SOA Mortality Improvement Scale MP-2017 Released

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The Retirement Plans Experience Committee (RPEC) of the Society of Actuaries recently released mortality improvement table MP-2017, an updated version of their MP series of mortality improvement tables. The update reflects historical experience through 2015, in which age-adjusted mortality rates actually *increased* over the prior year.

As we speculated in our 2018 IRS mortality article, the MP-2017 update reflects generally lower mortality improvement than predicted by prior MP tables. According to RPEC's report, pension liabilities calculated with the MP-2017 scale should be approximately 0.7% to 1% lower than the same liabilities calculated with scale MP-2016.

Implications for End-of-Year Financial Disclosures and Fiscal Year 2018 Expense Calculations

In general, sponsors of single-employer plans who used the MP-2016 improvement scale to determine pension and post-retirement medical and life obligations will want to change to MP-2017. Since the updated scale reflects more recent experience, it is likely a better estimate of future improvement than scale MP-2016, and with it comes the added benefit of lower liabilities. Sponsors who finalized accounting results earlier in the year may receive requests from auditors to quantify the effect of the new scale.

Implications for Single-Employer Pension Funding, PBGC Premiums and Accelerated Forms of Benefit Payments

The IRS has already provided final regulations regarding mortality table updates applicable for 2018 valuation dates and later (notwithstanding revision in future years). Those regulations appear to give sponsors the option of deferring use of the new IRS tables until 2019 for calculating cash contribution requirements and, potentially, for calculating 2018 PBGC premiums.

The IRS also released 2018 applicable mortality tables used to calculate minimum lump sum forms of payment and other accelerated payment forms. Sponsors have no option to defer use of those tables.

Since the 2018 IRS tables are based on the prior MP-2016 improvement scale, it is our opinion that sponsors will want to opt out of using the new tables for minimum contribution calculations, and also for PBGC premium calculations, if possible.

What about Lump Sum Windows and Other Risk Transfer Activities?

Although the 2018 IRS tables are based on MP-2016 rates and may technically be less accurate in the near term than the MP-2017 tables (and more expensive from the view of the plan sponsor), the minor adjustments between scale MP-2016 to MP-2017, as well as future-year MP updates, will likely have less impact than fluctuating segment interest rates. Annuity purchase rates are also minimally affected by the IRS tables, since that pricing is set by insurance companies. More simply, if a lump sum window or annuity purchase seemed to be an excellent strategy for a plan sponsor before the recent IRS mortality update, it likely still will be.

Will Mortality Improvement Stall?

Lower mortality improvement in the updated tables is driven by recent poorer-than-expected mortality experience. Will that trend continue?

There is a lag in the historical data reflected in the MP improvement scales, as RPEC must reconcile unrefined general population data to prepare its updates. The MP-2017 improvement scale explicitly reflects population mortality improvement data through 2013, and partially reflects 2014 and 2015 data via graduation techniques. Based on the more-recent data published by the Centers for Disease Control (CDC), we can speculate on the direction of finalized data to be explicitly reflected in future MP updates.

When examining unrefined 2015 and 2016 data from the CDC, it appears that the downward trend in future mortality improvement tables may continue. Experience during 2015 was poor enough that age-adjusted death rates were higher than the prior year for the first time since 2005. There is a slight improvement in age-adjusted death rates from 2015 to 2016 (meaning life expectancy has improved), but not much.

Death by Cause Data and What it Implies

Annual CDC-published information includes a mortality summary by cause and by age group. According to the CDC and also highlighted by RPEC, the lack of improvement for 2015 is driven by higher mortality rates due to heart attacks (0.9% vs. the prior year) and increasingly worse experience for nearly all other categories *except* cancer, for which mortality rates were 1.7% lower than in 2014. Two minor categories experienced no significant change.

Volatility in benefit obligations due to mortality improvement will be driven by experience occurring at ages where most deaths occur (generally ages 65+). The CDC chart for 2015 deaths indicates that 75% of deaths due to the top ten causes occur after age 65, and these top ten causes account for approximately 74% of all deaths.[i]

Heart disease and cancer are the top two causes of death, each accounting for far more deaths than any other cause. Death rates due to heart disease have experienced significant declines

over a five decade period, but these declines appear to have stalled temporarily.[ii] Death rates due to cancer have been decreasing steadily, if at a lower annual magnitude, with the improvement largely attributed to a decrease in tobacco use.[iii] Given the relatively lower death rates due to other causes, significant changes in overall improvement due to any other single cause would seem unlikely in the near future.

What Will Future MP Scale Updates Bring?

RPEC mentions in its MP-2017 report that potential revisions are under review as to the methodology used to generate updated MP tables. Volatility appears to be the main concern, and legitimately so. In the past, pension actuaries have made mortality assumption changes infrequently and in large steps (and the IRS has, too). One of the goals of refining mortality improvement assumptions is to smooth out the bumps caused by updates. Given the 2015 and 2016 CDC data and above noted speculation of the state of improvement for various causes of death, we would not be surprised to see continuing minor downward revisions until the near-term improvement trend reverses course. However, a multi-year period of substantial improvement could again trigger volatility in the form of increased liabilities.

Our commentary about volatility issues is not intended to cast aside the substantial work that the RPEC has done in the area of mortality and mortality improvement for retirement plans. There is no substantial alternative to the RPEC's thoughtful and thorough historical work. However, we believe that it is reasonable for sponsors to consider some alternative future improvement assumptions that are not identical to the MP-2017 rates. Many have done just that and experienced lower volatility in results since the first RPEC rates were released.

The level of discussion regarding mortality and mortality improvement has seen much refinement in the last several years. That progress should ultimately lead sponsors to a better idea of the actual, current and future costs of their plans. With better estimates come better decisions and fewer surprises. Without the jolt that sponsors received with the release of the RP-2014 mortality tables and MP-2014 mortality improvement tables, it is unlikely that we would have gotten this far this fast.

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[i] "Mortality in the United States, 2015," CDC *(https://www.cdc.gov/nchs/data/databriefs/db267_table.pdf#3)*

[ii] "Decline in Cardiovascular Mortality Possible Causes and Implications," various authors *(http://circres.ahajournals.org/content/120/2/366?download=true)*

[iii] "2017 Mortality Summary", National Cancer Institute *(https://seer.cancer.gov/report_to_nation/mortality.html)*