

Determining Withdrawal Liability for Multiemployer Pension Plans: A Range of Approaches to Actuarial Assumptions

APRIL 2020

Key Points

- There is a diversity of practice across the multiemployer actuarial community in the selection of the interest rate used for determining employer withdrawal liability, and the selection of these rates has received increased scrutiny in recent years.
- Common approaches to selecting the withdrawal liability interest rate include the use of the expected return on plan assets, market-observed interest rates, and a blend of these two approaches.
- Actuaries select withdrawal liability assumptions through a combination of relevant facts and circumstances, the actuarial standards of practice, and their professional judgment.

Under federal law, when an employer leaves an underfunded multiemployer pension plan, the plan is required to assess “withdrawal liability” on the employer, representing the employer’s share of the plan’s unfunded vested benefit liability (if any). Multiemployer plan actuaries use many assumptions to determine the amount of withdrawal liability. Certain actuarial assumptions—particularly the interest rate assumption—have recently received increased scrutiny.

This issue brief contributes to the public policy analysis of multiemployer plan issues by discussing some of the considerations that go into the selection of interest rates for withdrawal liability valuation purposes, and the approaches that actuaries use in practice.¹ It is not intended to provide actuaries practicing in this area with guidance on how to go about selecting interest rate assumptions.

Background

The Employee Retirement Income Security Act of 1974 (ERISA) established federal funding standards for private pension plans in the United States, including multiemployer pension plans. The Multiemployer Pension Plan Amendments Act of 1980 (MPPAA) amended ERISA and mandated the determination and assessment of withdrawal liability for employers participating in multiemployer plans.



AMERICAN ACADEMY of ACTUARIES

Objective. Independent. Effective.™

1850 M Street NW, Suite 300
Washington, DC 20036

202-223-8196 | www.actuary.org

Craig Hanna, Director of Public Policy
Linda K. Stone, Senior Pension Fellow

¹ The discussion in this issue brief reflects practice as of December 31, 2019. Certain practices discussed in this issue brief could be significantly affected by changes in statutes, federal regulations, or court precedents that occur after this date.

Under ERISA, an employer that withdraws from an underfunded multiemployer pension plan must continue making payments to the plan to fund its share of the plan's Unfunded Vested Benefits (UVB). Determining the amount of an employer's withdrawal liability involves calculating, and then allocating, the plan's UVB among the participating employers. In most circumstances, the withdrawn employer has no responsibility other than to pay the fixed amount of its withdrawal liability, which is typically due in installments over a period of many years. Once the withdrawal liability has been paid, the withdrawn employer has settled its obligation to the plan.

Calculating a Plan's Unfunded Vested Benefits

A plan's UVB is the difference between the liability for vested benefits under the plan and the value of plan assets. ERISA does not specify whether the asset value for this purpose is the actuarial (smoothed) value of assets or the market value of assets, and both alternatives are used in practice and set by the plan trustees. The vested benefit liability is the present value of the payments that the actuary anticipates the plan will pay to all current vested participants with respect to non-forfeitable benefits earned to date.²

When calculating a plan's UVB, Section 4213 of ERISA requires that the actuary use actuarial assumptions that are, in the aggregate, "reasonable" based on the experience of the plan and reasonable expectations. In combination, they must offer "the actuary's best estimate of anticipated experience under the plan." ERISA also authorizes the Pension Benefit Guaranty Corporation (PBGC) to prescribe the actuarial assumptions used in determining withdrawal liability, but to date the PBGC has not done so, other than for certain assumptions in the case of mass withdrawal.

In selecting assumptions for measuring the liability, actuaries employ their professional judgment. The actuarial standards of practice (ASOPs) describe the responsibilities of actuaries when they evaluate and select actuarial assumptions. The most significant actuarial assumption is often the interest rate (or rates) used to discount future expected payments to a present value.

² Note that the potential insolvency of a plan is not considered for this purpose, so benefits are included in the UVB regardless of whether the plan is projected to have sufficient assets to pay them.

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; Peter Sturdivan, MAAA, FSA, EA.

Actuarial Standards of Practice

Pension obligations and the measurement of their actuarial present value are addressed by ASOP No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. **Section 3.2 of ASOP No. 4 outlines the general procedure for measuring pension obligations, and it lists “identify the purpose of the measurement” as the first step. Common measurement purposes include establishing long-term contribution budgets and determining the cost of settling pension benefit obligations.**

ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*, recognizes that actuaries may use different approaches for selecting a reasonable assumption. Specifically, section 3.6.1 of ASOP No. 27 provides that:

“The actuary should develop a reasonable economic assumption based on the actuary’s estimate of future experience, the actuary’s observation of the estimates inherent in market data, or a combination thereof.”

ASOP No. 27 also recognizes that the uncertainties related to future events and the exercise of professional judgment may result in different actuaries choosing different assumptions.³ Specifically, section 3.6.2 of ASOP No. 27 currently provides that:

“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.”

Interest Rate Assumptions: Two General Approaches

Expected Return on Plan Assets

One approach for selecting the interest rate assumption is to estimate the rate of investment return that the plan assets will earn in the future. Under this approach, the process of selecting the interest rate assumption typically involves developing expected

³ See the American Academy of Actuaries’ July 2017 issue brief [Assessing Pension Plan Health: More Than One Right Number Tells the Whole Story](#), which discusses how there can be more than one right number. In addition, the Academy’s November 2013 issue brief [Measuring Pension Obligations](#) discusses how different discount rates are useful for their intended purpose, although the measurements may differ significantly.

returns for different asset classes (such as stocks, bonds, and alternative investment classes) and determining the expected return on plan assets based on the distribution of the plan's investment portfolio across the various asset classes.

