New Thailand Mortality Tables

Al Klein

4 October 2017

IAA Mortality Working Group

Agenda

Introduction
The new tables
Comparison to past tables
Implications of change
Conclusion
Acknowledgements

Introduction

Introduction

- On 31 August 2017, the Office of Insurance Commission (OIC) released new Ordinary and Industrial mortality tables
- The tables had been anticipated, but the mortality rates were subject to several months of debate
- Tables changed due to improving mortality
- Tables replace the “2008 series”, which were effective from mid-2011

The new tables

The new tables

- The table for Ordinary business is called “TMO17” and the table for Industrial business is called “TMI17”
- The tables are mandatory to set the “pricing basis” for product filing
  - For traditional products, this determines the maximum premium rates, cash surrender values, and net premium valuation mortality bases
  - For unit linked and universal life products, the new mortality tables are used to cap the cost of insurance (COI) charges that can be applied
- All new life insurance products filed with the OIC on or after 1 September 2017 must use the new 2017 mortality tables
- For life insurance products filed before 1 September 2017, no product re-filing is required “until further notice” and many expect a further announcement:
  - For traditional products, a re-filing using the new tables by a specified date
  - For unit linked and UL, that COI charges be capped at a maximum of 100% of the new mortality tables

The new tables (cont'd)

- There is an allowance for an explicit margin on top of the base mortality rates
- The margin is based on the following formula:

Margin = y (qx + z) / 2, where

y is between 0 and 10%

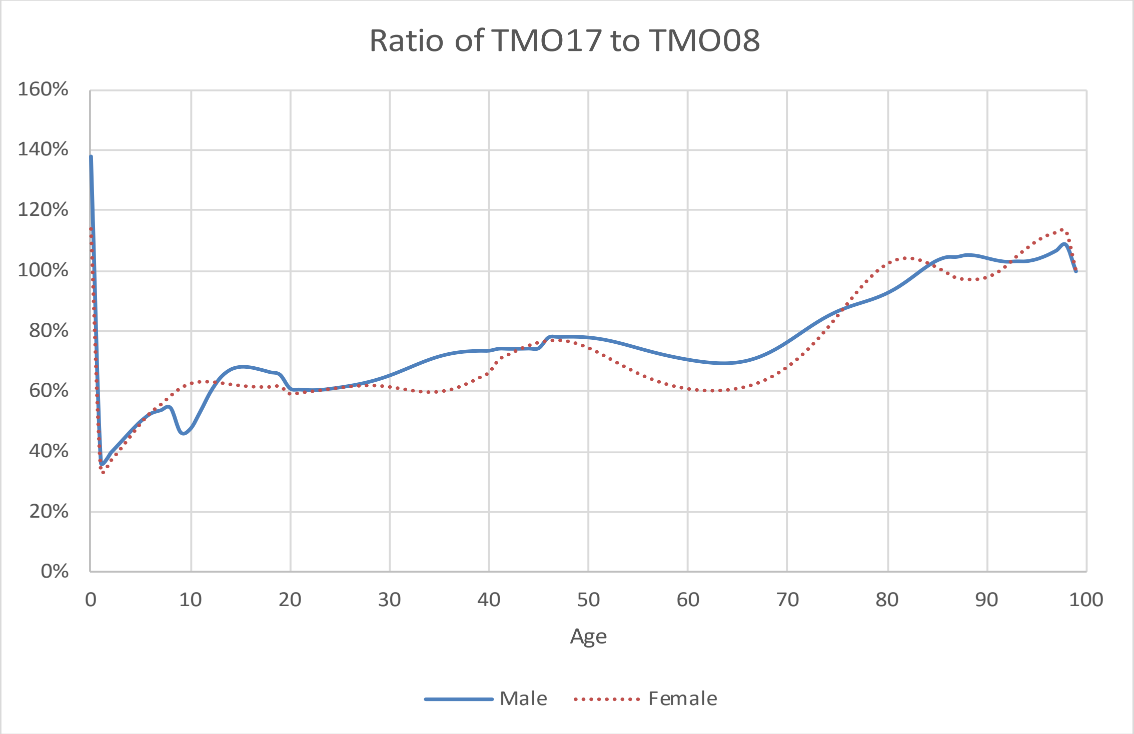
qx is the table mortality rate before margin

