

**EXCERPTS FROM
PROPOSITION 103 TESTIMONY**

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SECTION 2:

THE DEPARTMENT OF INSURANCE PROPOSED ROLLBACK METHODOLOGY AND PROPOSED PRIOR APPROVAL METHODOLOGY

Part A: THE ROLLBACK METHODOLOGY

The following text discusses the Department's proposed rollback methodology, as amended in its Preliminary Prayer (the Department's Prayer), and outlines the ways in which it is seriously flawed.

The process to determine whether a rollback is required by Proposition 103 is actually ratemaking. With the passage of Proposition 103 on November 8, 1988, insurers were required to roll back rates for policies with effective dates on or after November 8, 1988, through November 7, 1989, to 20% below the rate level in effect on November 8, 1987, unless the insurer could demonstrate that higher rates were justified. In order to demonstrate to the Department that its rates were justified, an insurer had to analyze its data and project its loss costs and expenses for the period November 8, 1988, through November 7, 1989.

Although the passage of time has made the prospective nature of this justification process less obvious to the casual observer, the language of Proposition 103 reflects this prospective intent.

Because any methodology used in this justification process is ratemaking, it must conform to generally accepted principles of ratemaking. Consequently, the Department must review the reasonableness of the projections contained in the insurers' rate applications in order to determine whether any rollbacks are appropriate. It is clear that the Department has not performed this review and that the methodology it is attempting to substitute for this review fails to meet generally accepted ratemaking principles.

Summary of the Department's Rollback Methodology

The methodology initially used by the Department was a net calendar year calculation (using the 1988 calendar year) of each insurer's total return by line of business. This was later amended in the Department's Prayer to rely on 1989 "actual" accident year results. The total return is calculated as a return on a hypothetical by-line statutory surplus structure quantified in the Department's Prayer. An insurer's total return is established as the sum of (1) underwriting profit or loss and (2) investment income including capital gains or losses averaged over the most recent three years. Investment income and capital gains are the total of those items flowing from insurance operations as well as from the hypothetical surplus deemed to support the insurance business in California, as calculated using the Department's leverage norms.

The final "excess" return on hypothetical surplus is calculated for each line of business by subtracting the Department's selected 11.2% target return on hypothetical surplus from the calculated return on hypothetical surplus. The excess return on hypothetical surplus dollars is calculated by multiplying this excess percentage by the hypothetical surplus. The total excess return on hypothetical surplus for all lines of business is then determined. In the final step, the rate rollbacks would be prorated and distributed to all policyholders of all the affected lines of insurance.

Discussion of the Rollback Methodology

There are several major flaws in the Department's rollback methodology which contribute to its deficiency. The following text outlines and explains the major areas of departure from actuarial principles, but it is not exhaustive.

1. The Department's proposed rollback methodology is based on the premise that generic rules and methodologies are appropriate for implementing Proposition 103. There is no comprehensive generic rollback methodology which can be applied uniformly and routinely to each and every insurer writing business in California and still produce equitable results. The concept that ratemaking is not generic is explored more fully in the specific items contained below.

2. The Department's proposed means for determining whether an insurer should roll back its rates is a single year calculation and is largely retrospective. The rate rollback determination should be based on a review of the insurer's prospective rates. The process that an insurer used to determine whether it would need to rollback its rates was a ratemaking process. In June 1989, insurers seeking rates higher than the mandated rollback rates submitted to the Department applications containing the actuarial ratemaking documentation supporting the proposed rates. Thus, a review of this supporting documentation is the only appropriate means for the Department to determine whether insurers should roll back rates or use those proposed in the applications. The Department has not performed this review. Instead it is attempting to substitute a one-year retrospective calculation of "actual" 1989 results for the analysis of the rate applications.

The only appropriate means to test the reasonableness of a given set of rates, even if the period during which the rates were effective has passed, is to critically review the data, methods, and assumptions entering the ratemaking calculation at the time the rates were constructed. In practice, ratemaking rarely relies on a single year's experience. Most insurers do not have a sufficiently large volume in a given line of business to be able to rely on a single year for future cost estimation. In order to minimize the amount of random variation in the ratemaking result, it is especially important to use a longer experience period for

those lines of business with a small statistical base (i.e., those that lack actuarial credibility) or those subject to extreme variation from year to year due to weather-related losses.

For example, the basic ratemaking methodology for auto insurance commonly uses a minimum of two years, while for homeowners a minimum of five years is commonly used. Even within the framework of a line of business such as auto, where basic ratemaking can be performed on as few as two years of experience for many insurers, certain other elements in the ratemaking process, such as catastrophe loss projection or trend estimation, require analysis periods longer than one year.

Ratemaking will produce rates for any given year that will almost certainly turn out to be somewhat too low or somewhat too high. Only over a longer time period can ratemaking procedures be expected to lead to rates close to the combined estimated values for losses, expenses, etc., underlying the rates. Thus, any single year retrospective analysis is sure to uncover only the obvious: that the rates turned out to be either higher or lower than the expected losses and expenses for a particular year. This is a meaningless calculation and sheds little light on the actuarial soundness and reasonableness of the actual rates under consideration.

Moreover, the Department's approach does not even produce its purported result. That is, it does not give one an insurer's actual 1989 results, since final results for the 1989 accident year will not be known for many years. All that the Department's formula produces is a poor estimate:

- ° Actual accident year 1989 incurred losses include only those reported as of December 31, 1989. The Department's formula would significantly understate ultimate accident year losses because incurred but not reported (IBNR) losses would not be included. An estimate of IBNR needs to be included in order to properly estimate the ultimate accident year losses. This comment applies to loss adjustment expenses (LAE) as well.
- ° LAE, other expenses, and premium taxes listed in the formula are not sufficiently defined and could be interpreted as either paid or incurred. They should be on an ultimate incurred basis.
- ° The actual investment income associated with accident year 1989 is not yet known. Since all of the losses and LAE have not yet been paid, the assets backing the outstanding losses and LAE will continue to earn investment income in the future. Hence, as of December 31,

1989, the actual amount of investment income earned cannot be known, it can only be estimated. In addition, the term investment income is not precisely defined. It could be interpreted (erroneously) to mean all investment income earned by the insurer on all invested assets whether included in the rate rollback formula or not.

The proposed calculation of actual federal income taxes (FIT) relevant to the 1989 accident year is impossible. FIT are paid on an all-lines, all-states combined basis for a calendar year with provisions for offsets from other years. Hence, actual California 1989 accident year FIT is not calculable.

