

Defined benefit plan terminations



Funding and investment strategies

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Issue

For a variety of reasons, terminating a defined benefit (DB) pension plan will become a reality for some sponsors in the next several years. How should the decision affect these sponsors' funding and investment strategies?

Response

Eventually, all frozen DB plans will be terminated.¹ As a closed or frozen plan matures, promised benefits will be paid out, and the plan will shrink in size. Rather than maintaining the plan until the last participant dies (which could be 80 years from now), the sponsor will eventually settle all benefits and close down the plan. Therefore, sponsors of frozen DB plans do not really need to decide *whether* they will terminate – they just need to decide *when*. Many sponsors choose to postpone termination indefinitely. Hibernation – the indefinite managing of a frozen plan, ideally with minimal risk and well-managed expenses – may be a feasible alternative until termination time. But once termination is set as a firm goal, sponsors should assess their existing funding and investment policies and align them, as needed, with their new endgame in mind.

As always, funding policy and investment policy should work hand in hand. For example, a sponsor must determine how well funded a plan needs to be at termination, and how the funding will be accomplished. At the same time, the sponsor ought either to develop a de-risking glide path that significantly reduces risk as funded status improves, or accelerate an existing glide path. Because the plan's time horizon is known and shortened, the plan sponsor's focus shifts away from a long-term perspective.

Inappropriate or stagnant funding and investment policies can lead to delays during the termination process, contribute to inefficient uses of cash, and incur severe tax consequences. Appropriately constructed and implemented funding and investment policies and strategies may not prevent all roadblocks, but they can give the sponsor the best chances of making timely and effective use of company resources and thus lead to plan termination success.

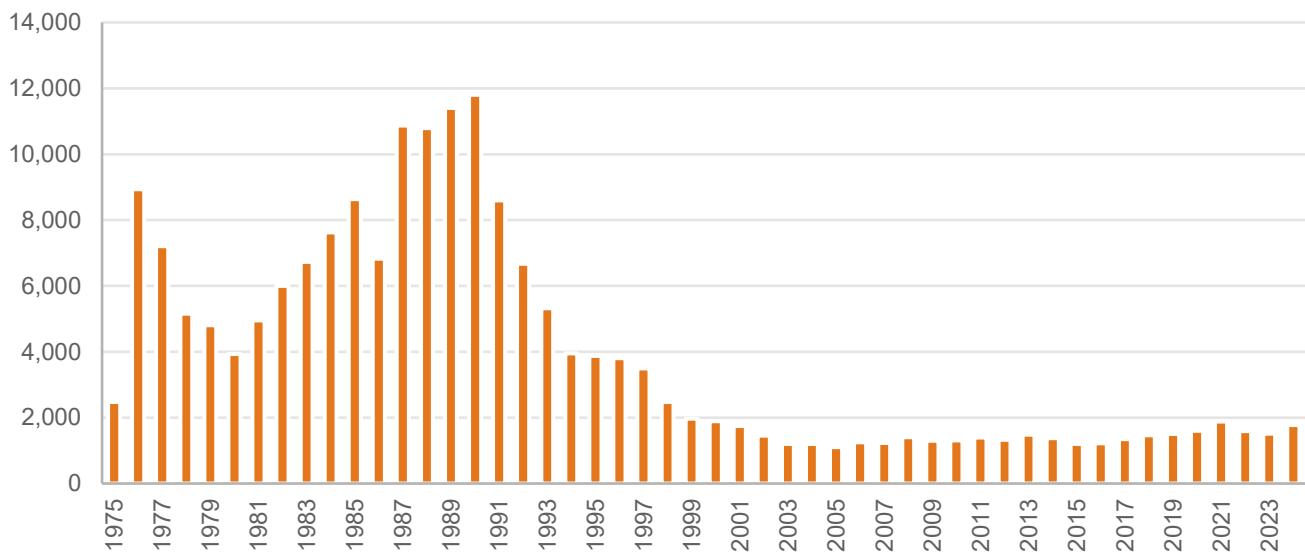


Background

Corporate-sponsored DB plan terminations were extremely common in the 1980s and early 1990s, when half of all existing DB plans in the U.S. terminated. Aversion to new funding and accounting rules, favorable annuity pricing and modestly taxed asset reversions all contributed to this trend. The pace of plan terminations has slowed dramatically since then, and over the last couple decades has stayed relatively constant, with 1,100 to 1,900 standard terminations per year (see [Exhibit 1](#)). More recently, a majority of plan terminations have been small plans with fewer than 100 participants.² While we do not know if or when the pace will accelerate again, eventually, absent a re-opening of the plan, every frozen plan will terminate when the economic and strategic conditions are right. All frozen pension plans are plan terminations in waiting.³

