AMERICAN ACADEMY *of* ACTUARIES

May 13, 2004

To: Julia Philips, Chairperson, NAIC's Accident and Health Working Group
and
Leslie Jones, Chairperson, NAIC's Life and Health Actuarial Task Force

From: Bill Bluhm, Chairman, American Academy of Actuaries' Rate Filing Task Force

Dear Julia,

I am pleased to send you the enclosed report from our Task Force. After five years and thousands of hours of volunteer work, the American Academy of Actuaries' Rate Filing Task Force is pleased (and relieved) to submit the enclosed, computer model, and documentation, in response to your request.

The Task Force report describes the current situation in the individual health market, and outlines four alternative regulatory solutions to the closed block problem, called Prefunding, Inter-Block Subsidy-- Durational Pooling, Inter-Block Subsidy-- Rate Compression, and Individual Market Pools. The computer model being presented analyzes the result of each of those closed block solutions.

Several members of the Rate Filing Task Force, including myself, will be present at your meeting in San Francisco on June 11 to present this report in more detail and to answer any questions you may have about it. We thank you for your consideration, and look forward to discussing our findings with you.

This work is intended to be an interim step in re-writing the NAIC's Individual Health Rate Filing Guidelines. It is our expectation that the NAIC will choose a single closed block solution for inclusion in its Rate Filing Guidelines. When that choice has been made, we would be pleased to assist your groups with the drafting of model guidelines or regulations to implement your choice.

Sincerely,

William F. Bluhm
Chairperson, Rate Filing Task Force
American Academy of Actuaries

Cc: Dennis Hare, Mark Peavy

Report to the NAIC's
A&H Working Group of the Life and Health
Actuarial Task Force

May 12, 2004

By the American Academy of Actuaries'
Rate Filing Task Force

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Section I. Executive Summary

In late 1999, the NAIC's Accident and Health Working Group (a subcommittee of its Life and Health Actuarial Task Force, or LHATF), under the leadership of Julia Philips, FSA, MAAA, asked the American Academy of Actuaries for assistance in developing rate filing regulatory methodologies for health insurance products. The Academy subsequently appointed a Task Force, under the leadership of William Bluhm, FSA, MAAA, FCA, to help the NAIC. That task force is called the Health Rate Filing Task Force (RFTF). Its mission is to help redraft the NAIC's *Guidelines for Filing of Rates for Individual Health Insurance Forms.*

The RFTF met a number of times throughout 2000 and 2001 to define the scope of the project and to begin work. As discussion progressed, it became clear that the issues needing to be addressed in the RFTF's work were much larger than a simple rewrite of the NAIC's guidelines. Aside from being simply an update of recommended rate filing techniques and practices, it included two major issues: (1) a proposed solution to the "closed block problem," which we will discuss in greater detail later in this report, and (2) inclusion of elements which would make the individual health market more attractive to insurers.

The RFTF spent much time discussing various potential solutions to the closed block problem. It also sought and received input from LHATF as to the policy goals they viewed as being paramount in any solution. Ultimately, the RFTF concluded that there are four major categories of potential closed block solutions, each of which would require a very different regulation to be drafted in order to implement it.

Therefore, this report to the NAIC is a document presenting two major results to LHATF, with a request for decision:

- It presents four major alternatives intended to help solve the closed block problem, along with a discussion of the advantages and disadvantages of each. If the NAIC decides which solution it prefers, the RFTF can continue its work in drafting a proposed regulatory guideline; and
- It presents the RFTF's thinking on a number of other issues related to re-writing the guidelines. We ask that the NAIC review the proposals contained herein, and, if necessary, provide specific guidance on how they might need to be changed. In this way, we can redirect our work before we commit further resources to a proposal that would be unacceptable.

It is important to note that our work product was designed to respond to a specific charge from LHATF. LHATF members attended our meetings and provided input along the way. The boundaries of our discussion were often determined by those regulators who provided input as to what the acceptable answers might be to various questions the group put to them. For that reason, it should not be assumed that any particular decision regarding the shape of this report are necessarily based on the preferences of either LHATF or RFTF, but represent a merging of the two.

Membership of the Task Force

The Task Force was composed of various volunteer members of the American Academy of Actuaries. The meetings also were attended by interested parties. Members of the Task Force were asked to act and speak in an unbiased manner, to provide advice to the NAIC regarding the impact of policy decisions, without advocating any. Each member agreed to do so. Those who decided to pursue a given public policy goal or goals declared themselves as part of the "interested party" group, along with others who decided not to be official Task Force members. In practice, interested parties contributed to our final work product alongside members.

As with any other project, individual members of the Task Force might be viewed as having a potential conflict between the Academy's goal of an unbiased work product and their employers' or other goals. We believe that by making such potential clear through membership status, by being alert to the potential for such conflicts on specific subjects, by having broad representation from competing market segments and geographies, and by fully disclosing and discussing all parts of our work with all members and interested parties (including regulators), we have successfully produced an unbiased work product.

Participants are listed below, along with their status as members, interested parties, or staff:

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Particular Thanks

The chairman would like to particularly thank Messrs. Wildsmith, Hauboldt, Birnstihl, and Turner, for their extraordinary personal commitment to this project, which was evidenced by their enormous time commitment.

Section II. Background

The NAIC's current rate filing guideline ("Guidelines for Filing of Rates for Individual Health Insurance Forms") was adopted in 1980, with amendments in 1983.

As health care rate reform has attempted to address consumer-oriented concerns such as portability, the individual major medical marketplace has, in general, been subject to much less reform than the small group market. One of the major issues in this market is the relatively large size of rate increases relative to trend. Often the cause of this is attributed to what has become commonly labeled as the "closed block problem." No completely satisfactory solution has yet been found for this problem, although recently individual states have used various regulatory techniques in an attempt to address the issue.

Another underlying cause of large rate increases may be the differential between medical trend and wage growth. This difference affects consumer affordability and can result in high lapses causing adverse selection and consequently higher rate increases. The models in this report do not address this overall issue of affordability. The drivers of rate increases are discussed in Appendix B.

In presenting the analysis, the task force is not advocating for any particular approach among the four described, nor does the task force believe that any approach is preferable from the standpoint of any individual company. The task force is not advocating, directly or indirectly, for any approach that would unreasonably limit companies' ability to make competitive market decisions or to compete effectively in the marketplace.

The Closed Block Problem

It is a commonly observed practice of the current individual health insurance market that an insurer will periodically "close" a block of business (meaning they will no longer issue new business in that pool of policies). There can be many reasons for closing a block of business. Regardless of why a block of business is closed, that block will typically experience claim costs rising more rapidly than would a block that was still open. If the insurer raises premiums at an equally rapid rate, policyholders may find it difficult to keep their policies in force due to the increased cost, which is a particular problem for those who have developed serious health conditions and are unable to find new policies. If the insurer does not continue to raise rates, then claims will eventually exceed premiums, and the resulting losses must be funded from some other source (such as premiums on other blocks of business, reserves established in earlier years, or company surplus).

Whether a block is open or closed, each year a substantial number of existing policyholders typically reconsider whether they should keep their existing policies in force. This process tends to be biased against the block, because standard insureds are more likely than impaired insureds to find less expensive coverage elsewhere, or to decide that the benefits they are likely to receive no longer justify the cost of coverage. As a result, lapse rates for standard insureds tend to be significantly higher than those for individuals who have become impaired. This is described as antiselection at lapse, and the cumulative impact of this over time is known as Cumulative Antiselection (CAST). This happens when a portion of standard policyholders (who can easily pass underwriting under another company's standards for new business) leave the closed block, resulting in a greater portion of impaired policyholders (who have greater trouble finding coverage) maintaining their coverage in the closed block.

Because there are no new entrants to a closed block, experience in the closed block often worsens over time, leading to relatively large rate increases. This typically happens in cases where rate increases are based on the experience of that closed block only, rather than on multiple blocks, including currently sold business. Larger rate increases, in turn, raise the level of antiselection at lapse by further increasing the financial incentive for standard individuals to shop for more attractive prices or drop coverage. This increased antiselection leads to even higher rate increases. This process is known variously as a "premium rate spiral," "death spiral," or "antiselection spiral." In some cases, a point of equilibrium may be reached, where most of the policyholders who are inclined to change coverage have already done so, and experience and premium levels may stabilize, albeit at levels higher than would be typical for an open block of policies. In other cases, the process may continue indefinitely, leading to a situation where only the sickest policyholders remain covered, paying very high premiums, with no standard policyholders in the block to subsidize costs.

The claim costs experienced in individual insurance tend to initially be relatively low, then rise dramatically over time. This is due to the effect of initial underwriting, including possibly an initial pre-existing condition period as well as due to the CAST effect described above.

This market is very price sensitive. Insurers can charge the lowest prices by charging premium rates which mirror the increasing nature of claim costs over time. This results in relatively low initial rates followed by sizeable rate increases. To the extent insurers follow this philosophy, the CAST effect is magnified, increasing the likelihood of an antiselection spiral.

The RFTF feels that this evolution of the marketplace, combined with the current regulatory approach, have encouraged the closed block problem. In many cases, it is very difficult for insurers to keep rates at a level adequate to cover the losses caused by this rating spiral.

For purposes of this report, this dilemma in the current marketplace is what we refer to as the 'closed block problem.'

LHATF's Goal*:*

During its discussions, the RFTF determined that, in order for the Task Force to be able to help the NAIC in its redrafting goal, the NAIC needed to prioritize its public policy goals behind the request. We asked for and received guidance from LHATF, in the form of their top three policy goals, in order of priority: (1) rate stability over time, (2) consumer choice, and (3) disclosure. Further descriptive material is included as Appendix A of this report, which includes the relevant portions of the A&H Working Group's minutes from the applicable meeting.

LHATF also asked the RFTF to identify and propose changes in the rate filing guidelines that might make the individual major medical marketplace more attractive to insurers, without compromising the public policy goals. This report addresses one such change (Section V). We intend to address this more fully in our subsequent work.

Other Considerations

Many other public policy considerations were discussed by the Task Force as it developed these alternative solutions to the closed block problem. In many cases, results associated with these solutions will not create ideal solutions to the regulators' goals described above. As is often the case, the regulators' dilemma will be to balance these solutions optimally.

Our work included measurement of a variety of statistics which might be used by regulators in evaluating the efficacy of various closed block solutions.

Representative Market

The work of the task force was focused on modeling the relative impact of alternative regulatory approaches– not on measuring the impact that any particular state, or even the average state, would experience if a particular approach were adopted. The diversity and complexity of state specific market and rating rules (see Appendices D and F) precluded any effort to model state-specific results, or even results for an "average" state. While a baseline "current market" model was developed as a point of comparison for the various alternatives, it is a representative approximation of the current rating environment in states that have not enacted comprehensive individual market reforms. This current market baseline illustrates some of the important dynamics seen in today's markets – particularly those relevant to the closed block problem - but ignores other important factors, such as the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA), guaranteed issue rules, and the prevalence of state high-risk pools. The presence of these, and any state reform efforts such as guaranteed issue, community rating, or rate band rules, must be taken into account in interpreting these results and evaluating their relevance for any particular state.

Scope

Our work is designed to study and apply to individual major medical policies. By this, we mean insurance contracts made directly between the carrier and the individual. It is not intended to apply to plans other than major medical plans, such as those for Medicare Supplement, Limited Benefit, Hospital Indemnity, Critical Illness, Long Term Care, Dental, or Vision plans. In some cases, major medical plans sold to individuals take the legal form of group master policies in which certificates of insurance are issued to individuals instead of policies. Our work could be applied to these types of plans, as well as to true individual policies.

In our modeling, we have assumed that all legal entities in a state (insurance companies, HMOs, Blues plans, and others) would follow the same set of rules in each state under each of these methods. Other situations would create different environments, requiring a different analysis.

We warn strongly that these results were modeled to take into consideration only policies issued after enactment of these solutions. We have not modeled the effect of in force policies on the results. These transition impacts will need to be addressed to fully understand how these solutions would work, including, possibly, additional modeling.

Section III. Overview and Global Assumptions

In order to evaluate alternative solutions to the closed block problem, a financial model was developed. The model is not intended to be a pricing model for a given policy form. The intent of the model is to provide a means to compare the financial implications of the alternative solutions to current market behavior. In addition, and most importantly, the model results should be viewed as a relative basis for comparing one method to another.

The Current Market Model provides an overview of the average behavior of the carriers in the market and is not intended to model the experience of any particular carrier. In fact individual carriers will have experience varying from the average based upon each carrier's underwriting, marketing, pricing, network arrangements, managed care activities and claim adjudication practices. The RFTF believes that these individual variances in experience and practice do not distort the validity of the Current Market Model's representation of the market as a whole.

The following points summarize the key components, assumptions, and structure of the model:

- It is a prospective view from the effective date of implementation of a particular closed block solution through the 30th year after the original effective date;
- A policy form or group of policy forms is assumed to be open for new sales for a three year period (an 'era'), and then it is subsequently replaced by another policy form or group of policy forms;
- Five such policy eras were modeled. New policies are thus issued for the first 15 years of the 30 year model;
- The insured population was divided between 'standard' and 'impaired' segments. They were modeled separately, and then were combined to show the total experience;
- As new business rates change over time, both in absolute dollars and relative to other insurers in the market, sales levels are assumed to change inversely;
- Covered claim costs increase each year based on trend and deductible leveraging. (Deductible leveraging is an acknowledged phenomenon where observed claim trend is higher than the underlying cost trend due to having a fixed deductible applied to trended costs.) Claim costs do not include cost containment expenses as defined by the NAIC;
- Lapse rates are adjusted based upon the level of the rate increase implemented, as well as the absolute level of the resulting premium. Larger than expected rate increases and larger premiums can increase lapse rates, and lower rate increases can reduce lapse rates; and
- Effective rate increases (the increases actually experienced by the block) will be lower than requested rate increases (those calculated as needed), due to regulatory limits and constraints. This effect is assumed to be more pronounced on larger rate increases.

The baseline for comparisons is called the Current Market Model. This is a projection of premium, claims, expenses, enrollment, and other key variables based on a set of global assumptions and a premium rate calculation that we believe to be common. The Current Market Model was constructed to represent what is currently happening in the individual market in general (but, again, is not intended to represent any particular state).

Each of the potential solutions to the closed block problem has its own model. For consistency in comparing the output of these models and the Current Market Model, the same set of global assumptions is used for each. These assumptions are not necessarily reflective of conditions at any particular company, nor are they intended to suggest any particular set of conditions to which insurers should conform their operations. Rather, these assumptions are used for illustrative purposes only, recognizing that individual insurers' circumstances can and will differ, perhaps significantly, from the assumptions the task force selected. In addition, each closed block solution's model may contain some specific assumptions that are unique to it, some of which modify portions of the global assumptions.

Global Assumptions

These assumptions recognize the following list of key global forces and parameters common to all spreadsheets. Rigorous definitions for all variables are contained in Volume II of this report, entitled "Documentation." For some of the major assumptions, a separate discussion is provided in this section of the report immediately following the discussion of the Current Market Model.

At a conceptual level, it is important to understand that the models first mimic the original rate calculation done by an insurer in setting rates. These assumptions produce an initial premium rate which is a starting value for the projection. The assumptions used in developing the starting premium rate do not necessarily match the assumptions used in the projection, which is intended to model emerging experience that will naturally vary from original assumptions.

- Claim Trend – Premium Rates

  This assumption reflects the claim trend used in the initial premium rate development of each block of business. Claim trend assumptions reflect the underlying base trend, deductible leveraging trend, and the impact of benefit reductions or "buy-downs".

  The initial premium rates for each block of business are based on a level claim trend rate assumption of 12%. No fluctuations in the claim trend rate are anticipated when a new product is being priced. This 12% trend assumption assumes the actuaries pricing the product have gone through an analysis of trend which matches the analysis described elsewhere in this report.

- Premium Rate Increases

  Premium rate increases are applied to both new business premiums and renewal premiums for a given era's block of policies. The first rate increase is based on the expected claim trend in the first renewal year, since sufficient experience is not available in time to influence it. After the first rate increase for a policy form, future premium rate increases are based on actual claims experience and reflect the most recent actual claim trend pattern.

- Claim Trend - Actual Claims

  This assumption allows us to test various scenarios of how actual trend might unfold over the projection period of the model. As described above, these claim trends are different than the trend assumed in the initial rate computation. Claim trend assumptions reflect the underlying base trend, deductible leveraging trend,

and the impact of commonly observed voluntary benefit reductions or "buy-downs".

- Interest Rate

  This assumption is used as the discount rate to calculate an initial premium rate in each spreadsheet.

- Target Lifetime Loss Ratio

  A target lifetime loss ratio is chosen for purposes of initial premium rate development in all but the Prefunding model (described later in this report). In that model, a target is not used directly, but intended to be met via other means of calculating premium that is intended to be equivalent.

- Maximum Allowable Loss Ratio

  A maximum allowable experience loss ratio for any one year, used for purposes of renewal rate increases.

- Initial Claim Cost Level – Standard Lives and Impaired Lives

  Distinct claim cost level assumptions for the first year of each block for standard and impaired lives.

- Base Lapse Rates – Standard Lives

  This assumption reflects the underlying annual lapse rates for standard lives before the impact of rate increases in excess of claim trend and aging, as well as other adjustments described below.

- Base Lapse Rates – Impaired Lives

  This assumption reflects the underlying annual lapse rates for impaired lives before the impact of rate increases in excess of claim trend and aging as well as other adjustments described below.

- Adjustments to Base Lapse Rates

  Adjustments to base rates are made in the following situations:

  - premium rates change at a different rate than the actual claim trend;
  - the ratio of the company's renewal premium rate to the market new business premium is other than 1.0 (this applies only to standard lives' base lapse rates);
  - the ratio of the company's initial premium rate to the reference premium rate is other than 1.0 (this applies only to standard lives' base lapse rates).

  However; the composite adjustments from all sources are limited such that no annual lapse rate shall be less than 15% or greater than 80% for standard lives, or less than 5% or greater than 50% for impaired lives.

- Reference Premium

  Defines the aggregate level of premium that exists in today's market. Over time, market rates may move away from the reference premium rate as the model causes them to separate. For example, if a new model law causes an abrupt change in the average market rate, a portion of the difference from the reference premium rate is used to adjust lapse rates as noted above in the adjustments to base lapse rates.

- Rate of Impairment

  This assumption reflects the net migration from standard to impaired status from one year to the next.

- Durational Deterioration Limitation Period (DDLP)

  This durational period is used in the initial pricing calculation, to reflect the period of time within which the insurers' pricing model portrays deterioration of overall claim costs by duration. This reflects the limited way in which durational deterioration is recognized in today's rate practices. It also determines the time period after which the pricing recognizes no variation in persistency between standard and impaired lives.

  The term "durational deterioration limitation period" was coined for this report; it is not standard actuarial nomenclature. The DDLP is an important parameter in our model. It represents a common aspect of individual medical pricing that is not always explicitly recognized by the pricing actuary.

- Aging

  This assumption models the increase in claim costs and premium rates due to annual increases in attained age of the insured block.

- Durational Rate Increases

  This assumption reflects a pricing practice which has automatic increases in premium rates due to duration, in addition to annual attained age and claim trend rate increases. The model generates additional lapses due to such increases.

- Production Assumptions

  Production reflects underlying uniform sales volumes adjusted for market and carrier price sensitivity.

- Expenses and commissions

  The assumptions reflect commissions paid on initial policy premium, but not on rate increases.

- RBC levels and the cost of capital

  The models estimate the amount of capital which will be held by insurers, as a flat 24% of premium. A separate assumption is made for the opportunity cost of

capital (the difference between what that money *could* be earning vs. what it earns as conservatively invested assets in an insurers general fund). The opportunity cost is currently set at five percent. These are both global assumptions common to all of the models. (This should not be confused with the separate, global interest rate assumption, which is only used to calculate net present values for summarizing the results of each model.)

To calculate the opportunity cost of capital, each of the models calculates target capital and surplus held each year, and the net opportunity cost of that capital. The Prefunding model also reflects a portion of the Prefunding reserve when modeling the cost of capital. The reserve margin is currently set at 10 percent. Because "natural" reserves (reserves calculated with no margin or modifications) are assumed to be funded out of premiums, and ultimately go to pay claims, they are not treated as capital. The margin on the reserves, however, is treated as an additional capital requirement for the block, and is added to the RBC when calculating the opportunity cost of capital. Considered over the lifetime of a policy, reserve margins are not funded out of premiums, but are in the nature of a loan; the margin set up in early years (reducing earnings in those years) is released back into the profit stream at later durations.

- Regulatory dampening of rate increases and maximum rate increase levels

  Rate increases actually approved and implemented are assumed to be less than those filed, due to restrictions placed on rate increase levels in the current regulatory environment.

Sensitivity testing of the model, described in detail later in this report, involves varying the global assumptions to determine what effect they have on the results. With respect to the actual future claim trend assumption, we tested multiple alternative trend scenarios, both in terms of level and pattern. See Section IX for additional details.

Section IV. Current Market Model

This spreadsheet contains the financial model describing today's market. The assumptions in the model were chosen by task force members to reflect realistic levels based on historical information and observations within the individual health insurance industry. Individual insurers' circumstances will undoubtedly differ from those modeled in the spreadsheet.

Initial premium rates are set to achieve a target lifetime loss ratio (assuming an illustrative target loss ratio). After the first renewal (when rates are set on expected trend), rates are assumed to be recalculated based on an actual-to-expected analysis. Expected loss ratios are based on the durational loss ratio patterns which formed the basis of initial pricing, and are not adjusted to reflect past deviations from expected levels.

The first era of policies is assumed to be issued evenly over three years. Subsequent eras of policies are modeled in a similar manner, with initial premium rates based on the market new business premium rate level, which is based on actual emerging claim trend levels. A key characteristic of the Current Market Model is that the rates for each era are modeled independently, without regard to the experience of the other eras.

Appendix E lists the various trend scenarios used to "stress test" each of the models. Our baseline trend scenario was the one called "Medium", which is a constant claim trend over time. The results of the tests are described in Section IX, Sensitivity Testing.

Detailed Discussion of Major Assumptions

- Overall Average Claim Trend Assumptions

  The starting point in developing the overall average claim trend assumption was the historical mean change in the Medical CPI for the period 1970 to 2000. This change averaged 7% per year. To reflect typical health insurance experience, the Medical CPI must be adjusted for a number of factors including: different medical services included in the Medical CPI versus those typically included in a health insurance product; changes in claim utilization patterns; cost shifting; medical technology; leveraging of medical costs due to deductibles, co-payments and maximum out-of-pocket limits; and benefit plan changes over time. These were estimated to be an additional 5% above the overall Medical CPI average claim trend of 7%, for a total claim trend of about 12%. The overall average claim trend of 12% does not include the impacts of aging and the wear-off of underwriting selection over time.

- Claim Trends-Actual Claims

  As mentioned above, the baseline projection assumes a constant claim trend. This is shown in Appendix E, Claim Trend Scenarios, and labeled Medium, a level 12% annual trend rate per year. Cyclical claim trend patterns, such as those described as Cyclic A and Cyclic B, are representative of typical cycles of trends seen historically. Running the model with Cyclic A and Cyclic B demonstrate the effects of implementing these closed block solutions at different points in the cycle.

- Standard vs. Impaired Claim Cost Assumption

  A certain portion of insured lives is assumed to become impaired after issue. Impaired lives are assumed to have an average morbidity cost about four times that of standard risk lives. The proportion of standard versus impaired lives changes over time based on lapse rates that vary for standard and impaired lives. Standard lives have higher lapse rates than impaired lives. Also, in each year there is a net transfer of policies from a standard to an impaired status. Initially, no impaired lives are assumed. This assumption would not be true in states that impose HIPAA guarantee issue requirements on the individual market.

- Persistency Assumption

  The Current Market Model, which we sometimes refer to as the baseline scenario, assumes an annual lapse rate that varies by the policy year since issue (duration), by standard and impaired lives, and the following three relationships:

  - The difference in the premium rate change versus the actual claim trend;
  - The ratio of renewal premium rate to market new business rate (this applies only to base lapse rates for standard lives);
  - The ratio of initial premium rate to reference premium rate (this applies only to base lapse rates for standard lives).

  However; the composite adjustments due to these relationships are limited such that no annual lapse rate shall be less than 15% or greater than 80% for standard lives, or less than 5% or greater than 50% on impaired lives.

  The functional relationship of lapse rate to these three variables was based upon the combined expertise of the authors of this report.

- Other Assumptions

  Other assumptions typically made for pricing of individual policies were made in a simplified manner for modeling purposes, but did not vary by model. These are based on typical assumptions readily verifiable by information often available in actuarial memoranda filed with DOIs.

Section V. Discussion of the Sub-Issues

Early in our discussion of how to address the major issues of the 'closed block' problem, we realized how important it would be to at least recognize the series of underlying issues that may cause us difficulty in arriving at a clear-cut solution. Any model legislation or regulation that may ultimately result from the work here of the RFTF may also have to address these underlying, but important issues. Consequently, we discuss them here.

We group our discussion of the sub-issues into three major categories: actuarial, industry, and consumer issues.