3. The Department's calculation of an insurer's total return is based on a hypothetical surplus by line of business with no discernible basis or documentation for the selected values. By its fundamental nature, surplus is not allocable, whether to line of business, to jurisdiction, or to any other segment of an insurer's operation. Surplus provides a buffer against all possible adverse financial developments an insurer may incur, be they unanticipated catastrophe claims from an earthquake or windstorm, higher than anticipated claim frequencies or severities, rate level inadequacies by reason of regulatory intransigence, adverse investment results, etc.

An insurer's total surplus is universally available to provide each policyholder and each claimant an additional measure of guarantee that the insurer will be able to deliver on the promise for which the premium was paid. Since surplus functions as a total fund, reflecting insurer return on hypothetical surplus on a by-line, by-jurisdiction, or by-any other basis as a means for making rates is in fundamental conflict with the nature of surplus.

The Department's establishment of hypothetical premium-to-surplus ratios by line of business in California is not suited to the task of ratemaking. The Department allocates varying amounts of hypothetical surplus to each line of business in California and enters this surplus into the final calculation of an insurer's return. While this allocation is essential to the Department's approach, no methodology for surplus allocation among lines of business is recognized as definitive. And, in fact, the Department has neither offered any actuarial basis for the hypothetical premium-to-surplus ratios it selected nor has the Department produced any documentation for its approach.

Moreover, the Department's approach suggests some outcomes which, in the extreme, run counter to the purposes that surplus serves. For example, the Department's use of line specific premium-to-surplus ratios has severe financial and solvency implications for mono-line insurers. An insurer writing only fire

insurance in California must use a 5-to-1 premium-to-surplus ratio in its rate rollback calculation despite the fact that it must carry surplus significantly in excess of that to satisfy NAIC solvency requirements. The insurer's so-called excess surplus would not be able to earn a return for the insurance risk to which it is exposed since this surplus would not enter the ratemaking formula. However, this surplus is subject to risk in that it is available to counter the effects of any adverse deviations the insurer may sustain.

4. The Department's permissible return on surplus is the bottom of the range that it selected. The Department's Prayer states on page 12, "Accordingly, the rollbacks must be to the lesser of 20% of 1987 charges or to the level of charges which provides an Actual Rate Of Return of at least 11.2%." Since rates are charged on a line-by-line basis, it appears that the Department intends to apply the 11.2% return on surplus test on an individual line-by-line basis. Assuming the Department intends to follow the same process in its original methodology, the results would then be added across all lines of business. Refunds are to be pro-rated across all affected lines, but no means to actually accomplish this are outlined.

The use of an 11.2% cap on a company-by-company basis will necessarily result in the industry earning less than 11.2%. Every insurer earning less than 11.2% would be left alone. Every

insurer earning more than 11.2% would have to roll back its rates until an 11.2% return is reached. Thus, if even one insurer rolls back rates, the industry cannot attain the 11.2% return.

5. The Department's rollback methodology focuses almost entirely on the rate of return to determine whether rates are adequate or excessive. Hence, it is not really rate regulation (i.e., premium regulation) as was the intent of Proposition 103, but is instead rate of return regulation. The Department uses the calculation of an insurer's return on hypothetical surplus instead of reviewing the actuarial ratemaking process to determine rate adequacy or excessiveness. The Statement of Principles Regarding Property and Casualty Insurance Ratemaking does not emphasize rate of return by subordinating all other elements of ratemaking to it. What the Statement does emphasize is that rates should provide for all the costs of the risk transfer. It does not state that rate of return is the key component in ratemaking; nor does the section in the Statement dealing with "considerations" emphasize this. The only reference to rate of return is in the Definitions section in which it is stated: "The underwriting profit and contingency provisions are the amounts that, when considered with net investment and other income, provide an appropriate total after tax return."¹

¹ Statement of Principles Regarding Property and Casualty Insurance Ratemaking, Casualty Actuarial Society, page 2, lines 38-39.

The Department's methodology fails to consider the adequacy or excessiveness of the premium charged to the consumer. Indeed, to the consumer the price paid is far more relevant than the insurer's return on surplus. Application of the Department's method can produce some curious results. For example, an insurer with below average prices, but with a return on hypothetical surplus greater than 11.2%, would have to reduce those prices. This is a misinterpretation of the meaning of rate adequacy or excessiveness. A price which is lower than average in a competitive industry simply cannot be excessive. On the other hand, an insurer with prices well above average would not have to reduce its prices if its return on hypothetical surplus were at or below 11.2%.

6. Under the Department's rollback methodology, an insurer's operating expenses would be limited to the lesser of its actual expenses (minus certain stated categories of expense) and the "average expense" (minus certain stated categories of expense). The expenses are to be separately set for commission expenses, other acquisition expenses, and other general expenses. The "average expense" is defined to be the actual average expense for the immediately preceding three years for similar carriers. Further, the Department proposes to determine this average commission expense and the average acquisition expense separately for direct writers, writers using a captive agency force, and writers using independent agents or agencies. It violates ratemaking

principles to cap insurer expenses and the assignment of insurers to one of three distinct distribution systems can be artificial.

Caps imposed on insurer operating expenses in the ratemaking process do not permit rates to reflect the actual costs of an insurer's unique means of conducting its business. Expense caps should not be applied. Instead, the reasonableness of each insurer's expenses should be separately considered.

The concept of capping expenses by category of insurance is flawed for at least two reasons. First, the same logic which demonstrated the sub-optimal results of using the lower end of the range of returns to cap insurer returns applies here as well. If the insurance industry as a whole is to be able to provide for its total expenses in its rates, capping any individual insurer will result in an expense provision for the total industry that is less than this total.

Second, rote application of generic caps can produce results which may run counter to sound public policy. Suppose that Insurer A engages in a differentiated level of risk inspection service with the goal of controlling or even eliminating some future losses. These risk inspection costs will result in higher insurer operating expenses, all other things being equal, but can be expected to result either in fewer claims or lower average claim sizes, hopefully more than offsetting the increased

expenses. Insurer B may not engage in much risk inspection activity and, hence, will have lower operating expenses than Insurer A. Capping Insurer A's expenses will discourage loss control activities and will not result in equitable treatment between the two insurers. The total loss and operating expenses of Insurer A may be lower than for Insurer B, yet Insurer A might have its rates capped while Insurer B might not.

