A GUIDE TO PENSION PLAN HIBERNATION

MANAGING THE RISKS AND COSTS OF YOUR PENSION PLAN

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A guide to pension plan hibernation

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In recent years we have seen a sharp acceleration in the incidence of annuity purchases by U.S. corporate defined benefit pension plans. Annuity purchase volume exceeded $50 billion in 2022, a far cry from the $1-2 billion annually seen in the industry before 2012. While most of this annuity purchase volume represents the transfer of certain retirees from the plan (rather than all participants), some sponsors may be asking, "Should *we* be considering a plan termination?"

But there is a trap in the very phrasing of that question. It excludes any consideration of an important option: plan hibernation. In this guide, we will correct that omission; we will define and describe what hibernation is and what it is not. We will explain what it means for benefits policy, funding policy, investment policy, cost management and risk management. In short, we will re-phrase the question and ask, "What are my choices for managing the risks and costs of my pension plan?" And this broader formulation of the question could lead many plan sponsors to a different conclusion – and potentially also to substantial cost savings.

Hibernation: An important but often overlooked stage of the pension plan path

Once a pension plan sponsor has closed the plan to new entrants, it is on a path to eventual termination. Although the path may yet stretch decades into the future, it has a finite timeline. Over that period, the plan will pass through a few distinct stages, which we can characterize as shown in this exhibit:

Open / ongoing plan | Closed / glidepath | Hibernation | Termination

Considering each stage in turn

Open / ongoing plan

Open / ongoing plan | Closed / glidepath` | Hibernation | Termination

An **open/ongoing** plan is where all DB plans began. It is open to new participants, so the time horizon is very long. This stage ends when the plan is closed to new entrants (perhaps also with the freezing of existing participants' benefit accruals), at which point the dynamics of the plan change fundamentally.

Closed / glidepath

Open / ongoing plan | Closed / glidepath` | Hibernation | Termination

We will refer to the next stage as the **closed/glidepath** stage, although it might also be termed the pre-hibernation stage or the underfunded stage. During this stage – which may last for many years – the closed and/or frozen plan moves toward full funding. As the funding deficit is reduced through contributions and/or investment returns, the need for a growth-oriented portfolio lessens. The plan will typically adopt and implement a de-risking glidepath during this phase.

Hibernation

As the assets of the plan approach a level of liabilities (i.e., as funded status meets or exceeds 100%), the emphasis moves from the growth-oriented strategy, and the focus on risk management intensifies. Preserving the funded position already gained is the highest priority. Doing so significantly reduces the possibility of future contribution requirements, especially if a full yield curve election is made on funding liabilities. It also reduces the chances of paying PBGC variable rate premiums.

This change of emphasis marks the transition to the **hibernation** phase, a stage that is sometimes overlooked in the chorus of talk about risk transfer. But hibernation – slowing down the process of risk transfer – can offer significant cost advantages for a plan sponsor.

The hibernation stage exists because, when it comes to plan termination, time is on the plan sponsor's side. A simple and inexpensive means to reduce pension liabilities and risk is to pay pensions: with each passing month and with each benefit check written, the cost and complexity of running the plan is reduced. Participants and their beneficiaries die. Lump sums may be paid out. Active employees leave the company or retire, and benefit payments commence for terminated vested participants[1].

Our experience suggests that frozen plans typically settle 6 - 10% of liabilities settled each year simply through the passage of time. Each of these steps makes the plan more mature. The more mature the plan, the more certain future benefits become, and the lower annuity purchase premiums can be.

Our analysis indicates that over the course of 10 years, a typical DB plan will fall in size by 30-40% simply by paying promised benefits as intended.

Termination

The hibernation stage cannot be prolonged indefinitely. Few sponsors are likely to elect to retain responsibility for a plan until the very end, paying the last promised benefit 75+ years after the plan froze its benefit formula. The final stage of the path generally involves the transferring of assets and liabilities to the insurance sector for the final run-off. This stage could involve one single **plan termination** transaction, but more often will be carried out via a series of lump sum cashouts and annuity purchase transactions.