Actuarial Issues

- Should the numerator be net of changes in policy reserve in the reported loss ratio? Current guidelines indicate that the numerator of the loss ratio calculation be stated before adjustment for contract reserves (including durational reserves). While such an approach does avoid the risk of potential manipulation (not seen as a significant long term risk by the RFTF), it may be counter to the NAIC's primary goal of rate stability. This is because the use of unadjusted claims figures tends to cause an increasing durational loss ratio.
- Should the reported loss ratio include certain cost containment expenses? LHATF has already addressed this issue, and agreed conceptually to the inclusion of such expenses within the numerator of the loss ratio.
- Can past losses be recovered, up to the lifetime loss ratio (which reflects past and anticipated future experience), or must the future loss ratio match the originally anticipated loss ratio over the same period? This would seem to be a public policy question, as each of the options implies a separate public policy standard.
- What are parameters for assessing credibility of a block's experience? How can theoretically sound credibility rules be structured so that there is consistency among states?

Industry Issues

- If a closed block solution requires insurers to establish additional contract reserves, such reserves should be deductible for federal income tax purposes. Lack of tax deductibility would create substantial incentive for insurers to minimize these reserves, making the prefunding method problematic.
- The framework for any proposed solution must include prompt review of filings on the part of regulatory authorities. Regulatory responses and actions must be fact-based and rational, not arbitrary.
- Proposed solutions must provide for consistent rules and application, both among states and within a state.
- Solutions should create an environment of consistent regulation among all insurers participating in the individual market.

Consumer Issues

- From the consumer perspective, the main problem with the current market situation is large percentage rate increases relative to perceived inflationary trends. Consumers generally do not understand the drivers of premium rate increases.

- Potential solutions will greatly impact availability and affordability of individual medical insurance. Reducing the cost of coverage for some consumers requires increasing premiums for others. Since the primary direction given to this task force is to reduce premium increases on policies in later durations to make them easier to keep in force, all solutions studied ultimately end up increasing premiums at the earlier durations – often including new business premiums. Since the cost of coverage is one of the primary reasons so many individuals are uninsured, in evaluating the results of this study it will be important to consider the impact each potential solution would have on the new business premiums.
- Consumers probably need assurance that any solution will entail rate structures that produce reasonable equity between similarly situated risks.
- Disclosure of rating methodologies at the time of purchase is essential to consumer understanding of expected future rating actions.

Section VI. New Business Rates and Competition

It became clear in both the RFTF and the LHATF discussions that the level of premium rates for people buying new individual major medical policies is not a major concern of regulators for purposes of this work, so long as the subsequent rate increases are within an acceptable range. If a particular market could be demonstrated to be competitive, the RFTF feels that those competitive pressures are more than sufficient to ensure the rates are no higher than needed to achieve target profit. However, each solution studied will have differing impacts on the level of these initial premiums. Regulators will need to decide if any methods affect initial premiums in such a way as to put them outside of an acceptable range.

It cannot be assumed that higher initial premium rates will guarantee lower renewal rate increases or even, if set high enough, renewal rate increases equal to trend. There is also a behavioral effect that needs to be taken into consideration; as initial premium rates increase, the underlying morbidity level of the insureds that purchase coverage also increases. Taking this to the extreme, if the initial premium rates are set too high, the only purchases who will buy coverage are those who will expect to have claims greater than the premium; this will require the carrier to increase rates, and will lead to an insured pool with even higher morbidity levels, etc; thus, if initial premium rates are too high, an assessment spiral could be created.

For any given solution, if a company's new business rate is higher than needed to achieve target profit, any such overpricing will be corrected in future years because of the minimum lifetime loss ratio requirement. In such a case, the result would be smaller rate increases after issue than would have occurred with a lower initial rate.

The RFTF has investigated standards for a competitive marketplace. As a result of that research, we propose the following rule for LHATF decision:

> *New business rates are not subject to prior approval where there is a competitive market in that geographic area. The definition of such a competitive market is one where the Herfindahl Index (HI) is .4 or less across a state, or .7 or less for a smaller geographic area. The Herfindahl Index is defined as: HI = $\sum (MS_n)^2$, where MS_n is the market share of competitor n.*

The assumption here is that competition will motivate insurers to develop rates consistent with state regulation that attract and keep the most customers. See Appendix C for a more detailed discussion of competitiveness within the Individual Medical Marketplace.

Section VII. Potential Closed Block Solutions

The Task Force discussed many different potential solutions for the closed block problem. In our early deliberations, we asked for all potential solutions to be put on the table by all stakeholders, and we then worked at categorizing the solutions.

The Task Force developed four generic categories of solutions to the closed block problem:

1. Individual Medical Pooling (IMP)

The IMP method assumes that all carriers in the individual medical market will share the cost of financing individual policies by providing an industry wide safety-net for policies that may be rated high in relation to the market. This method does not solve the closed block problem, but provides a safety net for those who might be in a rate spiral.

2. Prefunding

Prefunding operates on the premise that each issue year cohort of policies must be financed with premiums and claims from that cohort. Reserves are set aside at early durations when loss ratios are low to fund claims at later durations when loss ratios are higher. The advantage of this method is that the carrier may discontinue sales at any time and the in-force business will be self-supporting and future rate increases after that point should parallel new business rate increases in the market. The disadvantage of this method is that the size of the reserves depends upon the slope of expected loss ratios by duration which may vary widely by carrier and by block of business. Another disadvantage is that this method does not provide for any direct recognition of high policy acquisition costs which results in a combined ratio that varies less over time than the medical loss ratio. This method also has the intention of preventing a rate spiral, but does not guarantee the avoidance of a rate spiral, since no relationship is specified between new business premiums and renewal premiums and no relationship is specified between renewal premiums and market premiums.

This method also has the disadvantage of establishing large reserves which will increase prices for all policyholders and those reserves may not be deductible by the carrier for federal income tax purposes.

3. Interblock Subsidy – Durational Pooling

Interblock Subsidy – Durational Pooling (referred to as Durational Pooling) is a method that combines the experience of all policy forms of a duration greater than N for all blocks of business with similar characteristics in a given business segment of one insurer for experience rating purposes. This results in policyholders on some forms subsidizing policyholders on other forms. It does not limit the maximum rate increase for the blocks, but it does reduce the rate increases needed by the blocks with the worst experience as they will be subsidized by the blocks with better experience.

4. Interblock Subsidy – Rate Compression

Interblock Subsidy – Rate Compression (referred to as Rate Compression) is a method that limits the rate differential for similar (after adjustment for benefits, area, demographics, etc.) policies in different blocks of business, within a given business segment of one insurer, to a maximum amount. Rate increases will still be requested separately by block, but the method will generate subsidies between blocks. This occurs when the rate increases for the blocks with the highest rates are restricted by the maximum differential, and the lowest rated blocks are increased to subsidize these other blocks.

In addition a fifth (experience rating, or reclassifying individuals' rate class at renewal based on their health status) was later raised, given initial consideration, and ultimately excluded at the direction of the NAIC.

These four approaches have been modeled in order to determine not only the extent to which the objectives can be achieved, but also to evaluate the implications these approaches may have on the individual major medical insurance industry. This section describes each of those four approaches. Following is a brief key word summary of each of the approaches, followed by a separate section for each. Each section attempts to describe in a more thorough manner several aspects of the approach in narrative form, including its principles, specific objective, and mechanics. A later section describes the implication of each, such as a risk of capital, reserves, and existing model laws and regulations.

Before discussing each approach individually, it is useful to describe a few terms:

- **Policy**

  A "policy" is the unit of individual medical insurance coverage that controls the premium payment, typically covering the policyholder and possibly his or her family. Many individuals purchase and are covered by a policy that, as far as that person is concerned, behaves very similarly to an individual policy, but, in fact, the individual enrolls, usually showing evidence of insurability, as a "subscriber" to a master policy which may be a trust or association plan. In such case, the individual is provided a "certificate" certifying his or her coverage as a member covered under a master policy. For the purpose of this section, both these "certificates" and "policies" are referred to as "policies." The approaches are intended to cover both situations in identical manners.

- **Duration**

  "Duration" is the ordinal number measuring the time since the policy became effective, usually expressed in years. For example, if a policy was effective 9 months ago, it is said to be in its first policy duration, or Duration 1.

- **Form**

  In an individual insurance policy situation, a "form" is the collection of the legal document pages that together form the unique set of policy benefits and terms to which the respective state insurance department approves, These forms provide for a limited number of variable items which usually depend upon the selections made by the policyholder (deductible, coinsurance, riders for maternity, drugs, etc.). As described in the definition of policy, for this section, form also refers to the set of benefits and terms to which the certificate applies if individual coverage is provided through associations or group trusts.

- **Block**

  A "block" is an aggregation of policies of one or more forms having similar claim cost characteristics over time, which an actuary has grouped together for the purposes of determining appropriate premium rates.

- **Incurred claims**

  "Incurred claims" are claims that are ultimately to be paid by the terms of the policy, that were incurred during a specified period of time. The period of time usually is a calendar year or duration. A claim is incurred, for the purpose of this definition; in the period a claim becomes a liability as determined by the policy (usually, the period in which a hospital admission occurs or a medical service is rendered). It does not include any change in contract reserves, or any similar reserves that might come about due to the approaches described in this study. The amount of claims that ultimately will be paid is often estimated to be the paid claims plus the change in claim reserves from the beginning to the end of the period, or the cumulative incurred and paid claims with an estimate of the remaining payments to be made. Incurred claims can include cost containment expenses that are defined by the NAIC, but these expenses are included with claim expenses in our model.

- **Segment or Era**

  A "segment" or "era" is a logical grouping of all blocks of business that for reasons other than benefit differences have similar expectations for developing experience. The following are some possible, but not the only, reasons for which a carrier may establish multiple segments:
  - Blocks closed to new sales,
  - Blocks open to new sales,
  - Blocks of obsolete forms,
  - Blocks whose business originates from different distribution sources,
  - Blocks whose business originates from distinctly different underwriting practices (such as guaranteed issue during an open enrollment period vs. medically underwriting each and every application), and
  - Blocks with different claim management practices, including network differences.

Individual Medical Pool (IMP)

This approach allows an insured who is covered by an individual policy, and whose rates have increased beyond a trigger level, to move to a separate state-authorized program (the IMP) that offers policies with premiums that are limited to a fixed percentage above current market rates, and whose rate increases are limited to the average increase in the entire individual market. As we have envisioned the program, the insured is eligible if they purchased their current coverage after the effective date of the IMP, they have been continuously insured for a specified number of years, and their current premium rate exceeds the pool rate. The IMP would be comprised solely of such individuals who are eligible under these criteria and who choose to move to it. The premium rate would be restricted to an actuarial equivalent of a fixed percentage, such as 150%, of standard premium rates. Due to this formula method of determining the IMP rates, the IMP's annual rate increases will mirror the average increase in rates of the individual market each year. The rate increases will not be based on the experience of the IMP. The losses of the IMP program would be funded solely by the individual major medical insurers in that state.

Elements of Implementation

Eligible insureds (under individual major medical products) would be notified of their potential eligibility to move to the IMP with their rate increase notices. The RFTF believes that the number of years of coverage needed before eligibility would likely be in the area of five years. In addition, the price of their current product must exceed the benefit-adjusted price of the IMP product before they are eligible to move to the IMP. The IMP would be open to state residents only.

IMP plan benefits would be similar to products purchased in the state's individual major medical market. Multiple deductibles would need to be offered, so that insureds could obtain comparable coverage under the IMP. Since the purpose of this program is to control rates, not provide additional coverage, any exclusionary waivers attached to an insured's existing policy would be attached to the IMP policy.

Premiums for the IMP would include variations by age, gender, geography, etc. in the same manner as allowed for the other individual plans in the state. We believe that anti-selection would be a problem for the pool without these variations.

The IMP products would be administered by one entity, and governed by a board of directors who are elected by the insurers selling individual insurance in the state. The board would be responsible for selecting the administrator, and all other administrative aspects of the program

Losses from this program would be distributed back to the individual major medical insurers in the state. We believe it is important that this assessment on individual companies be allocated based on two factors: first, the number of insureds in the IMP from each company, and second, the number of lives that company has in force in the individual major medical market.

Discussion

The objective of this approach is to limit the ultimate spread between premium rates at later durations and those charged to new business. This is achieved through a mechanism that gives customers choice, without hampering an individual carrier's ability to charge appropriate rates based on experience. The assessment mechanism is designed to discourage companies from using a rate increase strategy that would generate significant movement of policyholders into the IMP. (It does this through higher assessments charged to insurers with more people in the IMP.)

Certain insurers try to minimize lapses by moderating the size of rate increases at early durations. The IMP method would allow insurers to continue this practice. The IMP approach will not altogether stop the need for large rate increase filings at later durations, but it gives policyholders another option once their rate levels exceed the IMP rates.

Other Comments

A new NAIC model regulation will be needed to define the operating parameters of the Individual Medical Pool, including specific carrier reporting and/or filing requirements and assessment authority. Consideration must be given for the benefit structure and range of options available in the pool, including the extent to which optional coverages are to be made available, if at all. Specifics regarding the details of the two-part assessment formula will be

required. Procedures are also needed for the selection process and responsibilities of the board of directors and overall IMP governance.

Prefunding

This approach requires insurers to fund in advance some of the expected future claims at later policy durations. The claims arising from antiselection at lapse and the "wear-off" of underwriting are the claims that are prefunded.

As modeled, within any one block, the same level of rate increases must be applied uniformly to new business rates and to all existing policies. Policies within a block are pooled for determining these rate increases. The more significant "pooling" or subsidy, however, occurs between durations within a block, as explained above.

Mechanically, premiums collected during early durations are significantly higher than necessary to cover current year claims and expenses. The excess of the premiums over these claims and expenses are used to establish reserves that are later drawn down to reduce premium increases from levels dictated by their experience.

Elements of Implementation

This approach requires the creation of reserve factors by duration that will be applied to the incurred claims per policy, or possibly to the earned premium, to build up a new type of contract reserve. This new reserve is used to offset future needed premium rate increases of the block. This new reserve must also be recognized on carrier financial statements.

This approach establishes required prefunding reserves, based on reserve factors which are a function of duration, claim experience, and lapse experience. The methodology follows that outlined in the paper "Duration-Based Policy Reserves", published in the Transactions of the Society of Actuaries, volume 45, 1993.

Only the claim costs that are reasonably expected to increase as a function of duration and antiselection at lapse are prefunded into a reserve. For ease of reference, this document refers to these increases as "durationally induced" increases. Increases in coverage costs that are unrelated to the duration of the policy or the age of the block of policies are not pre-funded. Claim costs that increase due to chronological aging of individuals, secular trend (net of buy-downs), benefit changes, rating characteristic changes, and deductible leveraging are specifically excluded from funding through the prefunding reserve mechanism.

Nonforfeiture values do not accrue, so lapses will not release any part of the prefunding reserve directly to the individual in any form. The release of these reserves to the funding of the block is critical to the success of this approach.

The prefunded reserve is used to offset premium rate increases that would otherwise be needed to offset increases in claim cost antiselection at lapse, and durationally-induced claim increases.

Prefunding does not preclude rate increases for losses in excess of anticipated levels arising from other forms of adverse experience, such as medical trend that is greater than anticipated.

Because of the substantial reserves involved, the Prefunding model incorporates three additional financial assumptions: (1) a reserve discount rate, (2) an assumed level of investment earnings on reserves, and (3) a required reserve margin. The reserve discount rate is currently set at 3.5 percent. This discount rate is used in calculating the reserve factors used to establish the required reserve levels. The assumed rate of investment earnings on reserves is currently set at five percent, and is applied to the Prefunding reserves held each year to determine the investment earnings on those reserves. Because the assumed earnings rate exceeds the discount rate, there is an interest spread on Prefunding reserves that is an additional source of profit.

Discussion

Premium increases at renewal may be attributed to the following six broad causes:

1. aging of the policyholder,
2. rising medical care costs,
3. changes in the regulatory environment,
4. changes in utilization of health care services,
5. wear-off of underwriting, and
6. self-selection at renewal (Cumulative anti-selection, or CAST).

The first four are not part of the "closed block" problem, and this model assumes that premiums would still rise for those reasons. Appendix B provides more detail on this subject. Numbers five and six above are at the heart of the "closed block" problem, and eliminating "planned" or expected rate increases due to those effects would, if all the pricing assumptions hold, place a closed block policyholder in the same position as an open block policyholder. This model pre-funds for the expected cost increases from numbers five and six, while assuming premium increases are needed to fund numbers one through four.

The model develops a series of reserve factors by duration. In calculating these factors, claims are assumed to increase with age, trend, and duration. Differing lapse rates are assumed for standard and impaired lives. Premiums are assumed to increase with age, trend, and a flat chosen percentage each year. Net annual premiums are calculated under these assumptions. Reserve factors are calculated as a percentage of claims. The model estimated annual claim levels, but did not distinguish between paid and incurred claims. One important implementation issue would be deciding whether reserve factors should be applied to paid claims or incurred claims. Gross premiums are generated by adding in expenses and profit charges, and expected gross premium loss ratios are calculated.

In projecting the financial results of a block of business, reserves are calculated by year and by cohort. In developing these reserves, the reserve factors developed in the initial pricing process are adjusted using CAST factors as described in Bill Bluhm's paper "Cumulative Antiselection Theory", published in the TSA, Volume 34, 1982, and also in the Society of Actuaries' 50th Anniversary Monograph. In addition, the CAST factors increase the required reserve level as lapse rates increase in order to adjust for an assumed increase in lapse-related antiselection.

If actual experience is the same as the pricing assumptions, premiums will increase with age, trend, and the assumed flat chosen percentage. If lapse rates are higher than expected, a reserve adjustment is made, and premiums increase as the loss ratio deteriorates. The reserve adjustment means that the loss taken by the company in the year the adjustment is made is larger than it would be in the absence of prefunding, and, as these reserves are released in later years, future rate increases are correspondingly smaller than they would be

in the absence of prefunding. The model calculates the year-end reserve by applying a reserve factor to premiums. The reserve change is the difference between the current year's reserve and the prior year's reserve. If claims increase by more than the expected amount, the reserve charge will need to be correspondingly larger.

In situations where the claim cost experience on a *block* is not realized due to lapses exceeding that assumed, the carrier will be required to use the release in *prefunding* reserves to offset the otherwise justified increase in premium rates.

How a company is required to set the prefunding reserves will affect the pricing assumptions and methods used by the company. Guidelines would be needed to determine how these reserves are to be set. Companies would use these guidelines for their pricing, and regulators would use them for their reviews.

As discussed previously, prefunding will not fund changes in the economic environment or adverse claims experience that varies from that priced for. When these events occur, reserve adjustments will be needed to cover the change in expected future claims

Guidelines for regulating this methodology must consider the extent that the prefunding must balance between the smoothing of the premium for the customer, and the reserve adjustment and solvency issues resulting from adverse claims experience of the company.

Other Comments

The current NAIC model law calls for a minimum contract reserve method of two-year preliminary term (2YPT). The prefunding approach would be severely undermined if no additional reserve were required during the first two years as 2YPT calls for, or if a similar method were applied.

The current model uses a one-year preliminary term reserve. Given the high lapse rates in the first two years after issue and the front-loading of expenses into the first year, moving to two-year preliminary term reserves may not be practical.

Inter-block Subsidy – Durational Pooling

Durational pooling is a method in which the computation of renewal business rates requires a carrier to pool the experience of its policies after they reach a chosen duration, across all *blocks* within the applicable business segment. This means that premium rate increases will be the same percentage increase for all policies in the pool. The effect of this is to cause some policy premiums to be lower than they otherwise would have been, and others to be higher.

Elements of Implementation

Prior to duration N, renewal business rate increases are calculated as in the Current Market Model, where each block is rated on its own experience. For each issue year within a block of policies upon reaching duration N, the experience must be pooled with that from all other forms and blocks defined to be included in the pool for duration N or greater. For the first 2 years of the pool, if there is no experience base yet, anticipated trend can be used for pooled rate increases. Our modeling uses this approach for simplicity. Thereafter, the experience of the pool, relative to expected loss ratios reflecting the durational mix for the pool, is used to adjust rate increases.

Definitions would have to be developed for what forms and blocks within segments would have to be pooled. The pooling should only occur among forms and blocks with broad yet somewhat homogenous risk characteristics such as comprehensive major medical policies.

It may be necessary to file anticipated loss ratios by duration for each block that will be in the pools so that regulators have some means of verifying the variation of the pool's actual loss ratios versus expected loss ratios.

Discussion

Adoption of this approach in some states but not in others, or adoption with significant modification, can undermine the effectiveness of this potential closed block solution, even in the state in which the model was adopted intact. Uniformity across states is important, so that any subsidy between blocks can also take place across state lines. The larger the pool of business over which the subsidy can be spread the more likely rate stability can be achieved.

The effectiveness of pooling of forms across blocks, particularly in the form of a limitation on rate increases in some fashion, is risky because the forms have different benefit designs. This is because each benefit design may have differing trend experience potential. For example, forms with rich prescription drug benefits will expect to experience different cost increases for trend. The same is true for forms with a mix of deductibles.

Pooling of durations still in the select underwriting period can limit the effectiveness of underwriting, and minimize the effect of any new underwriting standards a carrier would like to implement. Thus, if possible, N should be set to be a duration beyond the select underwriting period.

Other Comments

The current NAIC model law allows for combining forms for purposes of improving credibility of experience. This component of the model may need to be modified in order to accommodate blocks of business, as well as subsets of forms, such as only those policies within a form that exceed duration N.

Inter-block Subsidy – Rate Compression

Rate compression is a method in which premium rates for individuals with comparable demographics, geographic location and benefits must be within a specified high-to-low range. The comparison is made for all policy forms within a specified segment of forms to which the rate compression requirement applies.

The effect of this is to cause rate increases on some policy forms to be artificially adjusted from their true experience levels so that the resulting rates stay within the specified high-to-low range. The result is that some policy premiums can be lower than they otherwise would have been without the compression, and others can be higher.

Elements of Implementation

Renewal business rate increases (after the first renewal) would initially be calculated based upon actual experience. After that, premium rates for persons of like demographics, area

and benefits would be compared between forms within that segment. Adjustments would then be applied as needed to bring the form rates within the high-to-low range. The result would be that some forms would need to have their rates raised, and others lowered. It is anticipated that these adjustments would be made in such a manner that, to the extent possible, a carrier would maintain its calendar year profit objective that existed prior to the impact of rate compression.

Definitions would have to be developed to determine which forms and blocks within a market segment would be subject to rate compression. The compression should only occur among forms and blocks with broad yet somewhat homogeneous risk characteristics.

Rate compression is performed so that rates are within the required range, exclusive of benefit differences and predefined allowable characteristics. These would most likely follow the state allowable rating characteristics, such as age, gender, and area.

An annual filing of a certificate of compliance may be required, similar to what is done under many group insurance laws. This would allow the regulators to have a signed statement of compliance for their records. The company should have a methodology statement available for the regulators to show its process for compliance.

Discussion

The high-to-low range chosen can have an effect that varies from negligible to dramatic, as illustrated in the following table:

Effect of Range Width on the Impact of Rate Compression

Relatively Narrow Range	Relatively Wide Range
Similar rates for all policyholders	Rates similar to current rates; potentially wide variations among policyholders
Higher new business rates	Small impact on new business rates
Smaller durational rate increases	Little or no limitation on durational rate increases
Could discourage people from purchasing coverage	Not likely to discourage purchases

If this method is applied to products that are priced using durational rating, it will minimize the effectiveness of the durational rating due to the ultimate compression of rates.

Other Comments

A new NAIC model regulation would be necessary to define what types of forms are to be combined for purposes of rate compression, and to discuss what types of rating factors could be excluded from the compression tests.

Section VIII. Findings and Analysis of Solutions

This section discusses the results of our modeling efforts. We attempted to "even the playing field" between the models, by having standardized assumptions and scenarios for testing. Even so, each of these closed block solution models should be considered a specific example of a spectrum of such solutions. Each of them can be made more or less extreme than what is illustrated, by changing the parameters used in defining the method. This might include choosing:

- The degree of prefunding, in the prefunding method;
- The width of the rate corridor allowed, in the rate compression method;
- The duration in which pooling occurs, for durational pooling and the individual medical pool method; and
- The rate level trigger for pooling, for the individual medical pool method.

For this reason, care should be taken in evaluating the relative size of observed effects; qualitative comparisons are much more helpful than quantitative ones.

The RFTF developed a sizeable number of metrics for possible use by the NAIC in evaluating the results of the modeling. The stated primary goal of the LHATF was "rate stability", which was defined as having "rate increases…within a corridor of trend that reduces the probability of spirals." For this reason, our models report a number of statistics aimed at measuring this.

This section first discusses results from each of the four solutions (models); this is followed by a comparison between the four.

The Individual Medical Pool (IMP):

Under the IMP solution, people in the individual major medical market are guaranteed the availability of a product whose rate cannot exceed a fixed percentage of the average rate available in the current individual major medical market, and whose rate increases will be limited to the average increase for the individual market. Once eligible for the IMP, the choice to move to it or keep their current product is up to them.

The IMP has no initial effect on the current marketplace since people cannot move into the pool until their rate exceeds the IMP premium and they have kept their product for N years. This means that market premiums would not be affected initially when the method was introduced. As people move into the pool, the program will begin to generate losses. Assessments to pay for the losses are charged to all the companies in the individual marketplace. The assessments will, in turn, be included in the rates the companies charge to their customers. Like all solutions in this report, the model is based on prospective application of this reform to people who buy a new individual major medical policy after the requirement is in effect. Transition issues for previously inforce policies would require other modeling.

As the IMP grows, so will the losses from it, and the resulting assessments.