The Department's methodology is silent with respect to how these caps would apply. The Department may intend for them to apply on a ratio basis or on some sort of an absolute dollar basis. An application of expense caps based on average ratios of expenses to premiums could produce anomalous results. For example, suppose that Insurer A writes private passenger auto insurance for an average rate of \$500, while Insurer B's average is \$1,000. Suppose further that it costs Insurer A \$25 to underwrite and issue a policy while it costs Insurer B \$40 for the same items. Insurer A's dollar expenses per policy are lower than Insurer B's. However, Insurer A's expense ratio is 5.0% compared to Insurer B's ratio of 4.0%, because Insurer A's average premium is lower than Insurer B's. To cap Insurer A's expense ratio at the average would produce a result that would penalize the already low-cost insurer!

Even if one were to agree with the use of expense caps, the determination of these caps according to the distribution system

of an insurer could, at its best, be viewed as an attempt to systematically categorize insurers. However, not all insurers operate exclusively through a single distribution system. Some insurers may operate through independent agents as well as through captive sales personnel. Slotting insurers into the correct category may turn out to be a purely arbitrary exercise. Insurer expenses need to be considered on a company-specific basis, rather than on a basis that relates solely to an average for some distribution system.

The Department's proposed elimination of certain types of expenses could result in an insurer not being able to reflect in its rates the legitimate costs of doing business. For example, virtually every industry selling its products to individual consumers engages in advertising. There is no reason that an insurer should be forced to conduct its business on a basis that is restrictively different from that which operates for other industries in an otherwise free economy.

It has been suggested in other testimony that provisions for certain categories of expenses be excluded from insurance rates because they are not related to the transfer of risk. Risk transfer is the sum and substance of an insurance company and all of its activities relate to the business of risk transfer, whether directly or generally. It is the operation of the insurance company as a total, viable business that permits this risk

transfer to take place. Thus, all legitimate business expenses related to the operations of an insurance company are, in fact, related to the transfer of risk and should be part of the expense provision in the rates. This does not absolve insurers from the responsibility to operate solid enterprises and does not strip the Commissioner of the right to review expense provisions in the rates for reasonableness. It serves only to illustrate that categories of expenses cannot a priori be excluded from the insurance rates.

7. Under the Department's rollback methodology, the allocated loss adjustment expense (ALAE) and unallocated loss adjustment expense (ULAE) ratios must be the lesser of the insurer's actual ALAE and ULAE ratios and the "average expense." These caps are to be determined and applied separately to ALAE and to ULAE. The same logic which demonstrated the sub-optimal results of using caps for other expenses applies to ALAE and ULAE as well. If the insurance industry as a whole is to be able to provide for its total LAE in its rates, capping any individual insurer will result in an expense provision for the total industry that is strictly less than this total.

Insurers operate their claims departments in a variety of ways. Such a forced separation of the two types of expenses in a capping process would not permit reflection of these differences in the rates. Some examples follow.

Separate caps imposed on ALAE and ULAE may result in an unreasonable penalty to some insurers. For example, an insurer may have a policy of aggressively pursuing the control or elimination of payments for fraudulent claims. This type of effort will almost certainly result in higher ALAE or ULAE costs, but the trade off should come in terms of loss savings. In such an instance, this insurer would be penalized in that its losses may already be "below average" and now its higher ALAE or ULAE costs could be capped. In this situation, the insurer is penalized for aggressively pursuing fraudulent claims, an outcome that only the naive would welcome.

Because capping would be imposed separately for ALAE and for ULAE, an insurer whose total LAE is below average may be forced to further reduce its provision for total LAE in ratemaking. For example, suppose an insurer incurs below average ALAE costs, above average ULAE costs, but in total the sum of ALAE and ULAE is below average. The ULAE costs would be capped while the ALAE costs would enter the ratemaking formula at their actual value. Thus the total loss adjustment expenses entering the ratemaking formula would be lowered for this insurer even though its total LAE is already below average.

8. The Department's calculation requires that all income and expenses be allocated to California by a ratio of California written premium to countrywide written premium. This would

require that ALAE, ULAE, other operating expenses, and investment income be allocated in this manner. This is an inappropriate means for considering these expense items relevant to California business.

With respect to ALAE and ULAE, these costs are generally more closely aligned with losses than with premium, especially written premium. In ratemaking LAE can be considered in combination with the losses themselves, thus being developed to an ultimate basis in a single step with the losses; they can be considered as a ratio to the losses; or they can be considered independently from the losses (such might be appropriate in lines where LAE is a significant portion of the total costs, such as medical malpractice insurance). There is no reason to expect that there is a constant relationship of ALAE and ULAE to premium or that it would be the same for California as it is for the remainder of the country.

For insurers operating nationally, the countrywide other expense ratios are not likely to equal the California expense ratios, yet the Department's allocation procedure assumes this. In this respect, the Department's approach fails to capture an insurer's experience as closely aligned with California as possible. An insurer may capture its expenses directly for its California business and not need to use an allocation procedure. In this instance, the use of the direct expenses would be preferable to a countrywide allocation.

The allocation of investment income according to written premium is also illogical. Since "all income" is not defined in the Department's Prayer, it is assumed to include all investment income, whether from policyholder supplied funds (the assets backing the loss and LAE reserves and the loss portion of unearned premium reserves) or from surplus. An allocation of investment income to California by means of written premium would not recognize differences in the policyholder supplied funds providing the investment income. That is, an insurer may have higher (or lower) reserves for California losses in relationship to its 1989 California written premium than it has for its total reserves in relationship to its total 1989 written premium, so the use of written premium to allocate to California would be inappropriate.

Further, by this formula, a proportionate share of investment income from all the insurer's surplus would be allocated to California, yet only the amount of surplus allowed in the Department's leverage norms would enter the ratemaking process. It would be pure coincidence if these two approaches to consideration of investment income produced the same number.

Part B: THE PRIOR APPROVAL METHODOLOGY

In addition to its rollback methodology, the Department's Prayer includes an outline of its prior approval rate review

methodology. Many aspects of the Department's rollback methodology are applied to its proposed prior approval process. Hence, all the major flaws in the Department's rollback methodology carry forward to its prior approval ratemaking process, including:

- application of generic ratemaking methodologies
- use of a single year's data in ratemaking
- reliance on a hypothetical surplus structure
- emphasis on rate of return regulation rather than price regulation
- capping of legitimate insurer expenses
- allocation of countrywide insurer expenses to California by use of written premium

In the interest of brevity, elements of the Department's prior approval process analogous to its rollback methodology are not discussed.

