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Plan sponsors to consider new mortality improvement scale

Jennifer Paterson | January 10, 2018

The Canadian Institute of Actuaries has published a new mortality improvement scale as part of an effort to better reflect Canadians' increased longevity and harmonize actuarial work in the pension and life insurance industries.

The organization put together a task force to look into mortality improvement last year and, following a consultation process, issued a report in September. The report provided an analysis of the rate of mortality improvement for the Canadian population and the construction of a mortality projection scale in order to reflect future mortality changes in Canadian actuarial work.

One of the task force's main purposes, according to Dean Newell, vice-president of Actuarial Solutions Inc., was to construct a new mortality improvement scale, not just for pension and retiree benefits plans but also for life insurance, social security and other actuarial work. "There was a desire to, if you will, harmonize actuarial practice in Canada, for both insurance and pensions, and come up with the best estimate assumption for mortality improvement," he says.

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The task force's new mortality improvement scale, MI-2017, comes more than three years after the institute published the last version, CPM-B, in February 2014. While the earlier version considered the Canada Pension Plan and Quebec Pension Plan experience ending in 2007, the new scale looks at figures up to 2015.

"When we do valuations for a pension plan, we take member data, we're projecting how long people are going to live," says Newell. "The mortality assumption in our work is really two different assumptions: what is the current mortality experienced today and what is the expected improvement in those mortality rates over the next few years?"

Years ago, mortality assumptions didn't factor in improvement, says Newell, noting the industry has evolved to reflect the fact that people are living longer. "As part of a mortality assumption for valuing pension plans, you shouldn't just factor in what is the mortality at a recent date or table but you should also factor in that those mortality rates are going to improve slowly and surely over time," he adds. "So that way, the life expectancy of say, a 20-year-old, is going to be a lot greater than the life expectancy of say, a 65-year-old or 80-year-old. That's the impetus of the mortality improvement."

A key message for plan sponsors is that adopting the new improvement scale will increase a plan's liabilities very slightly, in most cases by less than one per cent, according to Newell. "While that's something to consider, some pension plans will probably move to adopt that and others will say, 'You know what, that's not that material,' and wait a couple of years until there's a new study and a new pensioner mortality table to boot."

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The main difference between the CPM-B improvement scale and the new MI-2017 version is the change in the ultimate improvement rate, says Newell. The previous scale, he notes, used an ultimate improvement rate for most ages of 0.8 per cent. "When the CIA developed this task force, they said, 'We know that that ultimate improvement rate is one of the main drivers in the end result.' So when they look globally, they see that a 0.8 per cent ultimate improvement rate is what they feel is the low end of a reasonable range," he says.

"So they're of the opinion that, based on this global search, everyone is using something in the range of 0.8 and 1.2, and so they're of the view that the middle of that range is one per cent," he adds.

"My instinct — and I don't know this entirely but I've heard rumours — is that the Office of the Chief Actuary still thinks that 0.8 is a better assumption than one. Do they have better data, better hindsight of what's going to happen to mortality in the future? Are the other countries too aggressive in their thinking? It's a very, very subjective assumption."

For its part, the Canadian Institute of Actuaries' report is more of a suggestion than a requirement. But it does recommend that Canadian actuaries consider using the MI-2017 scale, noting in the report that "it might be appropriate for Canadian actuaries to make adjustments to mortality improvement assumptions recommended by this task force to reflect the nature of their work."

Newell expects plan sponsors and actuaries will move to adopt the new scale over the next year. "I think the task force would ultimately like people to move to this new improvement scale sooner rather than later," he adds.

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