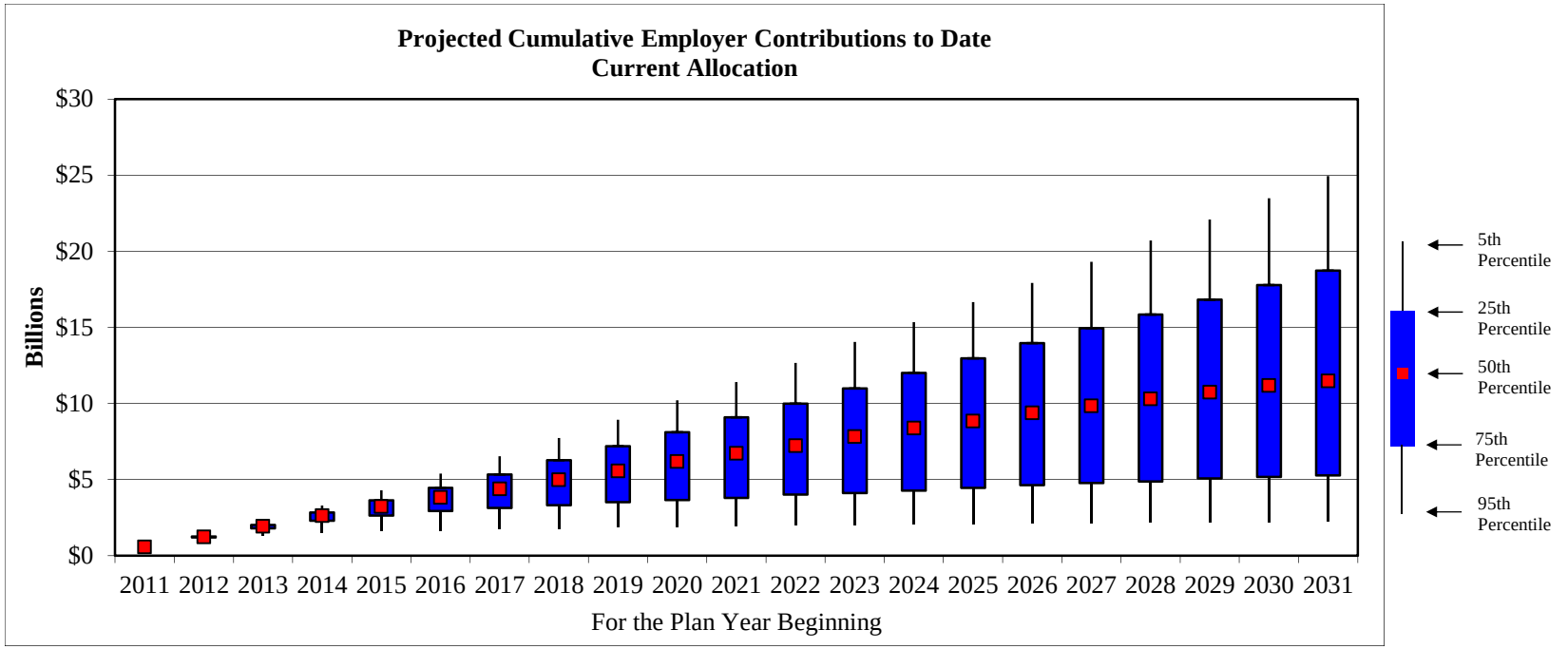
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.2	$3.3	$4.3	$5.3	$6.5	$7.7	$8.9	$10.1	$11.3	$12.6	$13.9	$15.2	$16.5	$17.9	$19.2	$20.6	$22.0	$23.4	$24.8
25th Percentile	$0.6	$1.3	$2.0	$2.8	$3.6	$4.4	$5.3	$6.2	$7.1	$8.1	$9.1	$10.0	$11.0	$12.0	$13.0	$13.9	$15.0	$15.9	$16.9	$17.8	$18.7
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.4	$5.0	$5.6	$6.2	$6.7	$7.3	$7.8	$8.5	$9.0	$9.5	$10.0	$10.5	$11.0	$11.4	$11.8
75th Percentile	$0.6	$1.2	$1.8	$2.3	$2.7	$3.0	$3.2	$3.4	$3.6	$3.7	$3.9	$4.1	$4.2	$4.4	$4.5	$4.7	$4.9	$5.0	$5.1	$5.2	$5.4
95th Percentile	$0.6	$1.1	$1.4	$1.6	$1.6	$1.7	$1.8	$1.8	$1.9	$1.9	$2.0	$2.0	$2.0	$2.1	$2.1	$2.1	$2.2	$2.2	$2.2	$2.3	$2.3

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Cumulative Employer Contributions to Date; Current Allocation

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Current Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



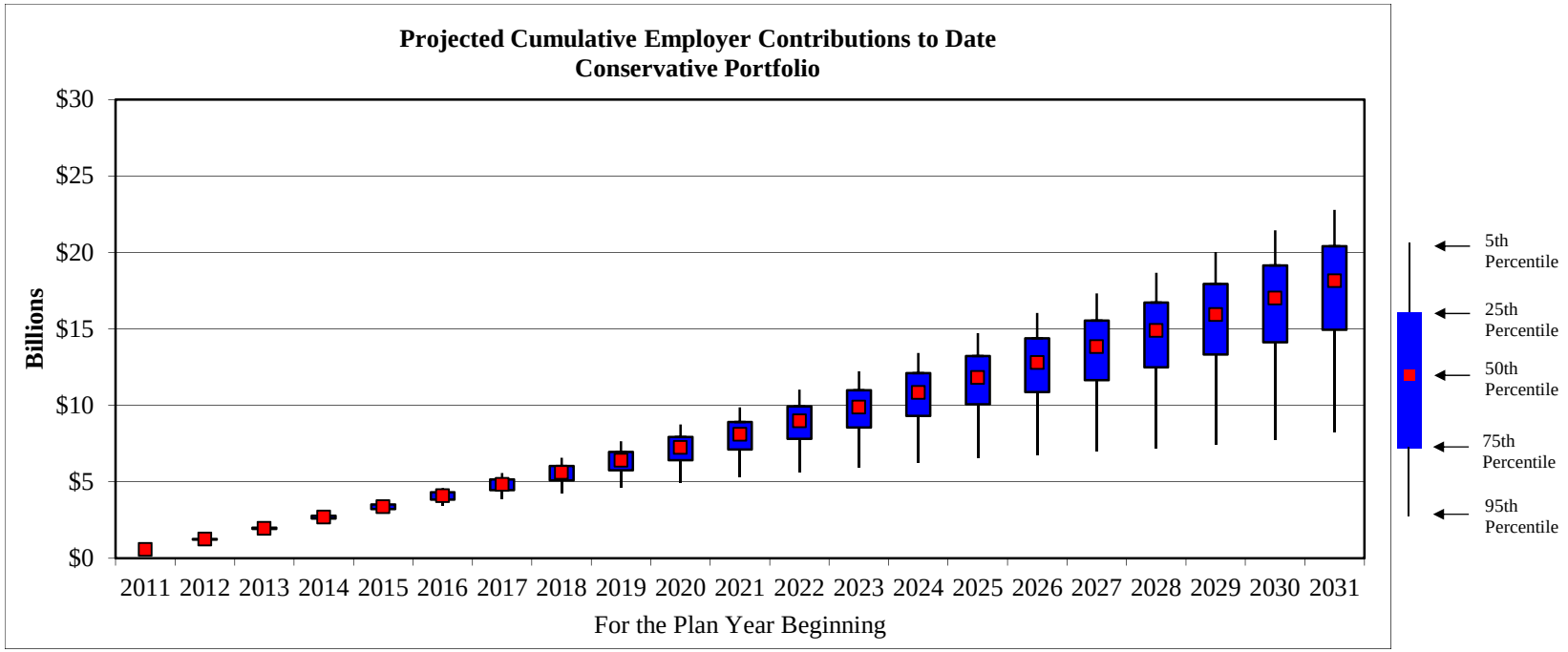
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.4	$2.3	$3.3	$4.3	$5.4	$6.5	$7.7	$8.9	$10.2	$11.4	$12.7	$14.0	$15.3	$16.6	$17.9	$19.3	$20.7	$22.1	$23.5	$24.9
25th Percentile	$0.6	$1.3	$2.0	$2.8	$3.6	$4.5	$5.3	$6.3	$7.2	$8.1	$9.1	$10.0	$11.0	$12.0	$12.9	$14.0	$14.9	$15.8	$16.8	$17.8	$18.7
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.4	$5.0	$5.5	$6.2	$6.7	$7.2	$7.8	$8.4	$8.8	$9.4	$9.8	$10.3	$10.7	$11.2	$11.5
75th Percentile	$0.6	$1.2	$1.8	$2.3	$2.6	$2.9	$3.1	$3.3	$3.5	$3.6	$3.8	$4.0	$4.1	$4.3	$4.4	$4.6	$4.8	$4.9	$5.1	$5.2	$5.3
95th Percentile	$0.6	$1.1	$1.3	$1.5	$1.6	$1.6	$1.7	$1.7	$1.8	$1.9	$1.9	$2.0	$2.0	$2.0	$2.0	$2.1	$2.1	$2.1	$2.2	$2.2	$2.2

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Cumulative Employer Contributions to Date; Conservative Portfolio

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Conservative Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



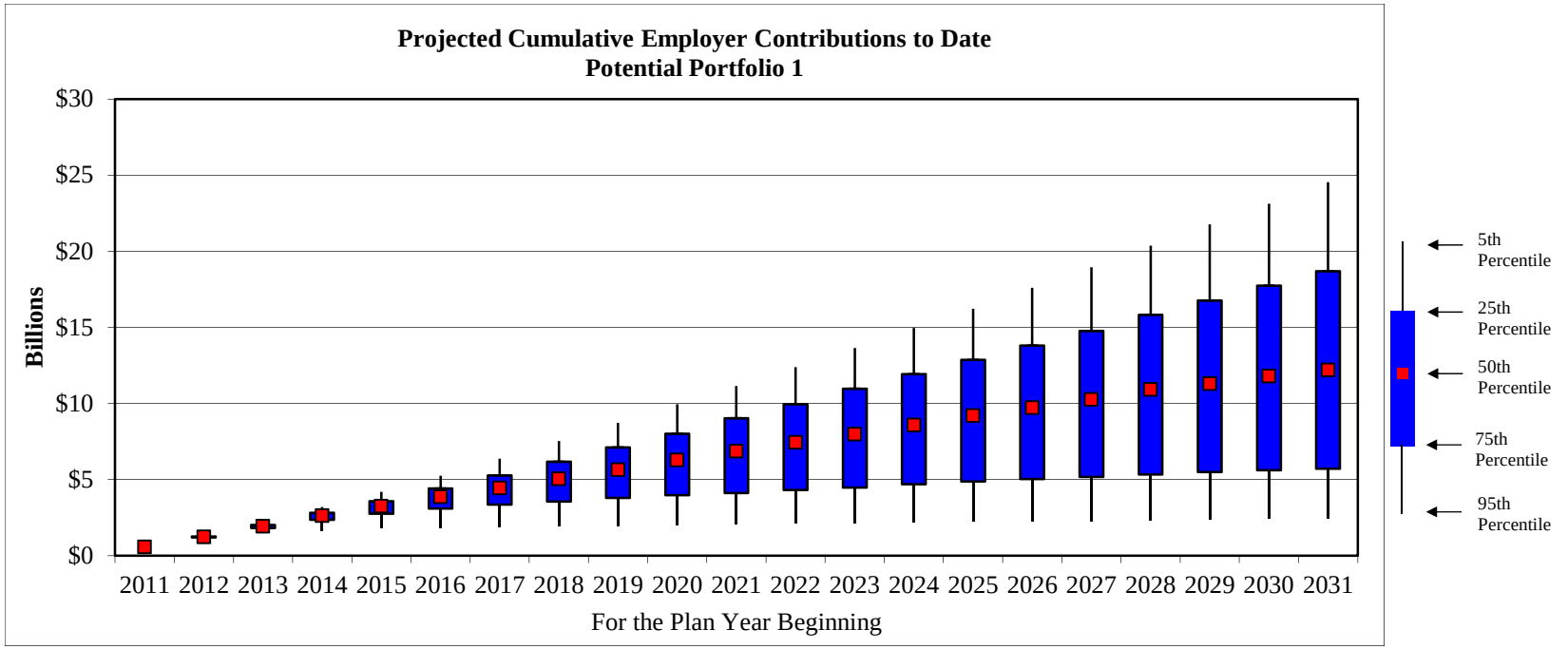
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.0	$2.9	$3.7	$4.6	$5.6	$6.6	$7.6	$8.7	$9.9	$11.0	$12.2	$13.4	$14.7	$16.0	$17.3	$18.7	$20.0	$21.4	$22.8
25th Percentile	$0.6	$1.2	$2.0	$2.8	$3.5	$4.3	$5.1	$6.0	$6.9	$7.9	$8.9	$9.9	$11.0	$12.1	$13.2	$14.4	$15.5	$16.7	$17.9	$19.1	$20.4
50th Percentile	$0.6	$1.2	$1.9	$2.7	$3.4	$4.1	$4.8	$5.6	$6.4	$7.2	$8.1	$9.0	$9.9	$10.8	$11.8	$12.8	$13.8	$14.9	$15.9	$17.0	$18.1
75th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.5	$5.1	$5.7	$6.4	$7.1	$7.8	$8.5	$9.3	$10.1	$10.9	$11.6	$12.5	$13.3	$14.1	$14.9
95th Percentile	$0.6	$1.2	$1.8	$2.5	$3.0	$3.4	$3.9	$4.3	$4.6	$5.0	$5.3	$5.6	$5.9	$6.2	$6.5	$6.7	$7.0	$7.2	$7.4	$7.7	$8.2

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Cumulative Employer Contributions to Date; Potential Portfolio 1

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 1 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