Summary of the Department's Prior Approval Methodology

The proposed methodology contained in the Department's Prayer (the "Bacon-Bashline" process) is outlined in summary form below. For each line of business a projected rate of return is calculated as follows:

Calculate the underwriting profit (loss) as follows:

- (a) Calculate projected earned premium
- (b) Subtract projected incurred losses
- (c) Subtract projected loss adjustment expenses
- (d) Subtract projected other underwriting expenses
- (e) Subtract projected premium taxes
- (f) Subtract projected policyholder dividends

Calculate projected actual return as follows:

- (g) Begin with projected underwriting profit (loss)
- (h) Add projected investment income
- (i) Add other projected net income
- (j) Add projected realized capital gains
- (k) Subtract projected federal income taxes

Divide the projected actual return by the base measure. The base measure is defined for each line of business as a "leverage norm" or hypothetical premium to surplus ratio also set out in the Department's Prayer.

If the projected rate of return is within the acceptable range, also defined in the Department's Prayer, then the filing would be approved. If the projected rate of return is in excess of the upper bound of the range, the rates would need to be lowered until the projected rate of return is within the range.

Discussion of the Prior Approval Methodology

Since the outline in the Department's Prayer is at most a skeleton of the process, no comprehensive commentary can be offered with respect to several key aspects of ratemaking. For example, the rollback methodology advocates the use of a single year's results. The prior approval methodology references a request for three years of historical data but does not necessarily state that these three years must be the basis of the projection of the loss component in the rates. No mention is made in the Department's Prayer of the nature of the underlying data or the nature of the step-by-step methods (e.g., loss development, trend, etc.) to be used for ratemaking, so comment can be made only on those elements disclosed in the Department's Prayer. If, by its silence, the Department intends that insurers be permitted to use any data base and any methodology which is actuarially valid, then this aspect of its recommendation would provide sufficient latitude as to be acceptable.

The only major difference in the prior approval methodology not included in the prior rollback discussion is that of trend. Since the Department's rollback methodology is intended to be retrospective, the use of trend is irrelevant. If the rollback methodology is conducted as ratemaking (as it should be), then the following discussion of generic trend is applicable to the rollback calculation as well.

The Department's methodology seeks to establish values for certain elements of the ratemaking process on a generic rather than insurer-specific basis. Trend is specifically mentioned as an element that would be set annually by the Department for each line of business; however, the Department's Prayer implies that virtually any and all elements of ratemaking can be handled generically. Such treatment would be a severe breach of ratemaking principles and would inevitably produce mechanical (and most likely very wrong) answers.

Addressing trend as an example, since no mention is made of an insurer being permitted to use alternative trend estimates if actuarially supported, it is assumed that the Department intends this to be a rigid element of each insurer's ratemaking formula. It is unreasonable to expect that a generically determined trend will provide a reasonable estimate of projected costs for every single insurer in a vast array of different insurers. Insurers writing the same line of business may in fact write different classes of risks within that line which may be subject to different claim cost forces. For example, if trend is established for medical malpractice insurance, then the same trend value would apply to an insurer writing mostly neurosurgeons and to an insurer writing mostly general dentists. The underlying trends in these costs may be quite different and would not be reflective of projected costs for the individual insurers. Thus, using a single

trend factor for both insurers would yield rates that are inappropriate for both.

SECTION 3:

PROPOSAL FOR ROLLBACK METHODOLOGY
AND PRIOR APPROVAL METHODOLOGY

As previously explained, the determination of rollback rates as well as future rates under a prior approval system are both ratemaking. Accordingly, with minor exceptions, the same methodology for reviewing an insurer's rates should be applied to both. The following contains my proposal for:

- a methodology for rollback and prior approval rate view,
and
- a procedural (or work flow) guideline which can be used
by the Department to review insurer rate applications.

My approach to implementing total return rate regulation builds on that discussed by Dr. Irving Plotkin in his testimony earlier in this hearing. It is consistent with generally accepted actuarial ratemaking principles.

Major Premises

Before presenting the proposal, it is helpful to discuss several major underlying premises.

First, an insurer's surplus, by its fundamental nature, is not allocable to line of business, to jurisdiction, or to any other segment of an insurer's operation. This concept was discussed in an earlier section of this testimony, but bears repeating since this premise serves as the foundation of this approach to an insurer's ratemaking and the regulator's rate review.

Second, Proposition 103 requires rate regulation, not rate of return regulation. The Department can regulate an individual insurer's rate of return very carefully, and still have unsound, unreasonable rates as a general result; on the other hand, sound and reasonable rates may produce different rates of return for different insurers. Hence, it is critical that every element of the ratemaking process be reviewed and analyzed.

Third, an insurer should be able to make rates using actuarially sound methodologies appropriate to its own circumstances and should not be required to significantly alter data processing and management information systems. An insurer's data gathering systems are designed to be consistent with the manner in which it conducts its business. The insurer's ratemaking

approach also reflects the manner in which it conducts its business. There is no need for changes in these processes to comply with Proposition 103.

Fourth, all measurement of rate adequacy should be prospective. The fluctuations in actual outcome compared to the estimated, expected outcome is a specific risk that the insurer assumes. Thus, the only valid means to test the appropriateness of a rate is to review for reasonableness the data and underlying assumptions used to develop the rate at the time that it was calculated.

Fifth, there is no single ratemaking formula that can be applied mechanically to each line of insurance for each insurer in California that will produce reasonable rates every time. The only appropriate means to develop actuarially-based rates is a step-by-step process incorporating each ratemaking step relevant to the particular line of business or coverage. Although there are a number of models for various parts of the ratemaking process used by insurers, no single, definitive, mathematical formula has been recognized to apply universally. Each time rates are made, the care, skill and informed judgment of a professional must be applied to the underlying data and models in order to produce actuarially sound rates.

Sixth, rate regulation is an evolutionary process. The Department needs to adopt procedures that serve the process of regulating insurance rates in this period of transition with knowledge that these procedures likely will change over time. A flexible system of rate regulation will best serve the needs of the Commissioner, the California insurance consumer and insurers alike.

Finally, no matter which procedures for rate review are adopted by the Department, they are guidelines only. As reflected in much of the testimony in this hearing, a process of applying rigid formulas to ratemaking can result in insurers adopting inappropriate rates. In addition, application of rigid ratemaking formulas may result in the Commissioner approving rates which are either inadequate or excessive. The burden of proof should be placed on the insurer to support its rates rather than be relegated to the vagaries of a single formula.

