



TEXAS ASSOCIATION OF LIFE & HEALTH INSURERS

Ronald Taylor
Chairman
BlueCross BlueShield
of Texas

Raymond J. Martin, Jr.
Vice Chairman
National Teachers Associates
Insurance Company

Jerry D. Davis
Secretary
National Farm Life
Insurance Company

Ted Kennedy
Treasurer
AIG

R. Michael Pollard
Executive Director

December 20, 2004

RECEIVED
TDI CHIEF CLERK
2004 DEC 20 PM 4:35

Mr. Gene C. Jarmon
General Counsel and Chief Clerk
Texas Department of Insurance
Mail Code 113-2A
P.O. Box 149104
Austin, Texas 78714-9104

RE: Comments on new rules and amendments to existing rules concerning credit life and accident and health insurance

Dear Mr. Jarmon:

The Texas Association of Life & Health Insurers ("TALHI") is a trade organization that represents approximately 175 life and health insurers doing business in Texas. Many of our member companies are affected by the proposed rules referenced above. Our comments regarding these proposed rules are as follows.

ACTUARIAL DATA ANALYSIS AND RATE RECOMMENDATION

Attached you will please find a Data Analysis and Rate Recommendation For Texas Credit Life and Disability Rates Presumptive Rates report prepared by Mr. Christopher H. Hause, FSA, Hause Actuarial Solutions, Inc. This report was commissioned by TALHI and the Consumer Credit Insurance Association of America ("CCIA"). TALHI recommends that the Commissioner adopt the recommended rates contained in this report. Mr. Hause made use of the data, determinations and methods used in the Official Order of the Commissioner of Insurance dated October 29, 2004. We believe that the conclusions reached in the report of Mr. Hause are correct and his report provides rates that are fair and reasonable to the consumer and are not confiscatory to the companies issuing these policies.

ADDITIONAL COMMENTS

Establishing Different Rates for Different Classes. It is noted in the Departments comments on the proposed rules that "In reviewing industry expense and experience data supplied in response to the data call, the department observed that the loss ratios and compensation percentages for one class, Class E- Dealers, were significantly different than the other classes in both credit life and credit accident and health. This disparity establishes a basis for distinguishing between Class E and all other classes of business, as contemplated by Insurance Code Section 1153.102(a)."

As a result of this "observation" the department has proposed two alternative rate schedules for the Commissioner to consider. One rate proposal establishes a presumptive premium rate for Class E alone, with a different presumptive premium rate for all classes other than Class E (Alternative 1), and a second alternative that establishes a composite presumptive rate for all classes of business (Alternative 2).

TALHI strongly recommends that Alternative 2 be adopted. To create a separate class of business for the purpose of promulgating a premium rate for the credit consumer based on an observation of different actual loss ratios and expenses is fundamentally flawed in this type of business—credit life and disability coverages. Rates should be based on mortality and morbidity. TALHI notes that there are no actuarial data or conclusions regarding mortality or morbidity rates, actual or expected, in deriving the separate Class E proposed promulgated rates. There is no evidence of age differentials, health related factors, actuarial tables or any scientific evidence to suggest that the life expectancy or propensity to become disabled, based on the location of the purchase of the credit insurance policy, has any validity. Until it is actuarially established that WHERE a policy of insurance is purchased has an effect on the mortality or morbidity expectancy of an individual, it is our position that there should not be any consideration of the proposed Alternative 1.

The classifications used for credit life and disability have been based on where the insured chooses to buy the coverage; *i.e.*, banks, finance companies, credit unions, PCAs, dealers, other.

The Dealer Class, Class E is a broad class that includes a wide variety of different types of dealers. The variations include types of retailers that could include the following:

- Furniture dealers
- Retail merchants
- Auto dealers
- Boat dealers
- Jewelry retailers

The amounts of credit life insurance to cover a furniture or jewelry account could be significantly less than the amount financed for a new car. Also, to the extent Class E includes auto dealers, it should be obvious that banks, finance companies, and credit unions also make car loans and the mortality and morbidity of a consumer buying credit insurance through one of these channels should not be different than through an auto dealer.

Additionally, in the Texas Register, the department comments that "This disparity establishes a basis for distinguishing between Class E and all other classes of business, *as contemplated by Insurance Code Section 1153.102(a).*" (emphasis added). This comment does

not correctly state the law. TEX. INS. CODE § 1153.103(a) requires the Commissioner to adopt a presumptive rate for all classes. (Emphasis added). An individual insurer is allowed to file its own rates for the various classes. Insurance Code Section 1153.102(a) does not deal with the authorized rate promulgation process of the department or Commissioner. This Code section is for insurers, by stating "1153.102(a). An insurer may revise its schedules of premium rates for various classes of business." The reasonable conclusion to be drawn from these provisions is that the insurer may revise its schedules of premium rates for various classes of business, *after the Commissioner has established a single promulgated rate*. There is no provision of the Insurance Code that authorizes the Commissioner to establish promulgated rates based on where the credit insurance product is purchased.

DISCOUNT FACTOR

The discount factor in current presumptive rates should be eliminated. Milliman agrees that inclusion of a discount factor results in a double counting of investment income. (Milliman Report, p. 25 ¶ IX, 3).

The proposed rules contain a provision requiring a discount factor to be applied to the promulgated rates. Apparently this discount factor is utilized as a function of the investment income derived by an insurer for premium received. The discounts applied by the department's proposal are different for life premium (4.5%) versus A&H premium (5.63%), without any reasoned justification or other explanation. We believe that the use of these discount factors to the promulgated rates duplicates discounts already used the rate making process. In the establishment of the proposed, the department's contracted consultant uses a 3.5% discounted internal rate of return which already accounts for earned investment income on surplus. To apply an additional discount factor to the promulgate rate unreasonably duplicates a discount. Thus, we recommend that the use of discounts applied to the promulgated rate should be eliminated.

COMMISSION COMPONENT

The Commission component of 25% in the published presumptive rates is inadequate and contrary to law. The average commission paid for all classes is in excess of 25%. By setting a presumptive rate with a commission component less than average, this would produce a presumptive rate that is "inadequate" for some insurers, agents or both in violation of TEX. INS. CODE § 1153.103(f). Further, the Commissioner may not set a "presumptive rate" that sets or limits the amount of compensation paid to an agent. TEX. INS. CODE § 1153.103(e).

By setting the commission component well below the "average," the new proposed presumptive rate could require insurers or agents to have commissions set or limited. This problem is exacerbated if Alternative 1 is adopted. Under Alternative 1, separate rates for Class

Mr. Gene C. Jarmon, contd.
December 20, 2004
Page 4

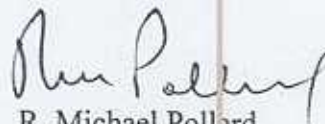
E, dealer class, have the same commission component as all other classes. The average amount actually reported and paid for Class E is over 45%. The actual amount reported and paid for credit unions and savings institutions is significantly less than 25%.

OTHER

Throughout the years, purchasing and financing patterns have been changed by the consumer, which has thus changed the marketplace for financing methods and credit insurance product requirements. In relatively recent times the consumer has begun to finance smaller purchases and this paradigm has created significantly smaller initial credit insurance face amounts, smaller premiums per policy without resultant reduction in per policy administration costs to the producer and the insurer. Many credit insurance policies are now written for an initial amount less than \$1,000. TALHI recommends that the Commissioner establish a minimum premium of \$10.00 per policy written and a minimum policy refund upon policy cancellation of \$5.00 to assist in defraying the increasing policy administration costs associated with smaller face amount policies.

Please contact either Jay Thompson at 512.703.5060 or myself if you have questions.

Yours very truly,



R. Michael Pollard
Executive Director

RMP/pjrb
Encls.

