American Academy of Actuaries

Issue Brief

Selection of Actuarial Assumptions for Multiemployer Plans

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Key Points

- When determining funding standards and withdrawal liability, ERISA requires that actuaries use reasonable assumptions that account for plan experience and offer their "best estimate of anticipated experience under the plan."
- While the plan's benefit obligations, funded status, and withdrawal liability could be measured on the prior year assumptions, using the most recent relevant data ensures the results fully reflect current experience and the actuary's best estimate of the situation as of the measurement date.
- ASOP Nos. 27 and 35 acknowledge that several different assumptions may be reasonable for a given measurement, and that different actuaries may select different reasonable assumptions.

Multiemployer pension actuaries use many assumptions in measuring plan obligations, funded status, and withdrawal liability. In selecting actuarial assumptions, an actuary would typically review recent plan experience occurring up to the measurement date, as well as consider significant events that may occur after the measurement date. For these and other reasons, actuaries often do not finalize the assumptions for a given measurement until after the measurement date. However, recent controversy has arisen around the selection of actuarial assumptions that can be used to determine employer withdrawal liability under a multiemployer pension plan.

This issue brief considers post-measurement date changes in actuarial assumptions and is meant to contribute to the public policy analysis of multiemployer pension plan issues by providing insights into some of the considerations that go into the selection of actuarial assumptions, and the approaches that actuaries use in practice. It is not intended to provide actuaries practicing in this area with guidance on how to select actuarial assumptions or with legal advice.[1] Furthermore, this issue brief focuses on issues affecting multiemployer plans, and some of the concepts it discusses may not apply to other types of defined benefit pension plans.

1 The discussion in this issue brief reflects practice as of June 30, 2020. Certain practices described in this issue brief could be significantly affected by changes in statutes or federal regulations that take effect after June 30, 2020, or by judicial decisions after June 30, 2020, construing applicable statutes or regulations.

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This issue brief builds upon prior work of the American Academy of Actuaries concerning the selection of actuarial assumptions for pension obligations, both for multiemployer plans and in general. Please refer to these earlier issue briefs for more information:

- *Determining Withdrawal Liability for Multiemployer Pension Plans: A Range of Approaches to Actuarial Assumptions,* April 2020. This issue brief discusses considerations and approaches used in the selection of interest rates for withdrawal liability.
- *Assessing Pension Plan Health: More Than One Right Number Tells the Whole Story*, July 2017. This issue brief discusses how more than one measurement may be needed to determine the financial health of a pension plan.
- *Measuring Pension Obligations*, November 2013. This issue brief discusses how different discount rates are useful for their intended purpose, although the measurements may differ significantly.

Background

Multiemployer defined benefit pension plans provide lifetime payments beginning at a participant's retirement. These benefits accrue over a participant's working career and, in an attempt to ensure the plan will accumulate sufficient resources to pay the promised benefits, federal law requires the prefunding of these benefits according to specific rules.

The Employee Retirement Income Security Act of 1974 ("ERISA") established minimum funding standards for private pension plans in the United States, including multiemployer pension plans. Under these funding standards, an Enrolled Actuary annually calculates and certifies the benefit liabilities, funded status, and statutory minimum required contribution of the plan.

The Multiemployer Pension Plan Amendments Act of 1980 ("MPPAA") amended ERISA to mandate the determination and assessment of withdrawal liability for employers that cease their participation in multiemployer plans. Withdrawal liability is the employer's share of the plan's unfunded vested benefit liability, if any.

Members of the Multiemployer Plans Committee, which authored this issue brief, include Christian Benjaminson, MAAA, FSA, EA—*Chairperson*; Joseph Hicks Jr., MAAA, FCA, MSPA EA—*Vice Chairperson*; Mariah Becker, MAAA, ACA, EA; Susan Boyle, MAAA, FSA, FCA, EA; Paul Bullock, MAAA, ASA, FCA, EA; James Dexter, MAAA, FSA, FCA, EA; Jim Donofrio, MAAA, FSA, EA; Francis Gowen, MAAA, ASA, EA; Paul Graf, MAAA, ASA, FCA, EA; Eli Greenblum, MAAA, FSA, FCA, EA; Victor Harte, MAAA, EA; Mandy Notaristefano, MAAA, FSA, FCA, EA; David Pazamickas, MAAA, ASA, EA; Josh Shapiro, MAAA, FSA, FCA, EA; and Peter Sturdivan, MAAA, FSA, EA.