In discussions of potential market situations, we decided to test a scenario where companies are using aggressive rating practices in the individual major medical market. This was done to emulate situations that may currently exist in some markets. Aggressive pricing would include a larger amount of durational rating, and a shorter pricing horizon than we used in

the Current Marketplace scenario. In testing this scenario we see a greater number of people moving to the IMP, and at earlier durations. As a result of this, the ultimate assessment level would be more than double the assessment otherwise, based upon our modeling. This would increase premiums for the individual major medical market correspondingly, with a corresponding decrease in participants in the future.

One result of increased premiums in the future would be a slight reduction in policies purchased. We measured this effect by measuring the number of covered lives in the market.

Our model proposes that assessments should be in two parts; one part would be based on participation in the marketplace, the other based on how many former policyholders are in the IMP. Companies with higher assessments would have to build a larger amount into their premiums than their competitors.

The IMP does not directly control the level of rate increases that non-IMP products will need at any duration. It does give the policyholder, once they are eligible, an option to choose a product whose rates are limited to a fixed percentage of the average individual major medical market rates, and whose rates will increase at the same rate as the average individual major medical market rates.

In testing the various trend scenarios, it was discovered that varying the trend scenario had little effect on the ultimate level of the assessment.

Due to the gradually increasing rate and the ultimate level of the amount of the assessments, we do not feel that this method would create an unpredictable pricing situation for the companies in the individual major medical market. A prospective assessment method, compared to a retrospective method, would improve predictability even more. A prospective method does, however, require the ability of the IMP to do special assessments on insurers if the program runs short of funds. Insurers must be allowed to pass these special assessments directly to non-IMP policyholders in the form of extra premiums. This situation currently exists with assessments made for some state high risk pools.

Prefunding:

If cost increases attributable to the wear off of underwriting and adverse selection at lapse are fully prefunded, consumers buying individual health insurance can expect renewal premiums that increase at approximately the same rate as new business premiums. In other words, their rate increases would equal the increase in costs due to age plus medical trend. New business premiums would, however, be substantially higher. As with entry-age Medicare Supplement policies, the higher initial cost would provide more stable premiums over time. Consumers expecting to remain in the individual market for an extended period of time would likely benefit from stable rate increases and lower ultimate rates, relative to the other solutions. Consumers needing transitional coverage who expect to remain in the individual market for a shorter period would likely find other solutions more attractive.

As with the other approaches, there are ways to moderate the effect of prefunding. The current projections are based on prefunding part – but not all – of expected durational cost increases. Specifically, premiums and reserves were developed to produce expected premium increases equal to medical trend, plus the normal increase in costs due to age, plus two percent. Allowing this additional two percent in expected renewal rate increases cut the required increase in new business premiums roughly in half. It is important to note that we are not modeling a rate band; rather, this is a change in the *target* level of future rate

increases, which is used to develop expected loss ratios for renewal rating purposes and reserve factors. Implementing a hard rate cap would have different results when experience deviated from expected, and was not modeled.

Prefunding would significantly change the market. Higher initial premiums would reduce new business sales. Lower renewal rate increases would reduce lapse rates, and increase the number of long-duration policies. Total enrollment did not, during the 15 years in which new business was being sold, reach the levels produced by the current market model. The improved persistency did, however, result in total enrollment climbing to within three to five percent of current market levels.

Reduced renewal rate increases mean that the higher cost of a prefunded policy is gradually reduced over time. Our modeling suggests that the renewal premium for a prefunded policy would fall below that for the current market around year 13. Rate increases are also more stable – the minimum, maximum and average rate increases for an insurer's entire book of business are grouped more tightly together than under the other models (although a rate compression approach, through the size of the rate band selected, directly controls this relationship).

Prefunding also changes the pattern of gains and losses for an insurer. The combination of higher initial premiums and a one-year preliminary term reserving method serves to offset the high expenses associated with selling new business. After the first year, early duration profits are reduced relative to the other rating approaches. However, as reserves are released to offset high claim levels at later durations, profitability is preserved on older policies.

The presence of substantial prefunding reserves does serve to moderate rate increases and reduce market turnover. However, they also make results more sensitive to changes in trend rates and assumptions. When experience deviates from what was expected when a policy was initially priced, reserve adjustments are necessary in addition to changes in premiums.

Durational Pooling:

Durational pooling is a method in which the computation of renewal business rates requires a carrier to pool the experience of its policies after they reach duration N across all *blocks* within a limited number of segments of its business. Company new business rates are affected indirectly by the pooling.

The following general observations of results under durational pooling are relative to the Current Market Model.

- In general, fewer lives are covered than under the Current Market Model.
- Lapses vary by block/cohort with older blocks having fewer lapses, more covered lives than under the current model because of subsidized rate increases.
- Newer blocks/cohorts show fewer covered lives and increased lapse compared to the Current Market Model because they are subsidizing older blocks/cohorts and rate increases are higher.
- Durational pooling can affect company new business rates because the model new business rates for a block are increased each year after the initial year of issue by the effective rate increase applied for the block. This method of determining new business rates can cause the company new business rate to be higher or lower than under the current market resulting in opposite changes in new sales volume. At later

years when rate increases become larger for newer blocks because they are subsidizing older blocks, new sales levels drop.

- Profitability to the insurer is slightly better across all blocks but varies dramatically by block or cohort. Older blocks, because of subsidies from newer blocks, could have significant losses and newer blocks could have substantial profits.
- Average rate increases in general tend to be minimally more than in the current market, but there is significant variation by block and cohort because of the subsidization of rate increases across blocks.

There is more variation in the number of lives, rate increases and profitability when looking at cohorts than can be seen in averages across all blocks.

The interblock subsidy durational pooling baseline model starts pooling in duration 1. We tested pooling starting at durations through 31. Based on the economic gain, number of covered lives and magnitude of rate increases, durational pooling starting at duration 7 appears optimal. The economic gain is maximized with durational pooling starting at duration 7, almost 15% higher than the current market. In aggregate, the number of covered lives does not vary significantly with the starting duration, however, there can be substantial variation by issue year and duration. Rate increases were reviewed for durational pooling starting at durations 1, 4, 7, 10 and 15. For cohorts 5 through 15 the minimum rate increases are about 2% to 5% higher than the current market with durational pooling starting before duration 7. For pooling starting after duration 7, the most notable impact is that the block 1 maximum rate increase is significantly higher by 13% to 16%. By starting pooling in late durations, the initial pool entrants have quite poor experience. There is significant variation of rate increases by issue year and duration as compared to the current market.

If durational pooling starts during the DDLP, company underwriting changes in more recently issued blocks may not be as effective since generally newer blocks subsidize older blocks in durational pooling. In addition, the shorter the period from issue to the duration when pooling starts, the less time a company has to fix any initial pricing inaccuracies before pooling dilutes any remedial action.

If pooling starts after duration 7, in general our tests indicate the solution's effect is minimized because the high lapse rates indicative of the individual market result in pooling applied to only a small portion of the initial exposure since issue.

We performed some sensitivity tests for claim level experience deviations under durational pooling. If poor experience deviations were modeled, the impact before durational pooling starts would be the same as in the Current Market Model since each block would still be rated independently of the others. Rate increase corrective actions on/or after durational pooling starts would be dampened, in most cases, due to the cross-subsidies. Thus older business would not benefit fully from the corrective action while new business would see higher rate increases and more lapses due to the subsidy inherent in durational pooling. If experience deviations develop in more recently issued blocks, durational pooling will still show dampened rate increases for that block because all other blocks subsidize the needed increase for the experience deviation. However, the average rate increases for more recently issued blocks would increase relative to that in the current market and the minimum rate increases would be even higher since there are fewer policies in older issued blocks to add to the subsidy. Aggregate lives and the economic gain in dollars would drop from that in the current market. If there were issues modeled after year 15, this result would not be as pronounced.

This solution requires a definition of what "blocks" get pooled: similar benefits, deductible levels, level of network restrictions, etc. The model does not show premium rate differences by age/gender, area, industry, benefits and health status (claim costs by impaired vs. standard are in the model, however).

There also needs to be a definition of duration: examples include true duration, year of issue, year that block was closed, or other. The model uses year of issue but with true policy year. This definition will impact both the carrier and the regulatory agency. The definition needs to allow some carrier flexibility while still allowing for appropriate regulatory controls. The definition that facilitates one carrier's rating system may be very difficult to implement for another carrier.

Rate Compression:

Rate compression is a method in which premium rates for blocks with comparable demographics, networks, geographic location and benefits must be within a specified high-to-low range.

The baseline rate compression (2:1) model results as compared to the Current Market show no change in sales because compression is not necessary until later years since there is little variation between the five blocks in the Current Market Model.

The following general observations of results under rate compression are relative to the Current Market Model.

- Total lives covered in the market are slightly down but almost the same as compared to the Current Market Model.
- Rate increases are almost the same as Current Market.
- Profitability is almost the same as in the Current Market, just slightly higher.

However, these results vary by block because, as with the durational pooling model, rate compression results in newer blocks subsidizing older blocks.

Rate compression at 3:1 or 4:1 shows little or no impact primarily due to little or no variation between blocks. Using assumptions of more heterogeneous blocks of business may result in more rate compression. However, the higher this rate compression ratio is, the closer results will be to those of the Current Market Model.

The rate compression models attempts to restore lost profits due to compression by increasing rate increases in aggregate up to 2% of premium each year. Block 1 loses considerably more money because rate compression limits its rate increases and all blocks attempt to maintain the original annual profit objective by increasing all rates slightly. Significant rate increases to maintain profitability likely would not be allowed due to the regulatory review. A macro in the spreadsheet performs the profit restoration process. It is imperative that the macro be run every time any change is made to the assumptions that would affect the rate compression model.

To create some variation between blocks, we increased claim level experience on the two oldest blocks by 40% and 20%, respectively. When the claim level adjustment is also made to the current market, the current market economic gain and covered lives drop substantially. Comparison of the rate compression and current market models with this adjustment shows the economic gain under rate compression is now about 1% less than the current market and the covered lives in total are about 500 less. Rate increases under rate compression,

however, are about 8% lower in block 1 around years 13 and 14 as compared to the current market but in later years the increases stay in the 20% to 24% range. Whereas, in the current market with the claim experience adjustment, the rate increases at these later years typically range from 16% to 24%.

The 2:1 rate compression scenario is the minimum ratio tested in our model and is in our baseline scenario since the small group market uses +/- 25% to +/-35% in most states and that has shown to be difficult for survival of some insurers and the viability of small group markets. We believe that any rate compression used in the individual market should have a wider range than that in the small group market such as 2.5:1 or greater.

It will be necessary to define what "blocks" are subject to rate compression. Note that all models in our analysis do not show rate differences by age/gender, area, benefits, industry and health status.

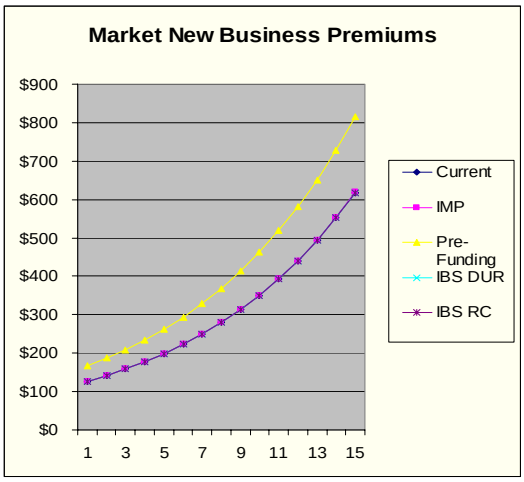
Operationally, insurers need to standardize rates among blocks for differences in allowable rating characteristics such as age/gender, area, industry, benefits or health status. This will add complexity to a company's rating procedure since first they have to standardize rates to a common basis and determine if they then meet the rate compression range. If not, then they need to adjust rates, rebalance rates and likely try to build in a margin to restore lost profits due to compression. A company may not be able to recoup lost profits due to compression if the compression impact is too large.

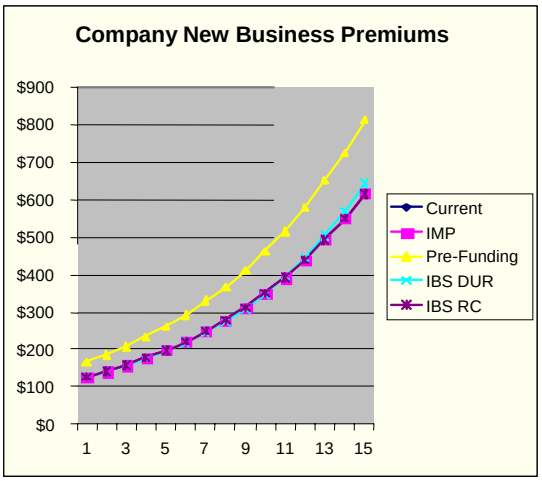
The model assumes that a carrier will decrease their older rates to conform to the necessary rate compression range. This assumption was made because it was assumed that it would be preferable that new business rates, which are typically the lowest rates, would usually be unadjusted or be impacted the least. Other methodologies could be used, but were not modeled.

New Business rates could be affected by rate compression, except that compression in our modeling usually starts after new business has stopped, unless significant variation among blocks is assumed. Rate compression could cause new business rates to increase and in that case rate compression limits the premium effect of any change in underwriting criteria.

The following is a discussion of model results in terms of the impact of each potential solution on the indicated components.

A. Market and Company New Business Premium rates

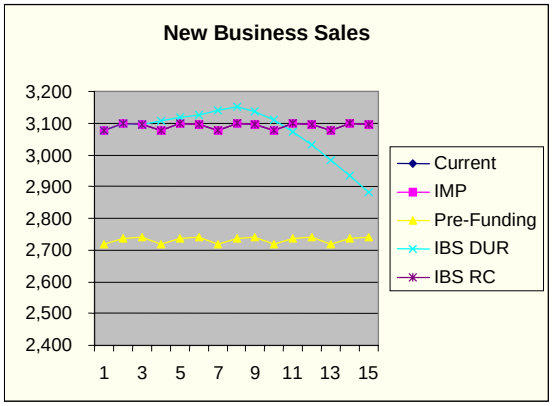




In general, only the Prefunding solution has a material impact on new business rate levels, estimated to be approximately 32% above that of the Current Market. The characteristics of the other solutions do not call for remedial action until future years. In fact under the baseline scenario, the initial company new business rates for the IMP and Rate Compression solutions do not vary from the Current Market. Company rates under the Durational Pooling solution actually decrease slightly in years 4 through 10, then increase to minimal levels relative to the Current Market.

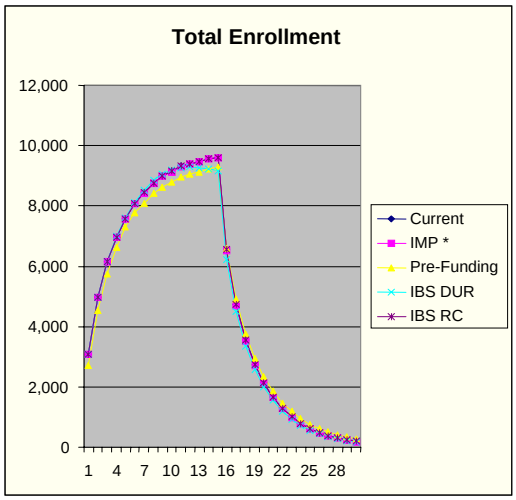
The IMP Model is the only model that uses issues beyond year 15; this was necessary for the pool to reach an ultimate state. The IMP model spreads the cost of the market pool over all in-force premiums. If new business sales are discontinued during the projection period, pool assessments will begin to spiral rapidly upwards. To produce stable pool assessments we modeled new business sales for the entire thirty year projection period. However, to place the results of the IMP model on a comparable basis with those of the other models, the exhibits only include experience from the first 15 years of issues. This provides full run-out for those blocks, with assessment levels consistent with an active, ongoing market.

B. New Business Sales



Results are consistent with the company new business premium results. The Prefunding solution results in much lower sales, while Durational Pooling sales increase slightly in years 4 through 10, then decreases relative to the Current Market.

C. Total Enrollment



* Includes pool participants

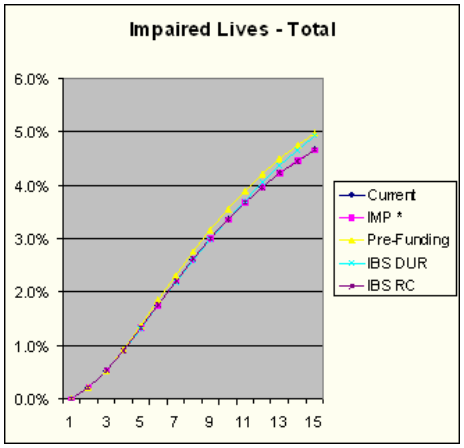
Total enrollment is dependent on new business sales as well as persistency. It must be noted that the significant drop in total enrollment after fifteen (15) years is due to the lack of new business sales in our model after that time.

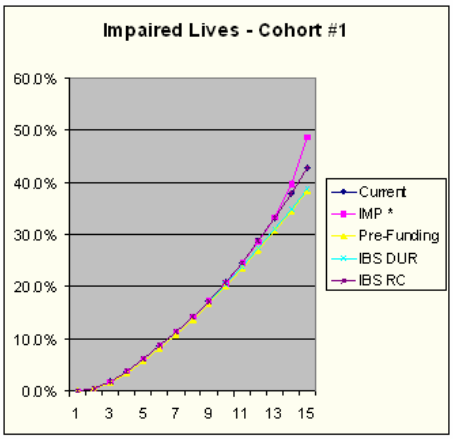
For Prefunding, enrollment is lower than the Current Market as well as the other solutions for the first 16 years. Enrollment is also lower than the other models in total. Although, for years 16-30, the year-by-year enrollment is slightly higher for prefunding than the Current Market and other solutions.

None of the potential solutions, other than Rate Compression, reach an enrollment level as high as the Current Market in terms of total life years under the 30 years modeled. Durational Pooling reaches levels slightly above Current Market in years 7-10. Prefunding reaches levels above Current Market by year 15 and increases relative to the Current Market

thereafter. Among the potential solutions, Rate Compression and IMP come closest to matching the Current Market. The Durational Pooling pattern relative to the Current Market tends to mirror the pattern of new business sales.

D. Impaired Lives as a Percentage of Total Enrollment





* Includes pool participants

* Includes pool participants

It must be noted that the impaired lives percentage increases dramatically after fifteen (15) years. This is due to the fact that new business, assumed to be 100% standard lives, is not modeled after fifteen (15) years.

None of the proposed solutions show significant differences in impaired percentages relative to the Current Market.

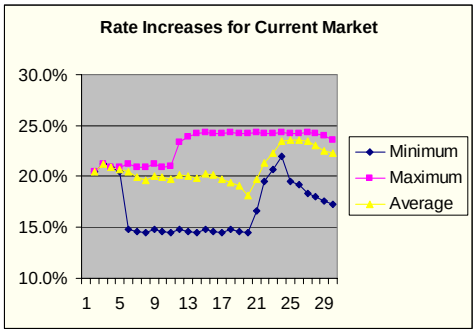
For IMP, the impaired percentage roughly matches the Current Market through year 18, and then decreases steadily thereafter. As the impaired lives move to the pool, the rate increases for the remaining standard lives are lower than they would be otherwise, resulting in lower lapse rates for the standard lives. In order to compare the IMP results on an equivalent basis, the pool enrollment was extended beyond the 15 year time horizon for new policy issues.

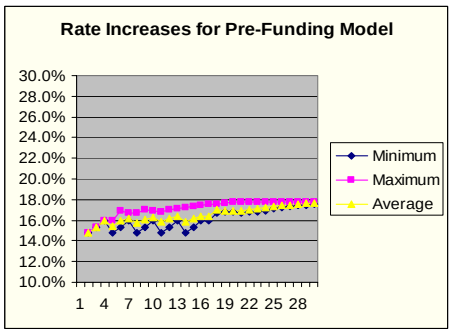
For Prefunding, the impaired percentage actually increases relative to the Current Market and then declines to levels below the Current Market starting in year 18 and decreases steadily thereafter.

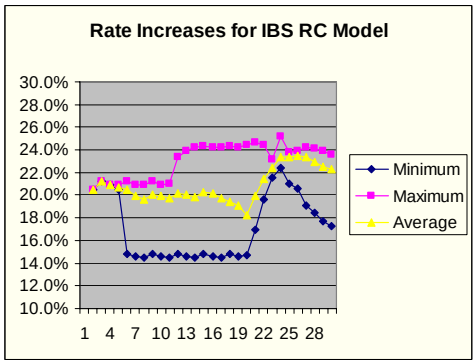
For durational pooling, the impaired percentage follows the Current Market through year 10, increasing thereafter.

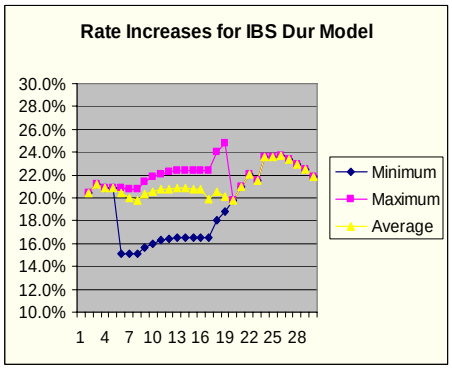
Rate Compression matches the Current Market in all but a few years.

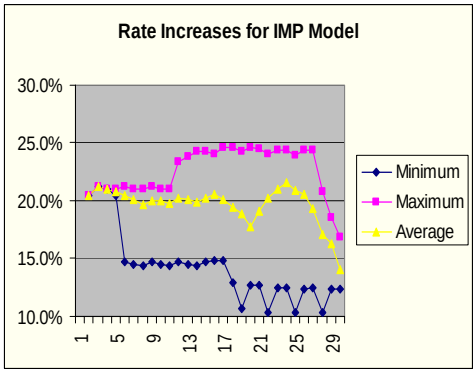
E. Rate Increases

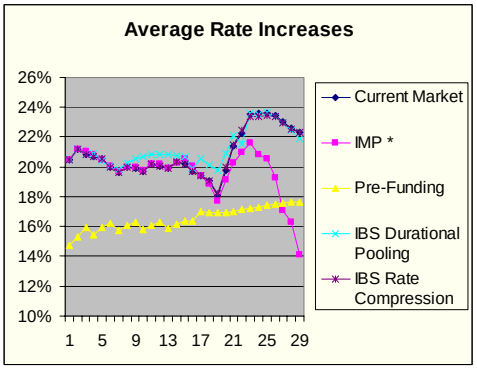




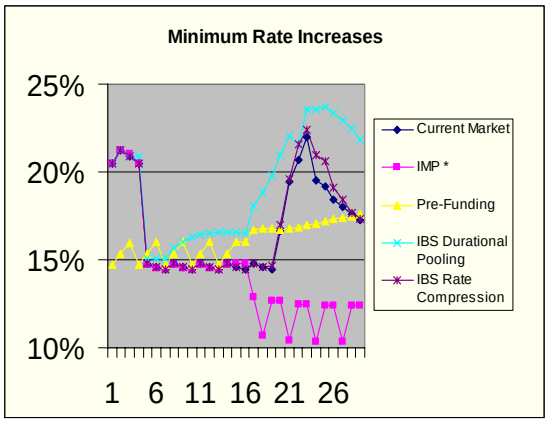


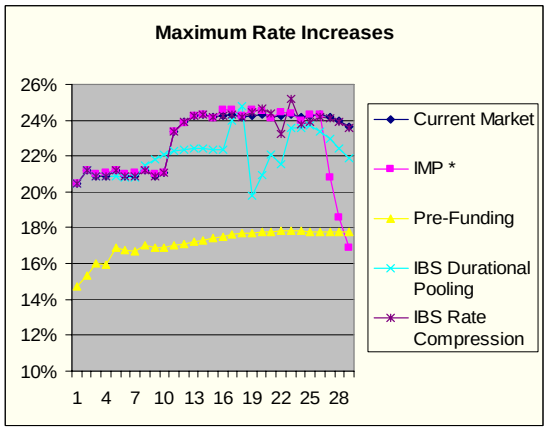






* Includes pool participants





* Includes pool participants

* Includes pool participants

Rate increase results are presented in terms of the minimum, maximum, and average of the fifteen issue year cohorts modeled.

The Prefunding solution has the greatest impact on rate increase variation and level due to the limitation on rate increases of trend plus 2%.

Both the IMP and Durational Pooling solutions show the same level of rate increase variability as the Current Market until later years. For Durational Pooling, uniformity takes over in year 20 at levels relatively close to those of the Current Market. For IMP, rate increase variability continues, although the average rate increases ultimately decrease steadily to levels below the Current Market as well as all other potential solutions.

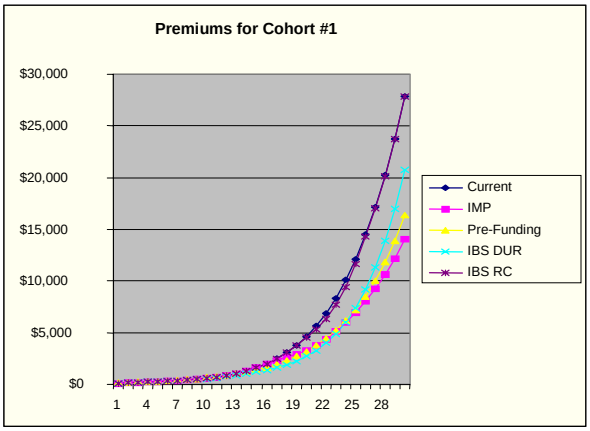
Rate Compression is not significantly different than the Current Market.