Each of these stages has its own dynamic. In the remainder of this paper we will delve more deeply into the hibernation stage, and will consider what it means for the main areas of pension plan policy making: benefits policy, funding policy and investment policy. We will also describe the critical areas of cost management and risk management.

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Hibernation and benefits policy

By the time the hibernation stage is reached, certain key benefits-policy decisions – specifically, the decision to close a plan to new entrants and often, also to freeze the accrual of benefits for existing participants – have already been made, perhaps many years previously.

The freezing of benefit accruals is not critical for this stage, but being closed (not frozen) will mean the funded status goal will be higher to account for future expected future benefit accruals.

One aspect of benefits policy that does remain open in the hibernation stage is the question of benefit options, such as a lump-sum option. While many sponsors have offered lump sums via a short-term offer, offering the lump-sum option as a permanent plan feature may complicate the termination of the plan long term, introducing a self-selection bias and making future cash flows less predictable. Less predictable future cash flows are not viewed favorably by insurers, which is likely to increase the cost of eventual plan termination.

Hibernation and funding policy

Although the transition from the open/ongoing stage to the closed/glidepath stage is driven by benefits policy, the next transition – from closed/glidepath to hibernation – is largely a question of funding. If there is a significant shortfall of assets below liabilities, then self-sustaining hibernation remains out of reach.

In the closed/glidepath stage, the plan is counting on a combination of plan sponsor contributions and investment returns to improve plan funding. Funding policy and investment policy are therefore intertwined. However, in the fully-funded state that characterizes the hibernation stage, the focus shifts from achieving full funding to maintaining it.

An accounting funding ratio less than 100% would not generally be a reasonable baseline goal for hibernation, and even a 100% ratio may erode due to plan expenses, credit migration impacts on fixed income and actuarial/data changes in the actuarial valuation.[2]

The hibernation stage may therefore begin around an accounting funding level of 105%. Somewhere above that funding level, there is a point at which all liabilities could be transferred in full via lump sums to participants and an annuity purchase from an insurance company. The cost savings that might be achieved through hibernation may become less important once the point is reached at which full termination is possible without any further injection of capital. That point is not generally known until the exercise is embarked upon, and indicative cost estimates should be regarded with considerable caution.

In other words, the hibernation stage is typically characterized by a GAAP funding level of at least 105% - 110%, depending on if the plan is closed or frozen. This is the point at which the plan has a realistic chance of being self-sustaining (i.e., no future contributions needed), even though it may not necessarily have sufficient assets to effect a full plan termination.

Hibernation and investment policy

A core feature of hibernation is an investment policy that aligns the assets with the liabilities in order to maintain a fully funded position. In particular, interest rate risk should be hedged fully, likely with physical fixed income but possibly supplemented with synthetic rate exposure (e.g., treasury futures).

Investment policy during the closed/glidepath stage is generally designed to reach this point by the time the hibernation stage is attained. This might be done, for example, through the adoption of a de-risking glidepath[3]. Such a policy formally ties investment strategy to funded status, leading to a smooth transition into hibernation.

Investment policy – and the manager structure – will typically be simpler in the hibernation stage than in the open/ongoing plan or the closed/glidepath stage. Illiquid asset classes, for example would only be pursued with great caution, understanding the implications if the plan terminates before the end of the assets' life cycle.

The overall goal of investment policy during hibernation is to manage, as far as possible, the risk of a new shortfall emerging. Doing so will largely prevent contribution requirements or PBGC variable rate premiums.

Several strategies might be followed to this end. There is a choice of whether to build some small return-seeking positions into the portfolio – perhaps an allocation of up to 20% in growth-oriented investments. Such positions would have the goal of generating return which, in the long term, should help offset asset-liability slippage due to credit migration, plan expenses and assumption/data changes in the actuarial valuation process.

