AMERICAN ACADEMY of ACTUARIES

Issue Brief

The Security of Pension Plan Benefits

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Key Points

- The security of a pension plan's benefits can depend on factors such as the plan design, funded level, asset allocation, plan sponsor, and other specific characteristics.
- There are many factors that stakeholders may wish to consider specific to the circumstances of a plan in evaluating the security of the plan's benefits.
- Policymakers considering legislative proposals that would affect retirement plans may benefit from reviewing the benefit security mechanisms now in place.

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For decades, many employers have sponsored defined benefit plans to support the retirement security of their workforces. In exchange for their labor, covered employees received not only a salary, but also a promise of regular and reliable lifetime income after their working years are over. Unfortunately, recent experience contains numerous examples in which these promises either have already not been upheld, or are very likely not to be upheld in the near future. The city of Detroit bankruptcy in 2013 led to benefit cuts in the city's pension plans. Airline industry bankruptcies resulted in some employees receiving smaller benefits than they had earned.

Some plans that have been exempt from federal funding and benefit insurance rules under the church plan exemption have terminated without sufficient assets to satisfy their obligations. And larger and more widespread benefit cuts would have occurred among multiemployer pension plans had Congress not stepped in with the passage of the American Rescue Plan Act of 2021.

In light of these developments, a consideration of the mechanisms that help ensure pension plans will ultimately pay the benefits participants have earned is warranted. Such consideration may be of particular value to policymakers when they are evaluating legislative and regulatory proposals that would affect retirement plans.

The following analysis can shed light on the causes of existing failures to meet promises, and can in turn inform a framework for preventing future defaults. This issue brief discusses factors relevant to the security of typical employer-sponsored defined benefit pension plans in the United States.[1]

1 The overwhelming majority of employer-sponsored defined benefit pension plans in the United States provide benefits that are based on well-defined formulas and legally protected from reduction once they are earned, which are the circumstances assumed in this issue brief.

Several factors are considered when evaluating the security of pension benefits. These include:

- Amount of assets held by the plan relative to the benefits participants have earned
- Riskiness of investments
- Financial resources of plan sponsor responsible for funding the plan
- Plan sponsor's legal obligation to fund the plan
- Predictability of benefit payments
- Sources of external support

Amount of Assets Held by the Plan

Many defined benefit pension plans are supported by a trust in which assets are irrevocably dedicated to paying benefits. If all other factors are equal, the more money a plan sponsor has set aside to support a given retirement benefit, the more secure that benefit is.

The liability of the plan measured using the yields on U.S. Treasury bonds can serve as a useful metric in evaluating the level of security provided by the assets.[2] In a plan that is fully funded on this basis, the plan sponsor would have the ability to conservatively invest the assets in a way that would provide for the expected future payments with a high degree of confidence and without any investment risk.

Plans that hold assets below the liability measured on a Treasury yield curve basis can also have benefits that are highly secure. In fact, while a significant majority of plans are funded at levels that fall short of this threshold, the benefits in these plans can still be quite secure. If a plan is funded below the Treasury yield curve liability, it can be helpful for stakeholders to consider the gap between the actual funding level and this liability measurement, and evaluate the extent to which the other sources of security, as discussed below, are sufficient to make up for this gap.

2 As the concept of plan liability is used in this issue brief, the liability of a plan includes benefits based on service and compensation levels as of the measurement date. In some circumstances actuaries measure liabilities under alternative approaches that are outside the scope of this issue brief.

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Riskiness of Investments

The degree of risk taken when managing pension assets has a significant impact on the level of benefit security. Consider a plan that holds assets equal to the liabilities calculated using a Treasury yield curve. If invested conservatively,[3] such a plan might be expected with very high confidence to pay all promised benefits.

It is understandable to conclude that pension benefits are always more secure when plan assets are invested more conservatively, but the actual effect is more complex. For example, a plan that is obligated to make 20 future payments might hold exactly enough assets to pay the first 19 of those payments if the money is invested in risk-free securities. Presuming that no additional funding will be provided to the plan, investing the money conservatively would effectively guarantee that the first 19 payments are made, while also guaranteeing that the final payment is not made. Alternatively, investing the money more aggressively (but prudently) might enable all 20 payments to be made in many scenarios but would also introduce the risk that some additional earlier payments are not made.

While this issue brief focuses on benefit security, it is also important to understand the relationships that exist between security and benefit amounts. Investment risk typically creates a reasonable expectation of greater returns while simultaneously reducing the certainty of the outcome. Taking on investment risk may make benefits less secure, but for a given level of cost, it may also allow for the provision of higher benefits. Stakeholders should consider that improving benefit security often means accepting lower benefit amounts that may result in employees receiving less ample retirement income. Conversely, accepting investment risk typically creates a range of possible outcomes, with adverse scenarios potentially providing lower benefits than would have been payable under a more conservative approach.

It should also be noted that in some plan designs, participant benefits periodically adjust up or down based on the performance of the plan assets. In these plans, the riskiness of the assets will affect the volatility of the benefit amounts but will generally not affect the funding level of the plan because the benefit formula explicitly passes gains along to participants, while also charging them for losses.

3 In this context, the most conservative investments are those with no risk of default and with timing that matches those of the benefit payments.