When determining funding standards and withdrawal liability, ERISA requires that actuaries use reasonable assumptions that account for plan experience and offer their "best estimate of anticipated experience under the plan."[2]

Key Liability Measurements and Actuarial Assumptions

Two key annual multiemployer liability measurements are those used for statutory minimum funding purposes and those used for employer withdrawal liability purposes. Actuaries sometimes use different assumptions for valuing these liabilities.[3] ERISA requires that the assumptions for both measurements are reasonable and represent the actuary's best estimate of anticipated experience under the plan.

There are two broad categories of actuarial assumptions used to measure obligations for multiemployer plans:

- **Economic Assumptions,** which include inflation, investment returns, discount rates, compensation increases, cost-of-living adjustments, rate of payroll growth, growth of individual account balances, conversion factors for lump sums and variable benefits, and administrative expenses; and
- **Demographic Assumptions,** which include rates of retirement, termination of employment, mortality (and mortality improvement), disability (and disability recovery), election of optional forms of benefits, and future service or benefit credits (often expressed as hours worked).

Certain assumptions, such as those for participant mortality and discount rates, typically have the greatest effect on the valuation of current plan obligations. Nonetheless, each assumption warrants specific analysis, and the actuary must exercise professional judgment in selecting it. The assumption-selection process is guided by the Actuarial Standards of Practice ("ASOPs") established by the Actuarial Standards Board ("ASB").

Actuarial Standards of Practice ("ASOPS")

The ASOPs set forth the procedures an actuary should follow when performing actuarial services and identify what the actuary should disclose when communicating the results of those services. They neither prescribe every step in an actuarial assignment nor dictate a single approach or outcome. Rather, the ASOPs require the actuary to follow a process but to use professional judgment when selecting assumptions; the process includes analyzing plan experience and reaching a conclusion, while also recognizing that different actuaries can reasonably reach different conclusions even when faced with the same data and other

2 29 U.S.C. §§ 1084(c)(3), 1393(a)(1). While Congress has authorized the Pension Benefit Guaranty Corporation to promulgate regulations governing actuarial assumptions and methods applicable to withdrawal liability, *id.* § 1393(a)(2), it has not done so.

3 See the April 2020 issue brief *Determining Withdrawal Liability for Multiemployer Pension Plans: A Range of Approaches to Actuarial Assumptions*.

inputs. The following ASOPs guide actuaries in selecting assumptions used in measuring pension obligations:

- ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*
- ASOP No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*

While these ASOPs vary somewhat in specific guidance, they both require that the actuary consider the purpose and type of the measurement and the materiality of the assumption to the measurement. Likewise, both require the actuary to evaluate the relevant economic/demographic data and recognize that the selection of actuarial assumptions is generally based on knowledge of the situation as of the measurement date of the pension obligation.

When evaluating the relevant data, the actuary usually reviews relevant recent and long-term historical data and considers the development of trends over time without giving undue weight to recent experience unless warranted by other factors. Further, the actuary generally considers the possibility that some historical data may no longer be appropriate for use in developing assumptions for future periods because of changes in the underlying environment.

In practice, the most recent relevant data that the actuary uses to perform this analysis is generally not available until after the measurement date. Accordingly, an actuary typically makes the final selection of actuarial assumptions after the measurement date but before preparation of the actuarial model used to perform the calculations, finalization of the obligation being valued, and issuance of an actuarial communication (referred to as a Statement of Actuarial Opinion). While the plan's benefit obligations, funded status, and withdrawal liability could be measured on the prior year assumptions, the advantage of using the most recent relevant data ensures the results fully reflect current experience and the actuary's best estimate of the situation as of the measurement date. This is especially important for withdrawal liability because that calculation effectively settles a withdrawing employer's obligation to the plan.