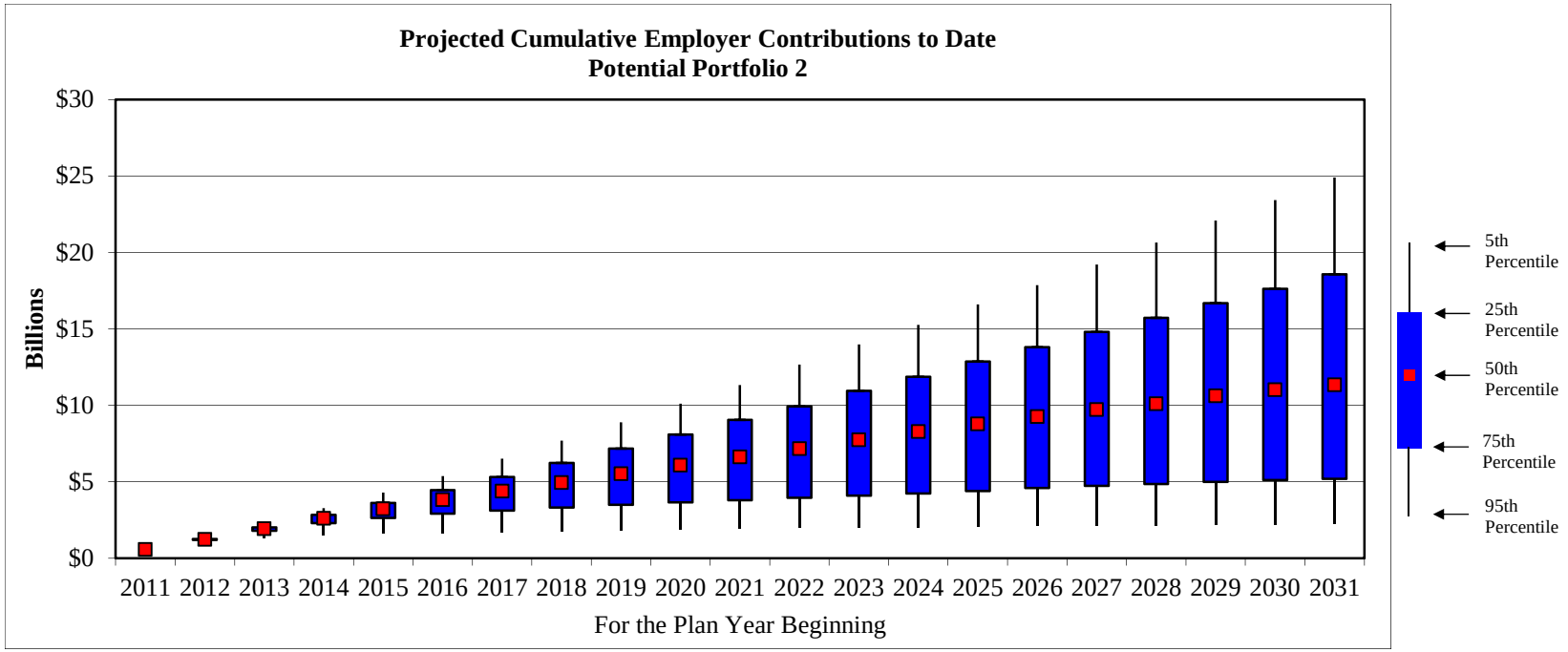
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.2	$3.2	$4.2	$5.2	$6.4	$7.5	$8.7	$9.9	$11.1	$12.4	$13.6	$15.0	$16.2	$17.6	$18.9	$20.4	$21.8	$23.1	$24.5
25th Percentile	$0.6	$1.3	$2.0	$2.8	$3.6	$4.4	$5.3	$6.2	$7.1	$8.0	$9.0	$9.9	$11.0	$11.9	$12.9	$13.8	$14.8	$15.8	$16.8	$17.7	$18.7
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.4	$5.0	$5.6	$6.3	$6.8	$7.4	$8.0	$8.6	$9.2	$9.7	$10.2	$10.9	$11.3	$11.8	$12.2
75th Percentile	$0.6	$1.2	$1.8	$2.4	$2.7	$3.1	$3.3	$3.5	$3.8	$4.0	$4.1	$4.3	$4.5	$4.7	$4.9	$5.0	$5.2	$5.3	$5.5	$5.6	$5.7
95th Percentile	$0.6	$1.1	$1.5	$1.7	$1.8	$1.8	$1.9	$1.9	$2.0	$2.0	$2.1	$2.1	$2.1	$2.2	$2.2	$2.2	$2.3	$2.3	$2.3	$2.4	$2.4

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Cumulative Employer Contributions to Date; Potential Portfolio 2

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 2 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



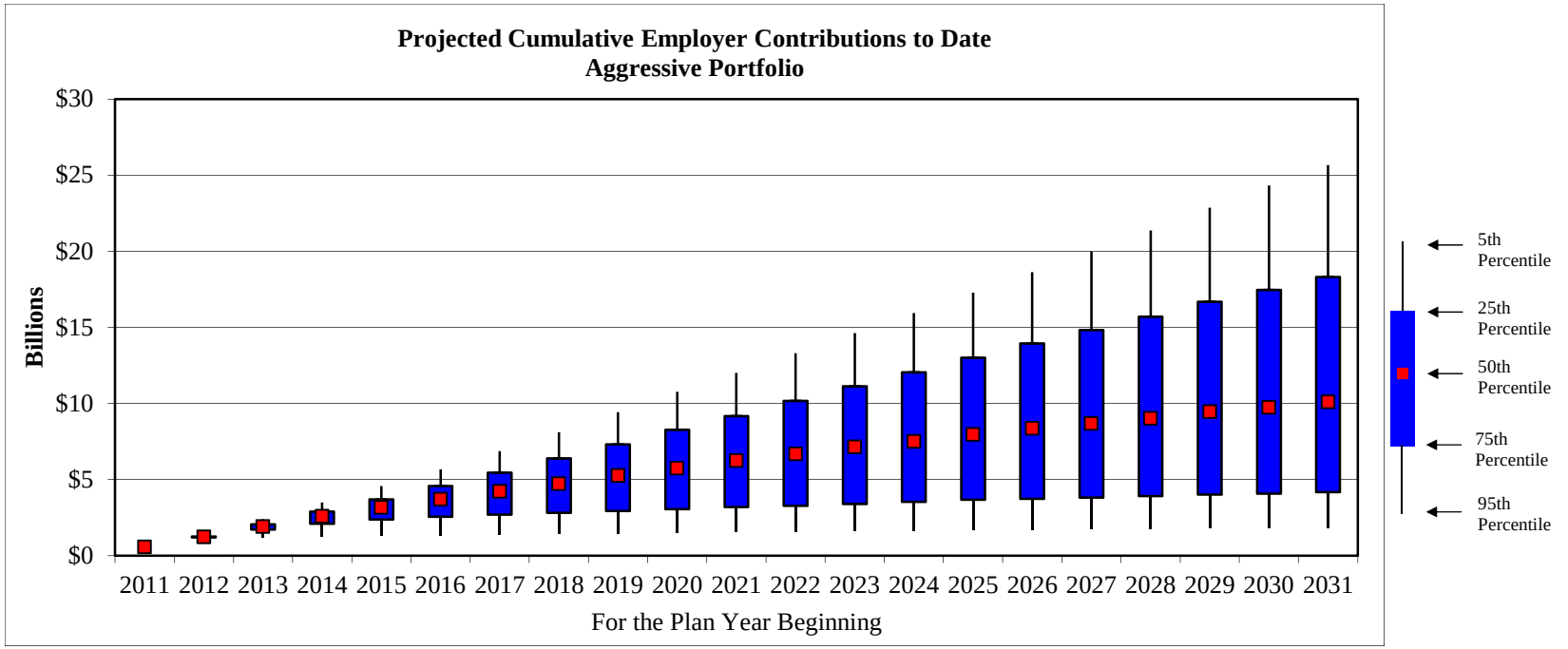
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.2	$3.3	$4.3	$5.4	$6.5	$7.7	$8.9	$10.1	$11.3	$12.6	$14.0	$15.2	$16.6	$17.8	$19.2	$20.6	$22.1	$23.4	$24.9
25th Percentile	$0.6	$1.3	$2.0	$2.8	$3.6	$4.4	$5.3	$6.2	$7.2	$8.1	$9.0	$9.9	$10.9	$11.9	$12.8	$13.8	$14.8	$15.7	$16.7	$17.6	$18.6
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.4	$4.9	$5.5	$6.1	$6.6	$7.2	$7.7	$8.3	$8.8	$9.3	$9.7	$10.1	$10.6	$11.0	$11.3
75th Percentile	$0.6	$1.2	$1.8	$2.3	$2.6	$2.9	$3.1	$3.3	$3.5	$3.6	$3.8	$3.9	$4.1	$4.2	$4.4	$4.6	$4.7	$4.8	$5.0	$5.1	$5.2
95th Percentile	$0.6	$1.1	$1.3	$1.5	$1.6	$1.6	$1.7	$1.8	$1.8	$1.9	$1.9	$2.0	$2.0	$2.0	$2.1	$2.1	$2.1	$2.1	$2.2	$2.2	$2.2

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Cumulative Employer Contributions to Date; Aggressive Portfolio

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Aggressive Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.4	$2.4	$3.5	$4.6	$5.7	$6.9	$8.1	$9.4	$10.8	$12.0	$13.3	$14.6	$15.9	$17.3	$18.6	$20.0	$21.4	$22.9	$24.3	$25.7
25th Percentile	$0.6	$1.3	$2.0	$2.9	$3.7	$4.6	$5.4	$6.4	$7.3	$8.3	$9.2	$10.2	$11.1	$12.0	$13.0	$13.9	$14.8	$15.7	$16.7	$17.5	$18.3
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.7	$4.2	$4.7	$5.3	$5.7	$6.2	$6.7	$7.1	$7.5	$8.0	$8.3	$8.7	$9.0	$9.4	$9.7	$10.1
75th Percentile	$0.6	$1.2	$1.7	$2.1	$2.4	$2.6	$2.7	$2.8	$2.9	$3.1	$3.2	$3.3	$3.4	$3.5	$3.7	$3.7	$3.8	$3.9	$4.0	$4.1	$4.2
95th Percentile	$0.6	$0.9	$1.2	$1.2	$1.3	$1.3	$1.4	$1.4	$1.5	$1.5	$1.5	$1.6	$1.6	$1.6	$1.7	$1.7	$1.7	$1.7	$1.8	$1.8	$1.8

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 1: Sensitivity Analysis: "Effect of Higher Volatility" (continued)

Drawing Inferences

The tables below compare the projected actuarial and market funded ratios five, ten, and twenty years from now, under the median (50th percentile), worst-case (5th percentile), and best-case (95th percentile) scenarios, assuming the six different asset mixes highlighted on the prior pages. The table also displays for comparative purposes the median, peak, and trough projected payout ratios and cumulative employer contributions assuming the same six asset mixes being examined.

5 Years	Actuarial Funded Ratio in Year 5			Market Funded Ratio in Year 5			Cumulative Employer Contributions in Year 5 (Billions)			Payout Ratios		
	50th	5th	95th	50th	5th	95th	50th	5th	95th	Year 5 Median	2011-2016 Peak	2011-2016 Trough
Target Allocation	63.1%	29.7%	139.5%	60.8%	20.5%	167.7%	$3.8	$5.3	$1.7	13.1%	40.3%	4.7%
Current Allocation	63.3%	29.0%	144.3%	61.2%	19.4%	171.1%	$3.8	$5.4	$1.6	12.9%	41.4%	4.6%
Conservative Portfolio	56.4%	42.4%	74.4%	52.3%	31.7%	83.5%	$4.1	$4.6	$3.4	15.3%	26.3%	9.3%
Potential Portfolio 1	62.6%	31.2%	129.8%	60.5%	21.7%	155.6%	$3.8	$5.2	$1.8	13.2%	37.9%	5.0%
Potential Portfolio 2	63.7%	29.3%	144.2%	61.9%	19.9%	170.8%	$3.8	$5.4	$1.6	13.0%	41.2%	4.6%
Aggressive Portfolio	66.4%	24.4%	191.6%	64.6%	16.3%	229.6%	$3.7	$5.7	$1.3	12.4%	49.3%	3.5%

10 Years	Actuarial Funded Ratio in Year 10			Market Funded Ratio in Year 10			Cumulative Employer Contributions in Year 10 (Billions)			Payout Ratios		
	50th	5th	95th	50th	5th	95th	50th	5th	95th	Year 10 Median	2011-2021 Peak	2011-2021 Trough
Target Allocation	67.7%	20.3%	258.7%	65.1%	15.4%	277.6%	$6.7	$11.3	$2.0	14.1%	60.5%	3.2%
Current Allocation	68.5%	19.7%	280.8%	65.8%	15.2%	299.7%	$6.7	$11.4	$1.9	14.0%	61.6%	3.0%
Conservative Portfolio	51.1%	27.6%	89.3%	45.6%	21.5%	93.7%	$8.1	$9.9	$5.3	20.3%	45.1%	9.0%
Potential Portfolio 1	66.7%	21.4%	228.5%	63.7%	16.4%	245.7%	$6.8	$11.1	$2.1	14.3%	56.0%	3.6%
Potential Portfolio 2	69.7%	20.0%	278.2%	66.8%	15.5%	301.8%	$6.6	$11.3	$1.9	13.9%	60.1%	3.1%
Aggressive Portfolio	74.9%	16.9%	430.8%	73.9%	12.6%	486.6%	$6.2	$12.0	$1.5	12.5%	72.9%	1.9%