F. Premium Rates by Cohort

Results are presented for issue year cohorts 1, 5, 10, and 15.

It must by noted that the in later years in which significant rate impact takes place, a minimal number of insureds remain in force. Durational Pooling, however, results in significant subsidization for later issues in relatively early policy years.

Cohort #1



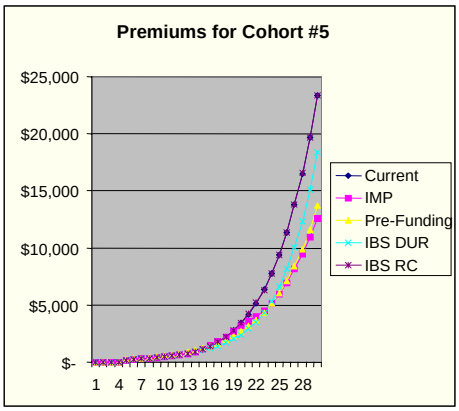
The IMP solution follows the Current Market through year 14, and then begins to steadily decrease relative to the Current Market to a level of roughly 50% of the Current Market by year 30.

The Prefunding solution naturally begins with a rate level approximately 32% above the Current Market decreasing steadily relative to the Current Market due to rate increase limitations. It takes 13 years for the rate level to reach a level below the rate level of the Current Market and ultimately reaches a level of approximately 59% of the Current Market.

The Durational Pooling solution generally follows the Current Market through year 5, and then begins to steadily decrease relative to the Current Market to a level of roughly 74% of the Current Market by year 30.

Rate Compression generally follows the Current Market.

Cohort #5



Cohort #5 results generally show the same pattern as Cohort #1 relative to the Current Market.

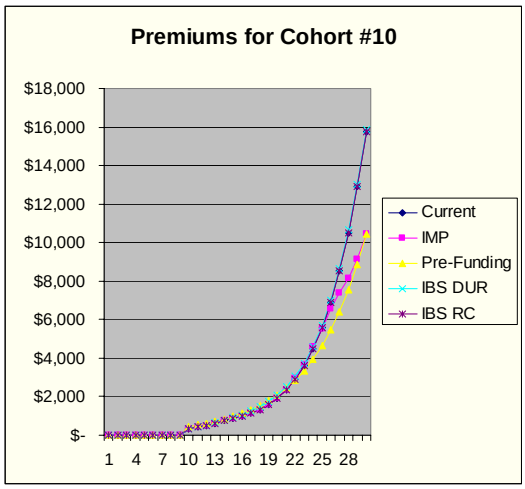
The IMP solution generally follows the Current Market through year 18 (policy year 14), then begins to steadily decrease relative to the Current Market to a level of roughly 54% of the Current Market by year 30 (policy year 26).

The Prefunding solution naturally begins with a rate level approximately 32% above the Current Market, decreasing steadily toward the Current Market. It takes 12 policy years (year 16) for the rate level to reach a level below that of the Current Market. The ultimate level is approximately 59% of the Current Market.

The Durational Pooling solution is fairly close to the Current Market through year 13 (policy year 9), then begins to steadily decrease relative to the Current Market to a level of roughly 79% of the Current Market by year 30 (policy year 26). It is apparent that Durational Pooling has a greater impact on the older cohorts, as one would expect.

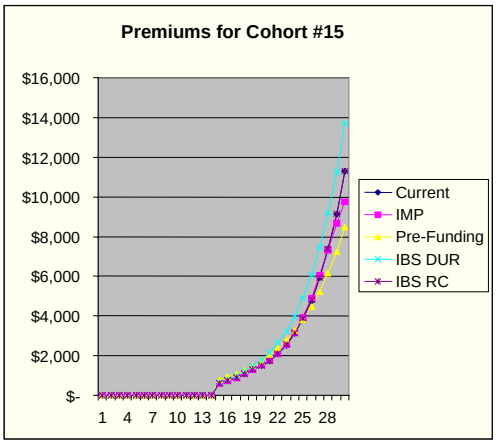
Rate Compression generally follows the Current Market.

Cohort #10



A review of Cohort #10 appears to reveal a general pattern emerging. For IMP and Prefunding, while the impact is slightly less than for older cohorts, the pattern is generally the same. For Durational Pooling, differences from the older Cohorts is much more pronounced and later issue years are clearly subsidizing earlier issue years to the extent that rate levels are in excess of Current Market levels. Rate Compression has no impact.

Cohort #15



For IMP and Prefunding, the impact is actually greater than for Cohort #10. Premium rates for the IMP will begin having subsidies in them after about year 14. For Durational Pooling, subsidization is even more pronounced in later years. Rate Compression has no impact.

G. Rate Increases by Cohort

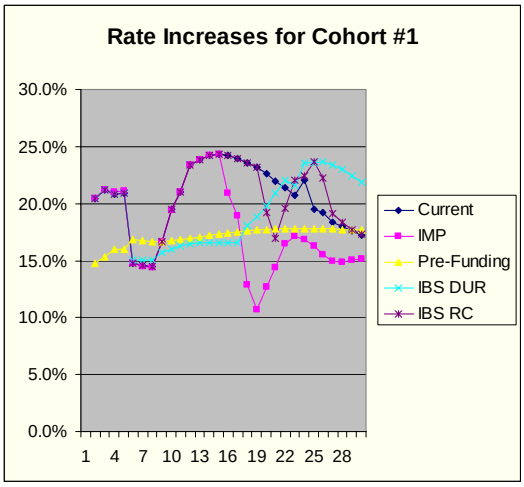
These results are consistent with the new business rates, overall rate increases, and rate levels by Cohort already presented.

Results are presented for issue year cohorts 1, 5, 10, and 15.

It must by noted that in later years in which significant rate impact takes place, a minimal number of insureds remain in force.

Durational Pooling, however, results in significant subsidization for later issues in relatively early policy years.

Cohort #1



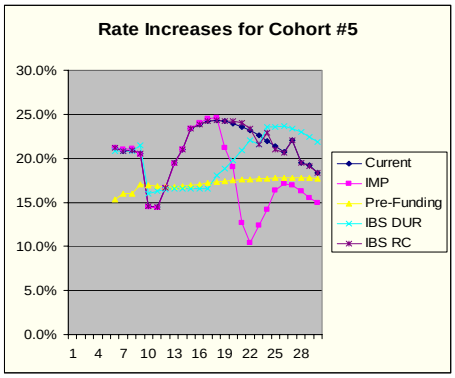
The IMP solution follows the Current Market through year 14, then reaches a steady rate increase level consistently lower than the current market for people in the IMP. People choosing to keep their current policy will have increases similar to the Current Market.

The Prefunding solution is characterized by rate increase limits of trend plus 2%, which is generally, but not always, lower than the Current Market.

The impact of Durational Pooling results in rate increases lower than the Current Market starting in year 9, but gradually increasing (due to the lack of new business) and exceeding the rate increases of the Current Market at year 22.

Rate Compression follows the Current Market through year 19, then decreases relative to the Current Market for three (3) years as rates become compressed, and thereafter increases relative to the Current Market. This is caused by no new business after year 15.

Cohort #5



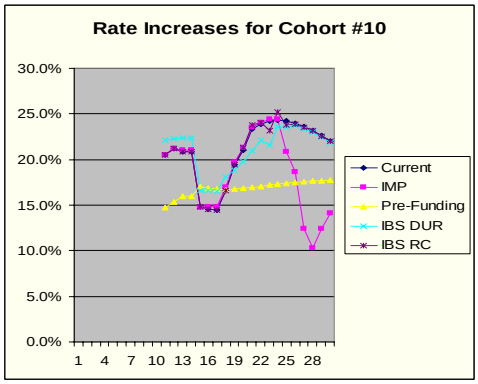
The IMP solution follows the Current Market through year 18 (policy year 14), then reaches a steady rate increase level consistently lower than the Current Market for people in the IMP. People choosing to keep their current policy will have increases similar to the Current Market.

The Prefunding solution is characterized by rate increase limits of trend plus 2%, which is generally, but not always lower than the Current Market.

The impact of Durational Pooling results in rate increases that alternate at levels lower than the Current Market through year 8 (policy year 4), then higher than the Current Market through year 11 (policy year 7) then lower than the Current Market starting in year 12 (policy year 8), but gradually increasing (due to the lack of new business) and exceeding the rate increases of the Current Market at year 24 (policy 20).

Rate Compression follows the Current Market through year 19 (policy year 15), and then varies slightly year to year from the Current Market.

Cohort #10

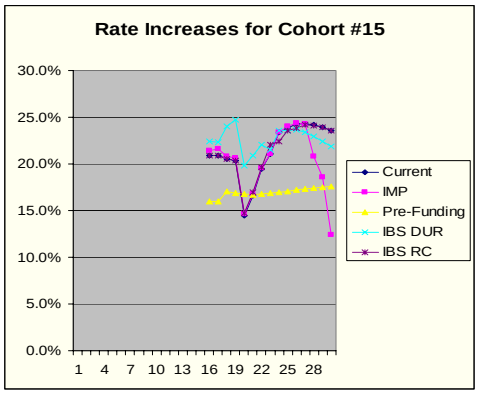


The IMP solution follows the Current Market through year 24 (policy year 15), then reaches a steady rate increase level consistently lower than the Current Market for people in the IMP. People choosing to keep their current policy will have increases similar to the Current Market.

The Prefunding solution is characterized by rate increase limits of trend plus 2%, which is generally, but not always lower than the Current Market.

The impact of Durational Pooling results in rate increases greater that the Current Market through year 18 (policy year 9), thereafter reaching levels lower than the Current Market despite gradually increasing due to the lack of new business.
Rate Compression follows the Current Market through year 19 (policy year 10), then varies slightly year to year from the Current Market.

Cohort #15



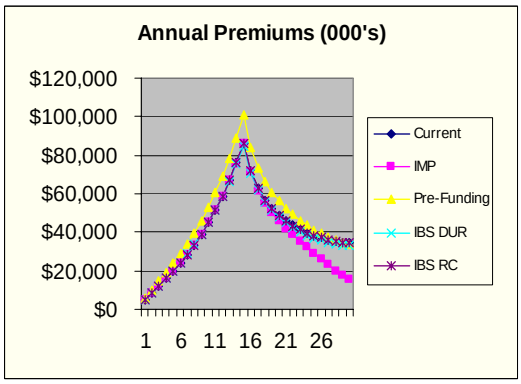
The IMP solution exhibits rate increases greater than the relatively low increases of the Current Market through year 27 (policy year 13) thereafter decreasing to levels consistently lower than the Current Market for people in the IMP. People choosing to keep their current policy will have increases similar to the Current Market.

The Prefunding solution is characterized by rate increase limits of trend plus 2%, which is generally, but not always lower than the Current Market.

The impact of Durational Pooling results in rate increases greater that the Current Market through year 24 (policy year 10), thereafter reaching levels slightly lower than the Current Market. Unlike earlier issue years, these rate increases are relatively level through the modeling period due to the fact that subsidization of the older blocks does not allow for significantly lower rate increases relative to the Current Market.

Rate Compression follows the Current Market through year 19 (policy year 5), and then varies slightly year to year from the Current Market.

H. Annual Premium

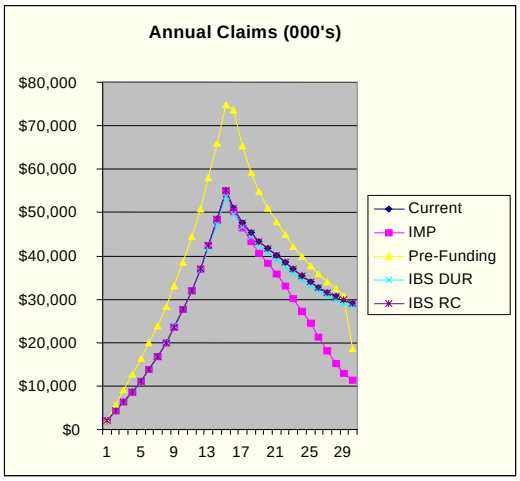


Annual Premiums are dependent on the rate level and enrollment, presented above. It must be noted that the significant drop in total premium after fifteen (15) years is due to lack of new business sales in our model.

On a present value basis, Prefunding generates the greatest volume of premium, while Durational Pooling is slightly lower than the Current Market and Rate Compression. IMP generates the lowest premium, although it should be noted that pool premium is not included with these results.

With respect to the premium pattern, the IMP solution follows the Current Market through year 13 then drops steadily relative to the Current Market for people in the IMP. People choosing to keep their current policy will have increases similar to the Current Market. Prefunding is consistently well above the Current Market until many years later. Durational Pooling generally follows the Current Market through year 13, and then decreases to levels slightly below the Current Market. Rate Compression is virtually identical to the Current Model.

I. Annual Claims

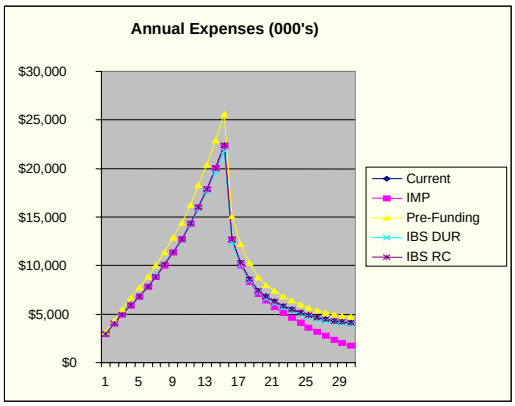


It must be noted that the significant drop after fifteen (15) years is due to lack of new business sales in our model.

On a present value basis, Prefunding generates the greatest volume of claims (including reserves), while Durational Pooling is slightly lower than the Current Market and Rate Compression. IMP generates the lowest claims, although it should be noted that pooled claims are not included with these results.

With respect to pattern, the IMP solution generally follows the Current Market through year 15 then drops steadily relative to the Current Market for people in the IMP. People choosing to keep their current policy will have increases similar to the Current Market. Prefunding is consistently well above the Current Market with exception of the first and last year. Durational Pooling generally follows the Current Market through year 11, and then decreases to levels slightly below the Current Market. Rate Compression is virtually identical to the Current Model.

J. Annual Expenses



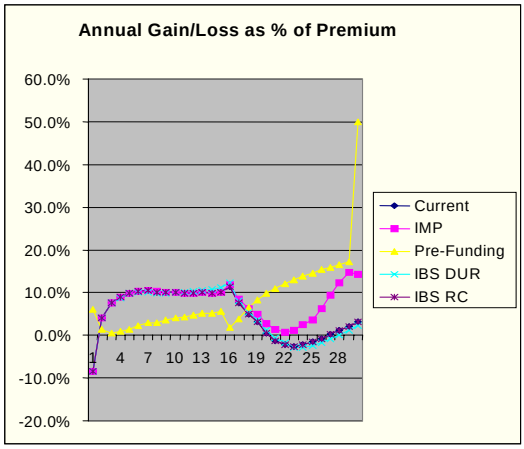
It must be noted that the significant drop after fifteen (15) years is due to lack of new business sales in our model.

Expense levels and patterns generally follow the Annual Premium results.

Profitability

Profitability results are presented in terms of pre-tax underwriting profit (Annual Gain/Loss) before and after the opportunity cost of capital (Economic Gain/Loss), both in dollars and percent of premium.

Annual Gain/Loss



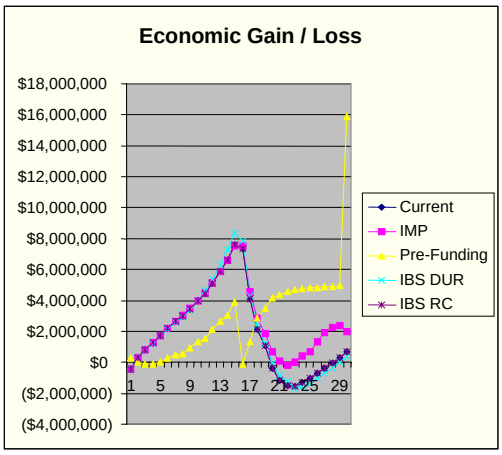
On a present value basis, IMP is the most profitable, both in terms of dollars and percent of premium. Durational Pooling generates slightly higher profits than the Current Market, both in terms of dollars and percent of premium. Prefunding generates higher profit dollars than all but the IMP, but the lowest profits as a percent of premium. Rate Compression is virtually identical to the Current Market.

With respect to pattern, surplus strain impacts all but the Prefunding solution in the first year. With the exception of Prefunding, profit margins increase steadily in future years then begin to erode beginning in year 17, reaching minimum levels at about

year 22, and increasing thereafter. The IMP model in particular increases to significant levels in future years.

The Prefunding solution has a much different pattern than the other models. As mentioned, the high initial rate levels eliminate surplus strain in year one. Thereafter, moderate to low profit margins are achieved (although much lower than the other models) through year 17, then increases steadily to levels significantly higher than the other models, no doubt generated by reserve releases. This slow emergence of profits will be a concern to a number of carriers in the market and may be a barrier to new carriers entering into the market.

Economic Gain/Loss



Economic Gain/Loss generates generally the same pattern as Annual Gain/Loss with the following exceptions.

On a present value basis, Prefunding generates the lowest profits, both in terms of dollars and percent of premium. This appears to be caused by higher cost of capital due to reserves.

When comparing the results of these models to each other, it is assumed that all external forces stay consistent. This would include such things as rating characteristics, state mandates and rating rules, taxation, and other factors affecting the rating of individual health policies.

Another factor affecting comparison of these methods is the relative provider payment levels that competing companies pay. There may be situations where some companies, who may pay lower claim costs per person, perhaps due to negotiated discounts being significantly larger than their competitors, may already be using a different form of rating methodology than some of their competitors. If this is the case, then the resulting comparisons from one method to another may be appropriate for each company, but may not be appropriate for the market in general in that state.

For example, assume a state has a carrier that uses some form of a prefunding type rating method and has competitive premiums because of their superior provider discounts. If the state were to move to a prefunding rating approach the effect on this company could be minimal. Also, assume that the other competitors in the state

are using rating methodologies closer to what we have modeled as the current marketplace in order to be competitive with the previous carrier. If they were to move to the new prefunding approach, their rates might then become non-competitive due to their lack of the same level of negotiated discounts. In the most extreme situation this could result in a significant competitive advantage for the carrier with the low rates.

Section IX. Sensitivity Testing

We tested the sensitivity of changes in the following global modeling assumptions on the output of the model for each of the four potential solutions:

1. Reducing the Market Price Sensitivity and Carrier Price Sensitivity by 50% (these Sensitivities essentially adjust new business sales due to the relationship between the Market premium versus the Reference premium and the Carrier Premium versus the Market Premium, respectively)
2. Increasing the Reference Premium (essentially the overall needed premium) by $10/month
3. Decreasing the Reference Premium by $10/month
4. Discounting the initial Premium by 20%
5. Loading the initial Premium by 20%
6. Increasing the Standard lives Lapse Rate by 50%
7. Reducing the Impaired Lives Lapse Rate from 12% to 5%
8. Each of the alternative trend scenarios listed in Appendix E.

The results of these Sensitivity Tests on the outputs from the model are as follows:

Test #1: Total enrollment was 2% less under all modeling assumptions, except for Prefunding where it was 5% higher. Similarly, the Net Economic Gain to the carrier was virtually unaffected under all modeling assumptions, except for Prefunding where it was 5% higher.

Test #2: Total enrollment was 2% higher under all modeling assumptions, except for Prefunding where it was 4% higher. However, the Net Economic Gain to the carrier was 2% lower under all modeling assumptions, except for Prefunding where it was 6% higher.

Test #3: Total enrollment was 2.0% lower under all modeling assumptions, except for Prefunding where it was 5% lower. Again, the Net Economic Gain to the carrier was 2% higher under all modeling assumptions, except for Prefunding where it was 7% lower.

Test #4: Total enrollment was 12% higher for Individual Medical Pool and for Inter-block Subsidy – Rate Compression; was 3% higher for Inter-block Subsidy – Durational Pooling; and was 15% higher for Prefunding. The Net Economic Gain to the carrier was 41% - 49% lower for Individual Medical Pool and for Inter-block Subsidy – Rate Compression; was 9% lower for Inter-block Subsidy – Durational Pooling; and was 60% lower for Prefunding.

Test #5: Total enrollment was 17% lower for Individual Medical Pool and for Inter-block Subsidy – Rate Compression; was 4% lower for Inter-block Subsidy – Durational Pooling; and was 19% lower for Prefunding. The Net Economic Gain to the carrier was 13% - 17% higher for Individual Medical Pool and for Inter-block Subsidy – Rate Compression; was 5% higher for Inter-block Subsidy – Durational Pooling; and was 19% higher for Prefunding.

Test #6: Total enrollment was 37% lower for Individual Medical Pool and for Inter-block Subsidy – Rate Compression; was 39% lower for Inter-block Subsidy – Durational Pooling; and was 37% lower for Prefunding. The Net Economic Gain to the carrier was 59% lower for Individual Medical Pool and for Inter-block Subsidy – Rate Compression; was 57% lower for Inter-block Subsidy – Durational Pooling; and was 63% lower for Prefunding.

Test #7: Total enrollment was 1% - 3% higher under all modeling assumptions, except for Inter-block Subsidy – Durational Pooling where it was 1% lower. The Net Economic Gain to the carrier was 15% lower for Individual Medical Pool; was 26% lower for Inter-block Subsidy – Rate Compression; was 30% lower for Inter-block Subsidy – Durational Pooling; and changed enormously from a $31 million gain to a $36 million loss for Prefunding.

Test #8: Projected trends were replaced by each of the alternatives in Appendix E. Under each of the ten claim trend scenarios, the current market and the four solutions maintained the same relative positions with respect to each other, by duration, with respect to:

- Market New Business Premiums,
- Total Enrollment,
- Average Rate Increases,
- Maximum Rate Increases, and
- Annual Claims.

Economic gain maintained a consistent relationship by duration for each solution except for the Prefunding solution, which was somewhat more volatile. Prefunding premium levels were generally more stable than the others.

Conclusions

1. None of the models are sensitive to changes in Market Price Sensitivity, Carrier Price Sensitivity, or Reference Premium.
2. All the models are very sensitive, and equally sensitive, to a change in the Standard lives Lapse Rate
3. All the models are sensitive to loading the initial premium. The Prefunding model is the most sensitive and the Inter-block Subsidy – Durational Pooling model seems to “self-adjust” and be the least sensitive.
4. All the models are very sensitive to discounting the initial premium. The Prefunding model is the most sensitive and the Inter-block Subsidy – Durational Pooling model seems to “self-adjust” and be the least sensitive.
5. The Net Economic Gain produced by the models is very sensitive to the Impaired Lives Lapse Rate. In particular, the Prefunding models swings from a sizable gain to a sizable loss. The other models still show gains, but with reductions of 15% - 30%.

In summary, the economic results produced by the Inter-block Subsidy – Durational Pooling model appear to be the least sensitive to changes in the underlying assumptions, while the results produced by the Prefunding model are the most sensitive.

Appendix A: Relevant portions of LHATF's Dec., 2000, meeting minutes:

Rate Adequacy – Medical

The working group sent a letter to the AAA (Attachment L of the Dec. 3, 1999, minutes of the Accident and Health Working Group) requesting assistance concerning possible replacements for the Accident and Health Individual Rate Filing Guidelines. The working group held an additional half-day meeting on Dec. 1 to give feedback to the American Academy of Actuaries' committee that is studying revised approaches to rate regulation of medical expense insurance.

Ms. Philips opened the discussions by reviewing desirable criteria underlying rate regulation that were identified during an interim meeting of the Accident and Health Working Group on Aug. 6-7, 1997 (see Attachment B of the Sept. 19, 1997, minutes of the Accident and Health Working Group). The working group then reviewed the prior criteria in the current environment and agreed that the desirable criteria underlying rate regulation for medical products, in order of priority, are as follows:

a) Rate Stability
b) Consumer Choice
c) Disclosure

The working group noted that historically regulations addressing medical rating have been based on "premiums being reasonable in relation to benefits" (reasonableness test). Some of the working group members felt that the reasonableness test was equally applicable regardless of whether rates were excessive or inadequate; however, it was noted that historically, the reasonableness test had been used to address primarily excessive rates.

Mr. Batte stated that most states have two basic versions of rate regulations. One version is primarily applicable to property and casualty business and requires that premiums not be unfair, inadequate, or discriminatory. A second version is primarily applicable to life and health business and requires that premiums be reasonable in relation to benefits. The working group agreed that the property and casualty approach would not be appropriate for medical rate regulations because property and casualty business is sufficiently different in the following ways:

a) Property and casualty products are primarily one-year term products, whereas medical business may be inforce for a lifetime
b) Trend is smaller for property and casualty business
c) Property and casualty business is a totally different environment

The working group agreed that the current belief is that competition will control excessive rates. Ms. Philips also noted that if people have choices then reasonableness is not as much of an issue. However, the issue of consumer choice also has sub-issues of suitability and availability.

William Bluhm (Milliman & Robertson, Inc. representing the American Academy of Actuaries) requested that the working group define the terms "rate stability," "consumer choice," and "disclosure."

The working group agreed that rate stability exists when rate increases are within a corridor of trend that reduces the probability of spirals. Rate stability also has the following characteristics:

a) Carrier should not become insolvent
b) Reduce the probability of rate spirals
c) Long term rate increases should not be greater than the trend in the underlying healthcare costs

Ms. Philips stated that rate stability implies an annual limit on rate increases (such as trend). Mr. Diamond added that even if annual increases are minimal, it is possible for rates to not be stable if the cumulative effect of the annual increases is sufficiently large.

