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

Lapse Studies Reveal Behavior Insights
Reprinted from the October 2007 Messenger newsletter

by David N. Wylde, Research and Development Actuary
Getting the lapse rate assumption wrong on a term insurance portfolio can have a significant impact on the block’s profitability. Consequently, Transamerica Reinsurance regularly performs lapse experience studies on its reinsured level premium term business. The results have given us valuable insights into policyholder lapse behavior by product, smoking status, gender and age group. This allows us to choose more appropriate pricing assumptions up front on new business and to better understand poorly performing inforce blocks.

This article will review the level premium period lapses from our most recent experience study. Since there has been much industry debate regarding the size of the “shock lapse” that occurs at the end of the level premium period, we also will take a brief look at end of period lapse experience for 10-year products.

Recent Combined Experience
During the first 10 policy years, annual lapse rates for all term business combined are hovering around 6.5 percent. This continues the downward trend in lapse experience that began after the “fire sale” pricing of 1999-2000. Combined with the price effects of super-preferred underwriting in the late 1990s, it was not unusual during that period to see early duration lapse rates of well over ten percent.

While it is good to know the overall level of lapse rates, it is more important to understand how lapses vary across segments of the business. Our seriatim experience database allows us quickly to analyze these trends.
Lapses differ quite dramatically by level premium product and tend to decrease by increasing level period. Lapse rates for products with a five year level period are in the 15 percent range, while lapses for the 10-year product are as much as 150 percent of those for the 15-30 year products. If you are not varying lapse assumptions by product type, you most likely have some subsidization going on in your pricing portfolio.

Experience by Smoking Status

Lapses show a clear distinction by policyholder smoking status. In early policy years, lapse rates for smokers are as much as 150-200 percent of rates for nonsmokers. This trend continues into later policy years; however, the gap between smokers and nonsmokers narrows a bit. As with product type, if you are not varying lapse assumptions by smoking status, you probably have subsidization in your pricing.

Experience by Gender and Age Group

Our experience showed very little difference in lapse rates between males and females. This makes some intuitive sense in the brokerage term market, which is the distribution channel for most of our clients’ level premium term business. In this market, both males and females are probably sold term insurance for similar needs, so it seems reasonable that the economic forces driving lapse rates should apply equally to both genders.

Historically, lapse rates for younger policyholders tend to be higher than for older age groups. Our experience confirms this relationship. Early duration lapse rates for issue ages 18-27 are around 150 percent of those for all other ages combined.

“Shock Lapse” Experience

<table>
<thead>
<tr>
<th>Policy Year</th>
<th>Proprietary Experience Lapse Rate</th>
<th>SOA Experience Lapse Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>45%</td>
<td>48%</td>
</tr>
<tr>
<td>11</td>
<td>59%</td>
<td>51%</td>
</tr>
<tr>
<td>12</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>13</td>
<td>15%</td>
<td>15%</td>
</tr>
</tbody>
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One of the more prominent assumptions that a pricing actuary must make for term insurance products is the lapse rate at the end of the level premium period. At that time, premiums move to a very high yearly renewable term scale and can easily jump up by a factor of 10. Therefore, insureds without a desperate need for continuing insurance lapse their policy.

For products with a 10-year level premium period, our experience shows a marked increase in lapses at the
end of the period and beyond. However, the lapse increase is spread over two policy years. Presumably, there is enough policyholder “momentum” to keep over half of the policies inforce for one more policy year. Lapse rates immediately after this initial shock are in the 15-20 percent range.

One note of caution: these products were underwritten and sold during the mid 1990s in a period when preferred risk classes had only existed for a few years and products were designed with “pre-regulation XXX” reserves. The experience may not necessarily be indicative of what to expect from today’s products combined with future market conditions.

In May 2007, the Society of Actuaries published their Report on the Survey of Post-Level Premium Period Lapse and Mortality Assumptions and Experience for Level Premium Term Plans. We are pleased to see that the SOA experience validates our study quite well.