The actuarial liability discounted with an interest rate equal to the expected return on plan assets represents the actuary's best estimate of the amount of money today that will actually be needed to satisfy the plan's future benefit obligations. In other words, if the plan returns exactly the expected return in every year and all other assumptions are satisfied as well, then the plan will spend its last dollar of assets on the final benefit payment to the last surviving participant.

Observations of Market Data

A second approach for selecting the interest rate assumption is to base the assumption on observations of market data. Section 3.6.1 of ASOP No. 27 cites both the yields available on various types of bonds and current annuity prices as potential sources of observation for this purpose. Many classes of bonds trade in highly liquid and transparent markets, making the yields available on these bonds readily observable.

In practice, it may be difficult to obtain the assumptions embedded in annuity quotes provided by insurance companies. The PBGC publishes interest rates each quarter based on its survey of insurers in the annuity marketplace. These rates, in conjunction with a prescribed mortality table, are mandated for the valuation of terminating single-employer plans and for multiemployer plans in mass withdrawal.⁴ Given the scarcity of alternatives, some actuaries choose the PBGC interest rates as a measure of annuity pricing data and determine the plan's present value of vested benefits using those market rates.

The actuarial liability calculated using a market-observed interest rate is typically consistent with an estimate of the cost of settling a pension liability, which many observers believe is the purpose of the measurement, in that the withdrawing employer is settling its obligation to the plan.⁵

Legal Framework

In addition to withdrawal liability calculations, a multiemployer plan actuary performs an annual valuation that determines the plan's funded status and minimum required contribution under ERISA. Section 304(c)(3) of ERISA requires the use of actuarial assumptions and methods for that purpose that meet the following criteria:

⁴ If the multiemployer plan is terminated by the mass withdrawal of all employers, the PBGC regulations provide specific rules for the valuation of plan liabilities and allocation of withdrawal liabilities.

⁵ Depending on the segment of the bond market that was observed in setting the interest rate, it may be necessary to adjust the results to reflect bond qualities or expenses in order to obtain a true settlement cost.

“(A) each of which is reasonable (taking into account the experience of the plan and reasonable expectations), and

(B) which, in combination, offer the actuary’s best estimate of anticipated experience under the plan.”

Some observers, both actuaries and non-actuaries, believe that this provision requires the use of expected asset returns to set the interest rate for minimum funding calculations.

Section 4213(a)(1) of ERISA requires that actuaries measure plan liabilities for withdrawal liability purposes using “actuarial assumptions and methods which, in the aggregate, are reasonable (taking into account the experience of the plan and reasonable expectations) and which, in combination, offer the actuary’s best estimate of anticipated experience under the plan.” This language references “anticipated experience under the plan” in substantially the same manner as the requirements governing the minimum funding calculations. As a result, some observers suggest the law requires that withdrawal liability calculations use the same assumptions that are used for determining minimum funding requirements under ERISA.

Differing Perspectives

Generally, there are fundamental differences between the perspectives underlying the expected return approach and the market observation approach to setting the withdrawal liability interest rate.

Under the expected return approach, if actual returns on plan assets meet expectations, and all other assumptions are perfectly met, withdrawal liability payments will be exactly sufficient to cover the withdrawing employer’s share of the unfunded benefit liability if not limited by the 20-year cap. In other words, the amount of withdrawal liability that is assessed to a withdrawing employer is consistent with the actuary’s best estimate of the amount of money that the plan will actually need to support the benefits. If withdrawal liability amounts are calculated using an interest rate assumption that is more conservative than the best-estimate asset return expectation, as would typically occur using a market observation approach, the employers remaining in the plan would be expected to eventually benefit from the withdrawal.

After withdrawing, any risk to which the withdrawing employer may have been subject as a contributing employer—such as the risk of needing additional contributions in a financial market downturn—is transferred to the remaining contributing employers. In

most circumstances, the withdrawn employer has no responsibility other than to pay the fixed amount of its withdrawal liability. In other words, the withdrawing employer has settled its obligation to the plan. The withdrawal liability assessments produced by the market observation approach, which will be larger than those produced by the expected return approach in most economic climates, can be viewed as compensating the remaining employers for the risk they are required to assume on behalf of the withdrawing employer's participants.

A plan actuary might conclude that both the expected return and market observation approaches to setting the withdrawal liability interest rate have merit and should be reflected in the measurement of liabilities, and therefore deem it appropriate to select a discount rate based on a blend of these two approaches.

In choosing between these approaches, there are many facts and circumstances that actuaries consider. Examples include the likelihood that a withdrawing employer will be replaced by a new contributing employer, the funding level of the plan, and the proportions of the plan liabilities that are attributable to active and inactive participants. Varying plan circumstances, combined with the fact that different actuaries might assign different weights to the perspectives discussed above, have led to a wide range of approaches to setting the interest rate for withdrawal liability valuation purposes. Various interpretations of the law that restrict the ability of the plan actuary to choose a withdrawal liability interest rate that is different from the interest rate used for minimum funding purposes have further contributed to the diversity of practice.

Conclusion

There are many factors that multiemployer plan actuaries consider when selecting an interest rate for determining employer withdrawal liability. These factors have led to a wide range of practice across the multiemployer actuarial community, and this practice includes the use of expected return interest rates, market observation interest rates, and techniques that blend these interest rates.

The American Academy of Actuaries is a 19,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.