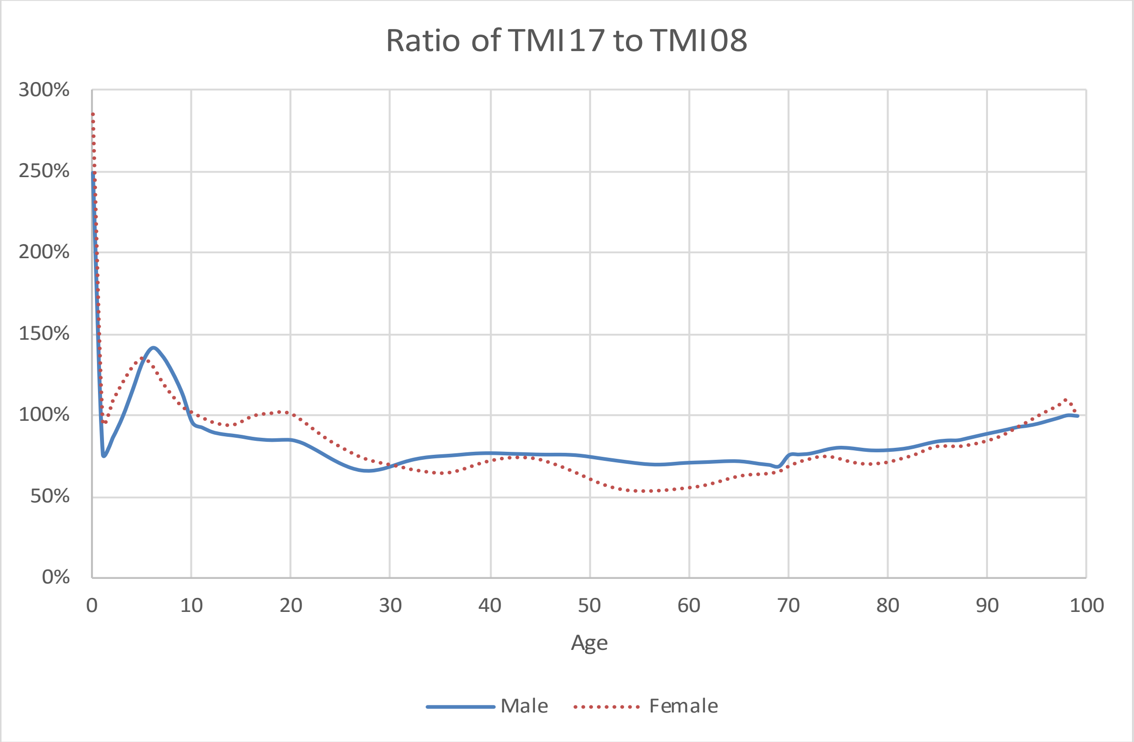
z is 0.0011574 for Ordinary and 0.0039355 for Industrial. These are based on a 43- and 54-year old female from the respective tables

Comparison to past tables

Comparison vs. 2008 series

- The “2008 series” tables were called “TMO08” (Ordinary business) and “TMI08” (Industrial business) respectively
- The graphs show the ratio of TMO17 to TMO08 and TMI17 to TMI08 mortality rates by age for males and females, assuming a margin at the maximum level (10%)





Comparison vs. 2008 series (cont'd)

- For Ordinary business:
  - The new tables are materially lower at most ages, except for infant mortality, below age 1, and some ages above age 80
  - The level of reduction varies by age, with rates for ages 10-70 being 20-50% lower for males and 20-40% lower for females
- For Industrial business:
  - The new tables are lower for most ages, except most ages below 10 and some ages above 80 for females
  - The level of reduction for ages 25-70 is 20-45%, with females having a higher reduction than males beginning at about age 30

Implications of change

Implications of change

- There are several significant implications:
  - Profitability pressures for protection business, especially credit life and term life
  - Lower profit margin on unit linked business due to the new maximum COI charges
  - Practicalities of product refiling
  - Product strategy reevaluation and product redesign

Implications of change (cont'd)

- Profitability pressures for protection business
  - Credit life, including mortgage reducing term assurance (MRTA) and other loan related term assurance represent a large portion of many Thai companies' in-force portfolios
  - These products have produced significant mortality profits, which will be difficult to maintain without product redesign and/or a reduction in compensation, both of which may be difficult to achieve in practice
- Impact on unit linked business
  - Unit linked business is less prevalent than other Asian markets; however, there has been strong growth by some insurers in the past 2 years and more companies have recently been developing these products
  - This growth has been primarily due to the prolonged low interest rate environment and increasing regulatory liberalization
  - Therefore, this will impact some companies more than others, but especially those who are focused on the older age and substandard markets in their linked strategy
  - There will also be an impact on embedded values is the new tables are retroactively applied to COI charges on unit linked business

Implications of change (cont'd)

- Practicalities of product refiling
  - If existing protection products need to be refiled and repriced, especially those with different mortgage interest rates, this is likely to be time-consuming and expensive and create an additional workload for an already stretched actuarial team
- Product strategy reevaluation and product redesign
  - The changes may force product strategy reevaluation, which could result in more product innovation
  - Some companies have recently increased their focus on protection and unit linked products to reduce market risk and improve their capital position
  - Some companies may consider shifting more to a savings focus, increase policy fees and/or asset management charges on unit linked business
  - If in-force policies need to be refiled, there will be significant product redesign and repricing activity

Conclusions

Conclusion

- The new mortality tables reflect the continuing mortality improvement seen within the insured population, the improvement being due, in part, to:
  - Enhancements in medical infrastructure
  - Better access to medical facilities
  - Greater health awareness
  - Improved medical underwriting practices
- These are positive developments from a societal perspective
- However, the new tables present a variety of business and operational challenges for Thai insurers, including pressure on profit margins and the need for product redesign and repricing

Conclusion (cont'd)

- This may be a good time for Thai insurers to reconsider their product strategies, maybe even moving more into annuities given the aging population and strain on public retirement systems
- However, there are current obstacles to this move, namely a need for a higher tax incentive, a greater supply of long-dated bonds and improvements in financial advice given to the post-retirement market

Acknowledgements

Thank you

Michael Daly, Principal & Consulting Actuary

Michael.daly@milliman.com

Shoaib Hussain, Consulting Actuary

Shoaib.Hussain@milliman.com

Suthida Supantamart, Actuarial Associate

Suthida.supantamart@milliman.com

Feel free to reach out to any of these individuals for more information or advice.

Thank you

Al Klein, Principal and Consulting Actuary
al.Klein@milliman.com, (312) 499-5731