C - Mr. Bill Bingham, Deputy, Regulatory Matters
File

Data Analysis and Rate Recommendation
For
Texas Credit Life and Disability
Presumptive Rates

RECEIVED
TDI CHIEF CLERK
2004 DEC 20 PM 4:35

Christopher H. Hause, FSA
Hause Actuarial Solutions, Inc.
July 16, 2004

Preface

The Texas Department of Insurance (TDI) has requested industry input on recommendations for credit life and disability prima facie rates based on Texas law and regulation and the claim and expense data from 2000 through 2002.

TDI provided a Microsoft Excel spreadsheet and a Microsoft Access database that contained the reported data. This data was provided by individual companies and was consistent with the type of data used in previous presumptive rate derivations. My firm performed no independent audit or verification of the data provided, except for general reasonableness, consistency with previous data, and consistency with earlier similar work performed, as noted below.

The Consumer Credit Insurance Association (CCIA) and the Texas Association of Life and Health Insurers (TALHI) have engaged my firm to perform analysis of the data collected by TDI and to produce a presumptive rate consistent with statutory requirements and sound actuarial principles. CCIA is a national trade association and TALHI is a Texas trade association with some common member insurance companies engaged in credit life and credit accident & health insurance business in Texas.

In developing my recommendation, CCIA and TALHI have specifically asked that I:

- 1) Perform an analysis of the 2000-2002 claim and expense information that has been made available and comment on its completeness, accuracy and utility for making a prima facie rate recommendation.
- 2) Make use of other relevant data, including my general knowledge of the credit insurance market, various forms of coverage, deficiencies in reporting of data and other data and considerations that may have an effect on the development of the final rate recommendation.
- 3) Consider the existing rate structure, its soundness and effect on appropriate formulas and factors.
- 4) Develop recommended Life and Disability prima facie rates utilizing the 2000-2002 Texas data and an appropriate component rate formula.
- 5) Develop rates in aggregate across the six sources of business specified by TDI in its production of data.
- 6) Provide derivation and comments on the methods used to derive the values of the various components.

Where possible, I made use of determinations and methods used in the Official Order of the Commissioner of Insurance dated October 29, 1999 ("Order"). A copy is attached for convenience.

During my 20 years of credit insurance experience, I have been involved in research, calculations and testimony involving prima facie rates. In 2002 I was retained by the

State of Colorado to develop prima facie rate scales from data similar to the data provided by TDI. A summary of my education and work experience is attached.

Analysis of Information Provided by TDI

I would like to comment on several aspects of the data as it was presented. Where wide inconsistencies are noted with past or current experience, it does not necessarily mean that there were errors in compilation or submission. There are wide variations in claim and expense experience among carriers. It is also known that there are differences in expense allocation that can have a profound impact on expense ratios among carriers.

With regard to the data:

- 1) There was insufficient time allotted to identify and eradicate potential errors and inconsistencies in the expense data. In addition, as in previous data gathered by TDI, some of the data regarding number of in-force policies appeared to be inconsistent.
- 2) The expense component that would be developed from the data provided would be necessarily based on the assumption that the administrative cost per policy is the same in Texas as the average across all states. This may or may not be true, even generally.
- 3) The expense component that would be developed from the data provided would either give equal weight to all Outstanding Balance policies and Single Premium policies in terms of their expense allocation, or be based on an arbitrary allocation. As I am aware of large and significant variations, even among various markets in expense ratios of various credit insurance plans, any assumption as to an allocation of expenses would be based on limited data and questionable assumptions.
- 4) The considerable expense in complying with the 2000 Texas rate change, implementation and filing and would not be reflected. This would understate the true expenses that contribute to both the credit life and credit disability calculation.
- 5) Given the above shortcomings and the need for a timely recommendation, I made a simplifying assumption to develop the expense components as discussed below.
- 6) There was also insufficient time allotted to verify that the earned premiums were adjusted to prima facie in a consistent fashion. I am aware that many companies have estimated or completely ignored this adjustment in the past due to lack of sufficient computer capabilities. There may be additional uncertainty for Texas business due to the fact that interest discounts are employed for single premium plans, and that statutes allow for permissible deviation around the published rate. Based on the data provided, it is clear that improper adjustment was made to actual earned premiums to derive presumptive earned premiums. Based on reasonable assumptions and approximations, I have adjusted the presumptive loss ratios to derive the claim cost components.
- 7) In general, three years worth of experience in a state with sufficient volume will generally provide a credible basis for claim costs. Texas has a sufficient volume of business on which to base a rate calculation.

Derivation of the Credit Life Rates

The formula I would generally use in such a recommendation is shown below. In some previous documents, the term "ROE" has been used for the percentage of premium margin that is necessary to produce an adequate return for risk and use of surplus. The measure that I used for single premium plans is based on Internal Rate of Return. I have replaced the "ROE" term with a more descriptive term, "Profit and Contingency Margin."

$$\frac{\text{Claim Costs} + \text{General Insurer Expenses}}{1 + \text{Invest. Income} - \text{Prem Taxes} - \text{Compensation} - \text{Profit and Contingency Margin}}$$

However, since the rate calculation in use by Texas provides an interest discount in its derivation of single premium rates, and the interest element of Outstanding Balance coverage is negligible, the Investment Income component is removed, and the formula is reduced to:

$$\frac{\text{Claim Costs} + \text{General Insurer Expenses}}{1 - \text{Premium Taxes} - \text{Compensation} - \text{Profit and Contingency Margin}}$$

The Claim Costs and General Insurer Expenses are developed in terms of "cents per \$100 per year," to be consistent with the desired form of the base single premium rate. The source for these components is the data provided by TDI, as corrected and modified by judgment and other relevant factors.

The Premium Tax, Compensation, and Profit and Contingency Margin components are expressed as percentages. The derivation and usage of these components is intended to be as consistent as possible with the Order.

Claim costs were derived by multiplying the three-year Loss Ratio based on Presumptive Rate, adjusted for reporting errors, by the prima facie rate in effect during the study period. After adjusting the presumptive earned premium to reflect the errors in reporting, the loss ratio for all life plans in aggregate was 46.64%. The discounted prima facie rate at each year end was \$.281 per \$100 per year. The resulting claim cost produced an aggregate value of 13.11 cents per \$100 per year.

General Insurer Expenses were calculated in the form of "cents per \$100 per year" based on the data provided. "Nationwide" expenses were converted to "Texas" expenses by taking the ratio of total policies in force at the beginning and end of each calendar year in Texas to the nationwide number of policies in force. These calculations were done by class of business within each individual company, and totals compiled by class of business. The consistency in the results of this calculation was considerably less than

satisfying, with the resulting expense ratios by class of business varying from -17.62% to 42.47%. Due to the questionable reliability of these results, I recommend that the expense component remain unchanged from the 8.02 cents per \$100 per year as determined in the Order.

Compensation was derived by taking the average commission rate actually paid over the three year period from the data provided, which was calculated at 35%.

The premium taxes, licenses and fees were estimated as 2.75% for the purposes of this analysis.

The Profit and Contingency Margin was developed in a different manner from that which the Order employed.

For single premium plans the method used in the Order is insufficient to recognize the surplus strain associated with payment of commissions and reserve establishment, as well as Risk-Based Capital requirements. In addition, the simplified method used in the Order is insufficient for multi-year contracts where recovery of this strain is spread out over several years, and it does not recognize timing differences between statutory and taxable income.

The method that I used to determine the appropriate value for this component was to perform an analysis based on an 11.5% statutory after tax internal rate of return. The value I generated is the gross, pre-tax premium margin that is necessary to produce the target internal rate of return without investment income. The reason no investment income was used is that the single premium rates are discounted at interest and thus, investment income on the single premium is passed along to the purchaser. The assumptions for this calculation are contained in an exhibit. The necessary gross premium margin for single premium credit life is 14.65%.