20 Years	Actuarial Funded Ratio in Year 20			Market Funded Ratio in Year 20			Cumulative Employer Contributions in Year 20 (Billions)			Payout Ratios		
	50th	5th	95th	50th	5th	95th	50th	5th	95th	Year 20 Median	2011-2031 Peak	2011-2031 Trough
Target Allocation	87.4%	18.0%	1020.1%	86.2%	13.3%	1073.0%	$11.8	$24.8	$2.3	14.3%	95.4%	1.1%
Current Allocation	90.1%	17.4%	1155.4%	89.9%	13.2%	1170.5%	$11.5	$24.9	$2.2	13.8%	95.2%	1.0%
Conservative Portfolio	49.4%	23.7%	110.5%	44.4%	19.1%	111.0%	$18.1	$22.8	$8.2	28.1%	71.4%	9.0%
Potential Portfolio 1	83.4%	18.7%	846.9%	82.0%	14.2%	850.2%	$12.2	$24.5	$2.4	15.1%	90.0%	1.4%
Potential Portfolio 2	91.5%	18.1%	1135.0%	91.3%	13.7%	1171.8%	$11.3	$24.9	$2.2	13.6%	91.8%	1.0%
Aggressive Portfolio	118.3%	14.8%	2397.0%	117.1%	11.2%	2559.8%	$10.1	$25.7	$1.8	10.5%	>100%	0.4%

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations"

This section provides a sensitivity analysis of the original stochastic projections by assuming that all asset classes are perfectly positively correlated (i.e. correlation = 1.00). A correlation matrix reflecting these modified assumptions is provided below:

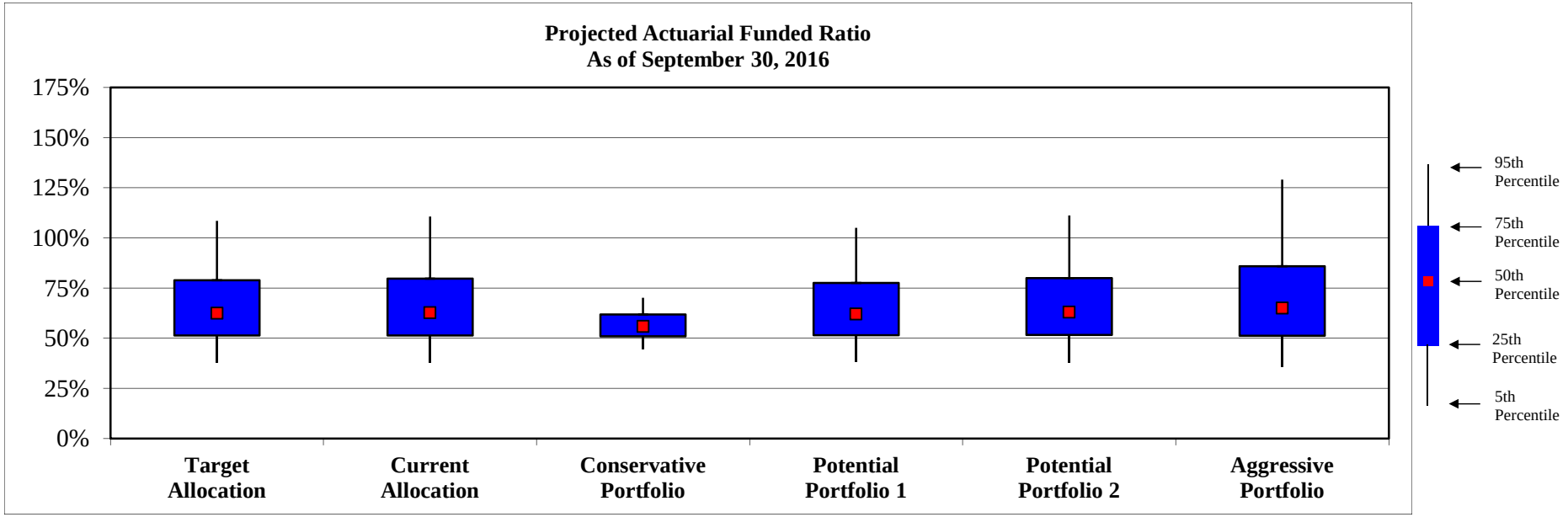
	Broad US Equity	Broad International Equity	Int. Duration Fixed Income	Diversified Infl Strat	Real Estate	Absolute Ret Mul Str FoF	Private Equity	Custom Infrastructure	Cash Equivalents
Broad US Equity	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Broad International Equity	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Int. Duration Fixed Income	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Diversified Infl Strat	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Real Estate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Absolute Ret Mul Str FoF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Private Equity	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Custom Infrastructure	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Cash Equivalents	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

RVK supports the recommendations based on the original assumptions shown in the Stochastic Analysis section of this report. However, this stress-testing illustrates that converging correlations across capital markets does not change the asset allocation recommendations, based on the current status of the Plan. Instead it simply widens the range of potential results, indicating higher risk for all asset mixes given the dampened effects of total fund diversification.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Actuarial Funded Ratio (actuarial value of assets/actuarial accrued liability); **5 Years**

The graph below shows the distribution of possible actuarial funded ratios five years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



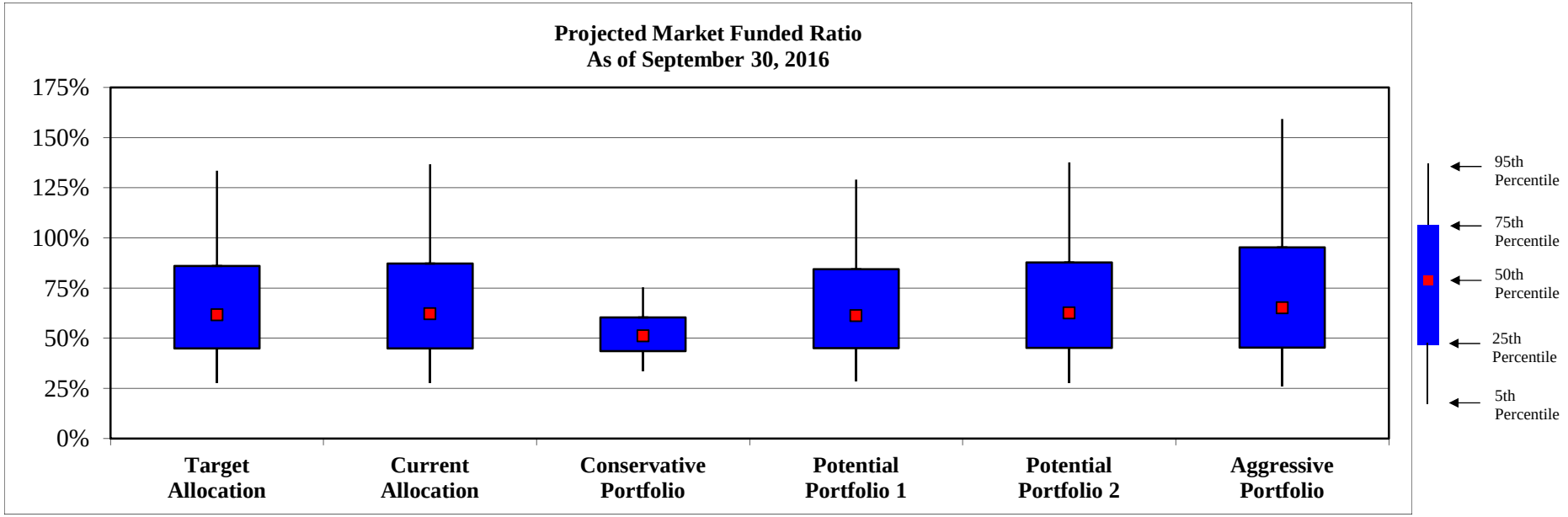
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$9.6	37.8%	$9.6	37.6%	$8.6	44.6%	$9.5	38.5%	$9.6	37.7%	$9.9	35.6%
25th Percentile	$7.7	51.4%	$7.7	51.4%	$7.8	50.9%	$7.7	51.5%	$7.7	51.6%	$7.7	51.3%
50th Percentile	$6.0	62.5%	$6.0	62.8%	$7.1	55.9%	$6.1	62.1%	$5.9	63.0%	$5.6	65.0%
75th Percentile	$3.4	78.8%	$3.3	79.7%	$6.3	61.8%	$3.7	77.5%	$3.3	80.0%	$2.3	85.8%
95th Percentile	($1.4)	108.5%	($1.8)	110.7%	$5.0	70.1%	($0.8)	105.0%	($1.9)	111.2%	($4.9)	129.1%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Market Funded Ratio (market value of assets/actuarial accrued liability); **5 Years**

The graph below shows the distribution of possible market funded ratios five years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



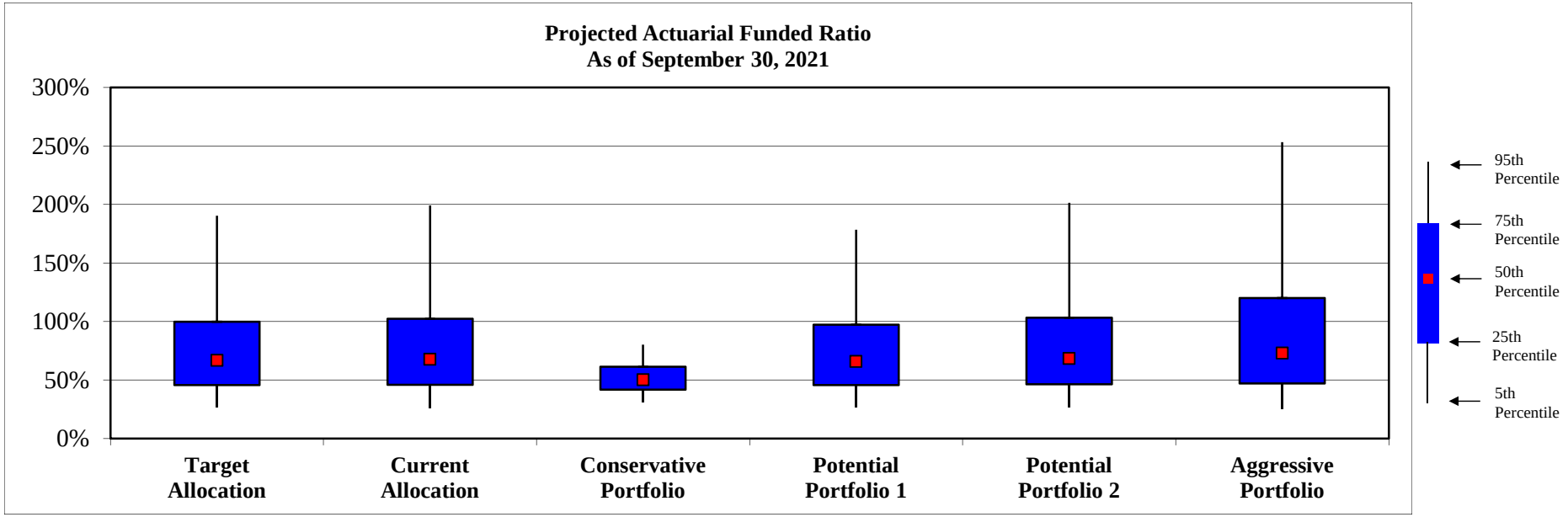
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$11.1	27.8%	$11.2	27.6%	$10.2	34.0%	$11.1	28.3%	$11.1	27.8%	$11.4	26.2%
25th Percentile	$8.7	44.9%	$8.7	45.0%	$8.9	43.5%	$8.7	45.0%	$8.6	45.2%	$8.6	45.4%
50th Percentile	$6.2	61.7%	$6.1	62.1%	$7.8	51.2%	$6.2	61.2%	$6.0	62.5%	$5.6	65.2%
75th Percentile	$2.3	86.0%	$2.1	87.2%	$6.5	60.3%	$2.6	84.3%	$2.0	87.7%	$0.8	95.3%
95th Percentile	($5.7)	133.5%	($6.2)	136.7%	$4.2	75.4%	($4.9)	129.1%	($6.4)	137.6%	($10.0)	159.2%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Actuarial Funded Ratio (actuarial value of assets/actuarial accrued liability); **10 Years**

The graph below shows the distribution of possible actuarial funded ratios ten years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



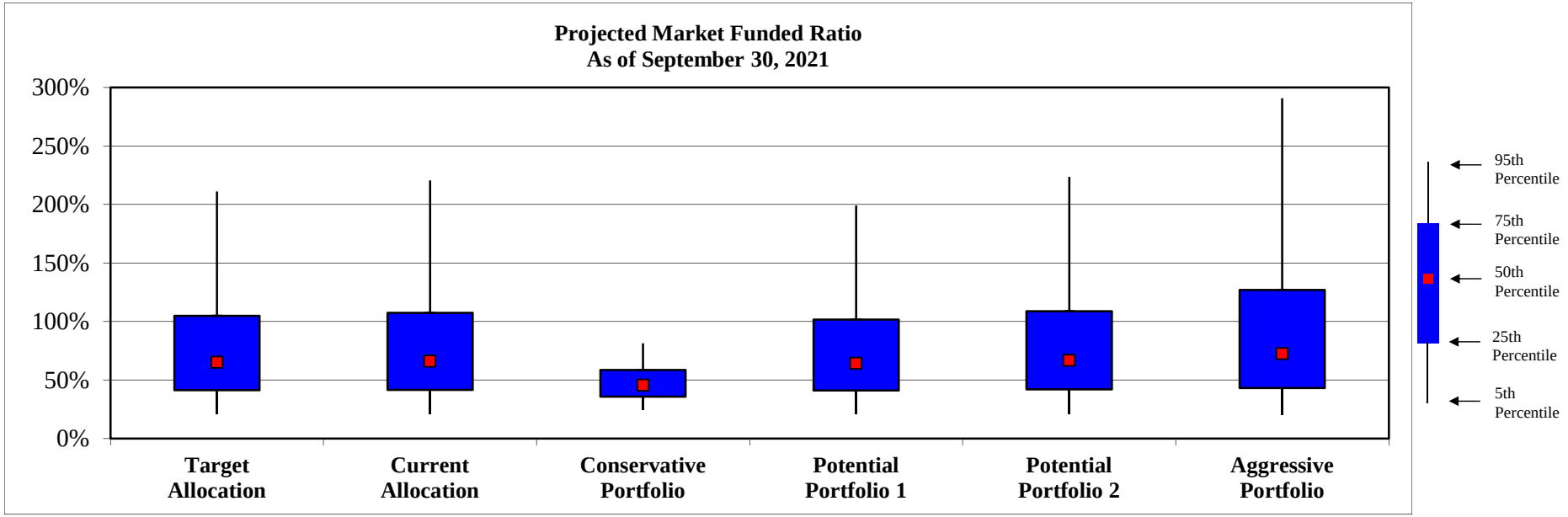
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$10.8	26.4%	$10.8	26.2%	$10.1	31.2%	$10.7	26.7%	$10.8	26.4%	$10.9	25.2%
25th Percentile	$8.2	45.7%	$8.2	45.9%	$8.8	41.8%	$8.2	45.7%	$8.1	46.3%	$8.0	47.1%
50th Percentile	$5.2	66.8%	$5.1	67.7%	$7.8	50.2%	$5.4	65.8%	$5.0	68.3%	$4.2	73.0%
75th Percentile	$0.0	99.8%	($0.4)	102.2%	$6.2	61.3%	$0.4	97.3%	($0.5)	103.3%	($3.2)	120.0%
95th Percentile	($15.3)	190.4%	($16.6)	199.2%	$3.3	80.2%	($13.3)	178.4%	($17.0)	201.5%	($26.0)	253.3%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Market Funded Ratio (market value of assets/actuarial accrued liability); **10 Years**