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Exhibit 1: Standard DB plan terminations



Source: Pension Benefit Guaranty Corporation (1975-2024)

Many sponsors of frozen plans are not ready or willing to terminate in the near future. The process requires significant internal resources, incurs substantial service provider fees and requires full plan funding. A reasonable (though admittedly temporary) alternative for sponsors of frozen plans is plan hibernation. Under this strategy, a sponsor takes steps to manage the risks within a plan, keeping cost and volatility at well-managed levels. The plan begins shrinking on its own as it pays benefits each year. Sponsors can take many of the same steps in hibernation that they would if they were pursuing plan termination – steps such as liability-driven investing, glide path de-risking and partial risk transfer. As a plan becomes more mature, the case for plan termination may become stronger.⁴

As soon as the economic benefits meet the sponsor’s objectives, and the sponsor sets termination as the goal, the strategic endgame should be outlined.

Legal, administrative and actuarial steps

Sponsors can expect the plan termination process to take 18-24 months. During this time, the company informs the IRS, PBGC and plan participants of the intent to terminate. Eventually, they must settle each participant's benefit, either through a lump sum cash-out or an annuity purchase (although some of these steps can take place prior to the plan termination). In addition, the actuary, auditor and legal counsel will each take on critical roles. Many sponsors also hire a consultant to serve as an independent fiduciary or advisor during this process.

The complete legal, administrative and actuarial process for DB plan terminations is well documented and beyond the scope of this paper. Some basic information on the plan termination process is found in the [Appendix](#).⁵

Overview of plan termination steps related to funding and investment strategy

Companies determined to terminate their frozen DB plans in the next four to five years must walk through the following steps related to funding and investment strategy. While these will eventually be the steps that all frozen DB plans will follow, a terminating plan will complete them in a condensed time frame. (In some cases, the order of these steps may be rearranged.)

1. Determine the method and timing of benefit settlement for each participant group.
2. Estimate a range of the level of funding needed for plan termination (e.g., 105-110% of accounting liability).
3. Establish a timeline and method for funding the plan to the desired level.
4. Implement a de-risking glide path, or accelerate an existing glide path, based on funded status triggers.
5. Position the final portfolio based on the portion of benefits paid out by lump sums and purchased annuities.
6. Settle benefits and distribute any excess assets.

We will explain each of these steps in further detail in the remainder of this paper.

Many sponsors also hire a consultant to serve as an independent fiduciary or advisor during this process.

Settlement strategies

Sponsors settle benefits in two ways at termination – by lump sum cash-outs and annuity purchases. Some combination of the two is usually used, and the degree of usage for each has a direct impact on termination costs. Lump sums are normally the least costly option for non-retired participants, which is why sponsors will typically offer a lump sum to as many of them as possible.⁶

Terminated vested participants (former employees due a benefit not yet retired) are the most common and logical target group for lump sum cash-outs in non-termination PRTs, but during a plan termination actives can also be offered lump sums.⁷ Cashing out retirees is also possible but less common.⁸ Sponsors can make the cashout process simpler and more enticing to a participant by offering to roll over the lump sum to the company-sponsored defined contribution plan account.

Since lump sums are voluntary (and some sponsors already offer them) it is impossible to know how many plan participants will take them, through advisors can usually provide a reasonable range of outcomes. This is one reason why offering lump sums to TVs or retirees in advance of plan termination may make sense, so that that the annuity population (and associated premium) can be better estimated. Note, however, that the demographics of the plan population will change after the offering of lump sums. For example, healthy participants (those who are likely to receive the most annuity payments) may elect annuities more often than unhealthy participants, in a pattern known as “adverse selection” or “anti-selection” – and this could increase the premium payments required by insurers.

For non-retired participants, lump sums are generally less expensive than annuity purchases, since they are simply the present value of the annuity, and since no outside entity needs to be involved (i.e., no premium is paid to an insurance company). However, they are not guaranteed to be cheaper. The IRS mandates lump sum interest rate and mortality assumptions.⁹ Interest rates are often fixed for a year – meaning that if rates rise after the lump sum rate has been fixed, then an annuity purchase could be less expensive than a lump sum payment.