Summary of the Ratemaking and Rate Review Process

The basic steps of this proposal are:

- (1) Following Dr. Plotkin's approach, a range of total returns on equity (ROE) is established for the property and casualty insurance industry on an all-lines-combined basis. This is done by comparing the variance in annual

insurance industry ROE's with other industry groups. To adapt Dr. Plotkin's model for practical use, this total ROE range is converted to a range of operating returns on sales (ROS). After this point, no reference to surplus is necessary.

(2) The insurer prepares a rate filing that contains (a) actuarial ratemaking support, (b) "average" rate information including rates for a sample of various risk profiles, and (c) an estimate of its expected operating ROS. It submits this filing to the Department for review.

(3) The Department reviews the rate application. Provided that the application is complete and that the actuarial elements of the process are reasonable, the Department applies the four-way matrix proposed by Dr. Plotkin:

- If the prices are near average or below and the anticipated ROS is within the ROS range or below, the rate application would be approved;
- If the prices are near average or below and the anticipated ROS is above the ROS range, the rate application would be approved.

- ° If the prices are considerably above average and the ROS is within the ROS range or below, the rate application would likely be approved.

- ° If the prices are considerably above average and the ROS is above the ROS range, the Department may require more support or call a hearing.

Part A: THE RATEMAKING PROCESS

In his testimony in connection with the rate review process, Dr. Irving Plotkin proposed using a range of total after-tax ROE applied to the insurance industry as a totality. Dr. Plotkin measures the variation in annual total ROE for the insurance industry and for other industries. He then compares the insurance industry to other industries with comparable variation and concludes that an appropriate range of ROE for the insurance industry would be that which is applicable to these comparable industries. He notes that the return for the insurance industry is below that of comparable industries and concludes that competition exists in insurance.

Dr. Plotkin advocates applying this range of ROE to the industry as a totality stating that this is the only appropriate means of regulating it. He explains that in such a competitive industry individual insurers may earn far more or far less than

this range. At the same time, he recognizes that Proposition 103 requires regulation of individual insurers, and so he suggests a modified approach be applied on an individual insurer basis. He suggests that the industry range of ROE apply as a guideline for use in his four-way decision matrix for regulating rates.

Once the target range of total ROE is established, it is converted to an operating ROS based on insurance industry averages by:

- converting the basis of the range to sales (premiums) by converting GAAP equity to statutory surplus and then multiplying surplus by the industry average premium-to-surplus ratio, then
- subtracting the industry average after-tax expected return from the investment of its surplus.

This formula translates the total return on equity to an equivalent operating return on sales. After the translation to an operating ROS has been made, neither industry nor individual insurer equity need be considered in the course of making rates. If an insurer has greater than average surplus leverage, then it will earn a higher ROE, all other things being equal. This is appropriate since this is a riskier enterprise than average. If an insurer has lower than average surplus leverage, then it will

earn a lower ROE, all other things being equal. This is appropriate since this is a less risky enterprise than average.

The insurer would make rates for each line of business in a manner consistent with its internal practices and procedures using acceptable ratemaking methodologies. This would include provisions for losses, LAE, other expenses, and a profit provision expressed as a ROS.

Once the actuarial ratemaking process has been completed, the insurer must convey information to the Department necessary and sufficient for it to conduct a review of the reasonableness of the rates. This would consist of:

- ° Return on Sales Calculation
- ° Risk Profile Information
- ° Actuarial Support

Return on Sales - Rollback

The proposed method for calculating the ROS is fundamentally the same for the insurer's rollback ratemaking calculation as it is for prior approval ratemaking. The description of the rollback methodology below follows the order of the illustration contained

in Appendix 2 and each step is identified by reference to the line number in that exhibit. The methodology can operate if the ratemaking basis is an accident year, policy year, report year or calendar year based methodology.

The insurer's anticipated operating ROS must be calculated in order to apply the four-way decision matrix developed by Dr. Plotkin. To do this for the rollback period, the items listed in Appendix 2 must be calculated for each Proposition 103 line of business in California. Each insurer has already made these calculations in the course of reviewing its rates for the rollback period or preparing the rate applications filed with the Department in June 1989. Therefore, all each insurer needs to do is to transfer this information from its rate applications to the form in Appendix 2.

For prior approval, it is necessary to provide new information only for the line of business for which a rate change is sought. It is not necessary to recalculate all these figures for all lines of business every time one line's rates change. The prior approval calculation is explained in detail later.

The following is an explanation of each of these elements for the rollback along with a sample calculation of the resulting ROS:

(1) Premium - This is the estimated future year's premium to be derived from business on policies with effective dates during the period from November 8, 1988 through November 7, 1989. Two scenarios are possible:

- If an insurer has rolled back its rates voluntarily to the Proposition 103 level, the estimated future premium for the subject lines of business would be the premium it would expect to collect on those policies written to be effective during the November 8, 1988 to November 7, 1989 period for the subject lines of business.
- If an insurer is proposing to use rates other than those mandated by Proposition 103 (e.g., those filed for in June 1989), the estimated future year's premium at those proposed rates is the amount the insurer would expect to collect if it used the proposed rates for the policies with effective dates between November 8, 1988 and November 7, 1989.

(2) Expected Loss and Loss Adjustment Expenses - This is the estimated loss and loss adjustment expense (LAE) provision expected to be incurred during the November 8, 1988, to November 7, 1989 period.

Underlying the calculation of the rates is an actuarial estimate of the anticipated losses and LAE arising from all policies with effective dates between November 8, 1988, and November 7, 1989. This estimate is established in accordance with generally accepted actuarial ratemaking methods and the details of those steps are not presented here. There are a number of different actuarially acceptable methods that can be used.

The anticipated losses and LAE are on an undiscounted basis at this point. Therefore, this estimate is not dependent on any interest rate assumptions. It should be noted that the losses and LAE estimates are not derived as a percent of premiums; they are drawn as direct dollar estimates from the rate filing itself. In other words, the losses and LAE are not necessarily a function of the earned premium estimate. Both items (1) and (2) pertain to the same units of exposure.

- (3) Premium Variable Expenses - This is an estimate of the expenses to be incurred which vary in direct proportion to premiums. Underlying the calculation of the rates proposed to be used effective November 8, 1988, is an estimate of the expenses expected to vary in direct proportion to the premium. In this case, unlike

item (2), the variable expense is a function of the premium estimate.