The graph below shows the distribution of possible market funded ratios ten years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



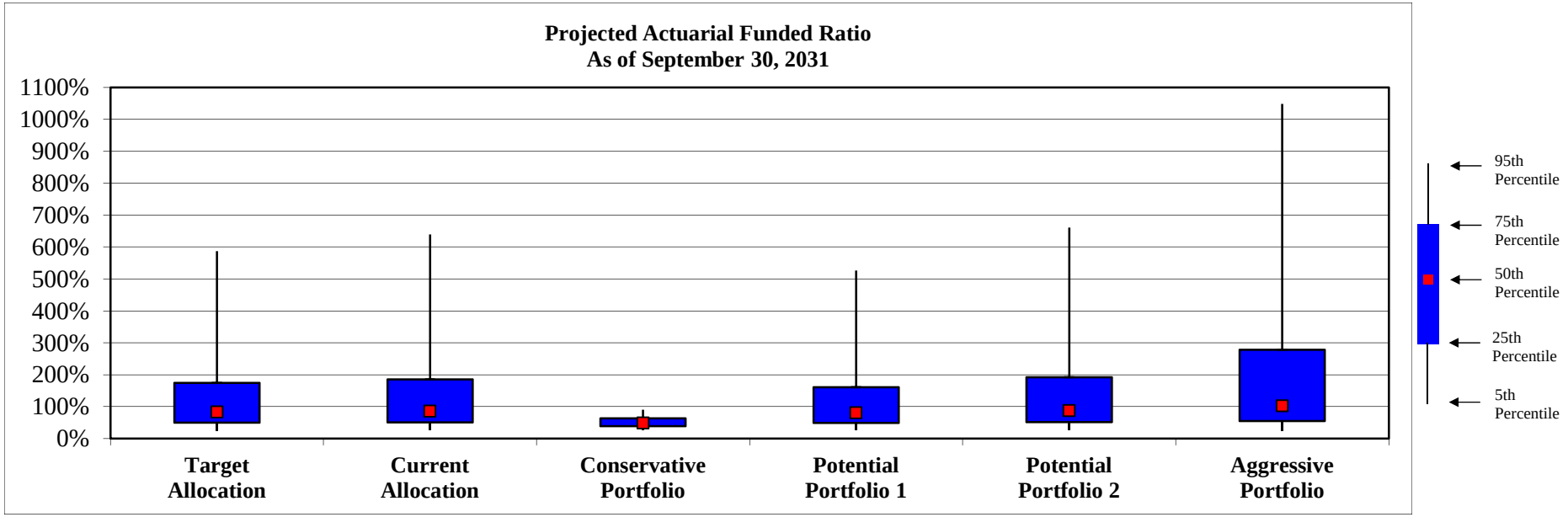
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$11.6	20.8%	$11.6	20.6%	$11.1	24.4%	$11.5	21.1%	$11.6	20.9%	$11.7	19.9%
25th Percentile	$8.9	41.3%	$8.9	41.6%	$9.7	35.7%	$8.9	41.2%	$8.8	42.1%	$8.7	43.2%
50th Percentile	$5.4	65.3%	$5.3	66.2%	$8.5	45.7%	$5.6	64.3%	$5.1	66.9%	$4.3	72.5%
75th Percentile	($0.8)	104.8%	($1.2)	107.3%	$6.7	58.5%	($0.3)	101.6%	($1.4)	108.7%	($4.3)	126.9%
95th Percentile	($18.8)	211.1%	($20.4)	220.5%	$3.1	81.5%	($16.8)	199.1%	($20.9)	223.6%	($32.2)	290.7%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Actuarial Funded Ratio (actuarial value of assets/actuarial accrued liability); **20 Years**

The graph below shows the distribution of possible actuarial funded ratios twenty years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



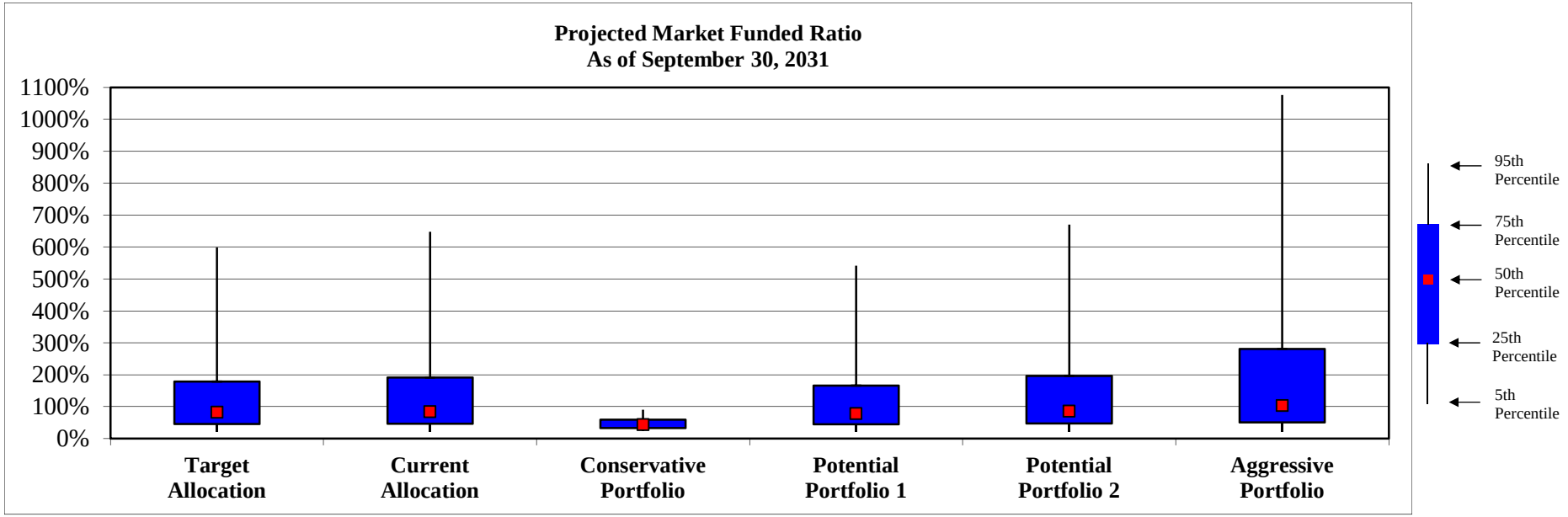
	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$7.9	25.1%	$7.9	25.2%	$7.7	27.8%	$7.9	25.5%	$7.9	25.3%	$7.9	24.6%
25th Percentile	$5.6	49.7%	$5.5	50.2%	$6.8	38.2%	$5.6	49.1%	$5.4	51.0%	$4.9	54.7%
50th Percentile	$1.9	83.3%	$1.7	85.3%	$5.9	48.3%	$2.2	80.7%	$1.5	87.2%	($0.2)	102.0%
75th Percentile	($8.8)	174.8%	($10.2)	185.5%	$4.5	62.7%	($7.3)	161.1%	($11.1)	192.4%	($21.3)	277.8%
95th Percentile	($63.2)	586.7%	($69.6)	638.7%	$1.3	89.9%	($55.0)	526.5%	($72.2)	660.8%	($121.1)	1047.9%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Market Funded Ratio (market value of assets/actuarial accrued liability); **20 Years**

The graph below shows the distribution of possible market funded ratios twenty years from now, assuming the six different asset mixes highlighted on the prior pages. The results assume the current contribution policy remains unchanged for all projection years.



	Target Allocation		Current Allocation		Conservative Portfolio		Potential Portfolio 1		Potential Portfolio 2		Aggressive Portfolio	
	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio	Unfunded Liability (Bil)	Funded Ratio
5th Percentile	$8.5	20.1%	$8.5	20.1%	$8.3	22.5%	$8.4	20.6%	$8.4	20.5%	$8.5	19.9%
25th Percentile	$6.0	45.3%	$6.0	46.1%	$7.4	32.7%	$6.1	44.9%	$5.8	47.0%	$5.4	50.6%
50th Percentile	$2.1	81.6%	$1.8	83.9%	$6.5	43.3%	$2.5	78.2%	$1.6	85.8%	($0.3)	103.0%
75th Percentile	($9.4)	178.8%	($11.0)	191.1%	$4.9	59.1%	($7.8)	166.0%	($11.6)	196.2%	($21.7)	281.1%
95th Percentile	($64.5)	598.8%	($70.4)	647.6%	$1.2	90.3%	($56.7)	541.6%	($73.2)	670.6%	($124.9)	1076.0%

Percentiles indicate the probability of achieving a Funded Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Funded Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Market Funded Ratio and Maximum 1 Year Investment Loss (market value of assets/actuarial accrued liability)

The tables below show the probability that the Plan will be at various funding levels for each of the six different asset mixes highlighted on the prior pages. The tables also illustrate the maximum 1 year investment loss each portfolio is expected to experience during the given time period. The results assume the current contribution policy remains unchanged for all projection years.

5 Years	Probability of Full Funding in 2016	Probability of less than 56% Funding in 2016	Probability of 0% Funding in 2016	Maximum 1 Year Portfolio Investment Loss
Target Allocation	16%	42%	0%	-47%
Current Allocation	17%	41%	0%	-48%
Conservative Portfolio	0%	63%	0%	-24%
Potential Portfolio 1	15%	42%	0%	-45%
Potential Portfolio 2	17%	41%	0%	-47%
Aggressive Portfolio	22%	39%	0%	-52%

10 Years	Probability of Full Funding in 2021	Probability of less than 56% Funding in 2021	Probability of 0% Funding in 2021	Maximum 1 Year Portfolio Investment Loss
Target Allocation	27%	41%	0%	-52%
Current Allocation	28%	40%	0%	-53%
Conservative Portfolio	1%	71%	0%	-28%
Potential Portfolio 1	26%	41%	0%	-51%
Potential Portfolio 2	29%	39%	0%	-53%
Aggressive Portfolio	34%	37%	0%	-58%

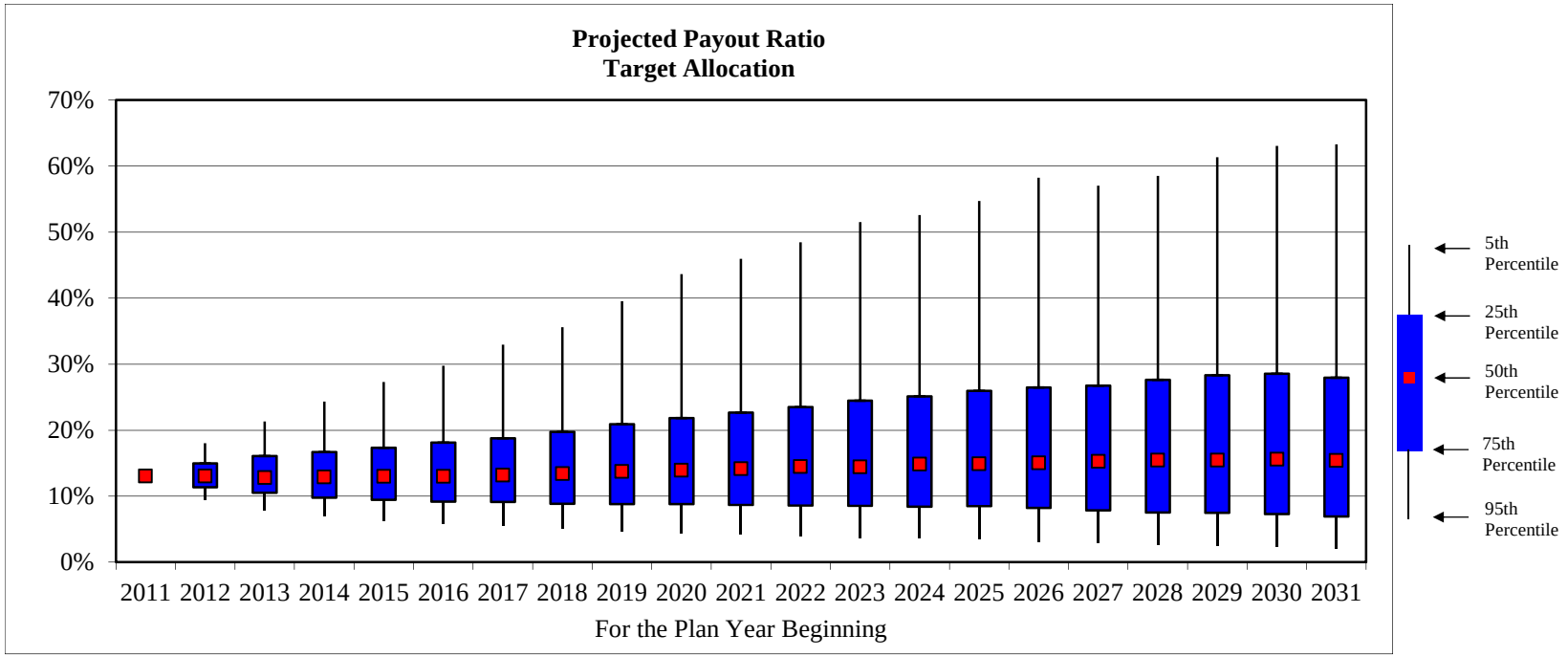
20 Years	Probability of Full Funding in 2031	Probability of less than 56% Funding in 2031	Probability of 0% Funding in 2031	Maximum 1 Year Portfolio Investment Loss
Target Allocation	42%	33%	0%	-52%
Current Allocation	43%	32%	0%	-53%
Conservative Portfolio	3%	71%	0%	-28%
Potential Portfolio 1	41%	34%	0%	-51%
Potential Portfolio 2	45%	31%	0%	-53%
Aggressive Portfolio	51%	28%	0%	-58%

