



AMERICAN ACADEMY *of* ACTUARIES

December 2, 1999

Mr. Richard J. Roth, Jr.
Chief Property/Casualty Actuary
California Department of Insurance
300 South Spring Street
Los Angeles, CA 90013

Dear Mr. Roth:

At the request of the Casualty Actuarial Task Force (CATF), the American Academy of Actuaries'¹Committee on Property and Liability Financial Reporting has completed some exploratory calculations concerning the possible results of various alternative calculation methods for the Premium Deficiency Reserve (PDR). This reserve is scheduled to be introduced under Codification in 2001.

Our objective was to gauge the relative impact of calculating a PDR on a by line of business basis, on a personal versus commercial lines basis, and on a total company basis. It was also to consider the effects of discounting on a PDR calculation. It was not our intent to predict the reserve of one or even a group of companies. As noted previously in the CATF's deliberations, accurate calculation of a PDR for a given company would require substantial knowledge concerning not only the company's historical experience, but also the prospective effects of such items as changes in underwriting practices, changes in marketing direction, the potential effects of contingent pricing arrangements on direct and reinsurance contracts, and rate level changes.

With these objectives in mind, we have adopted a fairly straightforward approach to testing alternative methods for calculating the PDR. We have used data publicly available in the Insurance Expense Exhibit and Page 3 of the Annual Statement without revision. We have based our estimates on information for the largest 50 company groups for whom complete data from the 1998 Insurance Expense Exhibit are available in a computerized format. We have made certain

¹ The American Academy of Actuaries is the public policy organization for actuaries practicing in all specialties within the United States. A major purpose of the Academy is to act as the public information organization for the profession. The Academy is non-partisan and assists the public policy process through the presentation of clear and objective actuarial analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, comments on proposed federal regulations, and works closely with state officials on issues related to insurance. The Academy also develops and upholds actuarial standards of conduct, qualification and practice, and the Code of Professional Conduct for all actuaries practicing in the United States

simplifying assumptions. We have assumed that calendar year results compiled from the Insurance Expense Exhibit are indicative the experience to be realized on the unexpired policies covered by the Unearned Premium Reserve. We have also assumed that only Commission and Tax expenses will be paid at the outset of any policy, rather than on a pro rata basis. We have classified Insurance Expense Exhibit lines of business as either personal or commercial based on the type of business we expect to predominate in each line in cases where there is clearly a mix within the line. For discounting calculations, we have used Internal Revenue Service discount factors, which are based on Schedule P lines of business. We have assigned these factors to Insurance Expense Exhibit lines with as close match as possible.

Our tests indicate that if the PDR is calculated on a line by line basis without discounting, virtually every company requires a PDR. In one case, our calculated PDR represented essentially 15% of the company's surplus. When data are aggregated to the Personal/Commercial lines level, the calculated PDR is reduced sharply. When data is aggregated to an all lines basis, the calculated PDR drops again in most instances. If losses are discounted in the PDR calculation, the reserve is also sharply reduced. If the calculation is done on an all lines discounted basis, only a handful of companies have indicated premium deficiency reserves under the framework we have used. A summary of our results is attached.

We stress the exploratory nature of our calculations. They are not intended to predict the reserves for any one company or group of companies. While we believe the data attached can provide valuable input in making the decision on how the PDR is to be calculated, they do contain limitations. We would specifically note the following:

- Any unusual occurrences during 1998, such as large reinsurance or retrospective premium transactions, catastrophe losses, entries or exits from lines of business, or errors or correction of errors are reflected in our numbers. These are situations where an actuary charged with calculating the PDR would presumably be familiar enough with the phenomenon causing any apparently anomalous results and make any necessary adjustments.
- Small lines of business with unusual loss patterns may trigger large combined ratios and hence large PDR's or even negative PDR's. These are again situations where an actuary charged with calculating the PDR would presumably be familiar enough with the phenomenon causing these results to make any necessary adjustments.
- Our tests presume that 1998 Calendar Year results are indicative of probable 1999 experience levels. If relative reserve adequacy decreased during 1998, our results will be understated. The converse is true if relative reserve adequacy increased.
- Data contained in the Insurance Expense Exhibit already reflects discounting for some lines of business. To the extent we have applied additional discounting to these lines, our results will be understated.
- Our calculation appears to be very sensitive to the relationships among premium levels, loss experience, and Unearned Premium levels. Unusual relations have produced counter intuitive results for a few companies where a PDR calculated on a Personal/Commercial aggregation basis is higher than the one calculated on a by line basis or a total all lines calculation is higher than a calculation based on a Personal/Commercial Lines split. For example, one large company whose writings are predominantly in Commercial Lines, whose personal lines have

been profitable, but whose Unearned Premium is primarily Personal Lines had a calculated PDR on an all lines basis which was nearly double its Personal/Commercial based PDR.

- Our analysis is on group rather than a statutory company basis. While a number of the groups we used likely have pooling arrangements, our calculation would tend to understate PDR reserve levels.

We welcome the opportunity to be of assistance to the CATF in this matter.

Very truly yours,

A handwritten signature in black ink that reads "Patricia A. Teufel". The signature is written in a cursive, flowing style.

Patricia A. Teufel, FCAS, MAAA
Chairperson,
Committee on Property and Liability Financial Reporting

Cc: Eric Nordman, NAIC SSO Staff
Robert A. Anker
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