The investment portfolio is not, however, static. The plan continues to mature over time, and the liability profile continues to evolve, so it is important to periodically review the LDI strategy. A frozen plan's duration decreases over time as the plan matures, so the fixed income positions need to mirror that evolution. Similarly, lump-sum cashouts or annuity buyouts can have knock-on effects on investment policy.[4]

Hibernation and risk management

Having finally dealt with the pension plan shortfall, the risk/reward picture within the pension plan is transformed in the hibernation stage. No longer does each dollar of extra return automatically represent a dollar reduction in the plan sponsor's funding burden: even though higher returns are still preferable to lower, the primary focus is now on avoiding the emergence of any new shortfall, with a resulting need for additional contributions. Successful hibernation, in other words, hinges on successful risk management.

Apart from the impact on investment policy – described above – this focus on risk management also brings longevity risk. A big advantage of the defined benefit structure over defined contribution is the natural pooling of longevity risk that occurs. What matters is the average longevity of the plan population, not the specific longevity of each individual within it. But variations in that average longevity can still occur, and one of the key selling points of the annuity buyout is that it transfers that longevity risk from the plan to an insurance company. A market for other forms of longevity risk transfer – most notably the longevity swap – is developing in the UK, but remains nascent in the U.S.

Other risks also exist, such as the risk of regulatory change or escalating expenses. These risks are typically not easily hedged. Fiduciary risk, too, remains.

In short, while plan hibernation holds many advantages in simplifying the management of the plan and helping minimizing risks, hibernation does not imply "set it and forget it," although with the right providers, the ongoing management of the investment program can be greatly simplified for the sponsor in comparison to prior plan stages.

> *Cost management, as well as risk management, is required if a plan is to be self-sustaining and hibernation to be successful.*

Hibernation and cost management

The primary benefit to be gained from hibernation lies in the cost saving that is generally possible by waiting before commencing a plan termination or conducting annuity purchases. So cost management, as well as risk management, is required if a plan is to be self-sustaining and hibernation to be successful.

Some expenses, such as investment fees, actuarial valuation fees and plan auditor fees, are unavoidable during hibernation, although the simpler the strategy followed, the lower these fees tend to be. Sponsors also have some control over PBGC premiums.

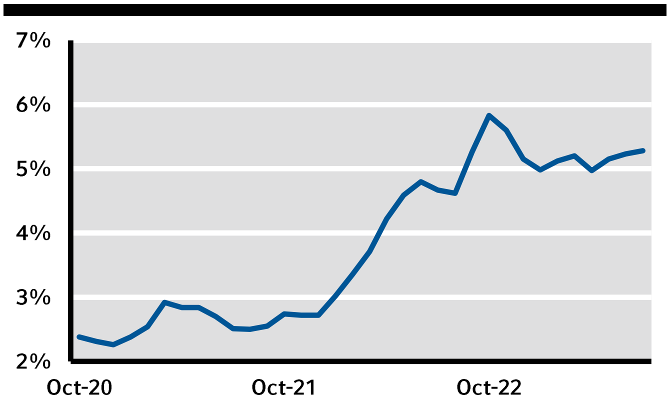
PBGC premiums are broken into two pieces – the flat rate, which is based on participant headcount, and the variable rate, which is tied to the plan's funded status. Variable rate premiums should not be an issue in the hibernation stage, since the plan is fully funded, or close to it.[5] It is, therefore, plan headcount that is the key consideration here.

A reduction in headcount occurs naturally over time as plan participants die or as benefits are settled. This reduction can be accelerated by offering participants a lump sum in lieu of their pension benefit paid at retirement age. These offers – which generally are made during a specific, limited window of time – typically target terminated vested participants (those who have left the company but not yet begun to receive their benefit).

