On August 9, 2011, SCOR SE, a global reinsurer with offices in more than 31 countries, acquired substantially all of the life reinsurance business, operations and staff of Transamerica Reinsurance, the life reinsurance division of the AEGON companies. The business of Transamerica Reinsurance will now be conducted through the SCOR Global Life companies, and Transamerica Reinsurance is no longer affiliated with the AEGON companies.

While articles, treaties and some historic materials may continue to bear the name Transamerica, AEGON is no longer producing new reinsurance business.

**Archive Materials**

**The Contestable Blip**
Reprinted from the June 2006 Messenger newsletter

by David N. Wylde, Senior Pricing Actuary, Life Solutions

Life insurance pricing is a rich interplay of various factors and assumptions, including lapse rates, expenses, mortality costs and margins. While actuaries use deterministic methods to estimate cash flow, they need to consider non-quantitative factors such as consumer behavior. In an effort to shed light on how these factors can affect an experience study – alone and in conjunction with other assumptions – David Wylde presents the second article in his series on mortality study research. In this article, David explains how the presence of a contestable period can affect the expected claims pattern over the short term.

Life insurance policies contain contestable clauses that give the insurer the right to contest a claim or void a policy within a short “contestable period” following policy issue. The period is a tool to protect the insurer – and its policyholders – from high-risk applicants trying to game the insurance industry. However, from a pricing perspective, the contestable period does have some side effects.

This right, which typically exists during the first two policy years, can dramatically affect early claims experience. Therefore, when analyzing mortality studies, the pricing actuary must understand and account for the impact of the contestable period upon early claims experience, especially when a study contains a large amount of early policy year exposures.

Our pricing actuaries need mortality experience on products issued during an underwriting era that is closest to that of the business being reinsured. Therefore, the studies we see are usually for policies issued within the past five to six years, and it is not unusual to see studies heavily weighted with business issued in the past two to three years. Because life insurers can deny claims for material misrepresentation during the first two policy years, mortality experience tends to be very favorable during this period but then “blips” upwards in policy years three to four when such claims must now be paid.
Mortality then grades down to normal levels over the next several policy years. Interestingly from a pricing standpoint, the decreased mortality during years one and two, the subsequent “blip,” and the ensuing downward grading in mortality tend to roughly offset one another.

While an insurer’s pricing mortality tables may factor in this blip, experience studies shared with reinsurers typically base expected claims on industry standards such as the Society of Actuaries 1975-80 Basic Tables (SOA 75-80) or the 2001 Valuation Basic Tables. The underlying data for these tables were based upon the combined experience of many insurers. However, they do not accurately reflect experience during and immediately after the contestable period, because mortality was systematically smoothed from early to later durations during the table construction process. As a result, pricing actuaries must compensate for high concentrations of early policy year exposure when reviewing mortality studies based on these tables.

**A Case Study**
The following statistically credible experience study can serve as an example. This study shows expected claims based on 100 percent of the SOA 75-80 Tables. Policies included in the study were issued between 1998 and 2003, with corresponding claims on those policies observed between 1998 and 2004.

![Figure 1 - Expected Claims Distribution](image)

When inspecting the above experience, two items stand out: (i) exposure in policy years one and two is relatively high, and (ii) the actual-to-expected (A/E) ratio for policy years one and two compared to the years three through six is relatively low. Reviewing the company’s sales history shows extremely strong volume in calendar years 2002-2003, so the high exposure in policy years one and two makes sense. Further review shows that the company has reviewed all claims within the first two policy years and successfully denied 15 percent of all claims in this period for either fraud or material misrepresentation. Given this information, what adjustment should the pricing actuary make to the overall experience study’s A/E ratio to recognize that the ability to rescind policies will all but vanish as the block ages?

**Reconciling Early Duration Exposure**
The pricing actuary requires another piece of information to answer this question: the proportion of expected future claims falling in the contestable period. To estimate this ratio, the pricing actuary projects a single year cohort of policies based on the SOA 75-80 mortality tables. The projection results show 30 percent of all expected claims during the first six years to occur in years one and two. This differs from the experience study, which had 62 percent of expected claims coming from years one and two due to the sales history. Because of this large difference we should

![Figure 2 - Expected Claims Distribution (Weighted)](image)

The re-weighting results in an increase in the overall A/E ratio from 28 to 31 percent. This is a better estimate of mortality experience for policy years one through six and could be a good basis for deriving long term experience for subsequent policy years.
Because the mortality levels during and after the contestable period tend to cancel each other out, the re-weighted A/E ratio provides a fair approximation of the claim pattern that would be experienced in the absence of the contestable provision. We can use this fact as a reasonability check on the adjustment, remembering that the company denied 15 percent of the claims occurring in the first two policy years. Without the contestable provision, the A/E ratio during that period would have been \((1 / 0.85) \times (26\%) = 31\%\). This matches the re-weighted A/E ratio of 31 percent for the six year period – a result that by now should not be surprising.

Mortality studies inherently contain a certain amount of noise that can mask important trends that pricing actuaries want to analyze. In this article, I have demonstrated how to reduce the noise associated with the effect of the contestable clause. In future articles in this series I will seek to remove further distractions related to mortality analysis.