The working group agreed that the following characteristics were associated with consumer choice:

a) Availability
b) Affordability
c) Suitability
d) Portability within carrier

The working group also discussed portability across insurers and determined that portability across insurers is outside the scope of this charge. Mr. Sky also noted that rate stability and consumer choice are conflicting goals.

Mr. Dino suggested that disclosure could encompass rate history disclosure. He further stated that he discovered that, historically, some insurers selling attained-age policies had not always disclosed the entire rate schedule applicable to a particular insured.

The working group agreed that rate regulations should be constrained by the following:

a) Do not unfairly discriminate
b) Do not be arbitrary
c) Do not take away power to purchaser
d) Minimize amount of bureaucratic paperwork
e) Do not impose burdens on companies or states
f) Do not disadvantage existing insurers in the market

The working group next focused on the Oct. 30, 2000, memorandum from Mr. Bluhm. The working group agreed to the following concerning methods of dealing with closed blocks:

#	Method	Comments
a)	A high risk pool	There was no consensus of the working group as to whether this was a viable option or not. A key point was whether individuals may enter a risk pool if they have existing coverage. Some states permit this where other states do not.
b)	A reinsurance mechanism (one that is transparent to the policyholder)	The working group thought this option could be worthwhile to explore.
c)	Pool of all business or a subset of all business	The working group thought that this option would be acceptable.
d)	Limit rate increase (i.e., equal to new business rates, fixed percentage or based on some index such as the CPI)	The working group thought that this option was probably not feasible.
e)	Use rating bands similar to the small group model	Mr. Rink expressed concerns with rating bands causing rates for younger insureds to increase and force them out of the market. Mr. Dino suggested that rating bands could impose limitations on underwriting loads or discounts rather than across age bands.
f)	Rate guarantees	The working group thought that this option was probably not feasible.
g)	Prefunding	The working group believes that this option is consistent with the desired goals. However, the working group did acknowledge that the biggest obstacle to this option is affordability.
h)	Disclose prior rate increases or anticipated premiums	The working group thought this option could be worthwhile to explore.
i)	Require a higher loss ratio on the portion of any premium that is in excess of the initial premium	The working group thought that this option would be acceptable.
j)	Adjust deductibles/co-pays with trend	The working group thought they would be willing to consider this option.
k)	Full guaranteed issue or guaranteed portability to another carrier	During the discussions concerning consumer choice (see above), the working group determined that this option is not within the scope of the charge.

Additionally, Mr. Dino proposed that one more option be added for consideration. The new option would be to limit the extent that insurers could include catastrophic claims in a single policy form. Catastrophic claims above a certain level would be pooled across all policies.

Next, the working group addressed loss ratios. In particular, Ms. Philips raised the question of whether insurers should be permitted to recoup past losses. Ms. Philips drew a chart where the projected slope of loss ratios was flatter after a proposed rate increase than what

was originally anticipated in the original pricing assumptions. There was no consensus among the working group members as to whether the flatter loss ratio slope should be permitted.

Mr. Foley emphasized that options other than fixed loss ratios might be more effective.

Mr. Sky stated that the numerator and denominator should be on a consistent basis, such as incurred claims and earned premium.

The working group discussed what should be included in the numerator of the loss ratio. In particular, the issue of whether a subsidy should be included in the numerator. Mr. Diamond stated it should. Mr. Weller inquired as to whether the numerator would include the cost of a managed care network. Ms. Philips noted that the Codification Subteam of the Accident and Health Working Group is addressing whether claim adjustment expenses should be included with losses. Mr. Rink noted that the work of the Codification Subteam is limited to statutory reporting and was not being recommended for rate increase determination at this time.

The working group next discussed on what basis is a lifetime period determined – an average policy, a policy form, or block of business. Mr. Diamond stated that the lifetime should be based on the policy form. Ms. Philips and Mr. Sky agreed that the lifetime should be based on an average policy.

With regard to Mr. Bluhm's question regarding the standard of review, Mr. Diamond stated that the review should be less initially.

The working group agreed to defer discussions concerning competitive markets until some other issues have been addressed.

Additionally, the working group agreed that it would be difficult to not require loss ratio minimums until it is known what could replace them. The working group requested that the Academy task force provide feedback on the existence of any viable alternatives to loss ratios, that would do a better job of ensuring that premiums are reasonable.

Appendix B: The Drivers of Rate Increases

Not including changes that might be necessary due to increased distribution costs, administrative costs, taxation, or cost of capital, there are three classes of drivers that impact the size of a needed rate increase.

1. Overview of Drivers

a) External Cost Drivers
   i) These are factors driving up medical costs in the economy that are independent of the individual marketplace and independent of any specific insurer's pricing, marketing, underwriting, and product management practices.

b) Internal Cost Drivers
   i) These are factors relating to the selection dynamics in the individual marketplace.

c) Correction of Prior Actuarial Estimates
   i) These factors are due to an unanticipated change in an external or internal cost driver; or a data analysis error.
   ii) The impact of these factors on rate increases is directly related to the time delay in the detection of the change or error and in implementing the corrective action.

2. Expanded Analysis of Drivers

a) External Cost Drivers
   i) Medical CPI represents the cost change for a defined market basket of medical services.
   ii) Change in utilization represents the change in the frequency of services provided for similar insureds with similar medical conditions. Intensity represents the change in the level of services provided (i.e. comprehensive office visit vs. brief office visit) for similar insureds with similar medical conditions.
   iii) Change in intensity represents the change in the level of services provided (e.g. comprehensive office visit vs. brief office visit) for similar insureds with similar medical conditions.
   iv) New technology represents the cost change of new innovations, including new equipment, new procedures and new medications.
   v) Deductible leveraging represents the impact of calendar year deductibles on plan costs. This reflects the fact that due to cost increases a greater percentage of costs will exceed a fixed deductible. The impact of deductible leveraging depends on the insurer's mix of business by plan type and deductible.
   vi) Cost shifting is caused by payments to providers for Medicare, Medicaid, and indigent care that are often paid at a level that doesn't cover fully allocated costs. To compensate for this, providers typically increase their revenue demands from insurers and other payors.
   vii) Increases in disease prevalence over time. AIDS was a disease unknown prior to the 1980's. Cancer rates for many classes of tumors are on the rise. This may be due to increased environmental risks, poorer health maintenance or other causes. Obesity is on the increase and is a known cause of increased disease prevalence.
   viii) State benefit mandates add additional costs to benefit plans that insurers and their customers had previously decided to exclude from coverage.
   ix) Federal benefit mandates are a relatively new driver. Since the mid-1990's the federal government has become active in adding benefit entitlements to health plans, and some of these impact individual plans.

x) Other Legislative/Regulatory activity also drives increased costs. HIPAA portability in many states requires additional costs for portability rights to be assigned to individual policies. Government extensions of drug patents and refusal to move drugs to over the counter status increase costs. Legislative requirements often increase administrative expenses, as well.
xi) Increases in the supply of providers, including increases in hospital beds, physicians and other health care providers drive supply-based cost increases.
xii) Aging of the population increases the prevalence of disease throughout the adult lifetime of covered individuals.
xiii) Consolidation in the provider community can lead to greater leverage for providers and correspondingly less leverage for insurers in reimbursement rate negotiations.

b) Internal Cost Drivers
   i) As the market price of individual insurance increases, more of the healthier individuals become, or stay, self-insured. The remaining purchasers are relatively more costly and are higher utilizers of health care services. This drives up new business costs.
   ii) New buyers of insurance who expect to use fewer health care services purchase lower cost and/or higher deductible products. The effect of this is to reduce the overall income to the block of business from people who would normally have few or no claims. This can increase the overall loss ratio of the block.
   iii) Standard insureds drop coverage instead of renewing it.
   iv) Standard insureds switch insurers instead of renewing with the same company.
   v) Standard insureds reduce coverage at renewal, thereby reducing the premium coming into the block of business.
   vi) Wear off of new business underwriting and pre-existing condition clauses
   vii) Inflation erodes the deterrent effect of co-pays and deductibles, and more insureds reach their out-of-pocket maximums.
   viii) Inability to predict the timing and amount of rate increases when actually approved by the states

c) Inaccuracies of Prior Actuarial Estimations
   i) Failure to appropriately predict claims by duration.
   ii) Failure to use appropriate seasonality adjustments.
   iii) Failure to estimate appropriate claim reserves.
   iv) Failure to estimate future claims level due to not adjusting for anticipated future changes in claim levels that could reasonably have been foreseen. For example, the announcement of a new high cost treatment for a relatively common condition that is currently treated at lower cost.
   v) Lack of timeliness or unavailability of data.

Appendix C: Competitive Markets

Characteristics of a Competitive Marketplace

- Number of Sellers and Concentration of Market Share Among Sellers

  Concentration Ratios

  - This measure is the market share of the top five competitors, individually and in aggregate.
  - One possible definition of a competitive market is that the largest competitor has no more than 60% market share and the top five competitors together have more than 80% of the market.

  Herfindahl Index.

  - This measure of market concentration is defined as:
    $HI = \sum (MS_n)^2$, where HI is the Herfindahl Index, and MS_n is the market share of competitor n
  - Normally an index of less than 0.2 indicates that the attributes of a competitive market exist.
  - An index above 0.7 indicates the market is operating as a monopoly.

- Level of Margins and Return on Capital

  In order to have many players in a market there must be the expectation of consistent returns in excess of the cost of capital. Extremely low or extremely high returns are evidence that there may not be a competitive marketplace.

  Individual medical insurance is a very capital intensive business often requiring capital in the range of 15% to 25% of earned premium. The risks imposed by an uncertain regulatory environment combined with the volatility of underwriting cycles result in a need for higher returns in order to attract capital from increasingly competitive capital markets.

  Consistent profit margins in excess of 10% of premium or return on equity consistently above 40% for the market as a whole may indicate a lack of competitiveness. Consistent margins of less than 3% or returns on equity for the market as a whole of less than 15% may indicate the market is over-regulated or has some structural deficiency making the market unattractive to new entrants.

- Low Barriers to Market Entry by Sellers

  In order for a market to be competitive it must be relatively easy for new competitors to enter the market.

  For individual medical this usually means that the initial capital requirements should not be excessively high, the regulations should not be unduly harsh or complex, and access to health care provider contracts at competitive rates must be available.

When new competitors enter a market, it is likely a sign of a healthy competitive market.

- Access to Product by Purchasers and Ability of Purchasers to Switch Insurers

  In order for markets to be competitive the prices must be low enough to attract purchasers, and there must be relative ease for the majority of purchasers to switch insurers.

  However, this access must not restrict or hinder the market. For example:

  Guaranteed issue provisions often result in prices so high that purchasers exit the market. This shrinks the market, since only those with a very high utility for health care will be purchasers. This typically will continue to spiral, as impaired members of the large pool of uninsured enter the market, driving prices even higher.

  In a marketplace that allows underwriting and has a risk pool the market can operate more efficiently, since prices will be lower and impaired non-purchasers can access coverage via the risk pool. Also current purchasers who are impaired have an option to switch to the risk pool.

- Ability of Purchaser to Evaluate Fairly and Choose Among Products

  In order for a competitive market to operate efficiently, consumers must be able to compare and contrast the economic value of various benefit options. They must also make assessments not only about issue prices but also about anticipated future renewal increases.

  Educated insurance advisors and disclosure can enable consumers to make good economic decisions based on the best available information.

  Disclosure of historical rate increases over several years, disclosure of rating methodologies, and anticipated loss ratios may assist the consumer in making informed choices.

- Price of the Product and the Level of Quality and Innovation

  Important attributes of a competitive market are a wide variety of product choices and the ability for insurers to innovate and improve the quality of their product offering.

  A large number of insurers with a large number of product options would be indicative of a relatively competitive market.

- Access of Sellers to Competitive Supply of Health Care Services

  It is important that no one or two insurers monopsonize the purchase of health care services. In a small markets one vertically integrated supplier of health coverage and health care services may monopsonize the market for health care services and monopolize the market for individual health insurance. This could prevent entry of more competitors into this market by placing them at a significant cost disadvantage.

- Fair and Consistent Set of Rules for All Insurers

  Most policymakers feel there should be a level playing field for all insurers. Examples of violations of this characteristic are application of unique rate review requirements, differing mandated benefits, or varying premium tax rates by types of insurers.

Examples of Market Attributes That Hinder Competition

- Mandated Guaranteed Issue of All Products

  This will cause prices to spiral upward preventing access.

- Mandated Exclusive Offering of Standardized State Plans

  Fixed product designs preclude innovation and quality improvements.

- Rate Controls that Preclude a Fair Return on Capital or Impose Excessively Burdensome Administrative Costs

  The inability to attract capital will result in fewer competitors and less competition.

- Dominance of the Purchasing of Healthcare by a Few Insurers Precluding Other Insurers Access to Health Care Purchasing at Comparable Rates

  This situation, with one carrier having greater purchasing power will lead to a reduction in insurers, less choice and higher premiums for insurers trying to compete.

- Rate Corridors, Rate Caps, High Minimum Loss Ratios, Modified Community Rating, and/or Limits on Rating Variables

  These pricing controls increase the variance between anticipated claim costs and price, causing the price to increase beyond the purchasing utility of many buyers, since the price is higher than the perceived benefit. These controls may also cause insurers to exit the market due to inadequate return on investment.

- Mandated Coverages

  These mandates force buyers to purchase coverage options for which they may have no utility at all. Buyers may choose instead to exit the market as the mandates drive up premiums.

Appendix D: The Current Marketplace

In order to evaluate the alternatives presented in this paper, it is important that there be agreement as to the characteristics of the current market, including the regulatory environment. It may be that what is presented here becomes controversial; it is not meant to be. It is meant to be a recitation of facts relevant to the problem at hand.

The Individual Major Medical Marketplace

Within the individual marketplace, it is common practice to close off periodically a policy form to new business and introduce a replacement form. This closes off the inflow of newly underwritten entrants into the closed form. As a result, average claim cost levels will tend to rise above those experienced under forms that are open to new business, and pricing of the closed form will tend to reflect the higher costs. Standard policyholders will be more likely than impaired to terminate their policies, either because they can qualify for amore favorable new business premium with another carrier, or because they feel more confident about their prospects for going without insurance. This again increases average claim costs, which tends to increase further premiums on the closed form beyond the premium levels on open forms, and the cycle continues. This is the "closed block" problem.

Some contributors to the problem include pricing structures that link higher morbidity associated to underwriting wear-off and renewal antiselection to rate increases, and greater ability of standard lives than impaired to move within the market or to exit the market.

Rate increases in individual major medical insurance are influenced by a large number of potential drivers as described in Appendix B.

The current marketplace consists of a multitude of individual insuring entities, each with unique procedures and philosophies regarding marketing and insured selection and underwriting. At the time of initial premium rate development, each entity is faced with a decision, whether explicit or implicit, in terms of the extent to which the durational change in future claim costs are reflected in new business rates. The decision involves a trade-off between future renewal rate increases and the new business rate level. In a competitive marketplace, these decisions cannot be made in a vacuum. Rather, consideration must be given to competition within a target market and an understanding of the market viewpoint regarding the relative desirability and/or merits of initial rate level versus future rate action. Whether or not this understanding is reality or perception, the current marketplace appears to be generally characterized by a strong emphasis on initial rate level.

Attractiveness of the Marketplace

Other attributes that affect the attractiveness of a market are: speed to market, regulatory responsiveness, regulatory flexibility, allowable rating frequency, market adaptability, the litigation environment, and the size of the potential market. Each of these will be considered before a carrier decides to operate in a state.

The following exhibits show how specific factors affect the attractiveness of states for companies marketing individual major medical policies. Exhibit 1 shows individual factors and how they range from attractive to unattractive. Exhibit 2 gives a summary of the current environment and shows the number of states in each category, according to our subcommittee which looked at this.

Exhibit I

Individual Major Medical Marketplace Attractiveness Scale (Insurer Perspective)

Regulatory Environment:

Highly Attractive Markets ⟷ **Unattractive Markets**

Category					
Price Controls	No Filing	Info Only Filing		File and Use Rates	File and Approve Rates
Expected Minimum Lifetime Loss Ratio	None, or < 60%	65% and Adj. For MHC, Prem Tax, and Assessments		65%	> 65%
Rate Corridor	No Rate Corridor Limitation	Rate by class/Block based on experience	± 35%	± 25%	± 0%
Underwriting Limitations	Rate, Rider and Decline	Rate w/limits, Rider w/limits, Decline	Rate w/ limits, no riders, decline	Accept Decline Only	Guaranteed Issue Only
HIPAA Portability	Risk Pool	Two Representative Plans, no limits on substandard	Two Most Popular Plans, 300% rate-up limit	All Plans, 100% rate-up limit	Full Guaranteed Issue
Mandates	None	Mandated Benefits	Mandated Benefits and Beneficiaries	Mandated Benefits, Benefic-iaries, Providers	Mandated Benefit Options (Choice), Beneficiaries, Providers

Exhibit 2

Summary of Current State Individual Major Medical Market Environment

Highly Attractive Markets ⟷ **Unattractive Markets**

A	B	C	D	F
18 States	13 states	7 states	7 states	6 states

Appendix E: Claim Trend Scenarios

From Year		To Yr	Scenario Name: Medium	High	Low	Jump	Drop	Peak	Valley	Baseline CyclicA	CyclicB	Medical CPI+5% History
1	to	2	12.0%	18.0%	6.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	9.6%
2	to	3	12.0%	18.0%	6.0%	12.0%	12.0%	13.0%	11.0%	15.0%	9.0%	8.3%
3	to	4	12.0%	18.0%	6.0%	12.0%	12.0%	14.0%	10.0%	18.0%	6.0%	10.3%
4	to	5	12.0%	18.0%	6.0%	12.0%	12.0%	15.0%	9.0%	15.0%	9.0%	17.6%
5	to	6	12.0%	18.0%	6.0%	12.0%	12.0%	16.0%	8.0%	12.0%	12.0%	14.8%
6	to	7	12.0%	18.0%	6.0%	18.0%	6.0%	17.0%	7.0%	9.0%	15.0%	15.0%
7	to	8	12.0%	18.0%	6.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	13.9%
8	to	9	12.0%	18.0%	6.0%	18.0%	6.0%	19.0%	5.0%	15.0%	9.0%	13.8%
9	to	10	12.0%	18.0%	6.0%	18.0%	6.0%	20.0%	4.0%	18.0%	6.0%	15.1%
10	to	11	12.0%	18.0%	6.0%	18.0%	6.0%	19.0%	5.0%	15.0%	9.0%	14.9%
11	to	12	12.0%	18.0%	6.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	17.5%
12	to	13	12.0%	18.0%	6.0%	18.0%	6.0%	17.0%	7.0%	9.0%	15.0%	16.0%
13	to	14	12.0%	18.0%	6.0%	18.0%	6.0%	16.0%	8.0%	12.0%	12.0%	11.4%
14	to	15	12.0%	18.0%	6.0%	18.0%	6.0%	15.0%	9.0%	15.0%	9.0%	11.1%
15	to	16	12.0%	18.0%	6.0%	18.0%	6.0%	14.0%	10.0%	18.0%	6.0%	11.8%
16	to	17	12.0%	18.0%	6.0%	18.0%	6.0%	13.0%	11.0%	15.0%	9.0%	12.7%
17	to	18	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	12.0%	12.0%	10.8%
18	to	19	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	9.0%	15.0%	11.9%
19	to	20	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	12.0%	12.0%	13.5%
20	to	21	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	15.0%	9.0%	14.6%
21	to	22	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	18.0%	6.0%	12.9%
22	to	23	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	15.0%	9.0%	11.6%
23	to	24	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	12.0%	12.0%	10.4%
24	to	25	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	9.0%	15.0%	9.9%
25	to	26	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	12.0%	12.0%	8.9%
26	to	27	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	15.0%	9.0%	8.0%
27	to	28	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	18.0%	6.0%	7.8%
28	to	29	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	15.0%	9.0%	8.4%
29	to	30	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	12.0%	12.0%	8.7%
30	to	31	12.0%	18.0%	6.0%	18.0%	6.0%	12.0%	12.0%	9.0%	15.0%	9.2%

Appendix F: Survey of State Regulatory Environment of Premium Rates for Individual Major Medical Insurance Policies

The RFTF determined that there was value to the readers of the report, as well as a need to develop a common starting point for RFTF members, to be familiar with key elements of the current regulatory environment that affect premium rates in today's market. Since regulation of insurance companies still remains primarily with state government, and there is no central location from which to capture how each state handles this regulation, the RFTF sought to compile this information by going to the State regulatory body in each of the 50 states. Rather than researching thousands of pages of states' laws, regulations and bulletins, and recognizing that provisions in some states give regulators the right to form interpretations, we conducted the research in the form of asking the key regulator on premium rates in each state to complete a survey. The RFTF constructed the questions of the survey to capture the most important elements of this study.

The survey was sent out in March 2003. Responses were tabulated for the 23 states that returned them.

Each state was asked to complete a separate survey for HMO type policies and another for indemnity and preferred provider policies, if the laws or regulations within a state regulated them differently. A similar request was made for distinctions in regulations for Blue Cross type policies. None of the 23 states responding reported any separate laws or regulations for Blue Cross type policies. Only two states reported regulating HMOs differently for premium rates than for the other types of policies. For these two states, the variances were minimal. Due to the low response and the nominal differences, the RFTF chose not to compile the HMO surveys for this report. We called the non-HMO responses "commercial" for the purposes of this report.

The industry uses a mix of legal contracts to insure individuals in this market, including individual, group association, and group discretionary trust policies. When the group master policy is issued outside of the state in which the individual resides, the regulation may differ from that applicable to policies issued inside the state. Some states have no regulation on premium rates if the individual is covered by an out-of-state group association or trust policy. Other states have separate regulations for these types of polices, and other states regulate them the same, even if they have no specific regulatory language to do so. Recognizing this industry movement, the RFTF felt it important to make the distinction in compiling the results of the survey. The responses indicated that almost half of the states responding have no regulatory authority on premium rates for individuals residing in their state if they are covered by an out-of-state master group policy. More specifically, ten responded they have no jurisdiction, eleven responded they do have jurisdiction, and two did not respond.

The RFTF concluded from the survey responses that regulation of individual health insurance policies is far from consistent, ranging from no specific requirements in a few states (i.e., no filing requirement or reference exists in the state's regulations) to very extensive regulation (e.g., requiring filing and approval, demonstration that experience and assumptions be proven, limitations on premium rate size by duration since a policy is issued, etc.). The survey questions, along with the responses, are shown in the following table:

Tabulation of Responses From the State Regulatory Environment Survey of Premium Rates for Individual Major Medical Insurance

States that responded for commercial or all types of legal entities:

AL, AR, AZ, CT, FL, ID, IN, KY, LA, MA, MS, MN, NC, ND, NH, NJ, NV, OK, OR, SD, VT, WA, WY

Does my state have any rate jurisdiction for out-of-state master policies?

YES	NO	NO RESPONSE
11	10	2

Comments on above question

- #6: “only on groups formed for purposes of issuing insurance”
- #17: “Answers below apply to trusts and associations”
- #20: “Statutes apply extraterritorially to group health plans covering residents of our state, regardless of where group contract is issued or delivered.”
- #11: “Yes, but only for certificates issued in the state.”