For those participants who do not take lump sums, sponsors must purchase annuity contracts from an insurer. They can purchase annuities for any participant, including actives, but retirees are the least expensive (relative to accounting liability), since their benefit amounts and timing of payments are more certain. In general, the less certain the amount of the benefit, the more insurance companies will charge to cover it.¹⁰

For example, a 70-year-old currently receiving payments has more predictable benefit payments than an active 35-year-old participant. The active participant’s benefit will depend on when he/she retires, and that date is not known. He can also choose from several payment forms (including spousal continuance). These factors are already set for the 70-year-old. In addition, the longer timeline adds another risk to the insurer. Where the premium for retirees may be less than 5% above the accounting liability, for actives or terminated vested participants it may be 20% to 30%

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if participants are young or benefits are complex (e.g., cash balance plans). Therefore, sponsors typically will try to cash out as many active and terminated vested participants as possible (to avoid paying the premium). When a large percentage of plan participants are not retired, the sponsor may elect to delay plan termination altogether.

Funding strategies

For many sponsors, a primary hurdle to plan termination is sufficient funding. Note that “full funding,” in the sense of the assets matching accounting liability (PBO), is not usually enough; sponsors will need more. The exact amount will depend on a few important factors.

For reasons discussed above, it is more expensive to purchase annuities for non-retirees, and therefore a less mature plan (i.e., fewer retirees) may need to fund to a higher level to cover a plan termination.

The appropriate liability measure for gauging current funded status should be market-based, with no interest rate smoothing, and it should consider only the benefits already accrued. While the funding target (PPA-based) and AFTAP measures are readily available, they do not necessarily reflect the underlying economics of the plan (unless a Full Yield Curve method is used), due to the heavy smoothing of interest rates for that purpose. Thus, accounting liability is usually the best liability measure to use, at least as a starting point.

As mentioned above, when comparing accounting liability and annuity prices, it is important to try to accurately estimate mortality. This is less problematic now than it used to be, as the Society of Actuaries (SOA) regularly releases updates to mortality tables. But the insurer may value the mortality differently, for example by taking a different view on the population being blue-collar oriented or white-collar oriented.

Sponsors of underfunded plans who are serious about termination should consider increasing discretionary contributions above statutory requirements. One practice is to establish a firm timeline for funding the plan. Paying only the minimum required, based on “stabilized” funding relief rates, will slow the progress to being fully funded, and merely extend the plan termination timeline. Investment returns and market events and conditions (e.g., changes in discount rates) can also help underfunded plans meet termination deadlines, but these same factors can hurt funded status if they are negative.

Another approach to funding a plan is to raise cash by issuing debt.¹¹ Low borrowing rates (if they can be attained) and clearly defined payment schedules are both attractive features of this strategy. This approach can also accelerate the plan termination process by helping a sponsor reach a fully funded position sooner than might be possible otherwise.

While sufficient funding is critical, overfunding may offer little benefit. Once the sponsor contributes to the plan, the funds cannot be taken back until all benefits are settled, and even then, only with a tax penalty. Therefore,

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sponsors should avoid contributing more than necessary. Since the final cost of a plan termination will not be known until late in the process, it may be prudent to slightly underfund the plan but have cash on hand to fill any last-minute deficit.

Investment strategies

Prudent asset allocation is a critical component of plan termination strategy. Sponsors planning for termination must avoid losing much ground on funding surplus. A fully funded position that may takes years to accomplish via careful strategy, favorable investment returns, and sustained contributions can evaporate quickly if discount rates or equity markets fall.

The best way to protect against disaster is to aggressively pursue liability driven investing solutions, minimizing both interest rate and equity risk. When rates fall and liabilities increase, assets should increase as well. Downturns in equity markets should have little effect on plans at the end of their glide paths, since the overall proportion of return-seeking assets will be minimal. Losing funded position while a plan termination is in motion is the single largest risk sponsors of terminating DB plans face and is best mitigated through an effective asset allocation strategy.

Many sponsors use a dynamic de-risking glide path that automatically changes asset allocation as funded status improves. **Exhibit 2** shows how asset allocation may differ for a terminating plan versus a hibernating.

In general, the pace of de-risking accelerates, and the end target of liability-hedging assets is higher, both of which take into account the short time frame under which the plan is operating. To reduce the chances of losing funded position, underfunded plans could also choose to immediately increase the allocation to liability-hedging fixed income, even though it may mean slightly higher contributions.