The actuary typically reviews the reasonableness of the assumptions every year to ensure they remain an appropriate estimate of anticipated future plan experience. Analysis of newly available data and experience may be an appropriate reason to make a decision after the measurement date to change actuarial assumptions. Another reason to update assumptions after the measurement date includes events occurring after the measurement date. These reasons are contemplated by the ASOPs.

Events Occurring after the Measurement Date

A multiemployer pension plan actuary may become aware of significant real-world events that occur after the measurement date but before the actuarial communication is finalized. In such a case, the actuary may decide that it is necessary to reflect these future events in the actuarial assumptions as of the measurement date. The applicable ASOPs permit actuaries to reflect events occurring after the measurement date in the actuarial assumptions as of the measurement date, if appropriate, as described in the citations below:

Section 3.5.5 of ASOP No. 27
"The economic assumptions selected should reflect the actuary's knowledge as of the measurement date. However, the actuary may learn of an event occurring after the measurement date that would have changed the actuary's selection of an economic assumption. (For example, a collective bargaining agreement ratified after the measurement date may lead the actuary to change the compensation increase assumption that otherwise would have been selected.) If appropriate, the actuary may reflect this change as of the measurement date."

Section 3.10.5 of ASOP No. 35
"The demographic assumptions selected should reflect the actuary's knowledge as of the measurement date. However, the actuary may learn of an event occurring after the measurement date (for example, plan termination or death of the principal owner), that would have changed the actuary's selection of a demographic assumption. If appropriate, the actuary may reflect this change as of the measurement date."

Change in Actuary

The sponsor of a multiemployer pension plan may decide to engage a new plan actuary to replace its existing one. In such circumstances, the new actuary will review, among other things: the plan's situation; the prior actuary's work, including an evaluation of the assumptions the prior actuary selected; and other facts and circumstances affecting the plan. Once that assessment is complete, the new actuary might, in the exercise of professional judgment and based on the available data, plan experience, reasonable future expectations, and other relevant factors, determine that changes to plan's actuarial assumptions are needed. Depending on when in the Plan Year the change takes place and the time the new actuary needs to complete a review and assessment, any assumption changes that the new actuary determines are appropriate may occur after a given measurement date.

ASOP Nos. 27 and 35 acknowledge that several different assumptions may be reasonable for a given measurement, and that different actuaries may select different reasonable assumptions (see citations below). For example, there are various approaches used by multiemployer plan actuaries to evaluate an appropriate discount rate for determining pension obligations for withdrawal liability purposes. One actuary might review all relevant information and use professional judgment to set assumptions for the measurement. Another actuary independently reviewing the same information may ultimately select different assumptions based on professional judgment. While both sets of assumptions would likely meet each others' "reasonable" standard, it is far less likely that the two actuaries would select the same assumption for any particular purpose when operating under a "best estimate" standard.

> **Section 3.6.2 of ASOP No. 27**
> *"The actuary should recognize the uncertain nature of the items for which assumptions are selected and, as a result, may consider several different assumptions reasonable for a given measurement. The actuary should also recognize that different actuaries will apply different professional judgment and may choose different reasonable assumptions. As a result, a range of reasonable assumptions may develop both for an individual actuary and across actuarial practice."*

Almost identical guidance is found in Section 3.4 of ASOP No. 35.

Conclusion

The assumption-setting process is a critical component to measuring pension obligations and there is a broad range of actuarial assumptions that could be considered reasonable for a given purpose. The selection of actuarial assumptions relies heavily on professional judgment, technical knowledge, and the information available to the actuary. Updates to actuarial assumptions may occur after the measurement date for a variety of reasons. Guided by ERISA and the Actuarial Standards of Practice, actuaries regularly review previously selected assumptions and may make updates to reflect new experience and changes in outlook.