	Item	Yes	No	Sometimes (please comment)	Amt. or Percent	Comments &/or Citation
1.	New Form Rate approval required?	14	9			#6: out of state discretionary group, informational
2.	New Form Rate approval is not required if a loss ratio is guaranteed?	4	17			
3.	New Form Rate must be filed only?	9	13			#6: out of state discretionary group, informational
4.	New Form Rate filing is unnecessary?	2	19			#6: out of state discretionary group, informational
5.	Rate change approval required?	14	9			
6.	Rate change approval is not required if a loss ratio is guaranteed?	6	15			#2: “must file changes” #6: “out of state not required”
7.	Rate changes must be filed only?	5	16			#2: “must explain impact” #6: “out of state not required”
8.	Rate change filing is unnecessary?	3	18			

	Item	Yes	No	Sometimes (please comment)	Amt. or Percent	Comments &/or Citation
9.	Are periodic Rate filings or experience filings required even if no changes in rates? (If yes, please comment on the frequency)	6	18			#1: "annually" #6: "requires an annual filing that the rates are adequate"
10.	Are there any restrictions on filing/applying rate changes more frequently than annually? If yes, please specify.	8	14			#10: "Department guidelines: no more frequently than every 12 months" #1: "unreasonable to file on change more than annually" #12: "12 month rate guarantee required"
11.	Do you require new business rate filings to indicate the anticipated loss ratio minimums? If yes, indicate the minimum allowed %.	15	9		50%: #5. #18 55%: #19 65%: #6, #9 60,68 or 72%: #1 70%: #23, #8 75%: #3, #11	#1: "depends on market size" #12: "varies per NAIC model"
12.	Do you allow rate change filings to change the anticipated loss ratio, as long as it is still above the minimum?	18	3			#6: "subject to justification & prior approval"
13.	Do you have any other restrictions, other than items 11 & 12, on the magnitude of rates, or their change? If "yes", please respond to a-f below.	11	11		#8: 20%	
a.	On range by age? If yes, specify amt. (example: 5:1)	8	8		#3: 1:1 #15: 375% #23: 5:1 #9: 4:1 #7: 1.5:1 #1: 3:1	#23: "also includes geography, gender and industry" #9: also "includes geography in combination"

	Item	Yes	No	Sometimes (please comment)	Amt. or Percent	Comments &/or Citation
b.	On range by area? If yes, specify amt. (example: 1:1, 2:1, etc.)	5	9		#23: 5:1 #9: 1.5:1 #1: 0.8:1 #18: 1:1 #3: 1:1	#2: "only 6 areas", responded "sometimes" #23: also "includes age, gender and industry"
c.	On health status, including smoker status? If yes, specify amt. (example: +/- 35% of index rate)	8	7		#2: 15% #23: +or-35% #9: 0 #1: 1.67:1 #18: 1.5:1 #7: +or-30% #22: +75%	#18: AAA Task Force comment--additional 1.5:1 for smokers #2 & #9: "but no smoker status restrictions"
d.	Do any of the above restrictions apply across more than the filed form? (example: rates must be within 20% of an index rate between blocks of business, which may be forms or groupings of forms.)	6	9	1	#23: 10% #2: 50% between blocks #7: +or-30% of index	#23: "for different classes of business" #2: "one class of business" #9: "sometimes" response; "if small closed blocks" #1: "across entire individual block"
e.	On the magnitude of the rate increase? If possible, specify amt. (example: 15% plus trend)	5	10	1	#23: trend + 20% #2: 39% age; 28.5% trend 15% health #8: 20%	#2: "trend & 15% plus age change – geo change" #11: "Department guidelines of reasonableness" #1: "Cannot be much larger than trend" #10: "No more than 25% from all sources in any one policy year.'
f.	Other? Please comment.	4	4		#3: 1:1	#1: "health status at issue is prohibited"
14.	Is reunderwriting prohibited, i.e., may an individual be changed from the health status rating class assigned at issue any time while he/she is covered?	14	8			#2: "must be at next rating period" #23: responded "no", "but health status cannot be considered at issue or at renewal" #20: "is proposing legislation this year" #4: "since individual is guaranteed renewable, it goes against concept to re-underwriting" #8: "reunderwriting and health status is prohibited"

	Item	Yes	No	Sometimes (please comment)	Amt. or Percent	Comments &/or Citation
15.	Are there any restrictions on premium rates by duration?, i.e., are there any prohibitions for premium rates to vary by the length of time since coverage was issued? If yes, please comment.	12	10		#2: part of 15% of question no. 13.e. 0%: #9, #1, #18, #3, #22, #17	#2: "risk characteristics—health, claims experience, duration" #23: 12 month rate guarantee #20: responded "no"; "is proposing legislation this year" #9: "no variation by duration" #1: "no variation by duration" #12: "do not approve year of issue nor duration as rating categories"

		<5	5-10	11-20	>20	Comments &/or Citation
16.	Please check the box that most closely indicates the approximate number of carriers that…..					
a.	Are PPO or indemnity carriers, currently sell policies to individuals	5	10	2	3	#9: "only 1"
b.	Are PPO or indemnity carriers, currently sell out-of-state based master policy coverage to individuals	8	2	1	3	#9: "none legally" #1: "none, prohibited"
c.	Are PPO or indemnity carriers, no longer sell, but insure individuals via policies	7	3	2	6	#12: indicates 28
d.	Are PPO or indemnity carriers, no longer sell, but insure individuals via out-of-state master policy coverage	7	1	2	2	#2: "none"
e.	Are HMO carriers, no longer sell, but insure individuals via policies	13	2	2		#12: "by law conversions only; no HMO direct sold"
f.	Are HMO carriers, currently selling policies to individuals	15	2			#9: required by law #12: "all full service HMOs are required to offer individual conversion policy, but none offer any other individual business."

What problems in general would you like to share with the NAIC regarding rate increase, and other premium rate filings?

> #2: “Despite implementing NAIC Model Act and Regs, no one interpretation is available; the process of applying rating requirements, specifically reference to ‘sum of’” is particularly difficult as ‘actuaries’ are not willing to take a position.”

If your state regulates insurance companies differently by the construction of the legal entity (commercial insurance carrier, health maintenance organization, Hospital, Medical, Dental, Indemnity service type organizations, HMDIs, such as a Blues Plan, etc.), please make copies of the above form, and submit a separate form for each, indicating what the entity is.

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Tables and Graphs

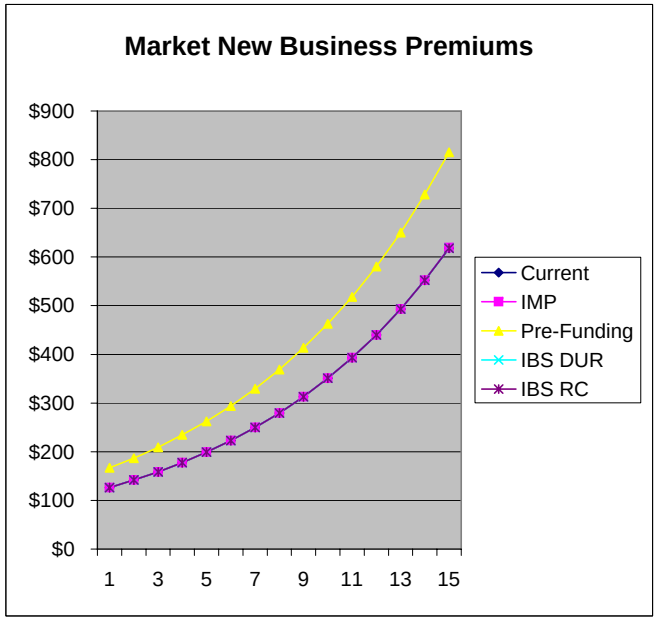
American Academy of Actuaries
Rate Filing Task Force

AAA Rate Filing Task Force Model

Summary Values **Trend Scenario:** **1**

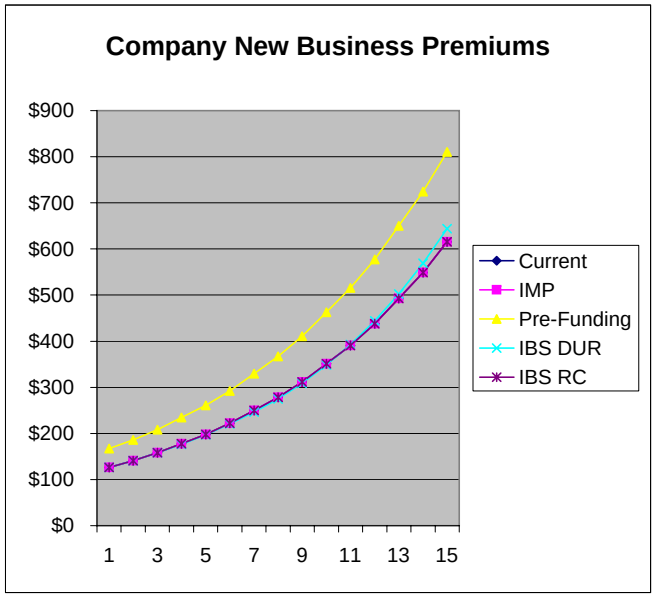
Market Results

	Market New Business Premiums									
Year	**Current**	**IMP**	**Pre-Funding**	**IBS DUR**	**IBS RC**	**Current**	**IMP**	**Pre-Funding**	**IBS DUR**	**IBS RC**
1	$127	$127	$167	$127	$127	100.0%	100.0%	131.9%	100.0%	100.0%
2	$142	$142	$187	$142	$142	100.0%	100.0%	131.9%	100.0%	100.0%
3	$159	$159	$209	$159	$159	100.0%	100.0%	131.9%	100.0%	100.0%
4	$178	$178	$234	$178	$178	100.0%	100.0%	131.9%	100.0%	100.0%
5	$199	$199	$263	$199	$199	100.0%	100.0%	131.9%	100.0%	100.0%
6	$223	$223	$294	$223	$223	100.0%	100.0%	131.9%	100.0%	100.0%
7	$250	$250	$329	$250	$250	100.0%	100.0%	131.9%	100.0%	100.0%
8	$280	$280	$369	$280	$280	100.0%	100.0%	131.9%	100.0%	100.0%
9	$313	$313	$413	$313	$313	100.0%	100.0%	131.9%	100.0%	100.0%
10	$351	$351	$463	$351	$351	100.0%	100.0%	131.9%	100.0%	100.0%
11	$393	$393	$518	$393	$393	100.0%	100.0%	131.9%	100.0%	100.0%
12	$440	$440	$580	$440	$440	100.0%	100.0%	131.9%	100.0%	100.0%
13	$493	$493	$650	$493	$493	100.0%	100.0%	131.9%	100.0%	100.0%
14	$552	$552	$728	$552	$552	100.0%	100.0%	131.9%	100.0%	100.0%
15	$618	$619	$815	$618	$618	100.0%	100.2%	131.9%	100.0%	100.0%
16	$692	$695	$913	$692	$692	100.0%	100.4%	131.9%	100.0%	100.0%
17	$775	$780	$1,023	$775	$775	100.0%	100.6%	131.9%	100.0%	100.0%
18	$868	$876	$1,146	$868	$868	100.0%	100.9%	131.9%	100.0%	100.0%
19	$973	$983	$1,283	$973	$973	100.0%	101.1%	131.9%	100.0%	100.0%
20	$1,089	$1,102	$1,437	$1,089	$1,089	100.0%	101.2%	131.9%	100.0%	100.0%
21	$1,220	$1,236	$1,609	$1,220	$1,220	100.0%	101.3%	131.9%	100.0%	100.0%
22	$1,366	$1,386	$1,802	$1,366	$1,366	100.0%	101.5%	131.9%	100.0%	100.0%
23	$1,530	$1,553	$2,019	$1,530	$1,530	100.0%	101.5%	131.9%	100.0%	100.0%
24	$1,714	$1,742	$2,261	$1,714	$1,714	100.0%	101.6%	131.9%	100.0%	100.0%
25	$1,919	$1,952	$2,532	$1,919	$1,919	100.0%	101.7%	131.9%	100.0%	100.0%
26	$2,150	$2,187	$2,836	$2,150	$2,150	100.0%	101.7%	131.9%	100.0%	100.0%
27	$2,408	$2,451	$3,176	$2,408	$2,408	100.0%	101.8%	131.9%	100.0%	100.0%
28	$2,696	$2,746	$3,557	$2,696	$2,696	100.0%	101.8%	131.9%	100.0%	100.0%
29	$3,020	$3,075	$3,984	$3,020	$3,020	100.0%	101.8%	131.9%	100.0%	100.0%
30	$3,382	$3,446	$4,462	$3,382	$3,382	100.0%	101.9%	131.9%	100.0%	100.0%



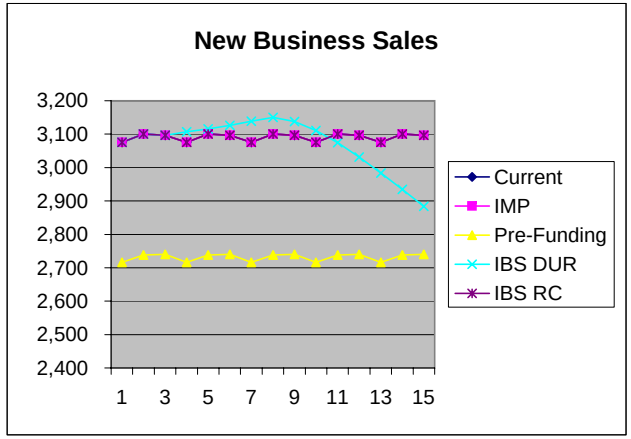
Trend Scenario: 1

	Company New Business Premiums									
Year	**Current**	**IMP**	**Pre-Funding**	**IBS DUR**	**IBS RC**	**Current**	**IMP**	**Pre-Funding**	**IBS DUR**	**IBS RC**
1	$127	$127	$167	$127	127	100.0%	100.0%	131.9%	100.0%	100.0%
2	$141	$141	$186	$141	141	100.0%	100.0%	131.9%	100.0%	100.0%
3	$158	$158	$208	$158	158	100.0%	100.0%	131.8%	100.0%	100.0%
4	$178	$178	$234	$177	178	100.0%	100.0%	131.9%	99.3%	100.0%
5	$198	$198	$261	$197	198	100.0%	100.0%	131.9%	99.6%	100.0%
6	$222	$222	$292	$220	222	100.0%	100.0%	131.8%	99.3%	100.0%
7	$250	$250	$329	$246	250	100.0%	100.0%	131.9%	98.6%	100.0%
8	$278	$278	$367	$275	278	100.0%	100.0%	131.9%	98.9%	100.0%
9	$312	$312	$411	$309	312	100.0%	100.0%	131.8%	99.1%	100.0%
10	$351	$351	$463	$348	351	100.0%	100.0%	131.9%	99.2%	100.0%
11	$391	$391	$516	$393	391	100.0%	100.0%	131.9%	100.6%	100.0%
12	$438	$438	$577	$444	438	100.0%	100.0%	131.8%	101.4%	100.0%
13	$493	$493	$650	$503	493	100.0%	100.0%	131.9%	102.0%	100.0%
14	$549	$549	$724	$569	549	100.0%	100.0%	131.9%	103.6%	100.0%
15	$615	$615	$811	$644	615	100.0%	100.0%	131.8%	104.6%	100.0%
16	$0	$694	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
17	$0	$773	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
18	$0	$876	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
19	$0	$981	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
20	$0	$1,093	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
21	$0	$1,247	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
22	$0	$1,385	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
23	$0	$1,543	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
24	$0	$1,766	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
25	$0	$1,951	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
26	$0	$2,173	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
27	$0	$2,493	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
28	$0	$2,745	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
29	$0	$3,058	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%
30	$0	$3,512	$0	$0	-	0.0%	0.0%	0.0%	0.0%	0.0%



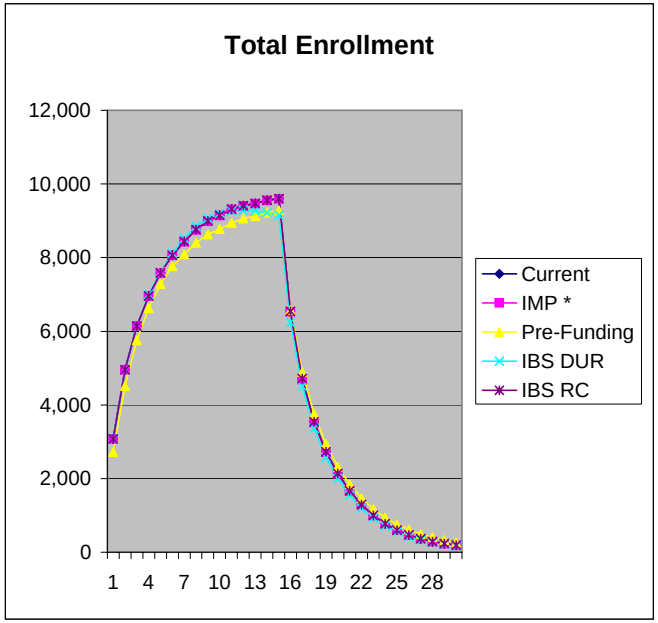
Trend Scenario: 1

	New Business Sales									
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	3,075	3,075	2,716	3,075	3,075	100.0%	100.0%	88.3%	100.0%	100.0%
2	3,100	3,100	2,738	3,100	3,100	100.0%	100.0%	88.3%	100.0%	100.0%
3	3,097	3,097	2,740	3,097	3,097	100.0%	100.0%	88.5%	100.0%	100.0%
4	3,075	3,075	2,716	3,107	3,075	100.0%	100.0%	88.3%	101.0%	100.0%
5	3,100	3,100	2,738	3,116	3,100	100.0%	100.0%	88.3%	100.5%	100.0%
6	3,097	3,097	2,740	3,127	3,097	100.0%	100.0%	88.5%	101.0%	100.0%
7	3,075	3,075	2,716	3,138	3,075	100.0%	100.0%	88.3%	102.1%	100.0%
8	3,100	3,100	2,738	3,150	3,100	100.0%	100.0%	88.3%	101.6%	100.0%
9	3,097	3,097	2,740	3,138	3,097	100.0%	100.0%	88.5%	101.3%	100.0%
10	3,075	3,075	2,716	3,111	3,075	100.0%	100.0%	88.3%	101.2%	100.0%
11	3,100	3,100	2,738	3,074	3,100	100.0%	100.0%	88.3%	99.2%	100.0%
12	3,097	3,097	2,740	3,031	3,097	100.0%	100.0%	88.5%	97.9%	100.0%
13	3,075	3,075	2,716	2,984	3,075	100.0%	100.0%	88.3%	97.0%	100.0%
14	3,100	3,100	2,738	2,934	3,100	100.0%	100.0%	88.3%	94.7%	100.0%
15	3,097	3,097	2,740	2,884	3,097	100.0%	100.0%	88.5%	93.1%	100.0%
16	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
17	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
18	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
19	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
20	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
21	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
22	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
23	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
24	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
25	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
26	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
27	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
28	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
29	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
30	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%



Trend Scenario: 1

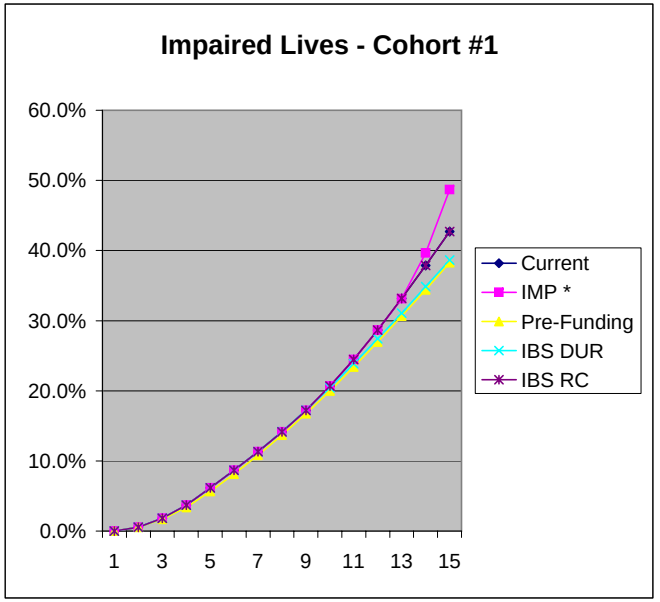
	Total Enrollment									
Year	Current	IMP *	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	3,075	3,075	2,716	3,075	3,075	100.0%	100.0%	88.3%	100.0%	100.0%
2	4,957	4,957	4,514	4,957	4,957	100.0%	100.0%	91.1%	100.0%	100.0%
3	6,147	6,147	5,750	6,147	6,147	100.0%	100.0%	93.6%	100.0%	100.0%
4	6,960	6,955	6,626	6,992	6,960	100.0%	99.9%	95.2%	100.5%	100.0%
5	7,588	7,581	7,286	7,616	7,588	100.0%	99.9%	96.0%	100.4%	100.0%
6	8,066	8,062	7,765	8,117	8,066	100.0%	99.9%	96.3%	100.6%	100.0%
7	8,434	8,427	8,093	8,524	8,434	100.0%	99.9%	96.0%	101.1%	100.0%
8	8,761	8,752	8,400	8,855	8,761	100.0%	99.9%	95.9%	101.1%	100.0%
9	8,990	8,984	8,629	9,073	8,990	100.0%	99.9%	96.0%	100.9%	100.0%
10	9,151	9,143	8,776	9,206	9,151	100.0%	99.9%	95.9%	100.6%	100.0%
11	9,313	9,304	8,941	9,272	9,313	100.0%	99.9%	96.0%	99.6%	100.0%
12	9,411	9,405	9,059	9,288	9,411	100.0%	99.9%	96.3%	98.7%	100.0%
13	9,472	9,464	9,120	9,268	9,472	100.0%	99.9%	96.3%	97.8%	100.0%
14	9,560	9,551	9,217	9,219	9,560	100.0%	99.9%	96.4%	96.4%	100.0%
15	9,601	9,596	9,280	9,151	9,601	100.0%	100.0%	96.7%	95.3%	100.0%
16	6,544	6,522	6,582	6,235	6,544	100.0%	99.7%	100.6%	95.3%	100.0%
17	4,718	4,687	4,892	4,502	4,718	100.0%	99.4%	103.7%	95.4%	100.0%
18	3,544	3,519	3,751	3,361	3,544	100.0%	99.3%	105.8%	94.8%	100.0%
19	2,731	2,710	2,933	2,571	2,731	100.0%	99.2%	107.4%	94.2%	100.0%
20	2,143	2,127	2,321	1,996	2,142	100.0%	99.2%	108.3%	93.1%	99.9%
21	1,671	1,659	1,843	1,545	1,667	100.0%	99.3%	110.3%	92.5%	99.8%
22	1,295	1,287	1,468	1,192	1,291	100.0%	99.4%	113.4%	92.1%	99.7%
23	1,002	997	1,173	927	998	100.0%	99.5%	117.1%	92.6%	99.6%
24	773	770	941	716	771	100.0%	99.6%	121.8%	92.6%	99.7%
25	600	598	758	556	599	100.0%	99.8%	126.4%	92.8%	99.8%
26	468	466	613	434	467	100.0%	99.7%	131.1%	92.9%	99.9%
27	367	366	497	342	367	100.0%	99.6%	135.5%	93.1%	100.0%
28	291	290	405	271	291	100.0%	99.7%	139.4%	93.4%	100.0%
29	232	230	331	217	232	100.0%	98.8%	142.8%	93.7%	100.0%
30	187	183	272	176	187	100.0%	97.9%	145.7%	94.1%	100.0%
	146,050	145,815	142,954	143,803	146,033	100.0%	99.8%	97.9%	98.5%	100.0%



* Includes impaired lives in the pool.

Trend Scenario: 1

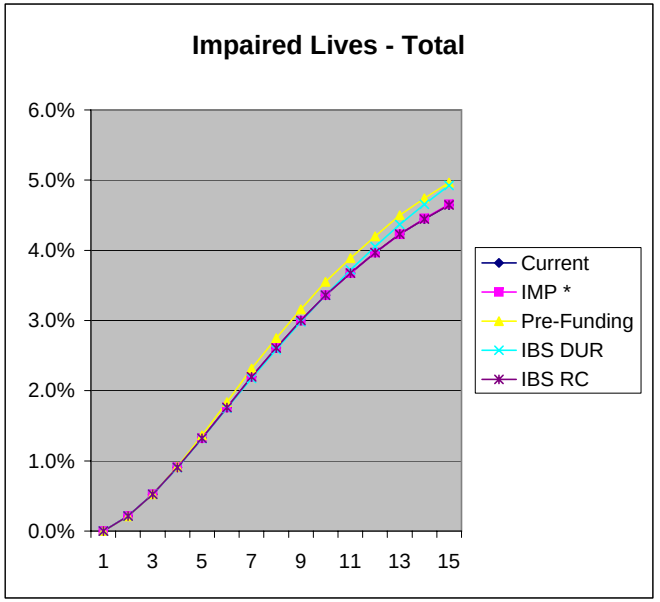
Year	Percentage of Cohort 1 Enrollees who are Impaired									
	Current	IMP *	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2	0.6%	0.6%	0.5%	0.6%	0.6%	100.0%	100.0%	93.9%	100.0%	100.0%
3	1.8%	1.8%	1.7%	1.8%	1.8%	100.0%	100.0%	91.8%	100.0%	100.0%
4	3.7%	3.7%	3.4%	3.7%	3.7%	100.0%	100.1%	90.5%	100.0%	100.0%
5	6.2%	6.2%	5.6%	6.2%	6.2%	100.0%	100.1%	91.5%	100.0%	100.0%
6	8.7%	8.7%	8.1%	8.7%	8.7%	100.0%	100.1%	94.1%	100.1%	100.0%
7	11.3%	11.3%	10.8%	11.3%	11.3%	100.0%	100.0%	95.8%	100.2%	100.0%
8	14.1%	14.1%	13.7%	14.2%	14.1%	100.0%	100.0%	97.0%	100.4%	100.0%
9	17.2%	17.2%	16.8%	17.2%	17.2%	100.0%	100.0%	97.3%	100.0%	100.0%
10	20.7%	20.7%	20.0%	20.5%	20.7%	100.0%	100.0%	96.7%	98.9%	100.0%
11	24.5%	24.5%	23.4%	23.9%	24.5%	100.0%	100.0%	95.7%	97.5%	100.0%
12	28.7%	28.7%	27.0%	27.4%	28.7%	100.0%	100.0%	94.0%	95.6%	100.0%
13	33.2%	33.1%	30.6%	31.1%	33.2%	100.0%	100.0%	92.4%	93.8%	100.0%
14	37.9%	39.7%	34.4%	34.8%	37.9%	100.0%	104.7%	90.9%	92.0%	100.0%
15	42.7%	48.7%	38.3%	38.7%	42.7%	100.0%	114.0%	89.6%	90.5%	100.0%
16	47.7%	59.9%	42.2%	42.5%	47.7%	100.0%	125.8%	88.5%	89.2%	100.0%
17	52.6%	71.4%	46.1%	46.3%	52.6%	100.0%	135.7%	87.7%	88.2%	100.0%
18	57.4%	77.7%	50.0%	50.3%	57.4%	100.0%	135.4%	87.1%	87.7%	100.0%
19	62.0%	80.7%	53.8%	54.3%	62.0%	100.0%	130.2%	86.8%	87.6%	100.0%
20	66.3%	83.5%	57.6%	58.2%	65.8%	100.0%	126.0%	86.8%	87.9%	99.3%
21	70.3%	86.7%	61.2%	62.2%	69.1%	100.0%	123.4%	87.0%	88.5%	98.3%
22	73.9%	91.4%	64.6%	66.1%	72.6%	100.0%	123.6%	87.4%	89.4%	98.2%
23	77.2%	97.1%	67.9%	69.7%	76.1%	100.0%	125.8%	87.9%	90.3%	98.5%
24	80.4%	103.2%	71.0%	73.4%	79.3%	100.0%	128.5%	88.3%	91.3%	98.7%
25	82.9%	109.2%	73.9%	76.7%	82.4%	100.0%	131.7%	89.1%	92.5%	99.4%
26	85.2%	114.6%	76.6%	79.8%	85.0%	100.0%	134.5%	89.9%	93.7%	99.8%
27	87.1%	119.2%	79.0%	82.6%	87.1%	100.0%	136.8%	90.7%	94.8%	99.9%
28	88.8%	123.3%	81.3%	85.0%	88.8%	100.0%	138.8%	91.5%	95.7%	100.0%
29	90.3%	127.2%	83.4%	87.2%	90.3%	100.0%	140.8%	92.3%	96.5%	100.0%
30	91.6%	131.0%	85.3%	89.0%	91.6%	100.0%	143.0%	93.1%	97.2%	100.0%



* Includes impaired lives in the pool.