Losing funded position while a plan termination is in motion is the single largest risk sponsors of terminating DB plans face...

Exhibit 2: Sample glide paths under various end game goals

Step	Funded Status	Percentage Allocation To Liability-Hedging Fixed Income	
		Hibernating Plan	Terminating Plan
1	80%	40%	40%
2	85%	50%	50%
3	90%	60%	60%
4	95%	70%	70%
5	100%	75%	80%
6	105%	80%	90%
7	110%	85%	100%

With up to 100% of assets invested in liability-hedging assets and funded status above 100%, investment advisors ought to be able to closely match liability and asset sensitivities, and significantly reduce the risk of underfunding by reducing interest rate risk and equity risk while waiting to pay out final benefits.

As the return-seeking portion of the assets decreases in size, it will probably no longer be appropriate for a sponsor to split the pool into many asset classes. Simply decreasing each existing asset class pro rata will likely lead to higher relative manager fees for each asset class, for a marginal diversification benefit. After consulting with their investment advisors, sponsors may choose one or two multi-asset investments (such as global equity) that can provide exposure across multiple asset classes through the same fund or manager.

Once the timing, method and volume of payouts are known, sponsors can begin making final adjustments to their asset allocations.

Completing the termination

The underlying rates used to determine lump sums are based on high-quality corporate bonds, but the rates are usually fixed for an entire plan year.¹² Therefore, until the lump sum rates are set, high-quality bonds are the best hedge. As soon as possible after the rates are known and the take-rate for lump sums can be estimated, investments should be transitioned to cash or short-term fixed income strategies. To shorten the time between rate-setting and payout, sponsors can try to initiate the cash-out portion of the plan termination early in the plan year. The longer the gap between interest rate determination and cashing out, the greater the risk that paying out lump sums could hurt the funded status of a plan.

Sponsors that have already invested close to 100% of their portfolios in liability-hedging credit fixed income with duration similar to that of their liabilities have probably positioned themselves well to keep pace with annuity purchase pricing. Unlike lump sum rates that are fixed for a certain time, annuity pricing is based on the rates prevailing at the time of the transaction. Of course, annuity purchase prices are not entirely dependent on rates, but other factors (demographic changes, competitive adjustments, etc.) are generally not hedgeable. For this reason, sponsors should plan to have cash on hand (and outside the plan) that they can use to fund any remaining deficit at the time of final settlement. This method is usually superior to having a built-in plan surplus, since excess assets in the plan are taxed before reverting to the employer.¹³

Another important consideration is determining whether the sponsor will pay for the annuity purchase in cash or in-kind assets. If the insurer is willing to take assets in-kind, the sponsor may be able to avert the cost of cashing out long bonds or certain alternative investments, such as private equity or real estate. Doing so will require coordinating with the insurer, but if successful this could reduce the cost of the annuity purchase overall.

Once the timing, method and volume of payouts are known, sponsors can begin making final adjustments to their asset allocations.

If assets remain in the terminated plan after all benefits have been paid, the sponsor has three options:

1. The assets can revert directly to the sponsoring organization. Under this approach, the organization is taxed at a 50% rate, in addition to normal corporate income tax.¹⁴
2. The sponsor can amend the plan to offer more generous benefits, but this option is rarely taken, particularly since terminating plans have often been frozen for many years.
3. The organization can choose to use the excess funds to benefit plan participants through a different plan, known as a qualified replacement plan (QRP). The participants in the terminating DB plan must be in the replacement plan, and the sponsor must direct at least 25% of the excess assets toward the other plan in order to reduce the reversion tax to just 20%.¹⁵

Summary

While terminating a DB plan involves numerous critical steps, and although many factors can impede or delay the termination process, crafting and maintaining good funding and investment policies will help the plan sponsor avoid pitfalls and make the best use of available resources. Well-aligned policies and strategies will increase the odds that the sponsor's actions will match overall plan objectives, and that the termination process will run smoothly.

Appendix

Summary of plan termination steps

The plan termination process is complex. Appropriate timing and communication are critical. Sponsors must communicate with the IRS, the PBGC, plan participants (including beneficiaries and alternate payees) and any other affected parties (e.g., labor unions). While not necessarily comprehensive, **Exhibit 3**, covers the major steps plan sponsors must complete during a standard plan termination process.