- (4) Non-premium Variable Expenses - Some expenses do not vary in direct proportion to the premium.
- (5) Underwriting Profit (Loss) - Line (5) is the profit or loss from operations without regard to any investment income. It is equal to [line (1) - line (2) - line (3b) - line (4)].
- (6) Trend Estimates - These are the various annual trend estimates established in the course of ratemaking. The areas subject to trend are: losses, LAE, premiums, and non-premium variable expenses.²
- (7) Investment Income from Operations - This is income from the investment of the premiums held on reserve for future payment of claims, LAE, etc. It can be calculated using a model which relies on the anticipated payment rate for these items and the anticipated rate of investment appropriate in the circumstance. Investment income should be calculated on a basis consistent with

² Item (6) actually is not used in the calculation of the rollback, but it is included here to keep the numbering of the lines parallel with the prior approval methodology for ease of comparison.

that which was used to calculate the total operating return on sales. This is on a pre-tax basis.

- (8) Return from Operations - This is the return realized by an insurer from operations, including investment income derived from operations. It is the sum of line (5) plus line (7), and it is on a pre-tax basis.
- (9) After-tax Return from Operations - This is the return on an after tax basis. (No attempt has been made at this point to actually calculate the applicable tax rate here; it is merely an arithmetical illustration.)
- (10) Rate of Return - This is the projected rate of ROS for an insurer $\{[\text{line (9)} / \text{line (1)}] \times 100\}$.

Return on Sales - Prior Approval

The ROS for the line of business for which the rate change is filed will be stated in the rate application. If either this figure or the insurer's ROS on an all-lines-combined basis exceeds the ROS range, then an additional summary sheet calculating the insurer's expected all-line-combined ROS will be filed. Appendix 3 contains an illustration of the operating ROS calculation for this exception situation.

In Appendix 2, a baseline all-lines-combined ROS has been established for the rollback period. During prior approval, an insurer will probably not file for rate changes for all lines of business on a single date. For that reason, it is important that the calculation of the expected all-lines-combined ROS be accomplished without having to re-estimate all of the information for all lines of business each time a single line's rates are changed and its by-line or all-lines-combined ROS exceeds the ROS range. It is not necessary to recalculate all of these figures for all lines of business every time one line's rates change. Because rate level changes will occur throughout the year, the ROS in Appendix 3 is calculated on a rolling 12-month basis.

Appendix 3 sets forth in detail the proposed method to calculate an all-lines-combined ROS for this exception situation. A new calculation of the items in Appendix 3 is necessary only for the line(s) for which rates are changing. Since this information would normally be developed in the course of making rates, it can be easily transferred to this form.

The proposal for calculating an insurer's anticipated ROS properly measures profitability prospectively, not retrospectively. In this regard, the methodology affirmatively acknowledges the reality that when an insurer accepts a premium in exchange for coverage, the insurer assumes the risk that the

premium may actually turn out to be too low or too high simply due to chance statistical or environmental fluctuations inherent to the risk transfer mechanism.

Risk Profile Information

In order to apply the four-way decision matrix proposed by Dr. Plotkin, an insurer needs to provide information to the Department indicating whether its average prices are near or below average or substantially above average. An average price could be calculated by dividing premium by exposures, but this simple average may not suffice. For example, Insurer A may insure a broad spectrum of different values of homes, while Insurer B may specialize in high value dwellings. Simple calculation of average prices is almost sure to indicate that Insurer B's average rate is higher than Insurer A's; however, this calculation would not reflect the differences in the underlying exposure units. Thus, the averages need to be neutralized for this effect.

A better approach is for the insurer to provide rating samples for a fixed set of risk profiles along with an indication of how much exposure is associated with each. An example of a risk profile for homeowners is a \$200,000 masonry single-family dwelling located in San Bruno with a \$200 deductible. This will assist in making the determination about the relative price level of the insurer filing for the rate change. The decision on

whether the prices are near or below average or substantially above average is one that will require the application of judgment. It is important to note that the dollar amount of the average price for a risk profile changes with time since as time passes the insurance rates going into the calculation of each average price will change.

Actuarial Support

The actuarial support would describe the insurer's ratemaking methodologies and provide supporting documentation to the Department. The Department has already designed a series of forms (Appendix 4) for insurers to use in their rate applications. These could serve as a guideline for the rate filing submission.

The forms indicate that the Department recognizes there is no single formula approach to ratemaking. For example, provision is made for either a loss ratio or a pure premium method of ratemaking; options are given to use various bases of data such as accident, policy, report or calendar years; and, insurers are given the opportunity to explain each of the steps in the process and the values used.

The Department's forms rely on data readily available in most insurance companies without the need for an insurer to undertake costly reconstruction of data gathering systems to comply with a

rigid ratemaking formula. This set of forms is soundly conceived and serves as a reasonable basis for insurers to convey the necessary information to the Department in order to obtain approval of rates. The forms are comprehensive and logically constructed to follow the general flow of ratemaking procedures, all the while permitting flexibility for the rate filer to augment or substitute forms that might be more appropriate to its particular situation. Thus, the recommendation is for the Department to rely on its own set of forms with a few enhancements. The following sets forth comments and suggestions on the individual forms on a page-by-page basis.

Department Forms, Pages CA-11 through CA-17

These pages present general requirements for the minimum information to be included in every rate filing. Page 1 offers the option of using individual insurer data or group data for various phases of ratemaking. It recognizes that insurers may need to deviate from the Department's format and requires an explanation of the insurer's ratemaking process. It provides for the insurer to include additional exhibits in support of anything included in the ratemaking process but which is not captured on the Department's forms. As evidenced by these pages, the Department recognizes the need to adapt a generalized approach to individual insurers and to different lines of insurance.

The forms then describe twelve exhibits that each insurer must provide in order to support the various aspects of its ratemaking process. The Department does not provide specific forms for these exhibits and instead provides general instructions by defining their contents rather than establishing rigid forms. This indicates that the Department recognizes the necessity of flexibility in the ratemaking process and in the rate review process. Comments on these exhibits follows:

Exhibit 1 (projected rate of return for applied premium level) could be combined with Exhibit 10 (investment income and other income). The resulting exhibit would be one which presents the insurer's profit provision, which reflects investment income.

Exhibit 2 sets out the development of the indicated rate change and the proposed rate change (if it is different). It provides for a summary of the ratemaking methodology using the information from the remainder of the exhibits and the historical data upon which the proposed rates have been based.