In particular, participants with small benefits may be the most advantageous to cash out, since the saving in PBGC flat-rate premium is proportionately larger; they tend to be more likely to take the offer; and their cashing out will have a lesser effect on the plan's funded status.[6]

The timing of lump sum cashouts can have a significant effect on the plan's funded status. For most plans, lump sums are converted from annuities using IRS-provided rates that are fixed for a year (12-month "stability" periods). If the rates rise significantly (as they did in 2022) in the year the plan pays lump sums, the relative "cost" of paying the lump sums is high. **Exhibit 1** shows how this rate has changed over the last few years. This is a risk the sponsor takes when initiating this type of transaction, which can also work in their favor if they pay lump sums in a year of falling rates.

Exhibit 1: 417(e) interest rates used for calculation of the lump sum



Source: IRS

Annuity buyouts for some or all retirees also serve to reduce headcount and hence to reduce PBGC premiums. Pricing for these transactions has become more affordable over the last several years as more insurers has entered the market, particularly for retirees with small benefits. But these transactions come with their own risks.[7]

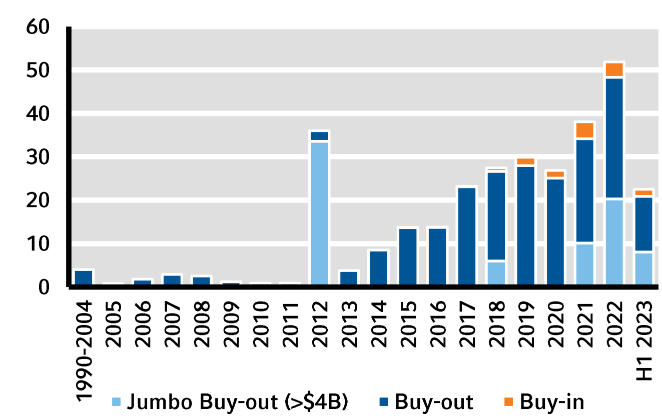
> *Liability profiles that have been hollowed out by the transfer of the most-easily hedged participants can be particularly difficult to manage, and ultimately more expensive.*

Partial buyouts – more than meets the eye

The transition from the hibernation stage to the termination stage is marked by active steps to remove assets and liabilities from the plan through a combination of lump sum cashouts and annuity purchases. It is common for sponsors to pursue incremental risk transfers over time, offloading the smallest or least costly transactions first, then pursuing large transfers as circumstances change.

Interest and activity in the annuity purchase market is currently high, as shown in **Exhibit 2**. It is important to acknowledge that the vast majority of this volume is for annuity purchases for just a portion of the plan, not full plan termination. The case for these buyouts is being actively promoted not only by insurance companies, but also by investment banks and actuarial firms. Annuity purchases can enable a corporation to reduce its pension liability and the associated risk. But a buyout is a major decision. There is a downside as well as an upside, and plan sponsors should be wary of moving too far without solid analysis.

Exhibit 2: Annuity purchase transactions history



Source: LIMRA

In particular, plan sponsors should be wary of representative estimates of annuity pricing; our experience suggests that actual pricing is highly variable depending on the specifics of the plan in question. Similarly, careful consideration should be given to how the characteristics of the remaining liabilities impact the cost to the company. For the same reason that insurance companies are less keen to take on these other liabilities, they can be relatively unappealing for the company to retain.

Liability profiles that have been hollowed out by the transfer of the most-easily hedged participants can be difficult to manage, and ultimately more expensive. The sum of the costs of managing the parts is generally more than the cost of managing the whole.

So plan termination, which can be a prolonged process undertaken over a series of transactions spanning 18-24 months, needs to be carefully integrated with the hibernation process.

Does plan hibernation actually work?

When we first began talking about plan hibernation several years ago, much of this discussion was theoretical, as relatively few plans were fully funded. Fast forward to today, and many sponsor are managing fully funded plans, or are getting close to that threshold.

So, the question plan sponsors should ask is, "Does plan hibernation actually work?". We have helped sponsors navigate their way into hibernation stage and have some good data to illustrate if funded status has stabilized and improved. Here is just one example.