For Single Premium Life, the rate is derived below.

$$\frac{.1311 + .0802}{1 - .0275 - .35 - .1465} = .44$$

Based on this derivation, I recommend that the single premium life insurance rate be increased from its current level of \$.30 per \$100 per year to \$.44 per \$100 per year.

The corresponding joint life, level term and monthly outstanding balance rates can be derived by formula from the above. The existing relationships between the rates for the various forms of coverage should be examined in light of claim cost relationships and underlying trends. The joint life multiple of 150% is one of the lowest currently in use by any state, and is not adequate. This is commented on more thoroughly below.

Derivation of the Credit Disability Rates

As in life insurance, the formula used for rating methodology is shown below. In previous documents, the term "ROE" has been used for the percentage of premium margin that is necessary to produce an adequate return for risk and use of surplus. The measure that I used for single premium plans is based on Internal Rate of Return. I have replaced the "ROE" term with a more descriptive term, "Profit and Contingency Margin."

$$\text{Claim Costs} + \text{General Insurer Expenses}$$

$$1 + \text{Invest. Income} - \text{Prem Taxes} - \text{Compensation} - \text{Profit and Contingency Margin}$$

Again, the rate calculation in use by Texas provides an interest discount in its derivation of single premium rates, so the Investment Income component is redundant. The formula reduces to:

$$\text{Claim Costs} + \text{General Insurer Expenses}$$

$$1 - \text{Premium Taxes} - \text{Compensation} - \text{Profit and Contingency Margin}$$

The base single premium rate was calculated using the above formula for the 14-day retro, 36 month term. This derived premium rate is divided by the corresponding prima facie rate in effect during the study period and a ratio is developed. I recommend this ratio be applied to the entire prima facie rate schedule to maintain consistency between rates. Other rates may be developed by ratio, or standard formula.

The study period claim cost was derived by multiplying the three-year Loss Ratio based on Presumptive Rate, adjusted for reporting error, by the prima facie rate in effect during the study period. After adjusting the presumptive earned premium to reflect the errors in reporting, the loss ratio for all disability in aggregate was 53.16%. I multiplied the loss ratios by the discounted prima face rate of \$2.573 per \$100. The resulting aggregate claim cost component is \$1.368 per \$100.

General Insurer Expenses were calculated in the form of "cents per \$100" based on the data provided. "Nationwide" expenses were converted to "Texas" expenses by taking the ratio of total policies in force at the beginning and end of each calendar year in Texas to the nationwide number of policies in force. As with the life expense derivation, there was considerable variation. Due to the questionable reliability of the data, method and results, I recommend that the expense component remain unchanged from the 54.57 cents per \$100 as determined in the Order.

Compensation was derived by taking the commission rate actually paid over the three year period, which was calculated at 29%.

The premium taxes, licenses and fees were estimated as 2.75% for the purposes of this analysis.

The method that I used to determine the appropriate value for the profit and contingency component was to perform an analysis based on an 11.5% statutory after tax internal rate of return. The value I generated is the gross, pre-tax premium margin that is necessary to produce the target internal rate of return without investment income. The reason no investment income was used is that the single premium rates are discounted at interest and thus, investment income on the single premium is passed along to the purchaser. The assumptions and details of this calculation are contained in an exhibit. The necessary gross premium margin is 9.85%.

The components and rates for the 36-month 14 day retroactive cell is shown below.

$$\frac{1.368 + .5457}{1 - .0275 - .29 - .0985} = 3.28$$

The corresponding non-discounted prima facie rate in effect during the study period is \$2.79.

Based on this, I recommend the use of an aggregate prima facie rate scale that is 118% (3.28 divided by 2.79) of the premium rate scale currently in use.

Other benefits and premium rate structures for credit disability insurance may be derived by use of suitable ratios or by formula. The joint multiple of 150% is one of the lowest currently in use by a state, and is not adequate. This is commented on more thoroughly below.

Joint Life Multiple Factors

The joint factor utilized by Texas in setting the life and disability rates that are currently in use is 150%. I believe this factor is not sufficient to provide adequate and consistent expense and profit/contingency margins. In work I have done in previous rate derivations, I have determined the appropriate factors to be 1.65 for credit life insurance and 1.75 for credit disability. These factors were derived in a manner consistent with the component formulas above. I recommend the use of these factors for joint coverage.

Respectfully Submitted

A handwritten signature in cursive script, reading "Christopher H. Hause". The signature is written in black ink and is positioned above the typed name.

Christopher H. Hause, FSA, MAAA
President
Hause Actuarial Solutions, Inc.

RECEIVED
TDI CHIEF CLERK
2004 DEC 20 PM 4: 35

Rate Recommendation
for
Texas Credit Life and Disability
Presumptive Rates

American Health and Life Insurance Co.
July 16, 2004

Introduction

The purpose of this report is to respond to the request from the Texas Department of Insurance for assistance in the development of a rule proposal for setting credit life and disability presumptive rates based on the submitted experience for the period from 2000 to 2002.

Some components of our recommendation have been set using industry experience provided in a Microsoft Excel spreadsheet by the TDI and some have been set to reflect the experience of our company alone. The company data used for this purpose is the same data reported to the TDI as of the most recent data call in 2002.

Where possible, we used the recommendations set forth in the Official Order of the Commissioner of Insurance date October 29, 1999 ("Order").

Derivation of Credit Premium Rate Formula

The general formula used in this recommendation is shown below. In some previous documents, the term "ROE" has been used for the percentage of premium margin that is necessary to produce an adequate return for risk and use of surplus. The measure that is used in this recommendation for single premium plans is based on Internal Rate of Return. Therefore, "ROE" has been replaced by the more descriptive term, "Profit and Contingency Margin."

$$\frac{\text{Claim Costs} + \text{General Insurer Expenses}}{1 + \text{Invest. Income} - \text{Premium Taxes} - \text{Compensation} - \text{Profit and Contingency Margin}}$$

However, since the rate calculation in Texas provides an interest discount in its derivation of single premium rates, and the interest element of Outstanding Balance coverage is negligible, the Investment Income component is removed, and the formula is reduced to:

$$\frac{\text{Claim Costs} + \text{General Insurer Expenses}}{1 - \text{Premium Taxes} - \text{Compensation} - \text{Profit and Contingency Margin}}$$

This formula will be used for setting our recommendations for both Credit Life and Disability.

Credit Life Insurance Calculation

Claim Costs

Claim Costs were calculated by multiplying the three-year Loss Ratio at the presumptive rate by the prima facie rate in effect during the experience period. After adjusting the Actual Earned Premium back to the presumptive rate as outlined in Appendix A of the 2002 Credit Data Call, the loss ratio for single lives was 42.43%. The prima facie rate at

the end of each year was \$.30 per \$100 per year. The resulting claim cost was 12.73 cents per \$100 per year.

Expenses, Taxes and Compensation

We have not seen sufficient evidence that any deviations are necessary for these components from those recommended in the Order. Therefore, we will use an expense component of 8.02 cents per \$100 per year, a tax component of 2.75 cents per \$100 per year, and a compensation component of 25%.

Profit and Contingency Margin

A different method was used to develop the Profit and Contingency Margin than was illustrated in the Order.

For single premium plans the method used in the Order is insufficient to recognize the surplus strain associated with payment of commissions and reserve establishment, as well as Risk-Based Capital requirements. In addition, the simplified method used in the Order is insufficient for multi-year contracts where recovery of this strain is spread out over several years, and it does not recognize timing differences between statutory and taxable income.

The method used in determining the appropriate value for this component was to perform an analysis based on an 11.5% statutory after tax internal rate of return. The value generated is the gross, pre-tax premium margin that is necessary to produce the target internal rate of return without investment income. The reason no investment income was used is that the single premium rates are discounted at interest and thus, investment income on the single premium is passed along to the purchaser. The necessary gross premium margin for single premium credit life is 14.65%.

