Canadian
Investment Review

What could negative yields mean for Canadian pension plans' funding statuses?

Written by Yaelle Gang on Wednesday, November 13th, 2019 at 1:57 pm

---

Globally, negative yielding bonds have alarmed investors.

While Canadian government bonds haven't gone negative, movement in other countries has demonstrated to institutional investors that anything is possible. So if bond yields do go negative, what could this mean for Canadian pension plans' funding statuses?

Canadian defined benefit plans can be valued in three different ways, all of which rely on different interest rate assumptions: solvency, going concern and accounting.

"In general, when you're calculating the liabilities for a pension plan, basically, what you're doing is you're projecting the expected future benefit payments from the pension plan . . . and then you're discounting back those cash flows using an interest rate to the valuation date," says Gavin Benjamin, senior director of retirement at Willis Towers Watson. "And the way the math works is, the higher the discount rate, the lower the liability; the lower the discount rate, the higher the liability."

Solvency funding

A solvency funding calculation assumes some plan members will elect to take a commuted-value lump sum, while other members will elect to collect an ongoing pension benefit secured by an annuity paid by an insurance company. At a high level, these liabilities are generally calculated using a Government of Canada bond yield plus a spread.

Even if government yields do go negative, it doesn't necessarily mean the interest rates used to value pension liabilities would be negative because of this spread, says Benjamin. "It wouldn't necessarily mean that you're using a negative interest rate to value a pension plan from a funding perspective, but what it would do is put downward pressure on the interest rate that the actuary is using. And if that were to occur, it wouldn't be good news for pension plan sponsors because it would result in increased liabilities and an accompanying increase in funding requirements."

Going-concern funding

With that said, solvency measures are becoming less important in Canada, particularly in Ontario and Quebec, which have both passed solvency reform, and in B.C. and other provinces, where they're under review, says Dean Newell, vice-president at Actuarial Solutions Inc. "To a certain extent . . . it makes solvency funding no longer the key driver in the contribution requirements it once was. So now there's more of a focus on the going-concern valuation results as driving the contribution requirements, at least in Ontario with the new funding framework that came into effect in 2018."

When a plan is valued on a going-concern basis, actuaries use a discount rate, which is based on the long-term expected investment return for the plan assets.

"Even for going-concern valuations — although I think it would be unlikely that the interest rates to value going-concern liabilities would go negative — there would be downward pressure on the interest rate used for the going-concern valuation because, for example, for a going-concern valuation the interest rate is based on the actuaries' long-term expectation with respect to the [investment return on the] pension plan fund," says Benjamin. "And so, for example, if interest rates were to go negative, that would put downward pressure on the actuaries' expectation with respect to the expected long-term return on the bonds within the pension plan's portfolio."

Although it isn't likely the effect would be as dramatic in going-concern situations as in solvency, this would still cause a decrease in the interest rate used, potentially driving up funding costs, he adds.

In Ontario, the enhanced rules around going-concern solvencies also introduced the requirement for a pension plan to keep a funding cushion, otherwise known as a provision for adverse deviation.

While the discount rate in going concern is generally long term in nature, Ontario's PfAD requirement uses a benchmark discount rate, based on Government of Canada long-bond yields, which forces a plan to take a more mark-to-market approach for the going-concern liability measurement. "Lower interest rates will inevitably be factored into the going-concern liabilities, at the very least by that benchmark discount rate component of the provision for adverse deviations for Ontario-registered plans," says Newell.

If a Government of Canada bond yield becomes negative on a plan's valuation date, it would potentially increase the PfAD in Ontario, notes Benjamin. "It would potentially mean that the cushion would be higher because the way it works . . . is you have this benchmark discount rate that's calculated . . . [and] one of the key inputs is the Government of Canada long-bond yield, and then you compare that to the actuaries' discount rate assumption. And to the extent that the benchmark rate is lower than the actuaries' assumption then you increase the PfAD."

Accounting purposes

Pension plans are also valued for accounting purposes. Under most accounting standards, pension plan liabilities are valued using the yields on high-quality corporate bonds.

"For accounting purposes, lower interest rates will result in higher liabilities and higher obligations and, therefore, bigger accounting deficits on a corporate entity's financial statement and higher expenses for their plans going forward," says Newell.

As well, if interest rates go negative, this would put additional financial pressure on defined benefit plan sponsors, which could increase the desire to close defined benefit pension plans and, for those that are closed and not yet frozen, freeze defined benefit pension accruals going forward, Benjamin says.

If interest rates do go negative, pension plans may also reach for positive returns by moving into more risky assets, he notes. "And so, that's something that might not be desirable with respect to the level of risk within Canadian pension plans."

Overall, lower interest rates will ultimately lead to higher liabilities and higher costs for ongoing DB plans, says Newell. "The one caveat to all of that is for plan sponsors who have adopted a de-risked investment strategy. To the extent that they're currently investing in bonds, they might not see their funded status change all that much because as interest rates decrease, the value of the bonds that they're holding will increase and, ideally, they'll be fully hedged, so that the increase in their obligations and liabilities would be offset by an increase in their plan assets."

In general, plan sponsors should be considering the range of risks associated with their pension plans and negative rates is one risk that should be considered, Benjamin says. "For example, some have held the view for 10 years or more that interest rates can't go down any further. There's very little risk on the downside with respect to the level of interest rates and it's more likely that interest rates will go up.

"But the fact that negative interest rates have emerged in other countries, and the fact that it's being discussed in Canada, is a reminder that it's not safe to assume that interest rates will necessarily go up and couldn't go down any further."

Copyright 2019. Canadian Investment Review. All Rights Reserved.