The Pension Plan Termination Option

A Valuable Asset for Plan Sponsor

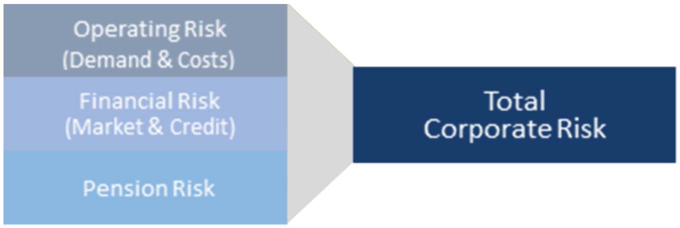
Pension plan funded status has improved significantly during 2021. Multiple years of strong investment returns, coupled with a recent rise in pension plan discount rates, has improved funded status for the median US corporate pension plan more in the last 90 days than in the last five years. This rapid change has created a need for pension investment committees to reevaluate their now potentially more near term goals and objectives for plan disposition.

Plan actuaries are actively pitching pension plan termination to many plan sponsors, claiming financial as well as risk management benefits. While many of these claims are significantly overstated, this will likely be the eventual path of most plan sponsors. Almost all plans will eventually terminate, offloading pension obligations to a third-party insurance provider rather than operating until the last pensioner is paid. The decision is likely less about whether the plan will terminate and offload its liability, but when, and under what circumstances, that will occur.

Plan sponsor considerations for termination

The most important consideration for a plan sponsor is what is the value of plan termination? The value of plan termination is a function of the financial risk posed by the plan, best measured by the additive and relative risk the pension plan poses to the plan sponsor. The risk profile of the sponsor will directly impact the level of market risk, interest rate risk, contribution and funded status volatility the sponsor can afford. This might be measured in a number of ways, including:

- Relative size of plan – Pension liability as a percent of market capitalization, plan benefit payments as a percentage of free cash flows, maximum projected contribution requirements as a percentage of free cash flows
- Stability of the plan sponsor – How stable are plan sponsor revenues and cash flows
- Available capital capacity – How large is cash balance and borrowing capacity to support and offset variation in required contributions and assist in support of pension benefits over time



Pension risk comes in two forms:

- Underfunding – Not having sufficient assets to support projected benefit payments
- Asset/Liability mismatch – The assets are invested in a more volatile investment portfolio than the liability measure, and the resulting balance sheet volatility will impact both required contributions as well as the balance sheet

Many plan sponsors are well positioned to manage the pension risk on an ongoing basis, without recourse to a third party provider to assume the liability. Plan sponsors have two general strategies to meet their pension obligations.

- Investment Returns + time: A reasonable well-funded plan (75%+ on a PBO basis) with a blend of return enhancement and risk management assets, will have a high probability of supporting projected benefit obligations without further contributions. Extended funding relief, and actual returns with an expected rate of outcomes, could fully fund the obligation without additional claims on plan sponsor capital.
- Liability hedge (LDI): A well-funded plan, with a closely matched asset strategy of assets and liabilities will significantly limit interest rate risk associated with the plan.

While those two approaches carry varying levels of risk, neither at completely riskless. To completely sever that risk requires termination and annuitization. For some plan sponsors with very large liabilities, in cyclical industries, the value in eliminating that risk completely may carry significant value.

What does termination cost?

An assessment of the current cost to terminate is fairly straightforward. Including the contribution required to fully fund the plan to 100% on a PBO basis, an additional premium to compensate the insurance provider to assume that liability risk, and the administrative costs and expenses necessary to execute the transaction.

Example 1

Terminate Now ($MM)	
PBO Liability @ 3.25% discount rate	100.0
Premium - insurance plus administrative costs @ 5% of PBO	5.0
Termination Cost: PBO + Premium	105.0
Market Value of Assets	90.0
Net cost to terminate: Termination cost - Assets	15.0

Based on above assumptions, a pension plan 90% funded, with a $100 MM liability, could cost about $15 MM in addition to the $90 to offload that plan to a third party insurer.

Termination: A valuable option

However, two important characteristics give rise to another important “cost” to termination. The option to terminate is open-ended, in that a plan sponsor can seek to exercise that termination at any time of their choosing. It is also highly variable. It depends on both a varying asset value that moves up and down based on the markets, as well as a varying PBO based on both the projected payouts and the discount rate applied to those payouts (determining both the value for full funding for accounting purposes, as well as the premium required to protect an insurance provider). The optionality and variability of plan termination create a value for the plan termination option, which by terminating now and “exercising” that option cancels that value, and thus should be considered when evaluating the costs associated with termination.

We can assess those costs through some simple modeling. From the starting point in **Example 1,** we can roll forward investment returns, as well as pension payments, and establish various scenarios and compare the outcomes. For simplicity purposes, let’s first focus on three different outcomes, based solely on varying investment returns over five years.