Exhibit 3: Funded Status experience for hibernating plan over 3 years

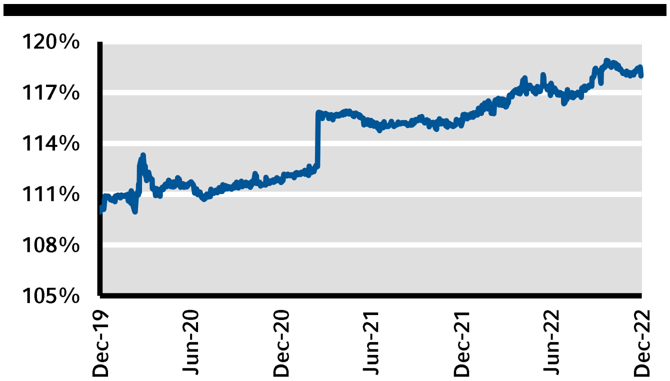


Exhibit 3 shows the daily funded status experience of a closed and frozen plan that has made no contributions and started with a funded position of about 110%. They have hedged 100% of their interest rate risk and have positioned their LDI portfolio to be closely aligned with the liability duration profile.

The one-time bump in funded status in 2021 was due to an actuarial data update, rather than a market-related factor. As you can see, funded status has remained stable or steadily increased over this 3-year time period, despite significant volatility in equity markets, 350 basis point swings in the 10-year treasury rate, and a recession.

Here is one anecdote to put this into perspective. Over the 36 months shown here, the S&P 500 index dropped at least 1% in value a full 35% of the time. In contrast, this plan's funded status dropped by over 1% just once (3% of the time), which offset a large gain the month prior.

Through the design of the asset allocation, active fixed income management, and a built-in surplus, the headwinds of credit migration (defaults/downgrades), expenses and asset/liability mismatches were overcome successfully.

Conclusion: Don't ignore the hibernation phase

Each of the various stages that we have described in this guide – open/ongoing; closed/glidepath; hibernation; termination – has its own characteristics and each requires a different emphasis if it is to be managed successfully. Some of these stages are relatively well-understood: in the closed/glidepath stage, a closed or frozen plan builds up its funding position and reduces its risk profile; in the termination stage, risk is transferred to the insurance sector through the purchase of annuities. Less widely appreciated is the importance of the hibernation stage, which can drive down the eventual cost of plan termination.

Hibernation can serve as a stepping stone to eventual termination. It generally requires less funding than immediate termination and far less internal and external resources. While termination will eventually make economic sense for defined benefit plan sponsors, the hibernation stage can offer material reductions in cost and risk and should not be ignored.

[1] i.e., those plan participants who left company employment prior to retirement age, with vested benefits.
[2] Liabilities that are valued on the basis of the yield on high-quality corporate bonds assume, in effect, that there will be zero loss from defaults or downgrades. In practice, some loss should be expected. Other sources of erosion in GAAP funding calculations include variations in demographic experience, plan expenses and so on.
[3] See "Pension de-risking glide paths: Defining a plan for pension plan end games" (2023). *Russell Investments Viewpoint*
[4] See Owens, J., Dion, V. (2015, July) "LDI for DB plans with lump sum benefit options" *Russell Investments Practice Note*
[5] During the closed /glide path stage, the variable rate premium is a significant consideration, but there are subtle considerations (such as the variable rate premium cap) that can fundamentally alter the appropriate response.
[6] In the case of benefits worth more than $5,000 (or $7,000 in 2024), these lump sums can be offered to participants (and the basis of the calculation is specified by the IRS) but the decision of whether to accept the offer lies with the participant. Benefits worth $5,000 (or $7,000 in 2024) or less, however, are considered to be *de minimis* and can be paid as a lump sum even without the consent of the participant. Following recent increases in PBGC premiums, paying *de minimis* benefits as lump sums is nearly always a cost-saver for the plan.
[7] See Owens, J. "Risk Transfer Potholes: How to avoid them or Brace for impact.". (2022). *Russell Investments Research*

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