For single premium life on single lives, the rate is derived below.

$$.1273 + .0802$$

$$1 - .0275 - .25 - .1465$$

$$= \$0.36$$

Based on this derivation we recommend that the single premium life rate on single lives be raised from \$.30 per \$100 per year to \$.36 per \$100 per year.

The corresponding joint life and monthly outstanding balance rates can be derived using the rate expressed above. Based on the recommendation of an independent actuary, we have concluded that the joint rate multiple of 150% is no longer sufficient based on claim

cost experience and overall trends. We would like to back his recommendation that this multiplier be increased to 165% for credit life to better reflect the underlying experience.

Credit Disability Insurance Calculation

Claim Costs

Claim Costs were calculated by multiplying the three-year Loss Ratio at the presumptive rate by the prima facie rate in effect during the experience period. After adjusting the Actual Earned Premium back to the presumptive rate as outlined in Appendix A of the 2002 Credit Data Call, the loss ratio for single lives was 61.12%. The prima facie rate for 14-day retro with at 36 month term at the end of each year was \$2.79 per \$100 per year. The resulting claim cost was \$1.705 per \$100 per year.

Expenses, Taxes and Compensation

We have not seen sufficient evidence that any deviations are necessary for these components from those recommended in the Order. Therefore, we will use an expense component of 54.57 cents per \$100 per year, a tax component of 2.75 cents per \$100 per year, and a compensation component of 25%.

Profit and Contingency Margin

The method used in determining the appropriate value for this component was to perform an analysis based on an 11.5% statutory after tax internal rate of return. The value generated is the gross, pre-tax premium margin that is necessary to produce the target internal rate of return without investment income. The reason no investment income was used is that the single premium rates are discounted at interest and thus, investment income on the single premium is passed along to the purchaser. The necessary gross premium margin for single premium credit life is 9.85%.

For 36-month, 14 day retroactive disability insurance, the single premium rate on single lives is derived below.

$$\frac{1.705 + .5457}{1 - .0275 - .25 - .0985} = \$3.61$$

Based on this derivation we recommend that the current prima facie rate for single coverage table be adjusted upwards by 129%.

The corresponding joint and monthly outstanding balance rates can be derived using the rate expressed above. Based on the recommendation of an independent actuary, we have

concluded that the joint rate multiple of 150% is no longer sufficient based on claim cost experience and overall trends. We would like to back his recommendation that this multiplier be increased to 175% for credit disability to better reflect the underlying experience.

Candace Richter, ASA, MAAA
Director & Actuary
American Health & Life Insurance Company

Prima Facie Premium Derivation Analysis
and Rate Recommendation
For
Texas Credit Life and Disability
Presumptive Rates

Christopher H. Hause, FSA
Hause Actuarial Solutions, Inc.
December 20, 2004

Preface

The Texas Department of Insurance (TDI) has previously requested industry input on recommendations for credit life and disability prima facie rates based on Texas law and regulation and the claim and expense data from 2000 through 2002.

In response to that request, I submitted a report on behalf of The Consumer Credit Insurance Association (CCIA) and the Texas Association of Life and Health Insurers (TALHI) dated July 16, 2004. This report is attached for convenience. In addition to my response, TDI received responses from Resource Life Insurance Company, American Health and Life Insurance Company, the Center for Economic Justice (CEJ) and the Office of Public Insurance Counsel (OPIC). TDI engaged the firm of Milliman, Inc. to develop a prima facie rate recommendation based on available data and to respond to the input received from these interested parties.

The Consumer Credit Insurance Association (CCIA) and the Texas Association of Life and Health Insurers (TALHI) have now engaged my firm to perform analysis of the reports issued by Milliman, CEJ and OPIC. Further, CCIA and TALHI requested that any additional information as to the methods and details of my earlier report be supplied so that they may be considered in more depth.

CCIA is a national trade association and TALHI is a Texas trade association with some common member insurance companies engaged in credit life and credit accident & health insurance business in Texas.

Outline of This Report

Analysis of Milliman Report

- I. Milliman's Response to Hause/CCIA/TALHI Analysis & Recommendation
 - A. General Expense Comments and Derivation
 - B. Adjustment to Prima Facie Premiums and Loss Ratios
 - C. Joint Life Multiple for Credit Life
 - D. Joint Life Multiple for Credit Disability
 - E. Profit and Contingency Margin

- II. Method of Calculation
 - A. Component Rating Formula
 - B. Calculation of Profit and Contingency Margin

- III. Life Insurance Rating Components
 - A. Claim Cost
 - B. Expense
 - C. Premium Tax
 - D. Interest
 - E. Compensation
 - F. Profit and Contingency Margin

- IV. Disability Insurance Rating Components
 - A. Claim Cost
 - B. Expense
 - C. Premium Tax
 - D. Interest
 - E. Compensation
 - F. Profit and Contingency Margin

Analysis of The Center for Economic Justice (CEJ) Report

Analysis of Office of Public Insurance Counsel (OPIC) Report

Attachments

- 1) Copy of Hause/CCIA/TALHI Report Dated July 16, 2004
- 2) Assumptions Used in Determination of Profit and Contingency Margin
- 3) Derivation of Estimate of the Understatement of Prima Facie Earned Premiums

Analysis of Milliman Report

I. Milliman's Response to the Hause/CCIA/TALHI Report

A. General Expense Comments and Derivation

Milliman responded as follows on page 20 of the Milliman Report:

"We recognize the problem of determining general insurance expenses based on nationwide data. However, as Mr. Hause points out, the companies all have different ways of determining expense allocations, and, as we see it, it is not worthwhile to perfect the method of determination when the data is as imperfect as it is."

I agree that it is of limited value to adjust or attempt to perfect the data gathered by the data call, nor is it valuable to modify the method. My suggestion is to leave the expense component unchanged in developing the new rates. Milliman notes in their report that expense ratios dropped suddenly in 2000 and for no apparent reason. Milliman chooses to allocate a "weight" of 25% to the new expense data. There is no reason to believe that industry general expenses have truly dropped as a percentage of premium. Nationwide premium rates have dropped slightly, production levels are down significantly, and inflation is low but positive. I do not see the value of Milliman's replacing an existing component by using data that is flawed, a method that is flawed, and produces a result that is not supported by observed industry trends, in spite of their attempt to moderate the result by "trending."

Milliman continues by saying:

"We are a bit confused by his comment regarding the fact that the expense of complying with the 2000 Texas rate change would not be reflected in expenses since the study encompasses the years 2000 through 2002."

My comment pertains to the method of allocating expenses based on nationwide expenses, allocated by certificate activity. When Texas changed rates in 2000, it not only lowered the rates significantly, it altered the method by which premiums and refunds are calculated. This mandated a retooling of administrative software, producer software, and annual statement software and methods (particularly the Credit Insurance Experience Exhibit). The extraordinary cost of implementation would be diluted by Milliman's implicit assumption that Texas business costs no more on a "per certificate" basis than any other state during this time period. This implicit assumption is false, further invalidating the expense component determination method.

B. Adjustment to Prima Facie Premiums and Loss Ratios

On reviewing the data, certain patterns of earned premiums relative to prima facie earned premiums and losses incurred strongly suggested that consistent and appropriate

adjustments were not made to the actual earned premiums to produce the prima facie equivalent. I constructed a simple model to approximate the likely claim cost understatement. The details of that model are in Attachment 3. The model suggests that prima facie earned premiums are overstated by approximately 11% for the period 2000-2002.