Exhibit 3 requests a summary of prior rate changes. Information on the policy term (e.g., 6 months or 12 months) would help to place the rate changes in perspective.

The title for Exhibit 5 references incurred losses and LAE. In some instances reliance on paid losses as the basis for rate-making may be reasonable, for example, in property lines such as auto physical damage or fire. The reference should be amended to read "losses and LAE" only, but the form should then require the insurer to disclose the basis of the losses and LAE (paid or incurred) underlying the ratemaking calculation. In this exhibit, the insurer should provide support for its use of the particular loss and LAE basis.

The instructions for Exhibit 5 state, "Show calculations for lines 7-11 of CA-R5." It is not clear that there are any actual "calculations" on these lines in CA-R5 as it stands currently, but it might be implicit that these lines in CA-R5 are intended to reflect catastrophe loss procedures since the instructions for Exhibit 5 reference catastrophe losses. These items will be addressed further in the comments on CA-R5.

Exhibit 7 should omit reference to paid claim severity and paid claim frequency for personal lines auto. Depending on the coverage either paid or incurred and LAE may be appropriate. This exhibit supports CA-R5 and therefore instructions should be changed to reflect the changes recommended later in this text for CA-R5. That is, the instructions for Exhibit 7 seem to reference loss trend only. LAE trend, if LAE is considered separately from losses, also needs to be included here. Another option is that

combined loss and LAE trend be permitted, depending on the insurer and the line of insurance. These items will be addressed further in the comments on CA-R5.

Another refinement on Exhibit 7, also referenced in the comments on CA-R5, is that provision should be made for two different "trend" periods. Insurers sometimes separate trend into two steps: the first trend procedure projects historical loss and LAE costs and frequencies to the current cost and frequency levels (this is commonly called the "current costing approach") and the second trend procedure adjusts the current levels to the future, anticipated cost levels for the rate effective period. This is a refinement on a general trend procedure and the requirements for Exhibit 7 should be amended to accommodate this.

Exhibit 8 requires support for the credibility percentage used in the determination of the rates. The credibility formula establishes the amount of reliance the ratemaking process can place on the historical California experience for purposes of estimating prospective losses and LAE. If credibility is less than 100%, then the complement must be applied to other data. There are a number of options for the data to which the complement can be applied, including a trended permissible loss ratio or relevant loss and LAE data for the insurer from another jurisdiction. The instructions for Exhibit 8 should be enhanced to

require information on the complement of credibility, including support for the data to which the complement is applied.

In Exhibit 9, reference to "dollar allocations" of expenses to California should be replaced with reference to "California expenses." In some instances, it may not be necessary for an insurer to allocate expenses to California since they may be already directly captured in state detail. For example, rents for office space in California and salaries of employees located in California may not require an allocation.

Department Forms, Pages CA-R4 through CA-R10

These pages contain suggested forms for use in presenting the data underlying the rate approval request. They are reasonably general in nature and permit a good deal of flexibility in rate-making approaches. They would likely serve most of the personal lines well without much modification, but would need some changes to suit some of the commercial insurance lines. The content of each numbered form and the order of the information requested should remain uniform for ease of review by the Department, but insurers should be able to use a facsimile of the forms, adapting them to the specific line of business and to their own data and methodologies.

Form CA-R4 provides for summary information comparing the indicated change to the proposed (filed) change and seeks information quantifying the premium change. This type of summary information should be helpful to Department staff who must review these documents.

The three pages numbered CA-R5 provide summary data for the calculations underlying the indicated rate level change. The form is general enough in nature to accommodate most ratemaking approaches; however, a number of enhancements to include some ratemaking steps or to clarify the intent are necessary.

This one single set of forms attempts to accommodate three types of ratemaking: basic limits, increased limits, and total limits. This makes the forms somewhat confusing and incorporates needless information depending on which rates are being analyzed. A suggested change is that a separate series of these forms be created, each of which addresses only one of basic limits, increased limits, or total limits. This would also make them less confusing when used for a line of insurance where there are no increased limits, such as fire insurance. An alternative is to create a separate set of these forms for those lines where increased limits are not applicable, such as the property lines.

The form provides for three years of information. However, for some insurers or for some lines of business, fewer years of

basic data may be sufficient for ratemaking purposes. On the other hand, for some other insurers or for some other lines of business, more than three years may be necessary. An insurer should be able to adapt these forms using facsimiles to accommodate its circumstances.

Earned exposure units on Line 1 may not be appropriate for ratemaking in a particular line of business, and the Department recognizes this in the prior pages by instructing the insurer to fill in the blank with "N/A" if the data is not used.

On Lines 2-6, the requested information on earned premiums may not be necessary if the insurer uses a pure premium ratemaking methodology and, again, the Department recognizes this in its instructions.

Lines 7-9 reference incurred losses and should be replaced with reference only to losses. Also provision should be made to permit the inclusion of LAE with losses if it is appropriate to the insurer or to the line of business. This was discussed in the prior section in the comments on Exhibit 5.

Although Lines 7-9 do not specifically address catastrophe procedures, the instructions to Exhibit 5, discussed earlier in this testimony, reference catastrophe losses, so it is assumed that a catastrophe procedure is anticipated here. A separate line

should be inserted to accommodate the catastrophe provision, if applicable, and Line 7 should reference non-catastrophe losses only. Alternatively, if a completely different set of forms is constructed for property lines, Line 8 could be used to reflect the catastrophe loss provision.

Line 10 provides for allocated loss adjustment expense (ALAE). This request, therefore, dictates separate treatment of ALAE from losses and separate treatment of ALAE from unallocated loss adjustment expenses (ULAE). Such separate treatment may not be appropriate to the individual insurer's circumstances or to a particular line of business. Provision should be made for combined treatment of ALAE with losses or for combined treatment of ALAE with ULAE.

The ratio of basic limits to total limits incurred losses is contained on Line 11. Since this ratio would not provide for proper review of the relationship between basic and increased limits, this line should be eliminated.

Lines 12 - 13 require the loss development factors separately applicable to losses and ALAE. Combined treatment of losses and ALAE may be more appropriate in some circumstances, so the option of providing combined loss and ALAE development factors should be added.

Lines 14 - 14a display the ultimate losses and ALAE, respectively. The same comment about providing for the option of using combined losses and ALAE applies here as well.

Lines 15 - 15a display the trend factors for losses and ALAE, respectively. The same comment about providing for the option of using combined losses and ALAE applies here as well.