Trend Scenario: **1**

	Percentage of All Enrollees who are Impaired									
Year	**Current**	**IMP ***	**Pre-Funding**	**IBS DUR**	**IBS RC**	**Current**	**IMP**	**Pre-Funding**	**IBS DUR**	**IBS RC**
1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2	0.2%	0.2%	0.2%	0.2%	0.2%	100.0%	100.0%	98.6%	100.0%	100.0%
3	0.5%	0.5%	0.5%	0.5%	0.5%	100.0%	100.0%	99.6%	100.0%	100.0%
4	0.9%	0.9%	0.9%	0.9%	0.9%	100.0%	100.0%	101.1%	99.6%	100.0%
5	1.3%	1.3%	1.4%	1.3%	1.3%	100.0%	100.0%	103.1%	99.7%	100.0%
6	1.8%	1.8%	1.8%	1.8%	1.8%	100.0%	99.9%	104.4%	99.5%	100.0%
7	2.2%	2.2%	2.3%	2.2%	2.2%	100.0%	100.0%	105.3%	99.1%	100.0%
8	2.6%	2.6%	2.8%	2.6%	2.6%	100.0%	100.0%	105.5%	99.1%	100.0%
9	3.0%	3.0%	3.2%	3.0%	3.0%	100.0%	99.9%	105.4%	99.4%	100.0%
10	3.4%	3.4%	3.6%	3.4%	3.4%	100.0%	100.0%	105.7%	100.0%	100.0%
11	3.7%	3.7%	3.9%	3.7%	3.7%	100.0%	100.0%	105.8%	101.1%	100.0%
12	4.0%	4.0%	4.2%	4.1%	4.0%	100.0%	99.9%	105.9%	102.2%	100.0%
13	4.2%	4.2%	4.5%	4.4%	4.2%	100.0%	100.0%	106.4%	103.3%	100.0%
14	4.4%	4.5%	4.7%	4.7%	4.4%	100.0%	100.2%	106.7%	104.8%	100.0%
15	4.6%	4.7%	5.0%	4.9%	4.6%	100.0%	100.3%	106.9%	106.0%	100.0%
16	7.1%	7.1%	7.3%	7.5%	7.1%	100.0%	100.5%	103.3%	106.0%	100.0%
17	10.0%	10.0%	10.0%	10.5%	10.0%	100.0%	100.5%	100.9%	105.7%	100.0%
18	13.0%	13.0%	13.0%	13.8%	13.0%	100.0%	100.2%	99.8%	106.1%	100.0%
19	16.2%	16.1%	16.1%	17.3%	16.2%	100.0%	99.6%	99.4%	106.6%	100.0%
20	19.4%	19.2%	19.3%	20.8%	19.4%	100.0%	99.1%	99.6%	107.2%	100.1%
21	22.9%	22.5%	22.7%	24.6%	23.0%	100.0%	98.2%	99.0%	107.5%	100.3%
22	26.8%	26.0%	26.2%	28.8%	26.9%	100.0%	97.2%	97.7%	107.4%	100.3%
23	31.0%	29.8%	29.8%	33.1%	31.1%	100.0%	96.1%	96.2%	106.7%	100.4%
24	35.6%	33.7%	33.6%	37.8%	35.7%	100.0%	94.6%	94.4%	106.2%	100.3%
25	40.4%	37.5%	37.4%	42.6%	40.4%	100.0%	92.8%	92.7%	105.6%	100.1%
26	45.3%	41.2%	41.3%	47.6%	45.3%	100.0%	91.0%	91.3%	105.1%	100.0%
27	50.2%	44.6%	45.2%	52.5%	50.2%	100.0%	88.7%	90.1%	104.5%	100.0%
28	55.1%	47.3%	49.1%	57.3%	55.1%	100.0%	85.8%	89.2%	104.0%	100.0%
29	59.8%	49.5%	53.0%	61.9%	59.8%	100.0%	82.7%	88.5%	103.4%	100.0%
30	64.3%	50.8%	56.7%	66.2%	64.3%	100.0%	79.0%	88.2%	102.8%	100.0%



* Includes impaired lives in the pool.

Trend Scenario: 1

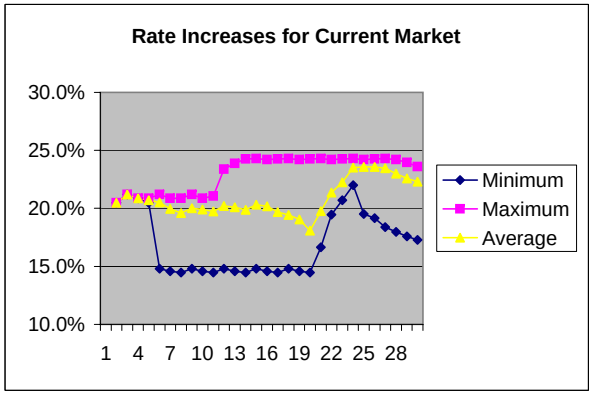
Premiums

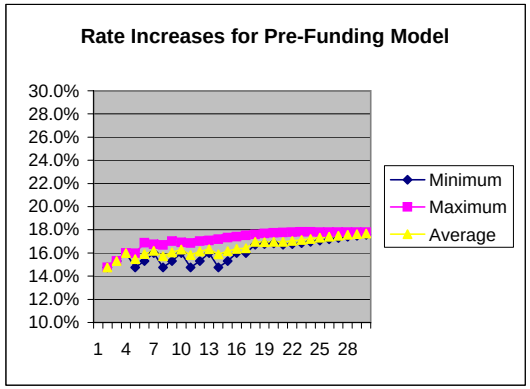
Summary of Rate Increases

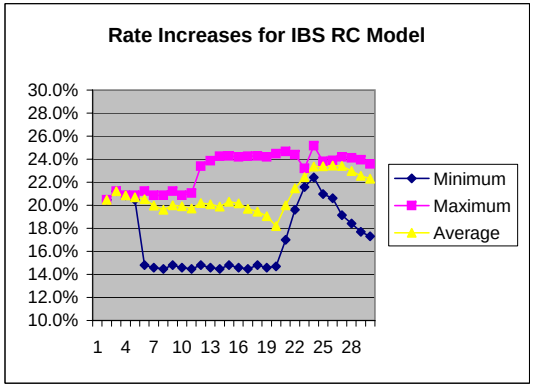
	Current Market			IMP *			Pre-Funding			IBS Durational Pooling			IBS Rate Compression		
Year	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average
1															
2	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	14.7%	14.7%	14.7%	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%
3	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	15.3%	15.3%	15.3%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%
4	20.9%	20.9%	20.9%	21.0%	21.0%	21.0%	16.0%	16.0%	16.0%	20.9%	20.9%	20.9%	20.9%	20.9%	20.9%
5	20.5%	20.9%	20.7%	20.5%	21.1%	20.8%	14.7%	16.0%	15.5%	20.9%	20.9%	20.9%	20.5%	20.9%	20.7%
6	14.8%	21.2%	20.5%	14.7%	21.2%	20.5%	15.3%	16.9%	15.9%	15.1%	20.8%	20.4%	14.8%	21.2%	20.5%
7	14.6%	20.9%	20.0%	14.5%	21.0%	20.1%	16.0%	16.7%	16.2%	15.1%	20.8%	20.0%	14.6%	20.9%	20.0%
8	14.5%	20.9%	19.6%	14.4%	21.1%	19.7%	14.7%	16.7%	15.7%	15.1%	20.8%	19.8%	14.5%	20.9%	19.6%
9	14.8%	21.2%	20.0%	14.7%	21.2%	20.0%	15.3%	17.0%	16.1%	15.7%	21.5%	20.3%	14.8%	21.2%	20.0%
10	14.6%	20.9%	19.9%	14.5%	21.0%	20.0%	16.0%	16.9%	16.3%	16.0%	21.8%	20.5%	14.6%	20.9%	19.9%
11	14.5%	21.0%	19.7%	14.4%	21.1%	19.8%	14.7%	16.9%	15.8%	16.3%	22.1%	20.7%	14.5%	21.0%	19.7%
12	14.8%	23.4%	20.2%	14.7%	23.4%	20.2%	15.3%	17.0%	16.1%	16.4%	22.3%	20.8%	14.8%	23.4%	20.2%
13	14.6%	23.9%	20.1%	14.5%	23.9%	20.2%	16.0%	17.1%	16.3%	16.5%	22.4%	20.8%	14.6%	23.9%	20.1%
14	14.5%	24.3%	19.9%	14.4%	24.3%	19.9%	14.7%	17.2%	15.9%	16.6%	22.4%	20.8%	14.5%	24.3%	19.9%
15	14.8%	24.3%	20.3%	14.7%	24.3%	20.3%	15.3%	17.3%	16.2%	16.6%	22.4%	20.8%	14.8%	24.3%	20.3%
16	14.6%	24.2%	20.2%	14.8%	24.1%	20.5%	16.0%	17.4%	16.4%	16.6%	22.4%	20.7%	14.6%	24.2%	20.2%
17	14.5%	24.3%	19.7%	14.8%	24.6%	20.1%	16.0%	17.5%	16.4%	16.5%	22.3%	19.9%	14.5%	24.3%	19.7%
18	14.8%	24.3%	19.4%	12.9%	24.6%	19.4%	16.7%	17.6%	17.0%	18.1%	24.0%	20.5%	14.8%	24.3%	19.4%
19	14.6%	24.2%	19.0%	10.7%	24.2%	18.8%	16.8%	17.7%	16.9%	18.8%	24.8%	20.1%	14.6%	24.2%	19.0%
20	14.5%	24.3%	18.1%	12.7%	24.6%	17.7%	16.8%	17.7%	17.0%	19.8%	19.8%	19.8%	14.7%	24.5%	18.2%
21	16.6%	24.3%	19.8%	12.6%	24.5%	19.1%	16.7%	17.8%	17.0%	20.9%	20.9%	20.9%	17.0%	24.7%	20.0%
22	19.5%	24.2%	21.4%	10.4%	24.1%	20.2%	16.8%	17.8%	17.0%	22.1%	22.1%	22.1%	19.6%	24.4%	21.5%
23	20.7%	24.3%	22.3%	12.4%	24.4%	21.0%	16.9%	17.8%	17.1%	21.6%	21.6%	21.6%	21.6%	23.2%	22.4%
24	22.0%	24.3%	23.5%	12.5%	24.4%	21.6%	17.0%	17.8%	17.2%	23.6%	23.6%	23.6%	22.4%	25.2%	23.4%
25	19.5%	24.2%	23.6%	10.3%	24.0%	20.8%	17.1%	17.8%	17.3%	23.5%	23.5%	23.5%	21.0%	23.8%	23.4%
26	19.2%	24.3%	23.6%	12.4%	24.3%	20.5%	17.2%	17.8%	17.4%	23.7%	23.7%	23.7%	20.6%	23.9%	23.4%
27	18.4%	24.3%	23.5%	12.4%	24.3%	19.3%	17.3%	17.8%	17.5%	23.4%	23.4%	23.4%	19.1%	24.2%	23.4%
28	18.0%	24.2%	23.0%	10.3%	20.8%	17.1%	17.4%	17.8%	17.6%	23.0%	23.0%	23.0%	18.4%	24.1%	23.0%
29	17.6%	24.0%	22.6%	12.4%	18.5%	16.3%	17.5%	17.8%	17.6%	22.4%	22.4%	22.4%	17.7%	23.9%	22.5%
30	17.3%	23.6%	22.3%	12.4%	16.9%	14.1%	17.6%	17.8%	17.7%	21.9%	21.9%	21.9%	17.3%	23.6%	22.3%

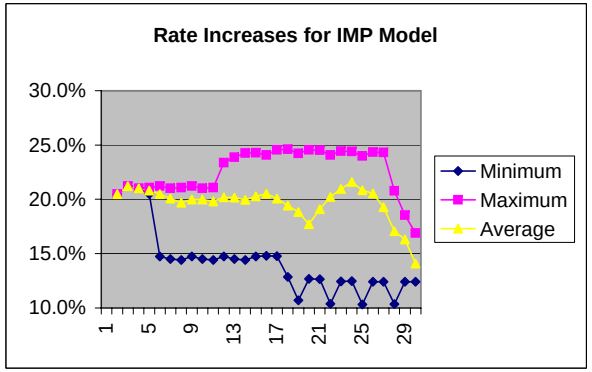
* Includes rate increases on impaired lives in the pool.

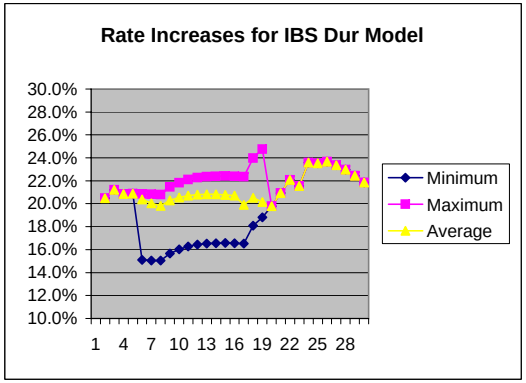
Trend Scenario: 1



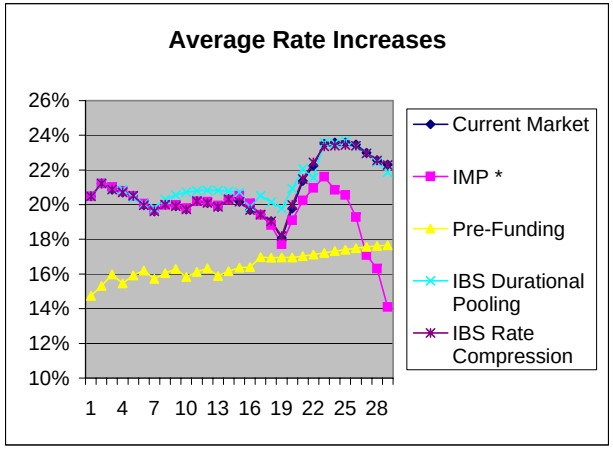


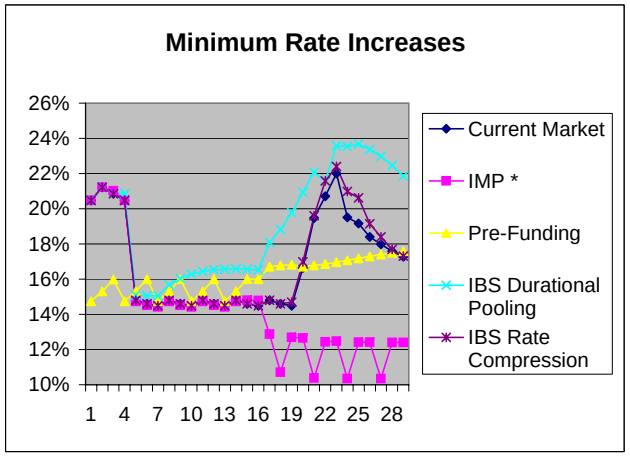


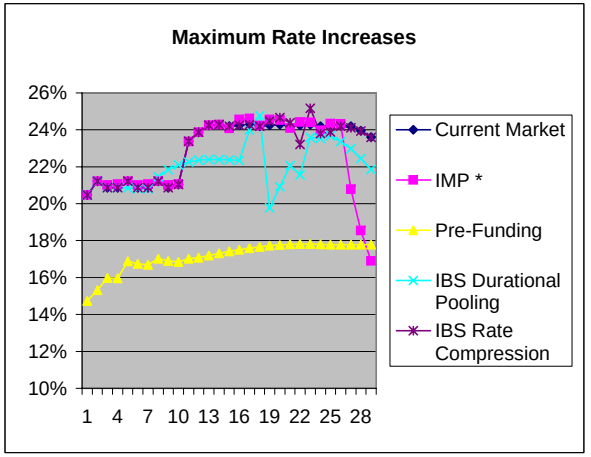




Trend Scenario: 1



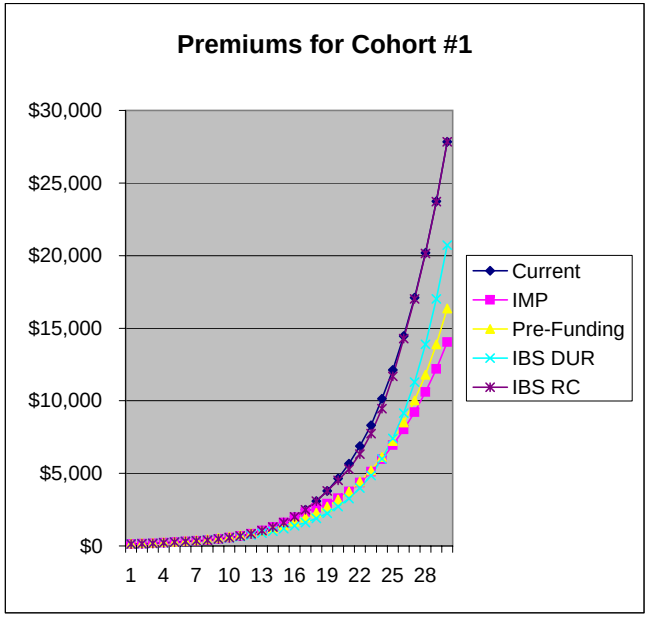




Trend Scenario: 1

Premiums

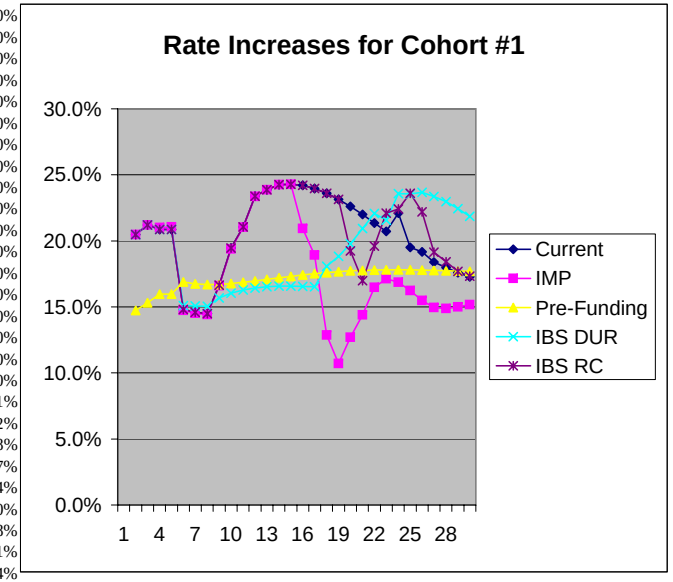
	Premiums for Cohort #1									
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	$127	$127	$167	$127	$127	100.0%	100.0%	131.9%	100.0%	100.0%
2	$152	$152	$192	$152	$152	100.0%	100.0%	125.6%	100.0%	100.0%
3	$185	$185	$221	$185	$185	100.0%	100.0%	119.5%	100.0%	100.0%
4	$223	$224	$256	$223	$223	100.0%	100.1%	114.7%	100.0%	100.0%
5	$270	$271	$297	$270	$270	100.0%	100.3%	110.0%	100.0%	100.0%
6	$310	$311	$347	$311	$310	100.0%	100.2%	112.0%	100.3%	100.0%
7	$355	$356	$405	$357	$355	100.0%	100.2%	114.1%	100.7%	100.0%
8	$407	$407	$473	$411	$407	100.0%	100.1%	116.3%	101.2%	100.0%
9	$474	$475	$552	$476	$474	100.0%	100.1%	116.4%	100.3%	100.0%
10	$567	$567	$644	$552	$567	100.0%	100.0%	113.7%	97.4%	100.0%
11	$686	$686	$753	$642	$686	100.0%	100.0%	109.8%	93.6%	100.0%
12	$846	$846	$881	$747	$846	100.0%	100.0%	104.1%	88.3%	100.0%
13	$1,048	$1,048	$1,031	$871	$1,048	100.0%	100.0%	98.4%	83.1%	100.0%
14	$1,302	$1,302	$1,208	$1,015	$1,302	100.0%	100.0%	92.8%	78.0%	100.0%
15	$1,619	$1,618	$1,417	$1,184	$1,619	100.0%	100.0%	87.6%	73.1%	100.0%
16	$2,010	$1,957	$1,664	$1,380	$2,010	100.0%	97.4%	82.8%	68.6%	100.0%
17	$2,492	$2,328	$1,956	$1,608	$2,492	100.0%	93.4%	78.5%	64.5%	100.0%
18	$3,080	$2,627	$2,300	$1,898	$3,080	100.0%	85.3%	74.7%	61.6%	100.0%
19	$3,793	$2,909	$2,706	$2,256	$3,793	100.0%	76.7%	71.3%	59.5%	100.0%
20	$4,651	$3,278	$3,186	$2,702	$4,523	100.0%	70.5%	68.5%	58.1%	97.3%
21	$5,674	$3,749	$3,752	$3,267	$5,291	100.0%	66.1%	66.1%	57.6%	93.3%
22	$6,886	$4,367	$4,420	$3,988	$6,329	100.0%	63.4%	64.2%	57.9%	91.9%
23	$8,312	$5,115	$5,207	$4,848	$7,727	100.0%	61.5%	62.6%	58.3%	93.0%
24	$10,148	$5,978	$6,134	$5,992	$9,458	100.0%	58.9%	60.4%	59.0%	93.2%
25	$12,128	$6,948	$7,226	$7,402	$11,692	100.0%	57.3%	59.6%	61.0%	96.4%
26	$14,453	$8,025	$8,512	$9,155	$14,288	100.0%	55.5%	58.9%	63.3%	98.9%
27	$17,112	$9,224	$10,024	$11,294	$17,023	100.0%	53.9%	58.6%	66.0%	99.5%
28	$20,189	$10,598	$11,802	$13,889	$20,157	100.0%	52.5%	58.5%	68.8%	99.8%
29	$23,738	$12,188	$13,892	$17,006	$23,722	100.0%	51.3%	58.5%	71.6%	99.9%
30	$27,838	$14,038	$16,348	$20,724	$27,830	100.0%	50.4%	58.7%	74.4%	100.0%