This adjustment is further supported by the following simple analysis. Milliman calculated the single life decreasing term claim cost per \$100 per year from the losses incurred and the mean insurance in force. This value is .1187. For the same benefit, one can easily calculate the claim cost based on the prima facie loss ratio. The single life decreasing term loss ratio for the 2000-2002 period is 36.47%. Applying that ratio to the 36-month prima facie rate of .281 (per \$100 per year) gives .1025. The claim cost based on the mean insurance in force is approximately 15.8% greater than the claim cost based on the loss ratio times the prima facie rate. This suggests that the 11% adjustment that I made in my original rate derivation is appropriate.

C. Joint Life Multiple for Credit Life

I have learned in my 20+ years of working with credit insurance data that claims are frequently reported incorrectly. This is especially true with regard to life claims being reported as a single life claim or a joint life claim. For this reason, comparison of losses between single life and joint life from reported data should always be viewed with caution. Rather than rely on reported data, I recommend a theoretical approach. In previous theoretical analyses we have determined that the appropriate multiple is 165%.

D. Joint Life Multiple for Credit Disability

The Milliman report merely states that the appropriate ratio "may be something greater than 150%, but not greater than 200%." I have seen experience and heard from other industry actuaries that the proper multiple may indeed be greater than 200%. Again, because of the shortage of reliable data we have performed theoretical analyses for credit disability. The theoretical analyses have determined the appropriate multiple to be 175%.

E. Profit and Contingency Margin

The Profit and Contingency Margins that I calculated were based on asset share methods. As stated in my earlier report, this is the only method that is appropriate for multi-year contracts where significant surplus strain is involved. The details of my determination of these factors are included in Attachment 2.

II. Method of Calculation

A. Component Rating Formula

The component rating formula as employed by Milliman agrees with the method employed in my report and the method used in the 1999 Order setting the current prima facie rates. However, the 1999 Order erred in using an interest component in the formula, that double counted the effect of interest on the rate development. The absence of an interest component in the denominator of the formula is appropriate since the result of the calculation is discounted to reflect the timing differences of receipt of the premiums.

While the discounting of single premiums at interest is a popular concept, I maintain that interest discounting is not appropriate from the standpoint of equity between policyholders. A single premium contract may only be canceled by the policyholder. The insurer is bound to continue coverage. This increases the risk of cumulative antiselection observed in many other guaranteed renewable coverages. Conversely, in monthly outstanding balance plans, most times the insurer retains the right to cancel coverage upon 30 days' notice. In addition, whether the risk is life or disability, the yearly increase in expected claim costs more than offsets any potential interest discount.

In the 1999 Order, the interest discounts were set at 4.5% for life insurance and 5.63% for disability coverage. Should the interest discount concept remain, the interest should be reduced to 3.5%, consistent with Milliman's interest calculation in calculating the profit and contingency margin. The discount, if used, should not be higher for disability coverage. I have heard an argument that a "mortality discount" is appropriate on single premium credit disability insurance. This is not true. When an insured dies, the disability contract is cancelled and the disability premium is refunded. There is no need for a "mortality discount."

B. Calculation of Profit and Contingency Margin

The Milliman report contained the following paragraph:

"Mr. Hause uses a Profit and Contingency margin of 14.65% as a gross premium margin for single premium credit life and 9.85% for single premium credit disability. We do not have knowledge of the adjustments he used to go from an 11.5% statutory after tax internal rate of return to a 14.65% profit and contingency margin. However, in our view, these levels of profit margin are higher than what would be necessary to produce a competitive rate of return on equity for the insurance carriers."

As stated in my report, I used asset share methods with target surplus to calculate the necessary gross margin. In my opinion, this is the only appropriate method for analyzing multi-year contracts where significant surplus strain is present. My assumptions are contained in Attachment 2.

There is a serious fallacy in using the type of ROE calculation that was done in the Milliman report, and the 1999 Order. The surplus strain associated with issuing new single premium credit insurance business can easily exceed 50% of the single premium. The cost of this surplus can vary by insurance company, but is generally equal to the

required statutory ROE. If a carrier has a 15% pre-tax cost of capital and a 3.5% investment return, there is an 11.5% gap on these funds that must be recovered from underwriting gains.

Also, some analyses have alleged that the profit formula should be reduced by "investment income on reserves." Since a large portion of the reserves represent borrowed surplus, most companies have a significant cost of maintaining reserves that is not reflected in these simplified ROE analyses.

III. Life Insurance Rating Components

A. Claim Cost

The correct method of calculating prima facie rates is to calculate a rate for a central type of coverage, such as single premium single life decreasing term, and then use existing and theoretical relationships to develop the other rates. This helps to avoid inconsistencies in rates as has been experienced in states that have set prima facie rates without regard to appropriate relationships. This also negates any problems with allocation of claims between coverage types, as noted above in the case of single and joint life coverage.

In calculating the central coverage type, it is most appropriate to use the claim experience of as broad a spectrum of coverage as you can. In doing so, you avoid anomalies such as basing a rate on experience that does not include the experience under that type of coverage.

In calculating the base rate for single premium single life decreasing term, then, I used the adjusted loss ratio for the entire credit life line of business. The overall three-year prima facie loss ratio for credit life was 41.91%. When I adjusted the loss ratio to recognize the misreporting of prima facie premiums, I got 46.64%, which produced a claim cost of 13.11 cents per \$100 per year. The Milliman method erroneously used only the single premium single life decreasing term experience, but used the ratio of losses to mean insurance in force to arrive at the claim cost component.

B. Expense

As stated in I. A. above, I do not see the value of replacing an existing component by using data that is flawed, a method that is flawed, and produces a result that is not supported by observed industry trends. The expense component should remain at its current level, until a reliable value can be placed on the expense component that properly reflects actual general expenses of the carriers.

C. Premium Tax

A value of 2.75% has consistently been used in the 1999 Order, the Milliman report and in my work..

D. Interest

Please see my comments above in II. A. relative to interest rates. Milliman's report recognized that discounting the base rate for interest, and then discounting the single premium again represents a "double counting" of the same interest. Other analyses have used absurdly high interest rates, such as 7% in their calculations. It is appropriate to use a rate of return that is available on high quality investments with duration appropriate for credit insurance liabilities. These statutory requirements and best practices cannot be ignored when determining investment return available to insurers.

E. Compensation

Compensation should reflect the level of compensation actually paid to producers. The reality of distributing credit insurance is that it competes with other products for "shelf space" in the producer's fee income sources. If an alternate product, or offering no product at all, is more attractive to the producer, credit insurance will simply not be offered.

F. Profit and Contingency Margin

Profit and contingency margins are best determined by asset share methods. Other analyses are merely shortcuts and should not be used to analyze multi-year contracts with significant surplus strain. Using asset share methods and the assumptions in Attachment 2, I have calculated a more appropriate margin. In my opinion, unless the profit and contingency margin takes surplus strain and target surplus into account, it falls short of a thorough analysis.

IV. Disability Insurance Rating Components

A. Claim Cost

The correct method of calculating prima facie rates is to calculate a rate for a central type of coverage, such as single premium 14-day retroactive coverage, and then use existing and theoretical relationships to develop the other rates. This helps to avoid inconsistencies in rates as has been experienced in states that have set prima facie rates without regard to appropriate relationships.

In calculating the central coverage type, it is most appropriate to use the claim experience of as broad a spectrum of coverage as you can. In doing so, you avoid anomalies such as basing a rate on experience that does not include the experience under that type of coverage.

Clearly, the 14-day retroactive plan at an appropriate term is the best choice for the central coverage type. A percentage or other appropriate adjustment can then be applied across terms, elimination periods and premium types.

In calculating the base rate for single premium disability 14-day retroactive coverage, I used the adjusted loss ratio for the entire credit disability line of business. The overall three-year prima facie loss ratio for credit disability was 48.08%. When I adjusted the loss ratio to recognize the misreporting of prima facie premiums, I got 53.16%, which produced a claim cost of \$1.368 per \$100 for the three-year plan. The Milliman method erroneously used only the 14-Day retroactive experience, but should have used adjusted overall loss ratios to develop the claim cost component.

