

Individual Life Insurance Mortality Improvement Scale Recommendation – for Use with AG 38 and VM 20 (October 2017)

Background

As part of the work done by the Society of Actuaries Working Group that developed the 2015 Valuation Basic Table and associated 2017 CSO table, a Mortality Improvements subgroup was tasked with reviewing recent mortality improvement levels based on available data for the individual life insurance policyholder population.

As a result of this work, the Mortality Improvements subgroup presented a recommendation for the development of a set of improvement factors that vary by gender and attained age to be used in conjunction with the 2014 Valuation Basic table. This recommended methodology was accepted by the Working Group in 2013. This same methodology was applied to produce mortality improvement scales for yearend 2013-2017 to be used in conjunction with AG 38 and VM20.

This document outlines the 2017 individual life insurance mortality improvement recommendation.

Mortality Improvement Scale Methodology:

The mortality improvement factors are equal to the average of the following:

- 10-year average historical mortality improvement levels from general population historical data published by the Social Security Administration (SSA).
- 20-year average mortality improvement levels using the most recent Security Administration Trustee's report intermediate assumption (Alt 2).

The averages calculated as above are then manually smoothed to produce a simplified scale by gender and age.

Historical data from the Human Mortality Database (HMD) is also considered in determining the 10-year historical averages.

Since year end 2014, a Mortality Improvements Life Working Group (MILWG) has been formed to study and make recommendations as to updates to the annual recommended mortality improvement scales for use with AG38 and VM20 work (this is specific to the individual life insurance product lines). The SOA Longevity Advisor Group is simultaneously working on a general methodology for developing product-neutral mortality improvement scales which will then be used as a guide by the MILWG to revisit the current approach for creating these particular scales each year.

For the 2017 recommended scale, the Social Security Administration updates to historical population mortality as well as to mortality projections were available.

Updated Recommendation

Based on a comparison of the resulting improvement factors from the 2017 data updates, it was determined that the downward trend in mortality improvement for some age groups should be reflected in recommended scale for this year. The scale is provided in the attached spreadsheet.

Applicability of Improvement Scale

The recommendation above represents a view of reasonable mortality improvement factors for short and medium term projections and is not intended to be employed as a standard for longer term projection periods.