Exhibit 3: Summary of plan termination steps

Required Step	Timing Requirements
1. Make a determination to fully freeze and terminate the plan	
2. Send IRC 204(h) notice to all participants affected by the plan freeze	At least 45 days prior to plan freeze date
3. Fund the plan sufficiently to pay for all lump sums and annuity contracts (typically 110%–115% funded on accounting basis, based on market interest rates and assets)	
4. Revise investment strategy, including asset allocation, if needed, to prepare to pay out all benefits in the near term	
5. Clean up administrative data and certify all plan benefits; find missing participants	Prior to sending the Notice of Plan Benefits
6. Request a determination letter from the IRS (not required, but advised)	
7. Select proposed termination date	
8. Send Notice of Intent to Terminate to affected parties	60–90 days prior to proposed termination date
9. Mail IRS Notice to affected parties	7–21 days prior to filing IRS Form 5310
10. File IRS Form 5310	Immediately after termination date
11. Send Notice of Plan Benefits to all plan participants	Prior to filing PBGC Form 500
12. File Form 500 and Schedule EA-S with the PBGC	Within 180 days after termination date
13. Receive participant elections – default is annuity, unless lump sum is elected	Prior to distribution of benefits
14. Send Notice of Annuity Information to all participants receiving annuities	At least 45 days prior to distribution
15. Distribute benefits to participants	The later of 1) 180–240 days after filing Form 500, and 2) within 120 days after favorable IRS determination letter filing
16. Purchase annuities for missing participants, or file Schedule MP with the PBGC	
17. Send Notice of Annuity Contract to annuity recipients	Within 30 days after sending annuity distribution
18. Revise pension expense due to settlement accounting	After final settlement amount is known
19. File Post-Distribution Certification, PBGC Form 501	Within 30 days after final distribution
20. PBGC audit (currently conducted for all plans with more than 300 participants, and for other randomly selected plans)	
21. Distribute remaining assets or transfer to successor plan	
22. Close trust	

Source: Internal Revenue Service and Pension Benefit Guaranty Corporation.

¹ Note that while closing and freezing the plan is not always explicitly mentioned herein, both are necessary before pursuing plan termination.

² PBGC, “2023 Pension Insurance Data Tables,” Table S-3.

³ See “The Investment and Management of Frozen Pension Plans (Fourth edition),” (2021). Russell Investments.

⁴ See Owens. (2023). “Pension risk transfer options and considerations”. Russell Investments Research; Owens. (2023). “Pension de-risking glide paths: Defining a plan for pension plan end games,” Russell Investments Research Viewpoint.

⁵ See Pension Benefit Guaranty Corporation, “Standard Termination Filing Instructions”; Internal Revenue Service, IRM 7.12.1 “Plan Terminations”; and U.S. GAAP Accounting Standards Codification (ASC) 715.

⁶ Lump sum payments are made equally to males and females of the same age, due to the underlying unisex mortality assumption. In contrast, annuities are more expensive for females, due to longer life expectancy. From the sponsor perspective, it is particularly advantageous to cash out females.

⁷ For reasons why terminated vested participants are the most common target population, see Owens. (2023). “Pension risk transfer options and considerations”. Russell Investments Research.

⁸ Sponsors seeking to cash out retirees used to need to seek a private letter ruling from the IRS to reduce the risk of losing plan qualification. Since the IRS issued Notice 2019-18, this is no longer a concern.

⁹ In reality, the IRS mandates a floor on annuity present values. In theory, the sponsor could offer lump sum benefits using more favorable assumptions to the employee (higher lump sums), but this is not usually the case.

¹⁰ In cases where the participant group has already been offered a lump sum, it is likely that the insurer will be more conservative in re-pricing the group, as it may be subject to anti-selection. Meaning, those most likely to benefit from a lump sum versus an annuity – those in poor health – will be more likely to take it, and the leftover population will be characterized by better-than-average health.

¹¹ Ford and Motorola are two examples of companies that have issued debt to fund their DB plans.

¹² The stability and look-back periods are important to note for lump sums. The stability period defines how long the interest rate remains effective. Sponsors can set this period to be one month, one quarter or one year. One year is most common. The look-back period can be as long as five months prior to the beginning of the stability period.

¹³ Though there are other uses of excess capital such as funding the DC accounts for the same participant base.

¹⁴ This tax rate may not apply to tax-exempt entities.

¹⁵ Complete rules on DB asset reversion are found in IRC 4980.

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