B. Expense

As stated in I. A. above, I do not see the value of replacing an existing component by using data that is flawed, a method that is flawed, and produces a result that is not supported by observed industry trends. The expense component should remain at its current level, until a reliable value can be placed on the expense component that properly reflects actual general expenses of the carriers.

C. Premium Tax

A value of 2.75% has consistently been used in the 1999 Order, the Milliman report and in my work.

D. Interest

Please see my comments in II. A. above relative to interest rates. Milliman's report recognized that discounting the base rate for interest, and then discounting the single premium again represents a "double counting" of the same interest. Other analyses have used absurdly high interest rates, such as 7% in their calculations. It is appropriate to use a rate of return that is available on high quality investments with duration appropriate for credit insurance liabilities. These statutory requirements and best practices cannot be ignored when determining investment return available to insurers.

E. Compensation

Compensation should reflect the level of compensation actually paid to producers. The reality of distributing credit insurance is that it competes with other products for "shelf space" in the producer's fee income sources. If an alternate product, or offering no product at all, is more attractive to the producer, credit insurance will simply not be offered.

F. Profit and Contingency Margin

Profit and contingency margins are best determined by asset share methods. Other analyses are merely shortcuts and should not be used for multi-year contracts with significant surplus strain. Using asset share methods and the assumptions in Attachment 2, I have calculated a more appropriate margin. In my opinion, unless the profit and contingency margin takes surplus strain and target surplus into account, it falls short of a thorough analysis.

Analysis of The Center for Economic Justice (CEJ) Report

CEJ appeared to offer no update to information provided in 2002, and does not produce updated prima facie rates based on the data. The overriding theme of CEJ's comments appears to be how "reverse competition" makes credit insurance different from other types of insurance.

In truth, credit insurance rates are set by law and regulation. The commissions are set by the market, and the insurer's profit criteria. Should "reverse competitive" or other non-competitive forces be deemed present, the promulgation of prima facie rates negates those forces. Texas has promulgated prima facie rates for many years. The "reverse competition" argument is simply many years outdated and the supposed adverse effect on consumers eliminated long ago by presumptive rates.

Analysis of Office of Public Insurance Counsel (OPIC) Report

The OPIC report does not calculate a recommended prima facie rate, but calculates a percentage to be applied to the existing scale. It uses methods similar to the component rating formula. The OPIC report went to considerable lengths to create a deviation from established methods and formulas.

The Milliman report says in response to the OPIC report, "We... do not understand the logic used to develop the profit and contingency margins." I was also initially confused by the derivation, and very surprised at the conclusion that the resultant underwriting margin was -15.3% for credit life and -15% for credit disability. This result appears absurd in my experience and in light of the result of other calculations attempting to measure the same value.

There are three major flaws in the derivation of the profit and contingency margin in the prima facie percentage adjustment calculated by OPIC.

First, the assumed investment return on insurer's assets is taken to be 7%. Regardless of historical levels, this setting of prima facie rate level is intended to be effective for the next three years. Any reasonable analysis would indicate that current and near term prospects for investing funds to back credit insurance liabilities are much less than 7%. Milliman uses 3.5% in its report.

Second, a major flaw is that investment income on reserves is overstated for two reasons. First, as discussed above, a significant percentage of the reserve is funded from insurer surplus. Secondly, the investment income on the Gain and Loss Exhibit which OPIC uses for "investment income on reserves" includes investment income on insurer's allocated and unallocated surplus.

Third, only asset share methods that take into account the surplus strain, cost of capital and timing of cash flows are asset share methods. It is clear that OPIC did not employ asset share methods in their derivation of profit and contingency margin.

Compounding the other issues, the claim cost is incorrectly calculated, and does not reflect the proper adjustment for incorrect reporting of prima facie earned premium, as I have indicated.

Expense ratios are calculated, containing the same underlying data flaws that are noted above in my more general comments.

In conclusion, I believe that the adjustments, data and methods contained in my earlier report to the Texas Department remain valid and form an appropriate basis for setting prima facie rates. The conclusions and recommendation from my earlier work remains valid.

Based on the available data, I calculate the credit life insurance rate for single premium single life decreasing term credit life insurance to be \$.44 per \$100 per year. Premium rates for other coverages should be based on existing relationships.

Based on the available data, I calculate the single premium 14-day retroactive 36-month disability rate to be \$3.28 per \$100. Premium rates for other benefits should be based on existing relationships.

I thank the Texas Department for the opportunity to comment and to provide input to the process of determining credit insurance prima facie premium rates in the state of Texas.

Respectfully Submitted



Christopher H. Hause, FSA, MAAA
President
Hause Actuarial Solutions, Inc.

Attachment 1

Text of Report Previously Submitted by Hause Actuarial Solutions, Inc.

On Behalf of CCIA and TALHI

Preface

The Texas Department of Insurance (TDI) has requested industry input on recommendations for credit life and disability prima facie rates based on Texas law and regulation and the claim and expense data from 2000 through 2002.

TDI provided a Microsoft Excel spreadsheet and a Microsoft Access database that contained the reported data. This data was provided by individual companies and was consistent with the type of data used in previous presumptive rate derivations. My firm performed no independent audit or verification of the data provided, except for general reasonableness, consistency with previous data, and consistency with earlier similar work performed, as noted below.

The Consumer Credit Insurance Association (CCIA) and the Texas Association of Life and Health Insurers (TALHI) have engaged my firm to perform analysis of the data collected by TDI and to produce a presumptive rate consistent with statutory requirements and sound actuarial principles. CCIA is a national trade association and TALHI is a Texas trade association with some common member insurance companies engaged in credit life and credit accident & health insurance business in Texas.

In developing my recommendation, CCIA and TALHI have specifically asked that I:

- 1) Perform an analysis of the 2000-2002 claim and expense information that has been made available and comment on its completeness, accuracy and utility for making a prima facie rate recommendation.
- 2) Make use of other relevant data, including my general knowledge of the credit insurance market, various forms of coverage, deficiencies in reporting of data and other data and considerations that may have an effect on the development of the final rate recommendation.
- 3) Consider the existing rate structure, its soundness and effect on appropriate formulas and factors.
- 4) Develop recommended Life and Disability prima facie rates utilizing the 2000-2002 Texas data and an appropriate component rate formula.
- 5) Develop rates in aggregate across the six sources of business specified by TDI in its production of data.
- 6) Provide derivation and comments on the methods used to derive the values of the various components.

Where possible, I made use of determinations and methods used in the Official Order of the Commissioner of Insurance dated October 29, 1999 ("Order"). A copy is attached for convenience.

During my 20 years of credit insurance experience, I have been involved in research, calculations and testimony involving prima facie rates. In 2002, I was retained by the State of Colorado to develop prima facie rate scales from data similar to the data provided by TDI. A summary of my education and work experience is attached.

Analysis of Information Provided by TDI

I would like to comment on several aspects of the data as it was presented. Where wide inconsistencies are noted with past or current experience, it does not necessarily mean that there were errors in compilation or submission. There are wide variations in claim and expense experience among carriers. It is also known that there are differences in expense allocation that can have a profound impact on expense ratios among carriers.

