A guide to pension plan hibernation

Russell Investments Research / Viewpoint

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Recent years have seen a sharp acceleration in the incidence of annuity buyouts by U.S. corporate defined benefit pension plans. There have been at least six such deals in excess of $1 billion since 2012 – each one of which exceeded the total annuity buyout volume of 2011. Smaller buyouts are also far more common. In light of this activity, many plan sponsors may feel a need to ask themselves, "Should *I* be considering a buyout?"

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 hibernation; and 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 cost of my pension plan?" And this broader formulation of the question will lead many plan sponsors to a different conclusion – and potentially also to substantial cost savings.

Hibernation: the forgotten stage of the pension plan path

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

Open / ongoing plan → Frozen / glidepath → Hibernation → Termination

Considering each stage in turn

Open / ongoing plan

Open / ongoing plan → Frozen / glidepath` → Hibernation → Termination

An **open/ongoing** plan is open to new participants, so the long-term horizon continually moves out farther into the future. 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.

Frozen / glidepath

Open / ongoing plan → **Frozen / glidepath`** → Hibernation → Termination

We will refer to the next stage as the **frozen/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 or frozen plan moves toward full funding. As the funding deficit is reduced, the need for a growth-oriented investment strategy lessens, and the plan will typically follow an investment strategy glidepath during this phase.

Hibernation

Open / ongoing plan › Frozen / glidepath` › **Hibernation** › Termination

As the assets of the plan approach a level sufficient to cover the liabilities without any need for further contributions from the sponsor, the emphasis moves away from the growth-oriented strategy and the focus on risk management intensifies. 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 cheap way 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 some 6% to 8% 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. Here we note, however, that the cost benefit of hibernation has been reduced by recent increases in PBGC premiums; those premiums are one of the reasons why indefinite hibernation rarely makes sense.

Termination

Open / ongoing plan › Frozen / glidepath` › Hibernation › **Termination**

But the hibernation stage should not be prolonged indefinitely. Few sponsors are likely to elect to retain responsibility for a plan until the very end, and 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 buyouts.

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 describe, too, 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, most likely, also to freeze the accrual of benefits for existing participants – have already been made, perhaps many years previously. Although it is the closure of the plan that starts the path shown in Figure 1, it would be unusual for a plan to reach the hibernation stage if benefit accruals have not been frozen; a hibernating plan should be self-sustaining, with very minimal contributions expected in the future and this is not generally possible in the presence of material 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 offering lump sums on a temporary basis is fairly common (and carries advantages we will discuss later), offering the lump-sum option indefinitely can complicate the plan, make it more expensive to administer, introduce a self-selection bias and make future cash flows less predictable, all of which are headwinds to successful hibernation.[2]

Hibernation and funding policy

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

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

Full funding is a slightly loose term, in the sense that liability values are estimates and there is no definitive point at which we can say for sure that, "Now the assets are enough to pay all of the promised benefits." A GAAP funding ratio less than 100% would not generally be a reasonable baseline goal for hibernation, and even a 100% ratio tends to erode due to plan expenses and defaults or downgrades in the asset portfolio.[3]

The hibernation stage may therefore begin around a GAAP funding level of 100% to 105%. Somewhere above that funding level, there is a point at which all liabilities could be transferred in full to an insurance company via a full plan termination. 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 around 100% to 110%. This is the point at which the plan has a realistic hope of being self-sustaining, 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: potentially a full (100%) hedge of the liabilities' interest rate exposure in the asset portfolio, and almost certainly no less than 80%.

Investment policy during the frozen/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 an LRAA de-risking glidepath[4]; such a policy formally ties investment policy 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 frozen/glidepath stage: high-cost or illiquid asset classes, for example, will tend to be avoided, even if the return prospects are good.

The overall goal of investment policy during hibernation is to manage, as far as possible, the risk of a new shortfall emerging, and there are several strategies that might be followed to this end. There is a choice of whether or not to build some small return-seeking positions into the portfolio – perhaps an allocation of up to 20% in equity-like investments,[5] or a hedge ratio less than 100%. Such positions would have the goal of generating return which, in the long term, should help offset asset-liability slippage and plan expenses.

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, 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.[6]

Hibernation and risk management

Having finally dealt with the pension plan shortfall – oh happy day! – 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: hibernation does not imply "set it and forget it."

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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 buyouts. 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.[7] 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. 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).[8] 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[9].

Annuity buyouts for some or all retirees also serve to reduce headcount and hence to reduce PBGC premiums. However, these buyouts are typically more costly than lump sum cashouts or plan hibernation, because the insurance company must charge enough to cover not only the likely cost of paying the benefits but also its own administrative costs and profit margin. The key comparison here is that of the all-in costs of an immediate buyout against the all-in costs of deferring the buyout to a later date (not, we should point out, the all-in costs of *perpetual* hibernation: buyouts will nearly always make sense at some point.)

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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, which normally means annuity buyouts. A complete buyout of all liabilities in one swoop, although possible, would be a massive undertaking. In practice, most buyouts represent only a portion of the plan, or partial buyouts.

Interest and activity in the annuity buyout market is currently high, even during the frozen/glidepath stage, before plans reach full funding. The case for these buyouts is being actively promoted not only by insurance companies, but also by investment banks and actuarial firms. Buyouts 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.

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 particularly 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, needs to be carefully integrated with the hibernation process.

Conclusion – don't ignore the hibernation phase

Each of the various stages that we have described in this guide – open/ongoing; frozen/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 frozen/glidepath stage, a frozen plan builds up its funding position and reduces it 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] A permanent lump sum feature not only increases the cost and risk of hibernation, it also increases the cost and risk of plan termination.
[3] 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.
[4] See Gannon, J., Collie, R. (2009, April) "Liability-Responsive Asset Allocation" *Russell Investments Viewpoint*
[5] This is discussed in: Carroll, R. (2015, June 29) "Fully funded? Maintaining an allocation to return-seeking assets might still be necessary" *Fiduciary Matters Blog*
[6] See Owens, J., Dion, V. (2015, July) "LDI for DB plans with lump sum benefit options" *Russell Investments Practice Note*
[7] During the frozen/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 – see for example Gannon, J. (2015, November) "Borrow to fund: Do PBGC premiums incent sponsors to borrow to fund their pension plans?" *Russell Investments Practice Note*
[8] A 2015 IRS ruling states that lump sums may not generally be offered after a pension has started to be paid, except as part of a full plan termination.
[9] In the case of benefits worth more than $5,000, 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 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.

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