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Target Allocation**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Target Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.8% and 15.6%. The worst-case scenario could reach 63% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.1%	12.8%	12.9%	13.0%	13.0%	13.2%	13.4%	13.8%	14.0%	14.2%	14.5%	14.4%	14.8%	14.9%	15.0%	15.3%	15.4%	15.5%	15.6%	15.4%

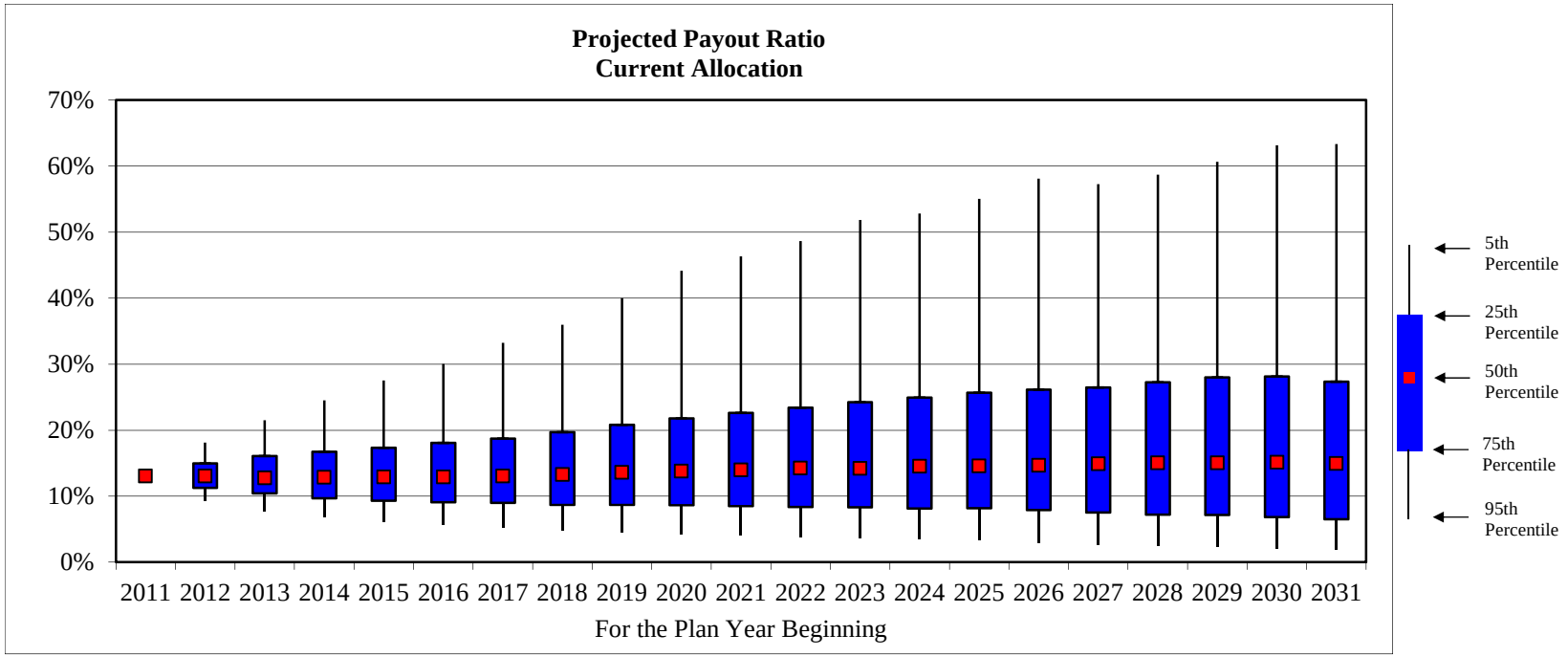
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Current Allocation**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Current Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.8% and 15.1%. The worst-case scenario could reach 63% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.1%	12.8%	12.9%	12.9%	12.9%	13.1%	13.3%	13.6%	13.8%	14.0%	14.2%	14.2%	14.5%	14.6%	14.7%	14.9%	15.1%	15.1%	15.1%	15.0%

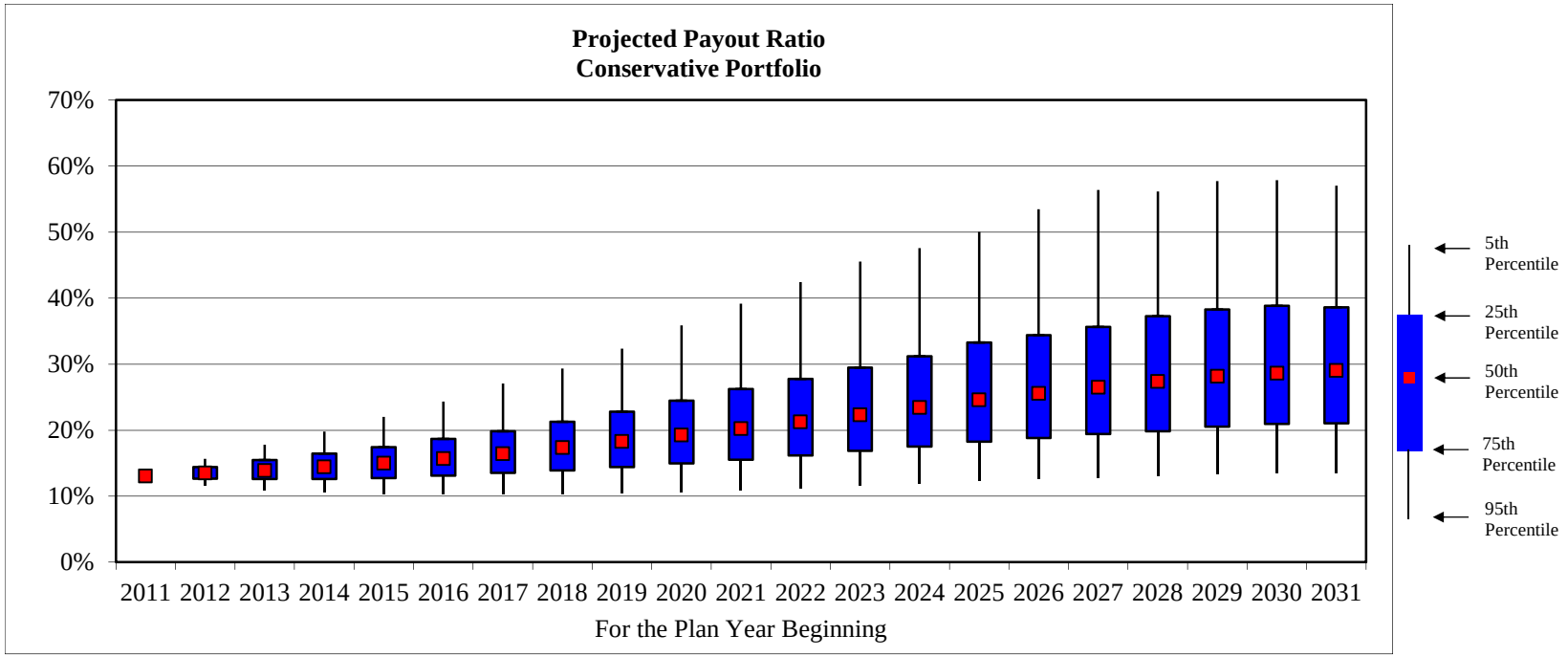
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Conservative Portfolio**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Conservative Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 13.0% and 29.0%. The worst-case scenario could reach 58% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.5%	13.9%	14.4%	15.0%	15.7%	16.4%	17.4%	18.3%	19.2%	20.2%	21.3%	22.3%	23.4%	24.6%	25.6%	26.5%	27.4%	28.1%	28.6%	29.0%

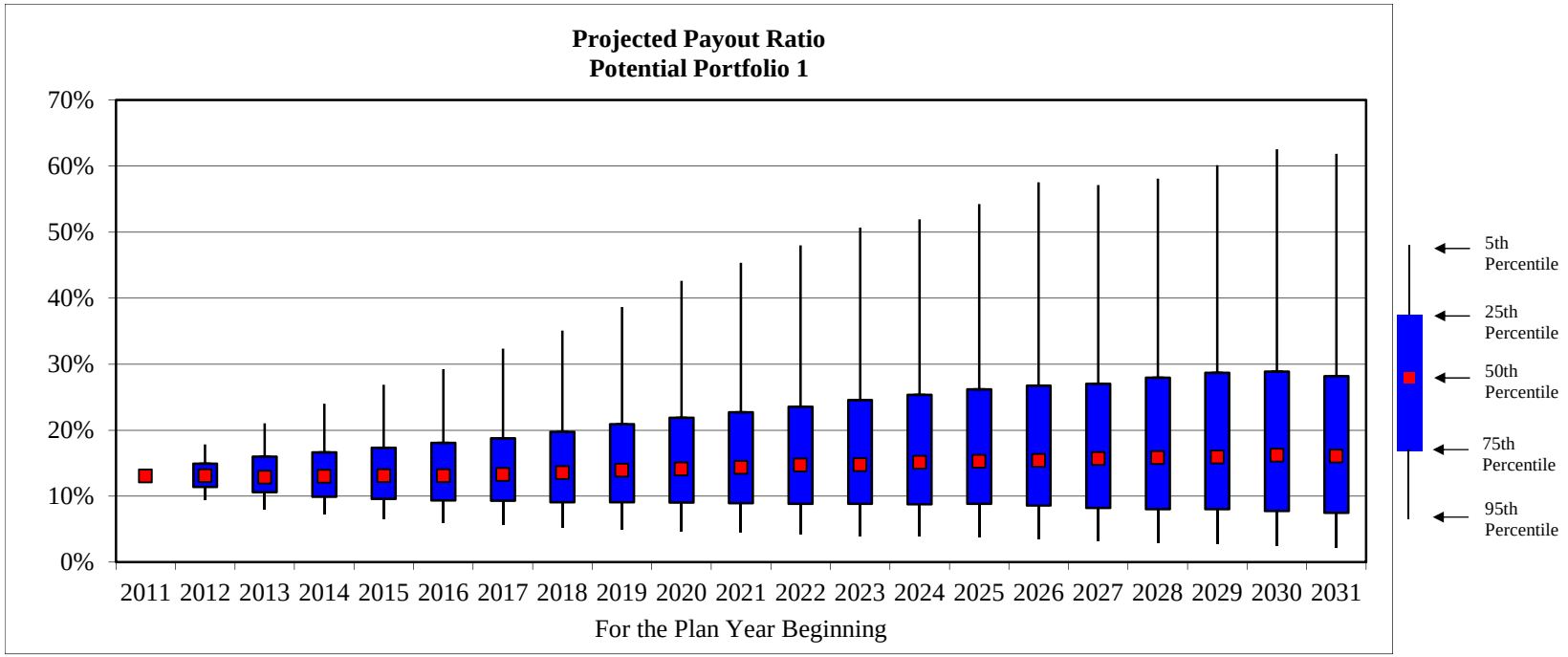
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Potential Portfolio 1**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 1 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.9% and 16.2%. The worst-case scenario could reach 63% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.1%	12.9%	13.0%	13.1%	13.1%	13.3%	13.6%	13.9%	14.1%	14.4%	14.7%	14.8%	15.1%	15.3%	15.4%	15.7%	15.9%	15.9%	16.2%	16.1%

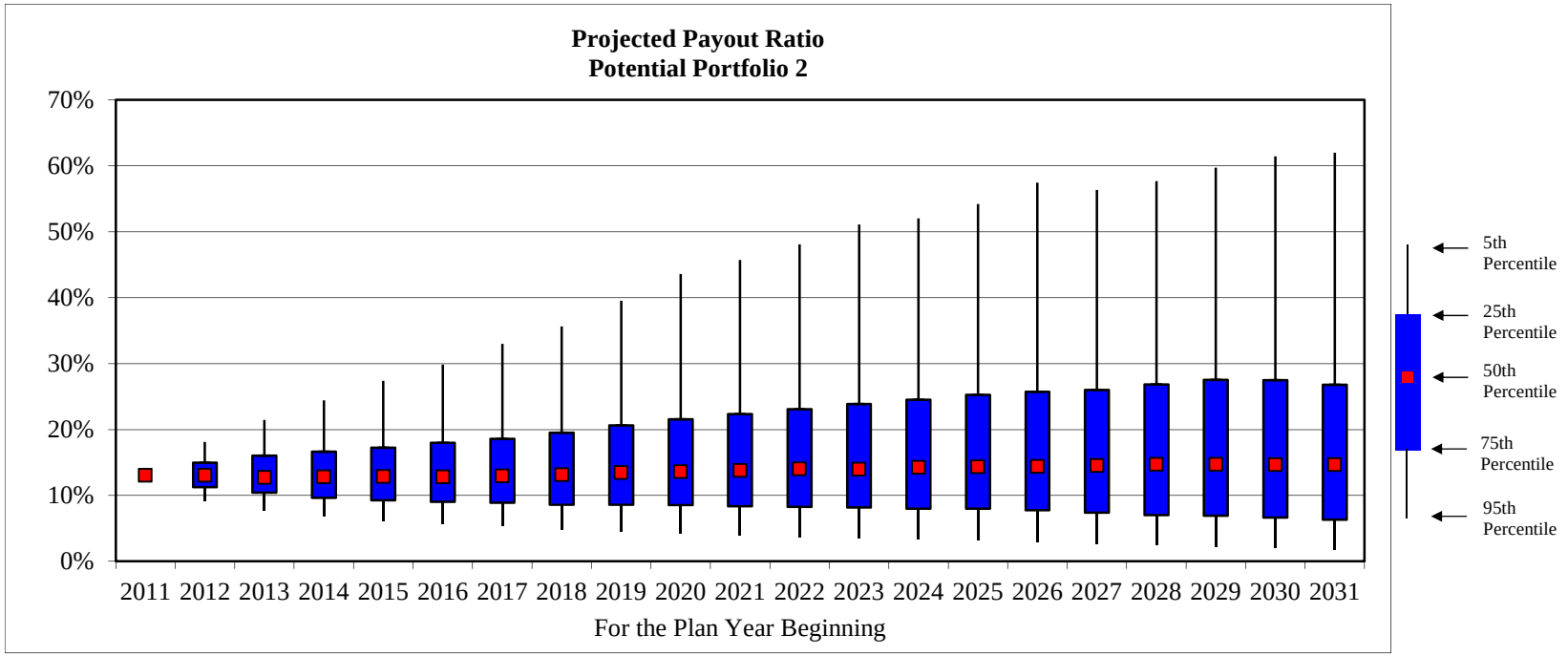
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Potential Portfolio 2**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 2 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.7% and 14.7%. The worst-case scenario could reach 62% or higher.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	13.0%	12.7%	12.8%	12.9%	12.8%	13.0%	13.1%	13.5%	13.6%	13.8%	14.0%	14.0%	14.3%	14.4%	14.4%	14.6%	14.7%	14.7%	14.7%	14.7%