With regard to the data:

- 1) Based on the date that I was engaged to prepare this report and the date it was required to be submitted, there was insufficient time to identify and eradicate potential errors and inconsistencies in the expense data. In addition, as in previous data gathered by TDI, some of the data regarding number of in-force policies appeared to be inconsistent.
- 2) The expense component that would be developed from the data provided would be necessarily based on the assumption that the administrative cost per policy is the same in Texas as the average across all states. This may or may not be true, even generally.
- 3) The expense component that would be developed from the data provided would either give equal weight to all Outstanding Balance policies and Single Premium policies in terms of their expense allocation, or be based on an arbitrary allocation. As I am aware of large and significant variations, even among various markets in expense ratios of various credit insurance plans, any assumption as to an allocation of expenses would be based on limited data and questionable assumptions.
- 4) The considerable expense in complying with the 2000 Texas rate change, implementation and filing and would not be reflected. This would understate the true expenses that contribute to both the credit life and credit disability calculation.
- 5) Given the above shortcomings and the need for a timely recommendation, I made a simplifying assumption to develop the expense components as discussed below.
- 6) Based on the date that I was engaged to prepare this report and the date it was required to be submitted, there was insufficient time to verify that the earned premiums were adjusted to prima facie in a consistent fashion. I am aware that many companies have estimated or completely ignored this adjustment in the past due to lack of sufficient computer capabilities. There may be additional uncertainty for Texas business due to the fact that interest discounts are employed for single premium plans, and that statutes allow for permissible deviation around the published rate. The majority of business written during the time period studied was written at the maximum permissible rate. From the relationship between "actual earned premium" and "earned premium at presumptive rates," it is clear that improper adjustment was made to actual earned premiums to derive presumptive earned premiums. To compensate, I

used reasonable approximations to adjust the presumptive earned premiums and loss ratios in order to derive the claim cost components.

- 7) In general, three years worth of experience in a state with sufficient volume will generally provide a credible basis for claim costs. Texas has a sufficient volume of business on which to base a rate calculation.

Derivation of the Credit Life Rates

The formula I would generally use in such a recommendation is shown below. In some previous documents, the term "ROE" has been used for the percentage of premium margin that is necessary to produce an adequate return for risk and use of surplus. The measure that I used for single premium plans is based on Internal Rate of Return. I have replaced the "ROE" term with a more descriptive term, "Profit and Contingency Margin."

$$\frac{\text{Claim Costs} + \text{General Insurer Expenses}}{1 + \text{Invest. Income} - \text{Prem Taxes} - \text{Compensation} - \text{Profit and Contingency Margin}}$$

However, since the rate calculation in use by Texas provides an interest discount in its derivation of single premium rates, and the interest element of Outstanding Balance coverage is negligible, the Investment Income component is removed, and the formula is reduced to:

$$\frac{\text{Claim Costs} + \text{General Insurer Expenses}}{1 - \text{Premium Taxes} - \text{Compensation} - \text{Profit and Contingency Margin}}$$

The Claim Costs and General Insurer Expenses are developed in terms of "cents per \$100 per year," to be consistent with the desired form of the base single premium rate. The source for these components is the data provided by TDI, as corrected and modified by judgment and other relevant factors.

The Premium Tax, Compensation, and Profit and Contingency Margin components are expressed as percentages. The derivation and usage of these components is intended to be as consistent as possible with the Order.

Claim costs were derived by multiplying the three-year Loss Ratio based on Presumptive Rate, adjusted for reporting errors, by the prima facie rate in effect during the study period. After adjusting the presumptive earned premium to reflect the errors in reporting, the loss ratio for all life plans in aggregate was 53.16%. The discounted prima facie rate at each year end was \$.281 per \$100 per year. The resulting claim cost produced an aggregate value of 13.11 cents per \$100 per year.

General Insurer Expenses were calculated in the form of "cents per \$100 per year" based on the data provided. "Nationwide" expenses were converted to "Texas" expenses by taking the ratio of total policies in force at the beginning and end of each calendar year in Texas to the nationwide number of policies in force. These calculations were done by class of business within each individual company, and totals compiled by class of business. The consistency in the results of this calculation was considerably less than

satisfying, with the resulting expense ratios by class of business varying from -17.62% to 42.47%. Due to the questionable reliability of these results, I recommend that the expense component remain unchanged from the 8.02 cents per \$100 per year as determined in the Order.

Compensation was derived by taking the average commission rate actually paid over the three year period from the data provided, which was calculated at 35%.

The premium taxes, licenses and fees were estimated as 2.75% for the purposes of this analysis.

The Profit and Contingency Margin was developed in a different manner from that which the Order employed.

For single premium plans the method used in the Order is insufficient to recognize the surplus strain associated with payment of commissions and reserve establishment, as well as Risk-Based Capital requirements. In addition, the simplified method used in the Order is insufficient for multi-year contracts where recovery of this strain is spread out over several years, and it does not recognize timing differences between statutory and taxable income.

The method that I used to determine the appropriate value for this component was to perform an analysis based on an 11.5% statutory after tax internal rate of return. The value I generated is the gross, pre-tax premium margin that is necessary to produce the target internal rate of return without investment income. The reason no investment income was used is that the single premium rates are discounted at interest and thus, investment income on the single premium is passed along to the purchaser. The assumptions for this calculation are contained in an exhibit. The necessary gross premium margin for single premium credit life is 14.65%.

For Single Premium Life, the rate is derived below.

$$\frac{.1311 + .0802}{1 - .0275 - .35 - .1465} = .44$$

Based on this derivation, I recommend that the single premium life insurance rate be increased from its current level of \$.30 per \$100 per year to \$.44 per \$100 per year.

The corresponding joint life, level term and monthly outstanding balance rates can be derived by formula from the above. The existing relationships between the rates for the various forms of coverage should be examined in light of claim cost relationships and underlying trends. The joint life multiple of 150% is one of the lowest currently in use by any state, and is not adequate. This is commented on more thoroughly below.

Derivation of the Credit Disability Rates

As in life insurance, the formula used for rating methodology is shown below. In previous documents, the term "ROE" has been used for the percentage of premium margin that is necessary to produce an adequate return for risk and use of surplus. The measure that I used for single premium plans is based on Internal Rate of Return. I have replaced the "ROE" term with a more descriptive term, "Profit and Contingency Margin."

$$\text{Claim Costs} + \text{General Insurer Expenses}$$

$$1 + \text{Invest. Income} - \text{Prem Taxes} - \text{Compensation} - \text{Profit and Contingency Margin}$$

Again, the rate calculation in use by Texas provides an interest discount in its derivation of single premium rates, so the Investment Income component is redundant. The formula reduces to:

$$\text{Claim Costs} + \text{General Insurer Expenses}$$

$$1 - \text{Premium Taxes} - \text{Compensation} - \text{Profit and Contingency Margin}$$

The base single premium rate was calculated using the above formula for the 14-day retro, 36 month term. This derived premium rate is divided by the corresponding prima facie rate in effect during the study period and a ratio is developed. I recommend this ratio be applied to the entire prima facie rate schedule to maintain consistency between rates. Other rates may be developed by ratio, or standard formula.

The study period claim cost was derived by multiplying the three-year Loss Ratio based on Presumptive Rate, adjusted for reporting error, by the prima facie rate in effect during the study period. After adjusting the presumptive earned premium to reflect the errors in reporting, the loss ratio for all disability in aggregate was 53.16%. I multiplied the loss ratios by the discounted prima face rate of \$2.573 per \$100. The resulting aggregate claim cost component is \$1.368 per \$100.

General Insurer Expenses were calculated in the form of "cents per \$100" based on the data provided. "Nationwide" expenses were converted to "Texas" expenses by taking the ratio of total policies in force at the beginning and end of each calendar year in Texas to the nationwide number of policies in force. As with the life expense derivation, there was considerable variation. Due to the questionable reliability of the data, method and results, I recommend that the expense component remain unchanged from the 54.57 cents per \$100 as determined in the Order.

Compensation was derived by taking the commission rate actually paid over the three year period, which was calculated at 29%.

The premium taxes, licenses and fees were estimated as 2.75% for the purposes of this analysis.

The method that I used to determine the appropriate value for the profit and contingency component was to perform an analysis based on an 11.5% statutory after tax internal rate of return. The value I generated is the gross, pre-tax premium margin that is necessary to produce the target internal rate of return without investment income. The reason no investment income was used is that the single premium rates are discounted at interest and thus, investment income on the single premium is passed along to the purchaser. The assumptions and details of this calculation are contained in an exhibit. The necessary gross premium margin is 9.85%.