Financial Resources of Plan Sponsor

In order to pay participant benefits, pension plans may draw upon the assets that the plan currently holds, the returns generated by these assets, and the contributions that the plan sponsor will pay in the future. In most cases, a plan sponsor has made a commitment to pay contributions into the plan that are sufficient to support the benefits participants have earned.[4] If a plan becomes underfunded, the sponsor may need to increase the level of contributions in order to correct the underfunding. A pension plan effectively has a call option from the plan sponsor that can be exercised if there is a funding shortfall.[5]

The value of a plan's call on the assets of the plan sponsor depends on the financial strength of the sponsor. In general, a more financially sound sponsor translates into a more valuable call option, and therefore more secure benefits. Pension promises, however, extend over many decades, and the financial strength of a plan sponsor can improve or deteriorate over time. A plan sponsor that is financially sound today might be unable to make additional contributions when a plan becomes underfunded in the future, particularly if there is a correlation between its profitability and the performance of the plan assets. It may also be difficult to assess the financial strength of a plan sponsor.

The size of the pension plan in comparison to the size of the employer is also relevant. If a large company sponsors a pension plan that covers only a few former employees, supporting the benefits would not represent a significant burden on the resources of the sponsor. But, for example, if a declining, now-small employer sponsors a plan covering hundreds of thousands of former employees, a modest deterioration of the company's finances could be sufficient to materially reduce the security of the benefits.

Plan Sponsor's Obligation to Fund the Plan

It is also important to consider the strength of a plan sponsor's obligation to fund the benefits. When underfunding develops in a plan, the legal framework will generally require that the plan sponsor eliminate the underfunding over time. This is not always the case, however. For example, under some circumstances employers participating in multiemployer plans may be permitted to withdraw without contributing their full share of the unfunded liability.

4 In some situations, when underfunding develops, current benefit accruals may be reduced or eliminated, which can allow contributions that were previously budgeted to support new benefit accruals to instead support benefits that participants have already earned.

5 A call is a financial concept in which a decline in the value of a specified asset results in one party having an obligation to pay another party an amount that depends on the magnitude of the decline.

The length of time over which the plan is permitted to remain underfunded will have an impact on benefit security. Plans that are permitted to remain underfunded for long periods of time tend to have less secure benefits. On the other hand, there may be scenarios in which flexible contribution requirements can allow a troubled employer to regain solid economic footing. In such cases, they could once again provide the cash necessary to provide for promised benefits.

In some circumstances, relevant law provides financially distressed employers with relief from pension funding requirements. Examples have occurred among private single-employer plan sponsors in certain industries, and they are seen in private multiemployer plans where the trustees have concluded that the employers cannot reasonably pay the contribution rate that is needed to fully fund the plan.

Predictability of Benefit Payments

Long-term planning is needed to ensure that a pension plan has sufficient assets to pay all promised benefits when they are due. This process is easier when the amounts and timing of the benefit payments are known in advance with relative certainty, and it becomes more difficult as the distribution of future cash flows from the plan become more uncertain.

Pension plans may contain a wide variety of plan provisions, some of which make it difficult to predict the timing and amount of benefit payments. Early and late retirement benefits; optional forms of payment such as lump sums, disability, and death benefits; and Social Security supplements are examples of provisions that contribute to this uncertainty. Certain benefit formulas rely on economic variables, such as interest rates or returns on specified asset classes, which cannot be known in advance. In a plan that makes use of these features, predicting the timing and amount of future benefit payments will require assumptions about future participant behavior, demographic experience, and economic conditions. A plan without these features will still have some uncertainty in its benefit cash flows, but the range of possible outcomes will be narrower.

Pension plan liabilities typically represent the average outcome across a range of possible future events. If there is a wide range of potential benefit cash flows, the amount of assets that the plan sponsor sets aside may significantly understate or overstate what is ultimately needed. If everything else is equal, benefits in a plan with less predictable cash flows will tend to be less secure due to the possibility that more assets will be needed than was expected.[6]

6 An exception to this concept occurs in plan designs where the variability in the benefit payments is correlated with the variability of the plan assets. A cash balance plan that credits the accounts with the rate of return on plan assets is an example of such a plan design.

External Support

When a pension plan is unable to pay a benefit that a participant has earned, the payment may be supported by a resource outside of the plan. The most obvious example of external support for pension benefits is the insurance provided by the Pension Benefit Guaranty Corporation (PBGC). Substantially all private-sector pension plans that cover broad workforces are eligible for this support and pay for it in the form of PBGC premiums. PBGC insurance, however, does not necessarily cover all benefits participants have earned, and PBGC is only able to pay benefits up to the level that is covered by its available resources. Participants in single-employer plans are provided substantial coverage that may restore much of their promised benefits, but the PBGC insurance program for multiemployer plans has a much lower maximum guaranteed benefit, and the multiemployer insurance program itself faces a very significant funding shortfall.

In the event that a pension plan is unable to pay the benefits that participants have earned and there is no explicit and effective source of external support, policymakers could act to have the government step in and backstop some or all of the benefits. An example of this can be found in the private-sector multiemployer system, where Congress recently passed the American Rescue Plan Act of 2021 that provides financial assistance to highly underfunded multiemployer plans, having previously taken action to support a failing plan in the coal mining industry.[7]

Conclusions

There are many factors that stakeholders should consider as they evaluate the security of pension benefits. Funding levels are an important part of the analysis, but they do not necessarily tell the whole story. A funding level that results in benefits that can reasonably be considered to be secure in one context could lead to far less security in another. Other factors—how these amounts are invested, the ability and commitment of a plan sponsor to provide further funding, the certainty with which necessary amounts can be determined, and the existence of other support for the benefits—are also relevant to the assessment.

7 The American Miners Act of 2019 used money from the abandoned mine reclamation program to shore up the United Mine Workers of America pension fund.