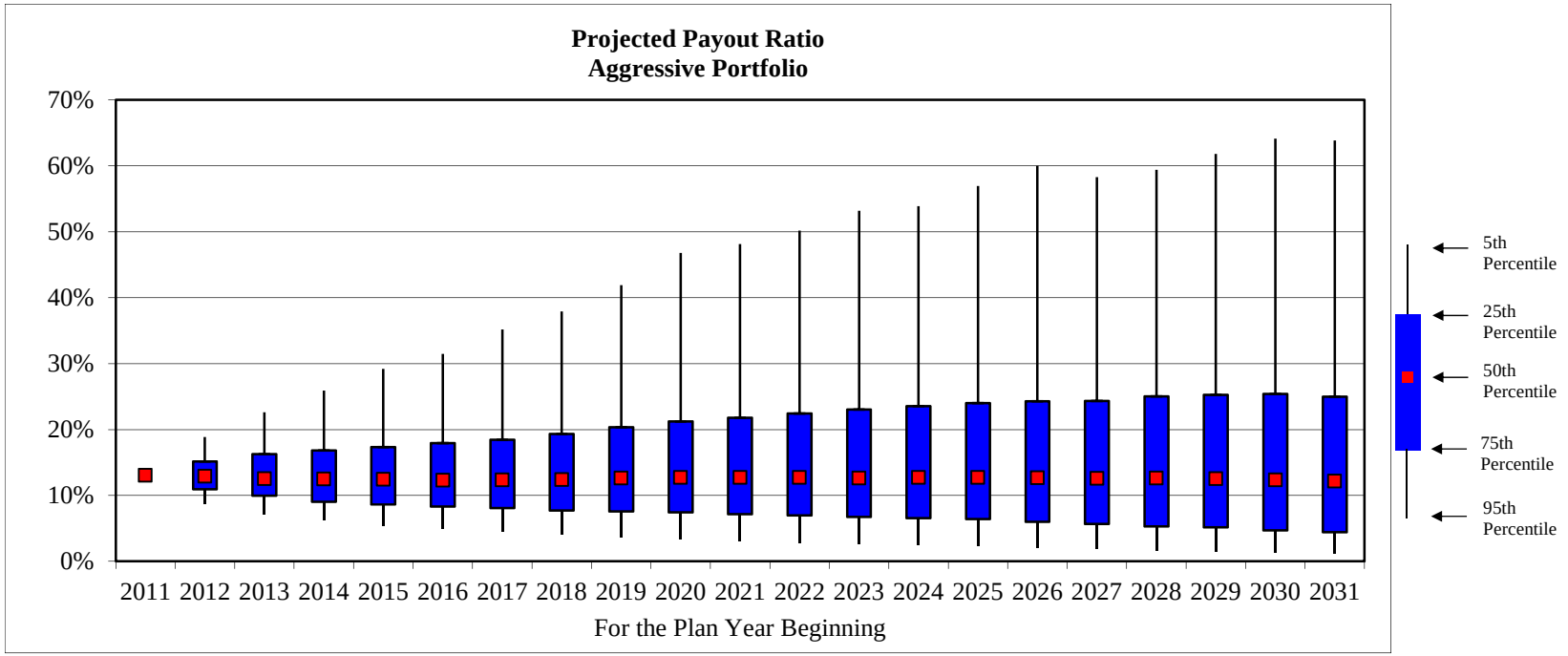
Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Projected Payout Ratio (expected benefit payments/market value of assets); **Aggressive Portfolio**

The graph below displays the range of possible payout ratios over the next twenty years, assuming the Plan's assets are allocated according to the Aggressive Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.

The annual median benefit payment as percentage of market value of assets is expected to range between 12.2% and 13.0%. The worst-case scenario could reach 64% or higher.



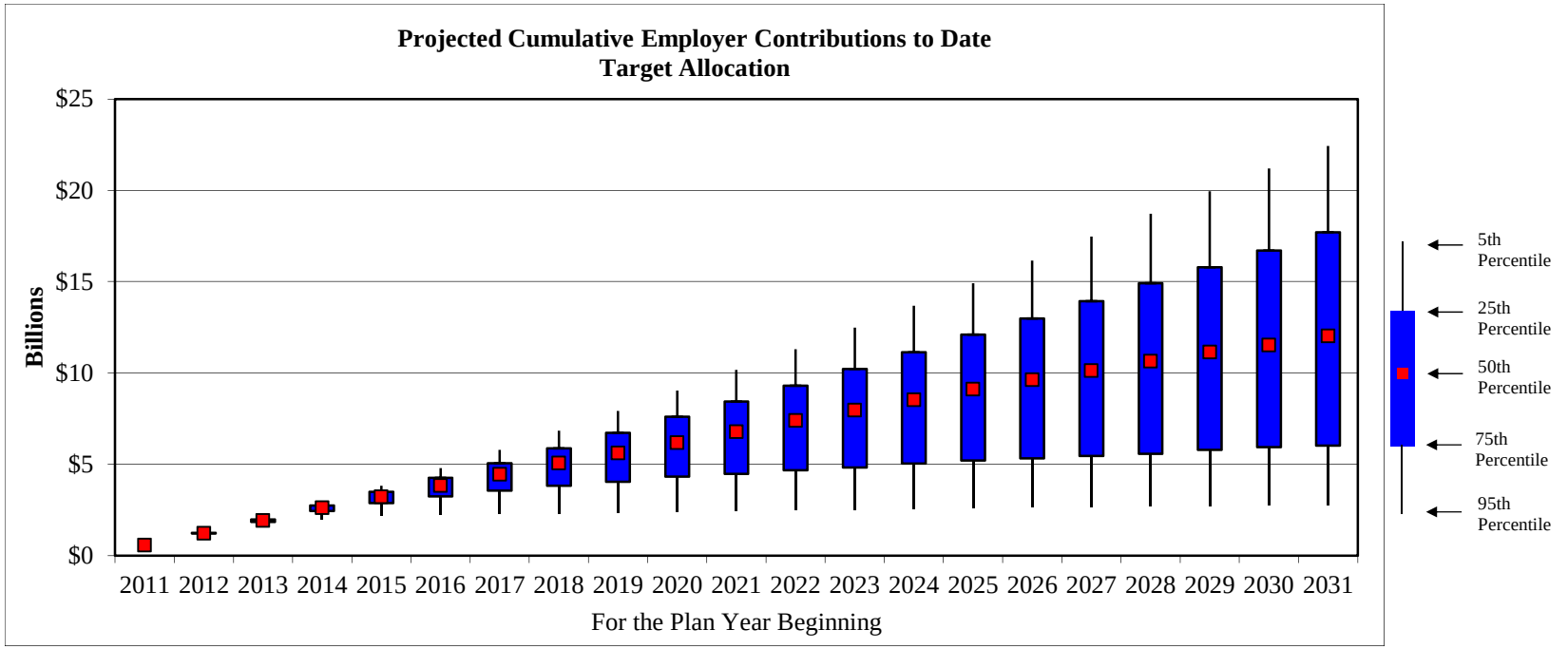
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Median	13.0%	12.9%	12.5%	12.5%	12.5%	12.3%	12.3%	12.4%	12.6%	12.7%	12.7%	12.7%	12.7%	12.7%	12.7%	12.7%	12.6%	12.6%	12.5%	12.4%	12.2%

Percentiles indicate the probability of achieving a Payout Ratio higher or lower than the corresponding ratio. For instance, the 50th percentile indicates that 50% of the time the Plan can expect a Payout Ratio lower than the ratio shown, and 50% of the time a higher ratio can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Cumulative Employer Contributions to Date; Target Allocation

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Target Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



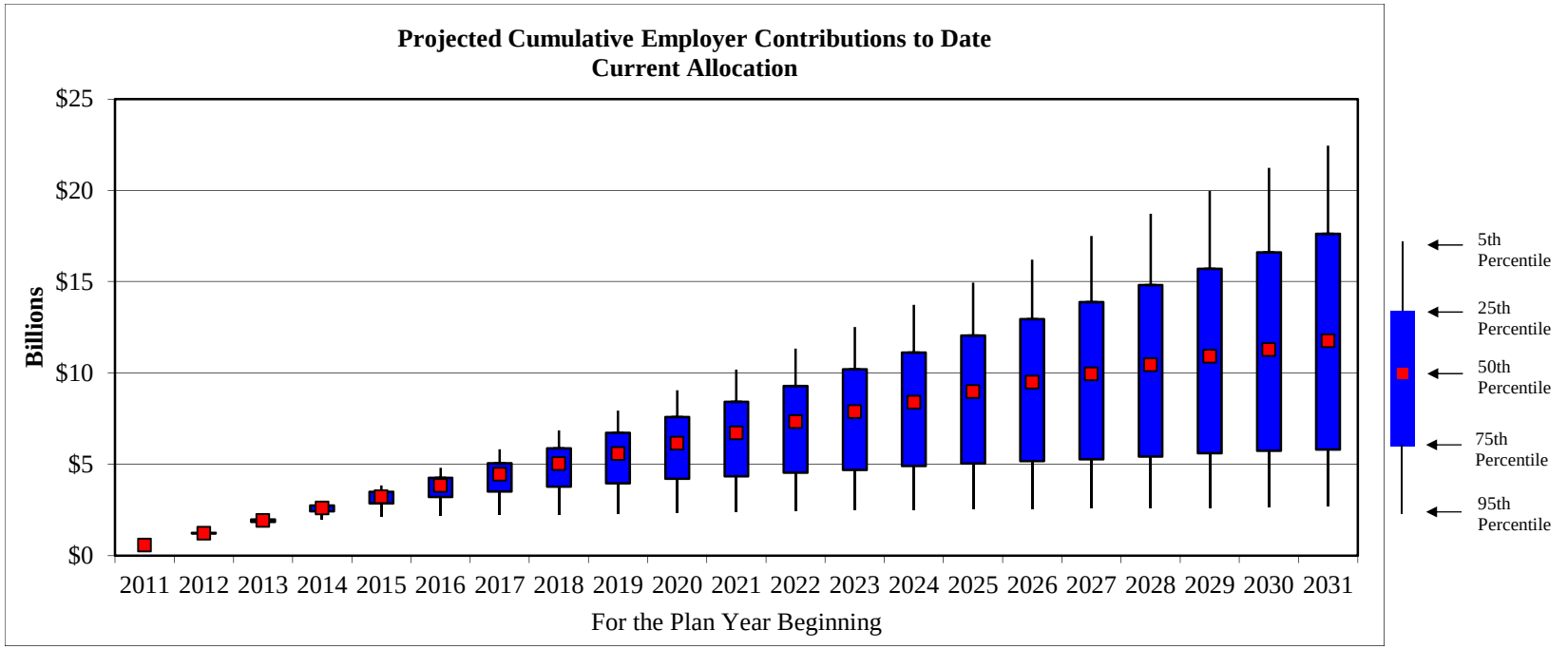
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.0	$2.9	$3.8	$4.8	$5.8	$6.8	$7.9	$9.0	$10.2	$11.3	$12.5	$13.7	$14.9	$16.2	$17.5	$18.7	$20.0	$21.2	$22.4
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.5	$4.3	$5.1	$5.9	$6.7	$7.6	$8.4	$9.3	$10.2	$11.1	$12.1	$13.0	$13.9	$14.9	$15.8	$16.7	$17.7
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.5	$5.1	$5.6	$6.2	$6.8	$7.4	$8.0	$8.5	$9.1	$9.6	$10.1	$10.6	$11.1	$11.5	$12.0
75th Percentile	$0.6	$1.2	$1.8	$2.4	$2.9	$3.2	$3.6	$3.8	$4.0	$4.3	$4.5	$4.7	$4.8	$5.0	$5.2	$5.3	$5.5	$5.6	$5.8	$5.9	$6.0
95th Percentile	$0.6	$1.2	$1.7	$2.0	$2.2	$2.2	$2.3	$2.3	$2.3	$2.4	$2.4	$2.5	$2.5	$2.6	$2.6	$2.6	$2.7	$2.7	$2.7	$2.7	$2.8

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Cumulative Employer Contributions to Date; Current Allocation

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Current Allocation (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