The components and rates for the 36-month 14 day retroactive cell is shown below.

$$\frac{1.368 + .5457}{1 - .0275 - .29 - .0985} = 3.28$$

The corresponding non-discounted prima facie rate in effect during the study period is \$2.79.

Based on this, I recommend the use of an aggregate prima facie rate scale that is 118% (3.28 divided by 2.79) of the premium rate scale currently in use.

Other benefits and premium rate structures for credit disability insurance may be derived by use of suitable ratios or by formula. The joint multiple of 150% is one of the lowest currently in use by a state, and is not adequate. This is commented on more thoroughly below.

Joint Life Multiple Factors

The joint factor utilized by Texas in setting the life and disability rates that are currently in use is 150%. I believe this factor is not sufficient to provide adequate and consistent expense and profit/contingency margins. In work I have done in previous rate derivations, I have determined the appropriate factors to be 1.65 for credit life insurance and 1.75 for credit disability. These factors were derived in a manner consistent with the component formulas above. I recommend the use of these factors for joint coverage.

Respectfully Submitted

A handwritten signature in cursive script, appearing to read "Christopher H. Hause", with a long horizontal flourish extending to the right.

Christopher H. Hause, FSA, MAAA
President
Hause Actuarial Solutions, Inc.

Attachment 2

Assumptions Used in Determination of Profit and Contingency Margin

Assumptions for Derivation of
Premium Margin Needed to Achieve an
11.5% After Tax Internal Rate of Return

Single Premium Credit Life Insurance

Determination Assumptions

Type of Coverage	Gross Decreasing Term Life
Mortality Weighted Average Issue Age	50
Statutory Reserve Basis	1980 CSO at 3.5% interest
Federal Income Tax Rate	35%
Average Size Policy	\$8,000
Average Term	36 Months
Refund Method	Rule of 78
Lapse Assumption	1.5% per month
Risk-Based Capital per \$1,000 NAR	\$0.87
Risk-Based Capital per \$1 of premium	\$0.029
Risk-Based Capital per \$1 of asset	\$0.012
Claim Payment Lag	15 days
Gross Premium	\$72.00 (Undiscounted current Texas rate)
Commissions	25% of net written premiums (Suggested by determination of "allowable" compensation by Texas Order)
Loss Experience	40% of premium as earned
Premium Taxes	2.75% of net written premium

Determination Method

Claim costs and general expenses were assumed to be a level percentage of earned premiums. The method used to determine the premium margin was to vary the expense percentage until the after tax IRR was 11.5%. This expense percentage was determined to be 17.6%.

Consistent with the intended use in the component rating formula used in the 1999 Order and this recommendation, the gross premium margin was calculated as $100\% - (\text{Loss Ratio}) - (\text{Premium Tax Rate}) - (\text{Commission Rate}) - (\text{General Expense Percentage})$. $1 - .40 - .0275 - .25 - .176 = .1465$

Note: The use of these particular values for commissions, expenses and losses in this determination does not constitute a recommendation or an estimation of actual experience. These were used solely to determine the necessary level of their combined ratio to achieve the target Internal Rate of Return.

Assumptions for Derivation of
Premium Margin Needed to Achieve an
11.5% After Tax Internal Rate of Return

Single Premium Credit Disability Insurance

Determination Assumptions

Type of Coverage	14 Day Retroactive Disability
Issue Age	50
Statutory Reserve Basis	Average of Rule of 78 and Pro-Rata Methods
Federal Income Tax Rate	35%
Average Size Policy	\$8,000
Average Term	36 Months
Refund Method	Rule of 78
Lapse Assumption	1.5% per month
Risk-Based Capital per \$1 of premium	\$0.007
Risk-Based Capital per \$1 of asset	\$0.012
Claim Payment Lag	15 days reporting, 90 days average payment lag
Gross Premium	\$223.20 (Undiscounted current Texas rate)
Commissions	25% of net written premiums (Suggested by determination of "allowable" compensation by Texas Order)
Loss Experience	50% of premium as earned
Premium Taxes	2.75% of net written premium

Determination Method

Losses and general expenses were assumed to be a level percentage of earned premiums. The method used to determine the premium margin was to vary the expense percentage until the after tax IRR was 11.5%. This expense percentage was determined to be 12.4%.

Consistent with the intended use in the component rating formula used in the 1999 Order and this recommendation, the gross premium margin was calculated as $100\% - (\text{Loss Ratio}) - (\text{Premium Tax Rate}) - (\text{Commission Rate}) - (\text{General Expense Percentage})$. $1 - .50 - .0275 - .25 - .124 = .0985$

Note: The use of these particular values for commissions, expenses and losses in this determination does not constitute a recommendation or an estimation of actual experience. These were used solely to determine the necessary level of their combined ratio to achieve the target Internal Rate of Return.

Attachment 3

Derivation of Estimate of the Understatement of Prima Facie Earned Premiums in Texas

Calendar Years 2000-2002
Credit Life

Year	PF Rate	Written Rate	Percentage Earned					
			1997	1998	1999	2000	2001	2002
1997	0.36	0.36	0.51751587	0.313282	0.169202			
1998	0.36	0.36	0.517516	0.313282	0.169202			
1999	0.36	0.36	0.517516	0.313282	0.169202			
2000	0.281	0.281	0.517516	0.313282	0.169202			
2001	0.281	0.281	0.517516	0.313282	0.169202			
2002	0.281	0.3653	0.517516	0.313282	0.169202			

Earning of Premiums at Incorrect "Prima Facie" compared to Actual Prima Facie Rates

Year	1997	1998	1999	2000	2001	2002
1997	0.186306	0.112781	0.060913	0	0	0
1998	0	0.186306	0.112781	0.060913	0	0
1999	0	0	0.186306	0.112781	0.060913	0
2000	0	0	0	0.145422	0.088032	0.047546
2001	0	0	0	0	0.145422	0.088032
2002	0	0	0	0	0	0.189049
Reported Prima Facie				0.319116	0.294367	0.324627
Total Reported for Three Years				0.281	0.281	0.93811
Actual Prima Facie						0.281
Total Actual for Three Years						0.843
Ratio of Reported to Actual						1.112823

Attachment 3 – Part 2

Derivation of Estimate of the Understatement of Prima Facie Earned Premiums in Texas
Credit Disability

Year	PF Rate	Written Rate	Percentage Earned			
			1997	1998	1999	2000
1997	3.21	3.21	0.44600238	0.369147	0.18485	0.18485
1998	3.21	3.21	0.446002	0.369147	0.18485	0.18485
1999	3.21	3.21	0.446002	0.369147	0.18485	0.18485
2000	2.573	2.573	0.446002	0.369147	0.18485	0.18485
2001	2.573	2.573	0.446002	0.369147	0.18485	0.18485
2002	2.573	3.3449	0.446002	0.369147	0.18485	0.18485

Earning of Premiums at Incorrect "Prima Facie" compared to Actual Prima Facie Rates

Year	1997	1998	1999	2000	2001	2002
1997	1.431668	1.184963	0.593369	0	0	0
1998	0	1.431668	1.184963	0.593369	0	0
1999	0	0	1.431668	1.184963	0.593369	0
2000	0	0	0	1.147564	0.949817	0.475619
2001	0	0	0	0	1.147564	0.040817
2002	0	0	0	0	0	1.491833
Reported Prima Facie				2.925896	2.69075	2.917269
Total Reported for Three Years				2.573	2.573	8.533915
Actual Prima Facie				2.573	2.573	2.573
Total Actual for Three Years				7.719	7.719	7.719
Ratio of Reported to Actual				1.105573	1.105573	1.105573