Example 2

Terminate in 5 Years ($MM)	Downside Return @ 3.5%	Baseline Return @ 4.5%	Downside Return @ 5%
PBO Liabiilty - Year 5	92.4	92.4	92.4
Premium - insurance plus administrative costs @ 5% of PBO	4.6	4.6	4.6
Termination Cost: PBO + Premium	97.0	97.0	97.0
Market Value of Assets	78.0	82.7	87.9
Net cost to terminate: Termination cost - Assets	19.03	14.33	9.12

Depending on varying investment returns, and actuarial projections regarding plan outflows, the costs of termination will vary. Higher returns will translate into additional assets, thus reducing future termination costs. We can probability weight those outcomes, and compare to termination costs today (discounted at a risk free discount rate).

Option value - Current termination cost less projected termination cost (if <0 then 0)	0.0	0.7	5.9
Xs Probability of each scenario	25%	50%	25%
Probability Adjusted	0.0	0.3	1.5
PV a rf rate (2%)	0.0	0.3	1.3
Total Option Value (probability wtd sum of all option values)	1.6		

We can add another variable that further expands the volatility of future termination outcomes and the associated value of the termination option. Discount rates are not static, and have varied approximately 25 basis points annually. Applying a varying discount rates to the liabilities at termination expands the distribution of outcomes.

	Downside Return @ 3.5%		Baseline Return @4.5%		Upside Return 5.5%	
	Plus 50 bps in Discount Rates	Minus 50 bps in Discount Rates	Plus 50 bps in Discount Rates	Minus 50 bps in Discount Rates	Plus 50 bps in Discount Rates	Minus 50 bps in Discount Rates
PBO Liabiilty - Year 5	87.8	97.4	87.8	97.4	87.8	97.4
Premium - insurance plus administrative costs @ 5% of PBO	4.4	4.9	4.4	4.9	4.4	4.9
Termination Cost: PBO + Premium	92.2	102.3	92.2	102.3	92.2	102.3
Market Value of Assets	78.0	78.0	82.7	82.7	87.9	87.9
Net cost to terminate: Termination cost - Assets	14.2	24.3	9.5	19.6	4.3	14.4
Option value - Current termination cost less projected termination cost	0.8	0.0	5.5	0.0	10.7	0.6
Probability	12.5%	12.5%	25.0%	25.0%	12.5%	12.5%
Probability Adjusted	0.1	0.0	1.4	0.0	1.3	0.1
PV a rf rate (2%)	0.1	0.0	1.2	0.0	1.2	0.1
Total Option Value (probability wtd sum of all option values)	2.6					

The broader distribution of outcomes increases the termination option value, as surplus assets provide additional benefits, limited by the current cost of termination, and can thus be no greater than $15 MM. But at an estimated value of $2.6 MM, the termination options is of substantial value relative the cost of termination, and is likely understated, as this can be exercised at any point, and has a longer time to expiration than five years.

Doubling the time frame to 10 years increases the value of the termination option considerably, allowing the impact of time and returns to reduce the termination cost further.

	Downside Return @ 3.5%		Baseline Return @4.5%		Upside Return 5.5%	
	Plus 50 bps in Discount Rates	Minus 50 bps in Discount Rates	Plus 50 bps in Discount Rates	Minus 50 bps in Discount Rates	Plus 50 bps in Discount Rates	Minus 50 bps in Discount Rates
PBO Liabiilty - Year 10	74.3	81.2	74.3	81.2	74.3	81.2
Premium - insurance plus administrative costs @ 5% of PBO	3.7	4.1	3.7	4.1	3.7	4.1
Termination Cost: PBO + Premium	78.0	85.3	78.0	85.3	78.0	85.3
Market Value of Assets	58.6	58.6	68.3	68.3	80.5	80.5
Net cost to terminate: Termination cost - Assets	19.5	26.7	9.7	17.0	0.0	4.8
Option value - Current termination cost less projected termination cost	0.0	0.0	5.3	0.0	15.0	10.2
Probability	12.5%	12.5%	25.0%	25.0%	12.5%	12.5%
Probability Adjusted	0.0	0.0	1.3	0.0	1.9	1.3
PV a rf rate (2%)	0.0	0.0	1.2	0.0	1.7	1.1
Total Option Value (probability wtd sum of all option values)	4.0					

Conclusion

Based on a preliminary assessment, the termination option value is considerable relative to the cost of termination, potentially as much as 50% the termination costs. Terminating at any one point, if it requires a significant termination cost, gives rise to a termination option that is a significant portion of that total cost. That termination value reflects the potential for a significantly reduced cost of termination in the future, based on a combination of favorable market returns and rising discount rates. Plan sponsors considering termination need to account for that termination option value in their calculation of timing to implement the termination option.

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