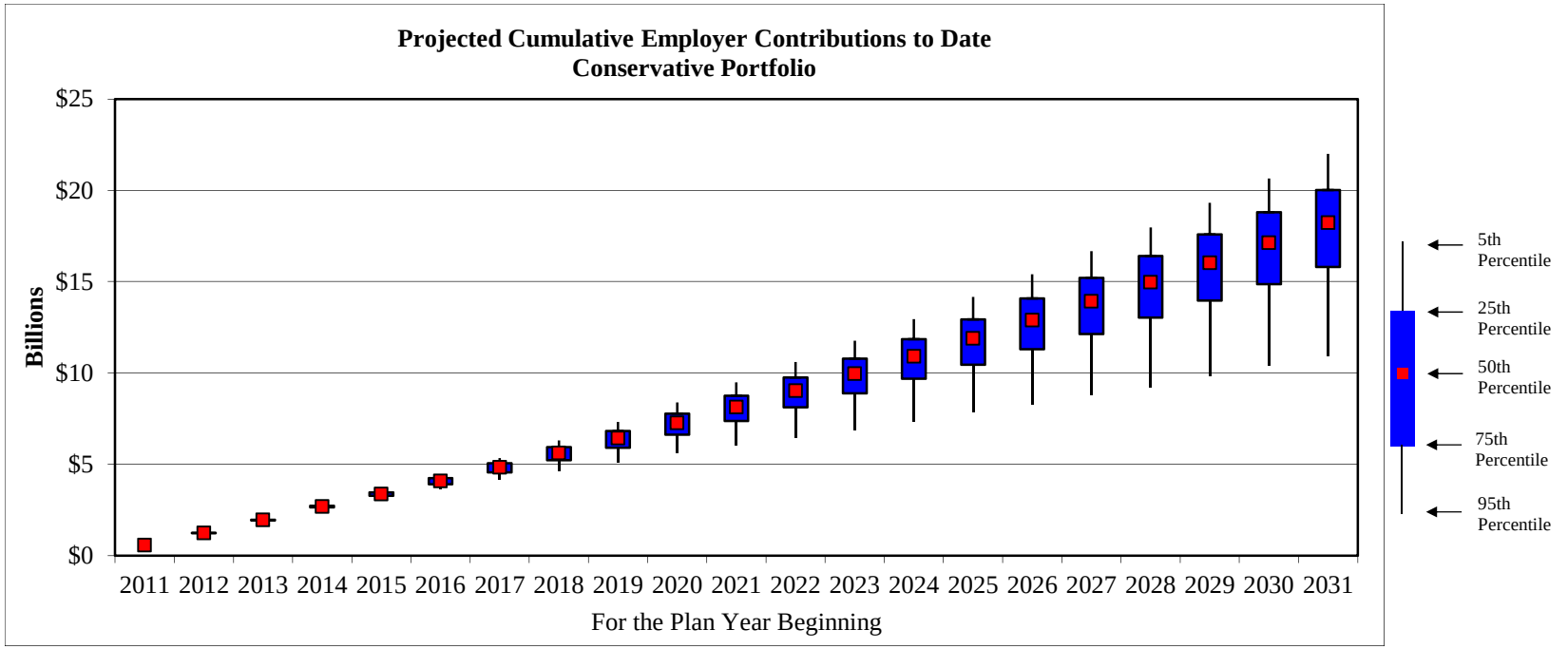
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.1	$2.9	$3.8	$4.8	$5.8	$6.9	$7.9	$9.1	$10.2	$11.3	$12.5	$13.7	$14.9	$16.2	$17.5	$18.7	$20.0	$21.2	$22.4
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.5	$4.3	$5.1	$5.9	$6.7	$7.6	$8.4	$9.3	$10.2	$11.1	$12.0	$12.9	$13.9	$14.8	$15.7	$16.6	$17.6
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.4	$5.0	$5.6	$6.1	$6.7	$7.3	$7.9	$8.4	$9.0	$9.5	$9.9	$10.4	$10.9	$11.3	$11.7
75th Percentile	$0.6	$1.2	$1.8	$2.4	$2.9	$3.2	$3.5	$3.8	$4.0	$4.2	$4.3	$4.5	$4.7	$4.9	$5.0	$5.2	$5.3	$5.4	$5.6	$5.7	$5.8
95th Percentile	$0.6	$1.2	$1.6	$2.0	$2.1	$2.2	$2.2	$2.3	$2.3	$2.3	$2.4	$2.4	$2.5	$2.5	$2.5	$2.6	$2.6	$2.6	$2.6	$2.7	$2.7

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Cumulative Employer Contributions to Date; Conservative Portfolio

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Conservative Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



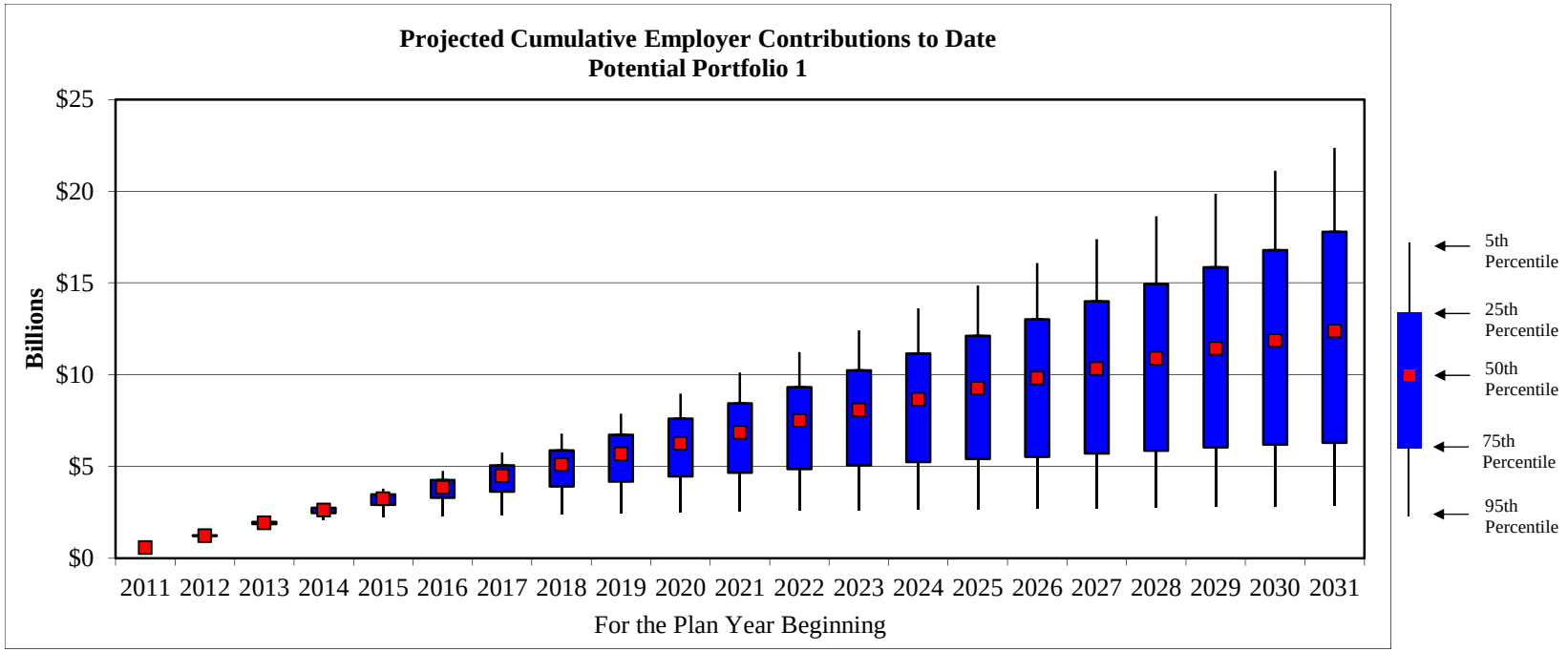
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.2	$2.0	$2.8	$3.6	$4.4	$5.3	$6.3	$7.3	$8.4	$9.5	$10.6	$11.8	$12.9	$14.2	$15.4	$16.7	$18.0	$19.3	$20.7	$22.0
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.5	$4.2	$5.1	$5.9	$6.8	$7.8	$8.8	$9.7	$10.8	$11.8	$12.9	$14.1	$15.2	$16.4	$17.6	$18.8	$20.0
50th Percentile	$0.6	$1.2	$1.9	$2.7	$3.4	$4.1	$4.8	$5.6	$6.4	$7.3	$8.1	$9.0	$9.9	$10.9	$11.9	$12.9	$13.9	$15.0	$16.0	$17.1	$18.2
75th Percentile	$0.6	$1.2	$1.9	$2.6	$3.3	$3.9	$4.6	$5.2	$5.9	$6.6	$7.4	$8.1	$8.9	$9.7	$10.5	$11.3	$12.1	$13.0	$13.9	$14.9	$15.8
95th Percentile	$0.6	$1.2	$1.9	$2.6	$3.1	$3.6	$4.1	$4.6	$5.1	$5.6	$6.0	$6.5	$6.9	$7.3	$7.8	$8.2	$8.8	$9.2	$9.8	$10.4	$10.9

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Cumulative Employer Contributions to Date; Potential Portfolio 1

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 1 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



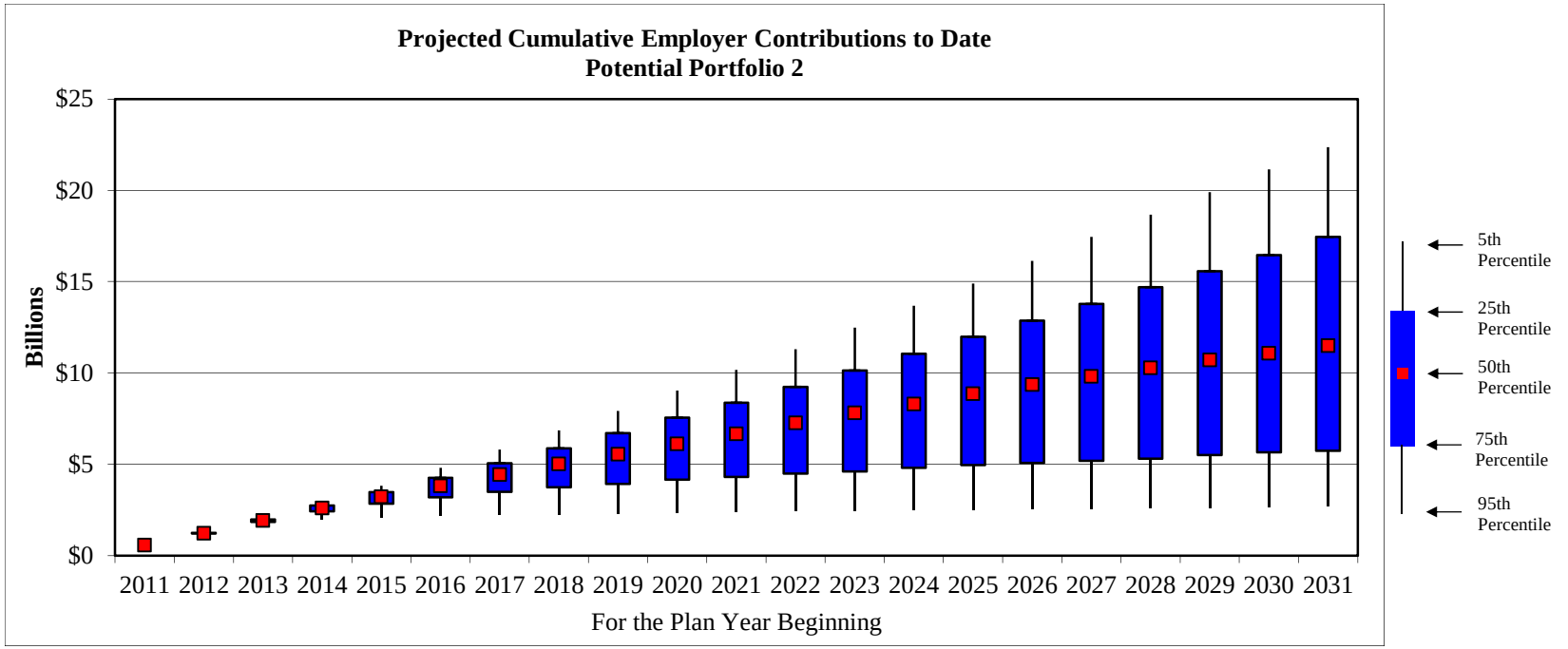
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.0	$2.9	$3.8	$4.7	$5.8	$6.8	$7.9	$9.0	$10.1	$11.2	$12.4	$13.6	$14.8	$16.1	$17.4	$18.6	$19.9	$21.1	$22.4
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.5	$4.2	$5.1	$5.9	$6.7	$7.6	$8.4	$9.3	$10.2	$11.1	$12.1	$13.0	$14.0	$14.9	$15.9	$16.8	$17.8
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.5	$5.1	$5.7	$6.2	$6.8	$7.5	$8.1	$8.6	$9.3	$9.8	$10.3	$10.9	$11.4	$11.9	$12.4
75th Percentile	$0.6	$1.2	$1.9	$2.5	$2.9	$3.3	$3.6	$3.9	$4.2	$4.5	$4.7	$4.8	$5.1	$5.2	$5.4	$5.5	$5.7	$5.9	$6.0	$6.2	$6.3
95th Percentile	$0.6	$1.2	$1.7	$2.1	$2.2	$2.3	$2.3	$2.4	$2.4	$2.5	$2.5	$2.6	$2.6	$2.6	$2.7	$2.7	$2.7	$2.8	$2.8	$2.8	$2.8

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Cumulative Employer Contributions to Date; Potential Portfolio 2

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to Potential Portfolio 2 (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