Line 17 requests the unallocated loss adjustment expense factor. It does not specify to what quantity this factor would apply, but it would be most logical to apply it either to losses or to losses plus ALAE. In order to accommodate different methods for providing for ULAE, this line should be changed to request a dollar amount. The derivation of this could then be presented in Exhibit 5 which is to contain information on LAE.

Line 20 should be eliminated since investment income will be considered in the derivation of the operating profit provision. Also, Line 26 can be eliminated since the federal income tax rate will have been considered in the derivation of the operating profit provision.

Page CA-R6 contains insurer expense information for expenses other than allocated LAE. Either instructions should be provided indicating the nature of the expenses (whether paid or incurred) or the nature of the ratio (ratio to direct earned premium or to

direct written); or space should be provided for the insurer to indicate which of these items it has entered on the form. CA-R6 also requests information on the marketing system (captive agency, direct writer, or independent agency) of the insurer. Some insurers may have a combination of these operating simultaneously. This information is not necessary to the ratemaking process and should be eliminated.

Page CA-R7 requests information on a calendar year basis which is likely not to be relevant to the ratemaking process and could be eliminated without loss of relevant information to the Department. For example, calendar year information will provide little insight to the rate level adequacy of a long-tail line of business for which accident year losses are used as the ratemaking base. Additionally, the federal income tax calculation provided in this form is not necessary to ratemaking and is likely to produce a totally fictitious number since income taxes are not paid on a line-of-business, by-state basis.

The reconciliation to annual statement page 14 data on page CA-R8 is not necessary and compliance with this may be impossible in some situations. For example, uninsured motorists coverage is a sub-line of business for which rates are made, yet this detail is not provided on page 14, so reconciliation is impossible. This form should be omitted.

The purpose of page CA-R9 is not clear, but in any event the information is not necessary to ratemaking. Any information needed about claim counts, ALAE attributable to defense attorneys, policy counts for cancelled or non-renewed business should be provided in the exhibits supporting the rate filing itself.

Department's Review Process

The Department has designed forms which capture basic ratemaking information and outline the steps in the ratemaking process. While sound in design, they are summary information forms. These forms contain no guidelines for making a determination regarding the appropriateness of any of the steps outlined nor do they contain information on how the rate applications would be processed through the Department. This section provides some suggestions for the types of guidelines to be used by technical staff and also outlines a proposed framework for the review process within the Department that should result in a reasonable and timely decision on rate applications.

Final approval of rates rests with the Commissioner and ultimately most rate filings will need to be reviewed by a qualified actuary. Just as no single ratemaking formula will produce reasonable rates for all lines of business for all insurers, no single rigid set of guidelines can serve for approving or disapproving all rates. Certain information, however, can be

extracted by technical staff in the Department who are not actuaries. In this manner, actuarial resources can be conserved.

The first step in the processing of a rate application is to review it for completeness and accuracy. Each filing will also need to be logged into a control system and date stamped so that a time line can be established for following up on its progress through the approval system.

The second recommended step is one where the technical staff member extracts certain key information from the filing and provides a summary of it to the actuary, who will ultimately make the recommendation to the Commissioner regarding approval. This information can be constructed and formulated into standard worksheets. In an attempt to be illustrative rather than exhaustive, some examples of information that might be extracted from the filing on the topic of loss development is provided:

- ° Are the loss development factors used in the filing within the observed ranges of the insurer's historical loss development factors?

- ° Is there any upward or downward trend in the historical loss development factors?

- ° Are any of the loss development factors used in the filing more (less) than x points from the most recent three-year average?

- ° What were the loss development factors used by the insurer the last time rates for this line of business were filed?

Answers to questions like these can be supplied by non-actuarial technical staff and will considerably reduce the time and expense required for the actuarial review. Each aspect of the ratemaking process can have its own short set of questions to be answered by the technical staff member assigned to review the filing. The next step is for an actuary to confirm the soundness of the actuarial methodology, assumptions, and judgments made by the filer.

Next, Department staff must determine whether an insurer's prices are near or below average or substantially above average. This step can be carried out by non-actuarial staff. The next step is to apply the four-way decision matrix developed by Dr. Plotkin:

- ° If the prices are near average or below and the anticipated operating ROS is in the ROS range or below, the rate application would be approved;

- ° If the prices are near average or below and the anticipated operating ROS is above the ROS range, the rate application would be approved;

- ° If the prices are considerably above average and the operating ROS is in the ROS range or below, the rates would likely be approved. In this circumstance, the Department may wish to submit the filing to a more rigorous analysis to determine why this situation exists. This situation cannot exist in the long-run since consumers will not pay higher than average prices and shareholders will eventually demand better returns.

- ° If the prices are considerably above average and the operating ROS is above the ROS range, the Department may require more supporting information from the filing insurer and/or it may call a hearing to review all aspects of the filing. This is not a very likely occurrence, and if it arises, it must be treated on an exception basis.

SECTION 4: CONCLUSION

The approach set forth in my testimony reflects the requirements of Proposition 103, placing proper emphasis on price, rather

than rate of return, regulation; it provides the framework for an actuarially sound approach to ratemaking for both the rollback period and prior approval; and, it provides the Department with an outline for a practical process for reviewing rates.

Appendix 2

Name of Insurer: _____

Group or Company (select one): _____

Sample Rollback Calculation
Operating Return on Sales
(in \$ thousands)

	<u>Homeowners</u>	<u>Auto</u>	<u>All Lines Combined</u>
(1) Projected Premium	\$5,000	\$10,000	\$15,000
(2) Projected Losses & LAE	3,650	7,750	11,400
(3) a. Projected Variable Expenses (%)	19.0%	17.0%	N/A
b. Projected Variable Expenses (\$)	950	1,700	2,650
(4) Projected Fixed Expenses	300	550	850
(5) Projected Undiscounted Underwriting Income: (1) - (2) - (3b) - (4)	100	0	100
(6) a. Loss & LAE Trend	7.0%	10.0%	N/A
b. Premium Trend	5.0%	0.0%	N/A
c. Fixed Expense Trend	6.0%	6.0%	N/A
(7) Projected Investment Income from Operations	300	948	1,248
(8) Projected Return from Operations: (5)-(7)	400	948	1,348
(9) After-tax Projected Return on Sales from Operations	300	711	1,011
(10) After-tax Projected Rate of Return on Sales from Operations: (9)/(1)	6.0%	7.1%	6.7%

Note: All figures are fictional. No attempt has been made to calculate exact investment income or FIT.