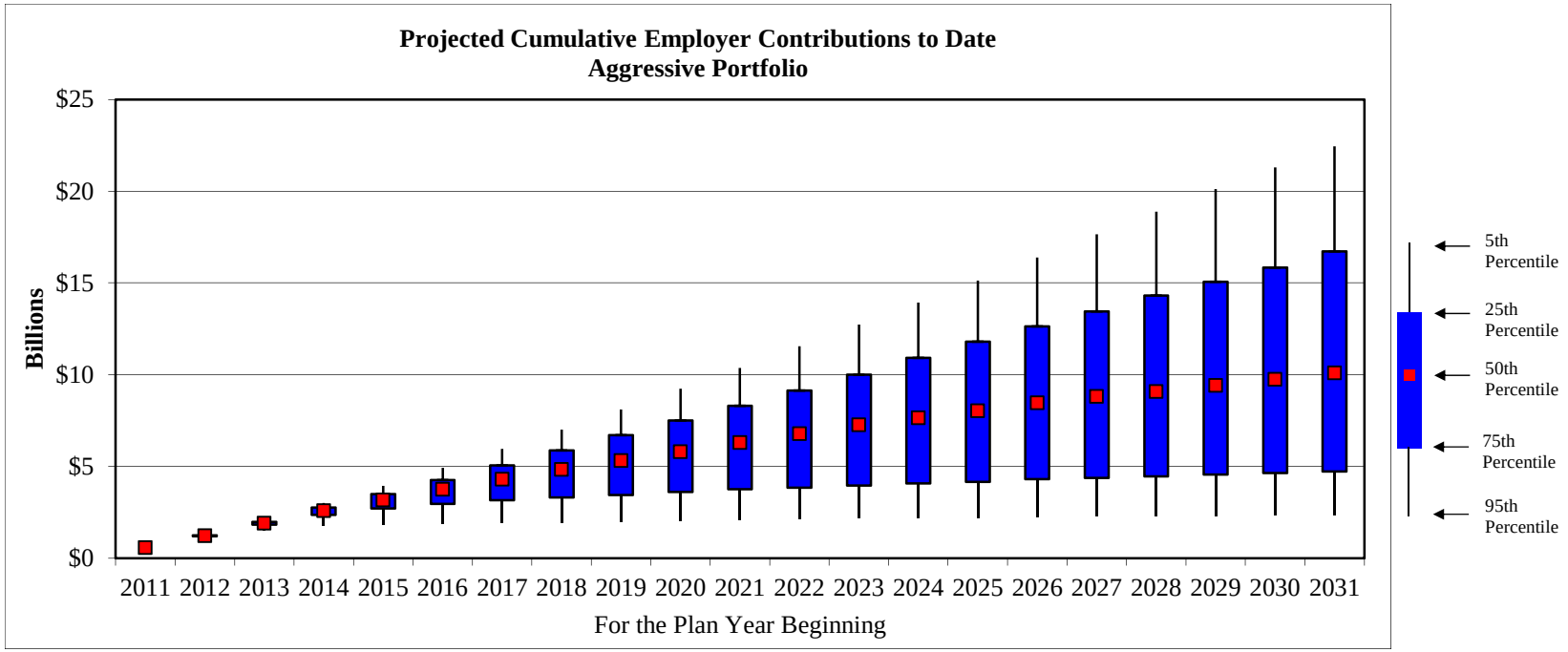
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.0	$2.9	$3.8	$4.8	$5.8	$6.8	$7.9	$9.0	$10.2	$11.3	$12.5	$13.7	$14.9	$16.1	$17.4	$18.7	$19.9	$21.1	$22.4
25th Percentile	$0.6	$1.2	$2.0	$2.7	$3.5	$4.2	$5.0	$5.9	$6.7	$7.6	$8.4	$9.2	$10.1	$11.0	$12.0	$12.9	$13.8	$14.7	$15.6	$16.5	$17.5
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.8	$4.4	$5.0	$5.5	$6.1	$6.7	$7.3	$7.8	$8.3	$8.9	$9.4	$9.8	$10.3	$10.7	$11.1	$11.5
75th Percentile	$0.6	$1.2	$1.8	$2.4	$2.8	$3.2	$3.5	$3.7	$3.9	$4.2	$4.3	$4.5	$4.6	$4.8	$4.9	$5.1	$5.2	$5.3	$5.5	$5.7	$5.7
95th Percentile	$0.6	$1.2	$1.6	$2.0	$2.1	$2.2	$2.2	$2.2	$2.3	$2.3	$2.4	$2.4	$2.5	$2.5	$2.5	$2.5	$2.6	$2.6	$2.6	$2.6	$2.7

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Cumulative Employer Contributions to Date; Aggressive Portfolio

The graph and table below show the range of projected cumulative employer contributions over the next twenty years, assuming the Plan's assets are allocated according to the Aggressive Portfolio (highlighted on the prior pages). The results assume the current contribution policy remains unchanged for all projection years.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5th Percentile	$0.6	$1.3	$2.1	$3.0	$3.9	$4.9	$5.9	$7.0	$8.1	$9.2	$10.4	$11.5	$12.7	$13.9	$15.1	$16.4	$17.7	$18.9	$20.1	$21.3	$22.4
25th Percentile	$0.6	$1.2	$2.0	$2.8	$3.5	$4.3	$5.1	$5.9	$6.7	$7.5	$8.3	$9.1	$10.0	$10.9	$11.8	$12.6	$13.4	$14.3	$15.1	$15.8	$16.7
50th Percentile	$0.6	$1.2	$1.9	$2.6	$3.2	$3.7	$4.3	$4.8	$5.3	$5.8	$6.3	$6.8	$7.3	$7.6	$8.0	$8.5	$8.8	$9.1	$9.4	$9.7	$10.1
75th Percentile	$0.6	$1.2	$1.8	$2.3	$2.7	$3.0	$3.2	$3.3	$3.4	$3.6	$3.7	$3.8	$4.0	$4.1	$4.2	$4.3	$4.4	$4.5	$4.5	$4.6	$4.7
95th Percentile	$0.6	$1.1	$1.5	$1.7	$1.8	$1.9	$1.9	$1.9	$2.0	$2.0	$2.1	$2.1	$2.2	$2.2	$2.2	$2.2	$2.3	$2.3	$2.3	$2.3	$2.4

Percentiles indicate the probability of achieving total employer contributions higher or lower than the corresponding figure. For instance, the 50th percentile indicates that 50% of the time the Plan can expect total contributions lower than the figure shown, and 50% of the time a higher figure can be expected.

Appendix 2: Sensitivity Analysis: "Effect of Higher Correlations" (continued)

Drawing Inferences

The tables below compare the projected actuarial and market funded ratios five, ten, and twenty years from now, under the median (50th percentile), worst-case (5th percentile), and best-case (95th percentile) scenarios, assuming the six different asset mixes highlighted on the prior pages. The table also displays for comparative purposes the median, peak, and trough projected payout ratios and cumulative employer contributions assuming the same six asset mixes being examined.

5 Years	Actuarial Funded Ratio in Year 5			Market Funded Ratio in Year 5			Cumulative Employer Contributions in Year 5 (Billions)			Payout Ratios		
	50th	5th	95th	50th	5th	95th	50th	5th	95th	Year 5 Median	2011-2016 Peak	2011-2016 Trough
Target Allocation	62.5%	37.8%	108.5%	61.7%	27.8%	133.5%	$3.8	$4.8	$2.2	13.0%	29.7%	5.8%
Current Allocation	62.8%	37.6%	110.7%	62.1%	27.6%	136.7%	$3.8	$4.8	$2.2	12.9%	30.0%	5.7%
Conservative Portfolio	55.9%	44.6%	70.1%	51.2%	34.0%	75.4%	$4.1	$4.4	$3.6	15.7%	24.3%	10.3%
Potential Portfolio 1	62.1%	38.5%	105.0%	61.2%	28.3%	129.1%	$3.8	$4.7	$2.3	13.1%	29.2%	6.0%
Potential Portfolio 2	63.0%	37.7%	111.2%	62.5%	27.8%	137.6%	$3.8	$4.8	$2.2	12.8%	29.9%	5.6%
Aggressive Portfolio	65.0%	35.6%	129.1%	65.2%	26.2%	159.2%	$3.7	$4.9	$1.9	12.3%	31.5%	4.9%

10 Years	Actuarial Funded Ratio in Year 10			Market Funded Ratio in Year 10			Cumulative Employer Contributions in Year 10 (Billions)			Payout Ratios		
	50th	5th	95th	50th	5th	95th	50th	5th	95th	Year 10 Median	2011-2021 Peak	2011-2021 Trough
Target Allocation	66.8%	26.4%	190.4%	65.3%	20.8%	211.1%	$6.8	$10.2	$2.4	14.2%	46.0%	4.2%
Current Allocation	67.7%	26.2%	199.2%	66.2%	20.6%	220.5%	$6.7	$10.2	$2.4	14.0%	46.4%	4.0%
Conservative Portfolio	50.2%	31.2%	80.2%	45.7%	24.4%	81.5%	$8.1	$9.5	$6.0	20.2%	39.2%	10.3%
Potential Portfolio 1	65.8%	26.7%	178.4%	64.3%	21.1%	199.1%	$6.8	$10.1	$2.5	14.4%	45.4%	4.5%
Potential Portfolio 2	68.3%	26.4%	201.5%	66.9%	20.9%	223.6%	$6.7	$10.2	$2.4	13.8%	45.8%	4.0%
Aggressive Portfolio	73.0%	25.2%	253.3%	72.5%	19.9%	290.7%	$6.3	$10.4	$2.1	12.7%	48.1%	3.0%

20 Years	Actuarial Funded Ratio in Year 20			Market Funded Ratio in Year 20			Cumulative Employer Contributions in Year 20 (Billions)			Payout Ratios		
	50th	5th	95th	50th	5th	95th	50th	5th	95th	Year 20 Median	2011-2031 Peak	2011-2031 Trough
Target Allocation	83.3%	25.1%	586.7%	81.6%	20.1%	598.8%	$12.0	$22.4	$2.8	15.4%	63.3%	2.0%
Current Allocation	85.3%	25.2%	638.7%	83.9%	20.1%	647.6%	$11.7	$22.4	$2.7	15.0%	63.3%	1.9%
Conservative Portfolio	48.3%	27.8%	89.9%	43.3%	22.5%	90.3%	$18.2	$22.0	$10.9	29.0%	57.9%	10.3%
Potential Portfolio 1	80.7%	25.5%	526.5%	78.2%	20.6%	541.6%	$12.4	$22.4	$2.8	16.1%	62.6%	2.3%
Potential Portfolio 2	87.2%	25.3%	660.8%	85.8%	20.5%	670.6%	$11.5	$22.4	$2.7	14.7%	62.0%	1.8%
Aggressive Portfolio	102.0%	24.6%	1047.9%	103.0%	19.9%	1076.0%	$10.1	$22.4	$2.4	12.2%	64.1%	1.1%

Appendix 3: Assumptions and Methods

Actuarial Valuation Assumptions and Methods: At the beginning of each projection year, an actuarial valuation is performed to determine employer contributions. The methods and assumptions used in each projected actuarial valuation are the same used in the valuation as of September 30, 2011, prepared by Gabriel Roeder Smith & Company. These methods and assumptions are a below:

Actuarial Cost Method	Entry-Age Normal.
Liability Discount Rate	8.00% compounded annually.
Expenses	Assumed to be funded by returns in excess of the actuarially assumed rate of return.
Future Salary Increases	Future salary increases are outlined on page E-2 of the September 30, 2011 Actuarial Valuation and vary by age. Salary increases also include a 3.50% base (economy) salary inflation rate.
Retirement	Retirement assumptions as outlined on pages E-5 through E6 of the September 30, 2011 Actuarial Valuation.
Mortality	Mortality assumptions as outlined on pages E-3 through E-4 of the September 30, 2011 Actuarial Valuation.
Disability	Rates of disability as outlined on page E-7 of the September 30, 2011 Actuarial Valuation.
Withdrawal	Rates of withdrawal as outlined on page E-6 of the September 30, 2011 Actuarial Valuation.
Asset Valuation Method	Asset valuation method is described on page E-1 of the September 30, 2011 Actuarial Valuation. The asset valuation method utilizes a five-year smoothing period.
Amortization Method	Amortization payments for required contribution purposes are calculated as level dollar amounts. The portion of the unfunded actuarial liability attributable to the Early Retirement Incentive (ERI) provision, is amortized over a 5 year period beginning in fiscal year 2013. The remaining unfunded actuarial liability (after adjustment for anticipated future reconciliation payments) is amortized over an open 30-year period that began in 2006.

Appendix 3: Assumptions and Methods (continued)

Cost of Living Adjustments Cost of living adjustments as outlined on page F-3 of the September 30, 2011 Actuarial Valuation.

Projection Assumptions (used in the deterministic and stochastic asset/liability projections): These projections begin with the Plan's participant population as of September 30, 2011, as provided by Gabriel Roeder Smith & Company. The Plan's population is projected forward and assumed to change as a result of employment separation, death, and retirement, as predicted by the assumptions outlined in the September 30, 2011 Actuarial Valuation provided by Gabriel Roeder Smith & Company (and described on the prior pages). Employee compensation is projected into the future in accordance with the assumptions described on the prior pages. Investment returns are projected into the future in accordance with the assumptions described below.

Total Contributions Total contributions are equal to the actuarially calculated normal cost, plus an amortization of the unfunded actuarial liability, plus assumed future reconciliation payments. Effective April 1, 2012, participants in the plan are required to contribute 4% of their annual compensation. Employer contributions are equal to the total actuarially calculated contribution, less expected employee contributions.

New Entrants The Plan is closed to new entrants.

Public Act 264 These projections reflect the changes made by P.A. 264, including the election by existing active participants to 1) remain in the plan, 2) remain in the plan until 30 years of service is attained, or 3) become a participant in a defined contribution plan effective April 1, 2012. Participants who elected to stay in the plan were assumed to begin employee contributions equal to 4% of compensation effective April 1, 2012.

Rate of Return on Assets Deterministic Analysis: 8.00% compounded annually.

Stochastic Analysis: Returns on the portfolio are based on the expected returns of each asset class and the correlations between each class which are detailed in the Stochastic Analysis section of this report.

Inflation 2.50% per year with a standard deviation of 3.00%.

Appendix 3: Assumptions and Methods (continued)

Other

All other projection assumptions are the same as those chosen by the Plan's actuary shown above.

The participant data, Plan liabilities, and assets as of September 30, 2011 were provided by Gabriel Roeder Smith & Company.