Trend Scenario: 1

Rate Increases for Cohort #1

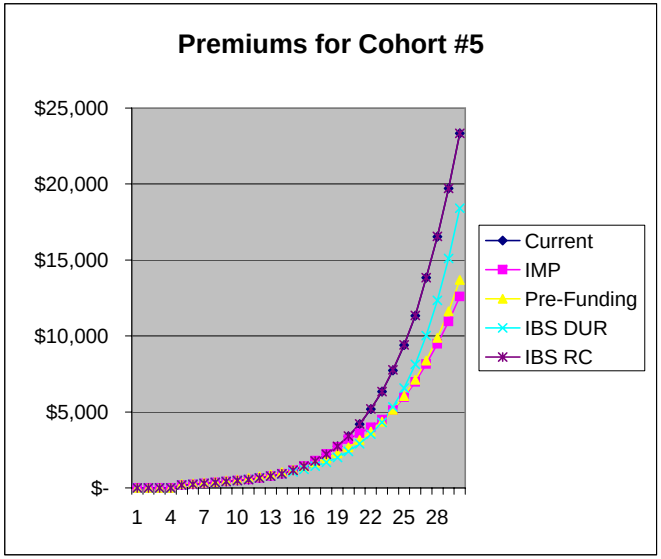
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1										
2	20.5%	20.5%	14.7%	20.5%	20.5%	100.0%	100.0%	72.0%	100.0%	100.0%
3	21.2%	21.2%	15.3%	21.2%	21.2%	100.0%	100.0%	72.2%	100.0%	100.0%
4	20.9%	21.0%	16.0%	20.9%	20.9%	100.0%	100.7%	76.6%	100.0%	100.0%
5	20.9%	21.1%	16.0%	20.9%	20.9%	100.0%	100.9%	76.5%	100.0%	100.0%
6	14.8%	14.7%	16.9%	15.1%	14.8%	100.0%	99.5%	114.1%	102.0%	100.0%
7	14.6%	14.5%	16.7%	15.1%	14.6%	100.0%	99.5%	114.7%	103.2%	100.0%
8	14.5%	14.4%	16.7%	15.1%	14.5%	100.0%	99.6%	115.3%	104.0%	100.0%
9	16.6%	16.6%	16.7%	15.7%	16.6%	100.0%	99.8%	100.3%	94.2%	100.0%
10	19.5%	19.4%	16.8%	16.0%	19.5%	100.0%	99.5%	86.1%	82.4%	100.0%
11	21.0%	21.0%	16.9%	16.3%	21.0%	100.0%	100.0%	80.1%	77.4%	100.0%
12	23.4%	23.4%	17.0%	16.4%	23.4%	100.0%	99.9%	72.6%	70.3%	100.0%
13	23.9%	23.9%	17.1%	16.5%	23.9%	100.0%	100.0%	71.5%	69.2%	100.0%
14	24.3%	24.3%	17.2%	16.6%	24.3%	100.0%	100.0%	70.9%	68.3%	100.0%
15	24.3%	24.3%	17.3%	16.6%	24.3%	100.0%	100.0%	71.3%	68.2%	100.0%
16	24.2%	20.9%	17.4%	16.6%	24.2%	100.0%	86.6%	72.0%	68.4%	100.0%
17	24.0%	18.9%	17.5%	16.5%	24.0%	100.0%	79.0%	73.1%	69.0%	100.0%
18	23.6%	12.9%	17.6%	18.1%	23.6%	100.0%	54.5%	74.5%	76.6%	100.0%
19	23.1%	10.7%	17.7%	18.8%	23.1%	100.0%	46.3%	76.3%	81.3%	100.0%
20	22.6%	12.7%	17.7%	19.8%	19.2%	100.0%	56.1%	78.4%	87.5%	85.1%
21	22.0%	14.4%	17.8%	20.9%	17.0%	100.0%	65.4%	80.8%	95.1%	77.2%
22	21.4%	16.5%	17.8%	22.1%	19.6%	100.0%	77.1%	83.3%	103.3%	91.8%
23	20.7%	17.1%	17.8%	21.6%	22.1%	100.0%	82.7%	86.0%	104.1%	106.7%
24	22.1%	16.9%	17.8%	23.6%	22.4%	100.0%	76.3%	80.6%	106.8%	101.4%
25	19.5%	16.2%	17.8%	23.5%	23.6%	100.0%	83.2%	91.2%	120.7%	121.0%
26	19.2%	15.5%	17.8%	23.7%	22.2%	100.0%	80.8%	92.8%	123.5%	115.8%
27	18.4%	14.9%	17.8%	23.4%	19.1%	100.0%	81.3%	96.6%	127.0%	104.1%
28	18.0%	14.9%	17.7%	23.0%	18.4%	100.0%	82.8%	98.6%	127.8%	102.4%
29	17.6%	15.0%	17.7%	22.4%	17.7%	100.0%	85.4%	100.7%	127.7%	100.6%
30	17.3%	15.2%	17.7%	21.9%	17.3%	100.0%	87.9%	102.4%	126.6%	100.3%



Trend Scenario: 1

Premiums for Cohort #5

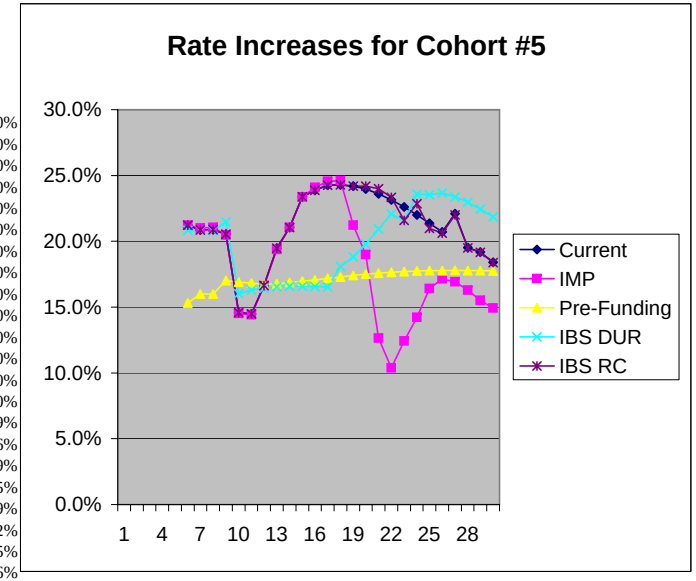
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
2	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
3	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
4	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
5	$ 198	$ 198	$ 261	$ 197	$ 198	100.0%	100.0%	131.9%	99.6%	100.0%
6	$ 240	$ 240	$ 301	$ 238	$ 240	100.0%	100.0%	125.5%	99.3%	100.0%
7	$ 290	$ 290	$ 349	$ 288	$ 290	100.0%	100.1%	120.4%	99.3%	100.0%
8	$ 351	$ 352	$ 405	$ 348	$ 351	100.0%	100.3%	115.6%	99.3%	100.0%
9	$ 423	$ 424	$ 474	$ 423	$ 423	100.0%	100.2%	112.2%	100.0%	100.0%
10	$ 484	$ 485	$ 554	$ 490	$ 484	100.0%	100.2%	114.5%	101.3%	100.0%
11	$ 554	$ 555	$ 648	$ 570	$ 554	100.0%	100.1%	116.8%	102.9%	100.0%
12	$ 647	$ 647	$ 756	$ 664	$ 647	100.0%	100.1%	116.9%	102.7%	100.0%
13	$ 773	$ 773	$ 883	$ 774	$ 773	100.0%	100.0%	114.2%	100.2%	100.0%
14	$ 935	$ 935	$ 1,031	$ 902	$ 935	100.0%	100.0%	110.3%	96.5%	100.0%
15	$ 1,154	$ 1,154	$ 1,206	$ 1,052	$ 1,154	100.0%	100.0%	104.5%	91.1%	100.0%
16	$ 1,429	$ 1,432	$ 1,412	$ 1,226	$ 1,429	100.0%	100.2%	98.8%	85.7%	100.0%
17	$ 1,776	$ 1,783	$ 1,655	$ 1,428	$ 1,776	100.0%	100.4%	93.2%	80.4%	100.0%
18	$ 2,208	$ 2,222	$ 1,942	$ 1,687	$ 2,208	100.0%	100.7%	87.9%	76.4%	100.0%
19	$ 2,742	$ 2,693	$ 2,279	$ 2,004	$ 2,742	100.0%	98.2%	83.1%	73.1%	100.0%
20	$ 3,399	$ 3,205	$ 2,678	$ 2,401	$ 3,405	100.0%	94.3%	78.8%	70.6%	100.2%
21	$ 4,201	$ 3,610	$ 3,149	$ 2,903	$ 4,222	100.0%	85.9%	75.0%	69.1%	100.5%
22	$ 5,173	$ 3,985	$ 3,704	$ 3,544	$ 5,207	100.0%	77.0%	71.6%	68.5%	100.7%
23	$ 6,343	$ 4,481	$ 4,360	$ 4,308	$ 6,331	100.0%	70.6%	68.7%	67.9%	99.8%
24	$ 7,739	$ 5,118	$ 5,134	$ 5,324	$ 7,778	100.0%	66.1%	66.3%	68.8%	100.5%
25	$ 9,391	$ 5,958	$ 6,046	$ 6,577	$ 9,410	100.0%	63.4%	64.4%	70.0%	100.2%
26	$ 11,337	$ 6,979	$ 7,121	$ 8,134	$ 11,350	100.0%	61.6%	62.8%	71.7%	100.1%
27	$ 13,841	$ 8,159	$ 8,388	$ 10,034	$ 13,847	100.0%	59.0%	60.6%	72.5%	100.0%
28	$ 16,541	$ 9,488	$ 9,879	$ 12,340	$ 16,546	100.0%	57.4%	59.7%	74.6%	100.0%
29	$ 19,712	$ 10,959	$ 11,633	$ 15,110	$ 19,715	100.0%	55.6%	59.0%	76.7%	100.0%
30	$ 23,339	$ 12,596	$ 13,697	$ 18,413	$ 23,341	100.0%	54.0%	58.7%	78.9%	100.0%



Trend Scenario: 1

Rate Increases for Cohort #5

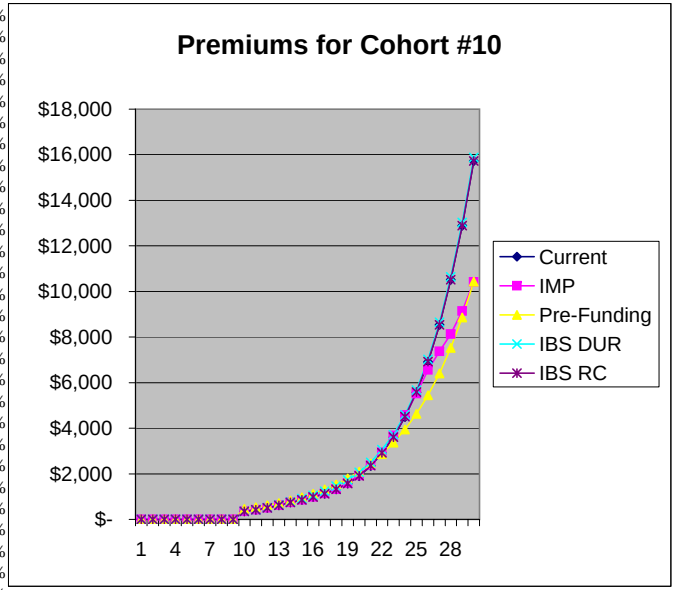
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1										
2										
3										
4										
5										
6	21.2%	21.2%	15.3%	20.8%	21.2%	100.0%	100.0%	72.2%	98.3%	100.0%
7	20.9%	21.0%	16.0%	20.8%	20.9%	100.0%	100.7%	76.7%	99.8%	100.0%
8	20.9%	21.1%	16.0%	20.8%	20.9%	100.0%	100.9%	76.6%	99.7%	100.0%
9	20.5%	20.5%	17.0%	21.5%	20.5%	100.0%	99.7%	82.9%	104.5%	100.0%
10	14.6%	14.5%	16.9%	16.0%	14.6%	100.0%	99.5%	115.8%	109.9%	100.0%
11	14.5%	14.4%	16.8%	16.3%	14.5%	100.0%	99.6%	116.1%	112.5%	100.0%
12	16.6%	16.6%	16.7%	16.4%	16.6%	100.0%	99.8%	100.4%	98.8%	100.0%
13	19.5%	19.4%	16.8%	16.5%	19.5%	100.0%	99.5%	86.2%	84.9%	100.0%
14	21.0%	21.0%	16.9%	16.6%	21.0%	100.0%	100.0%	80.1%	78.7%	100.0%
15	23.4%	23.4%	17.0%	16.6%	23.4%	100.0%	99.9%	72.6%	70.9%	100.0%
16	23.9%	24.1%	17.1%	16.6%	23.9%	100.0%	100.9%	71.5%	69.3%	100.0%
17	24.3%	24.6%	17.2%	16.5%	24.3%	100.0%	101.2%	70.9%	68.1%	100.0%
18	24.3%	24.6%	17.3%	18.1%	24.3%	100.0%	101.3%	71.2%	74.5%	100.0%
19	24.2%	21.2%	17.4%	18.8%	24.2%	100.0%	87.7%	71.9%	77.8%	100.0%
20	24.0%	19.0%	17.5%	19.8%	24.2%	100.0%	79.3%	73.0%	82.6%	100.9%
21	23.6%	12.6%	17.6%	20.9%	24.0%	100.0%	53.6%	74.5%	88.6%	101.6%
22	23.1%	10.4%	17.6%	22.1%	23.3%	100.0%	44.9%	76.2%	95.3%	100.9%
23	22.6%	12.4%	17.7%	21.6%	21.6%	100.0%	55.0%	78.3%	95.4%	95.5%
24	22.0%	14.2%	17.7%	23.6%	22.9%	100.0%	64.6%	80.6%	107.2%	103.9%
25	21.4%	16.4%	17.8%	23.5%	21.0%	100.0%	76.8%	83.2%	110.2%	98.2%
26	20.7%	17.1%	17.8%	23.7%	20.6%	100.0%	82.8%	85.9%	114.3%	99.5%
27	22.1%	16.9%	17.8%	23.4%	22.0%	100.0%	76.6%	80.5%	105.8%	99.6%
28	19.5%	16.3%	17.8%	23.0%	19.5%	100.0%	83.4%	91.1%	117.8%	99.9%
29	19.2%	15.5%	17.8%	22.4%	19.2%	100.0%	80.9%	92.7%	117.1%	99.9%
30	18.4%	14.9%	17.7%	21.9%	18.4%	100.0%	81.2%	96.4%	118.8%	100.0%



Trend Scenario: 1

Premiums for Cohort #10

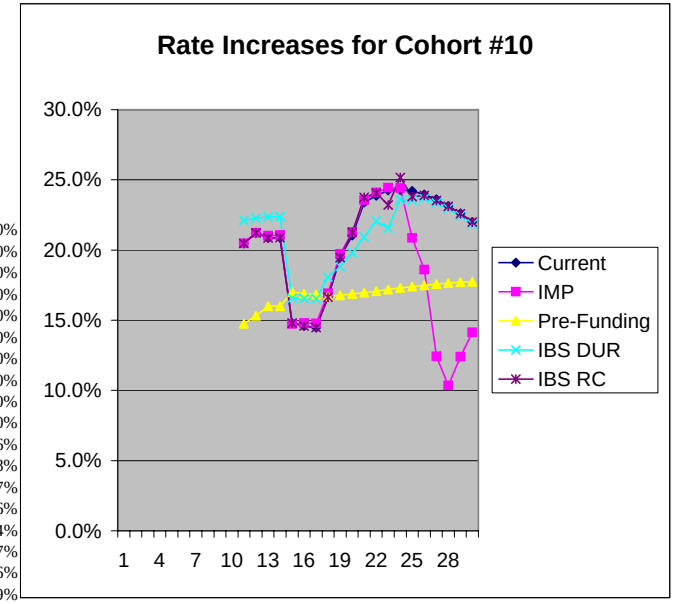
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
2	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
3	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
4	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
5	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
6	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
7	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
8	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
9	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
10	$ 351	$ 351	$ 463	$ 348	$ 351	100.0%	100.0%	131.9%	99.2%	100.0%
11	$ 423	$ 423	$ 531	$ 425	$ 423	100.0%	100.0%	125.6%	100.6%	100.0%
12	$ 512	$ 512	$ 612	$ 520	$ 512	100.0%	100.0%	119.5%	101.4%	100.0%
13	$ 619	$ 620	$ 710	$ 636	$ 619	100.0%	100.1%	114.7%	102.7%	100.0%
14	$ 748	$ 751	$ 824	$ 778	$ 748	100.0%	100.3%	110.1%	104.0%	100.0%
15	$ 859	$ 861	$ 964	$ 907	$ 859	100.0%	100.2%	112.2%	105.6%	100.0%
16	$ 985	$ 989	$ 1,127	$ 1,057	$ 985	100.0%	100.4%	114.5%	107.4%	100.0%
17	$ 1,127	$ 1,135	$ 1,316	$ 1,232	$ 1,127	100.0%	100.7%	116.8%	109.3%	100.0%
18	$ 1,315	$ 1,327	$ 1,536	$ 1,455	$ 1,315	100.0%	100.9%	116.9%	110.7%	100.0%
19	$ 1,571	$ 1,588	$ 1,794	$ 1,729	$ 1,571	100.0%	101.1%	114.2%	110.1%	100.0%
20	$ 1,901	$ 1,926	$ 2,097	$ 2,071	$ 1,905	100.0%	101.3%	110.3%	108.9%	100.2%
21	$ 2,346	$ 2,379	$ 2,452	$ 2,504	$ 2,357	100.0%	101.4%	104.5%	106.8%	100.5%
22	$ 2,906	$ 2,953	$ 2,871	$ 3,057	$ 2,924	100.0%	101.6%	98.8%	105.2%	100.6%
23	$ 3,610	$ 3,674	$ 3,365	$ 3,716	$ 3,603	100.0%	101.8%	93.2%	102.9%	99.8%
24	$ 4,487	$ 4,571	$ 3,947	$ 4,592	$ 4,509	100.0%	101.9%	87.9%	102.3%	100.5%
25	$ 5,573	$ 5,524	$ 4,633	$ 5,673	$ 5,583	100.0%	99.1%	83.1%	101.8%	100.2%
26	$ 6,909	$ 6,551	$ 5,444	$ 7,016	$ 6,916	100.0%	94.8%	78.8%	101.6%	100.1%
27	$ 8,539	$ 7,365	$ 6,401	$ 8,656	$ 8,543	100.0%	86.2%	75.0%	101.4%	100.0%
28	$ 10,516	$ 8,126	$ 7,530	$ 10,644	$ 10,518	100.0%	77.3%	71.6%	101.2%	100.0%
29	$ 12,894	$ 9,134	$ 8,863	$ 13,034	$ 12,894	100.0%	70.8%	68.7%	101.1%	100.0%
30	$ 15,730	$ 10,425	$ 10,436	$ 15,883	$ 15,730	100.0%	66.3%	66.3%	101.0%	100.0%



Trend Scenario: 1

Rate Increases for Cohort #10

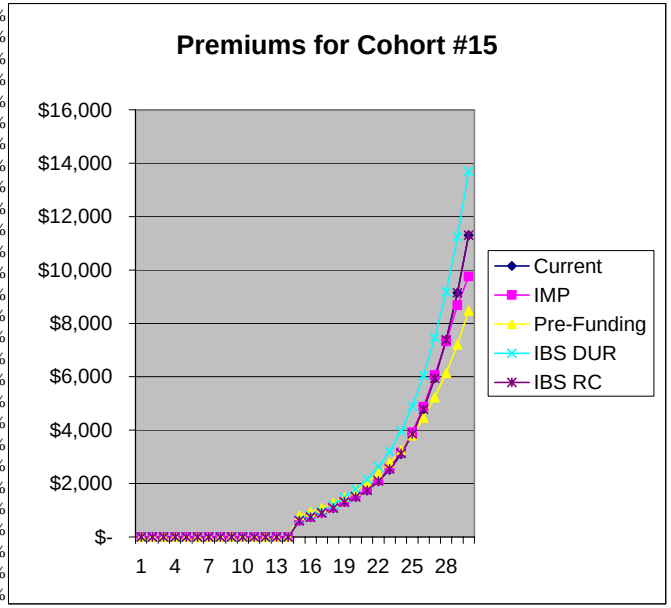
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11	20.5%	20.5%	14.7%	22.1%	20.5%	100.0%	100.0%	72.0%	107.9%	100.0%
12	21.2%	21.2%	15.3%	22.3%	21.2%	100.0%	100.0%	72.2%	105.0%	100.0%
13	20.9%	21.0%	16.0%	22.4%	20.9%	100.0%	100.7%	76.7%	107.2%	100.0%
14	20.9%	21.1%	16.0%	22.4%	20.9%	100.0%	100.9%	76.6%	107.3%	100.0%
15	14.8%	14.7%	17.0%	16.6%	14.8%	100.0%	99.5%	115.0%	112.0%	100.0%
16	14.6%	14.8%	16.9%	16.6%	14.6%	100.0%	101.5%	115.8%	113.5%	100.0%
17	14.5%	14.8%	16.8%	16.5%	14.5%	100.0%	102.0%	116.1%	114.1%	100.0%
18	16.6%	16.9%	16.7%	18.1%	16.6%	100.0%	101.7%	100.4%	108.7%	100.0%
19	19.5%	19.7%	16.8%	18.8%	19.5%	100.0%	101.3%	86.2%	96.7%	100.0%
20	21.0%	21.3%	16.9%	19.8%	21.3%	100.0%	101.0%	80.1%	94.0%	101.0%
21	23.4%	23.5%	17.0%	20.9%	23.8%	100.0%	100.7%	72.6%	89.5%	101.6%
22	23.9%	24.1%	17.1%	22.1%	24.1%	100.0%	100.9%	71.5%	92.5%	100.8%
23	24.3%	24.4%	17.2%	21.6%	23.2%	100.0%	100.7%	70.9%	88.9%	95.7%
24	24.3%	24.4%	17.3%	23.6%	25.2%	100.0%	100.5%	71.2%	97.1%	103.6%
25	24.2%	20.9%	17.4%	23.5%	23.8%	100.0%	86.2%	71.9%	97.3%	98.4%
26	24.0%	18.6%	17.5%	23.7%	23.9%	100.0%	77.6%	73.0%	98.8%	99.7%
27	23.6%	12.4%	17.6%	23.4%	23.5%	100.0%	52.6%	74.5%	99.0%	99.6%
28	23.1%	10.3%	17.6%	23.0%	23.1%	100.0%	44.7%	76.2%	99.3%	99.9%
29	22.6%	12.4%	17.7%	22.4%	22.6%	100.0%	54.9%	78.3%	99.3%	99.9%
30	22.0%	14.1%	17.7%	21.9%	22.0%	100.0%	64.2%	80.6%	99.4%	100.0%



Trend Scenario: 1

Premiums for Cohort #15

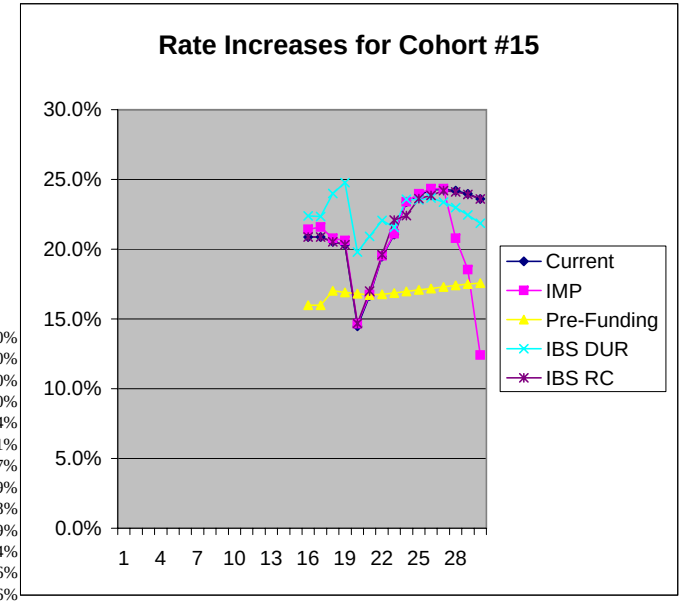
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
2	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
3	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
4	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
5	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
6	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
7	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
8	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
9	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
10	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
11	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
12	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
13	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
14	$ -	$ -	$ -	$ -	$ -	0.0%	0.0%	0.0%	0.0%	0.0%
15	$ 615	$ 615	$ 811	$ 644	$ 615	100.0%	100.0%	131.8%	104.6%	100.0%
16	$ 744	$ 747	$ 940	$ 788	$ 744	100.0%	100.5%	126.5%	105.9%	100.0%
17	$ 899	$ 908	$ 1,091	$ 964	$ 899	100.0%	101.1%	121.4%	107.2%	100.0%
18	$ 1,083	$ 1,097	$ 1,277	$ 1,195	$ 1,083	100.0%	101.2%	117.8%	110.3%	100.0%
19	$ 1,304	$ 1,323	$ 1,492	$ 1,491	$ 1,304	100.0%	101.5%	114.5%	114.4%	100.0%
20	$ 1,492	$ 1,517	$ 1,743	$ 1,786	$ 1,495	100.0%	101.7%	116.8%	119.7%	100.2%
21	$ 1,741	$ 1,771	$ 2,034	$ 2,160	$ 1,749	100.0%	101.8%	116.9%	124.1%	100.5%
22	$ 2,080	$ 2,117	$ 2,376	$ 2,637	$ 2,092	100.0%	101.8%	114.2%	126.8%	100.6%
23	$ 2,518	$ 2,564	$ 2,776	$ 3,205	$ 2,554	100.0%	101.8%	110.3%	127.3%	101.5%
24	$ 3,106	$ 3,164	$ 3,247	$ 3,961	$ 3,126	100.0%	101.9%	104.5%	127.5%	100.7%
25	$ 3,848	$ 3,923	$ 3,802	$ 4,894	$ 3,865	100.0%	101.9%	98.8%	127.2%	100.4%
26	$ 4,781	$ 4,877	$ 4,455	$ 6,052	$ 4,787	100.0%	102.0%	93.2%	126.6%	100.1%
27	$ 5,942	$ 6,064	$ 5,226	$ 7,466	$ 5,945	100.0%	102.0%	87.9%	125.7%	100.1%
28	$ 7,380	$ 7,323	$ 6,135	$ 9,182	$ 7,379	100.0%	99.2%	83.1%	124.4%	100.0%
29	$ 9,148	$ 8,681	$ 7,209	$ 11,243	$ 9,145	100.0%	94.9%	78.8%	122.9%	100.0%
30	$ 11,308	$ 9,758	$ 8,476	$ 13,701	$ 11,302	100.0%	86.3%	75.0%	121.2%	99.9%



Trend Scenario: 1

Rate Increases for Cohort #15

Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16	20.9%	21.4%	16.0%	22.4%	20.9%	100.0%	102.7%	76.7%	107.3%	100.0%
17	20.9%	21.6%	16.0%	22.3%	20.9%	100.0%	103.4%	76.6%	107.1%	100.0%
18	20.5%	20.8%	17.0%	24.0%	20.5%	100.0%	101.2%	82.9%	116.8%	100.0%
19	20.3%	20.6%	16.9%	24.8%	20.3%	100.0%	101.5%	83.1%	121.9%	100.0%
20	14.5%	14.7%	16.8%	19.8%	14.7%	100.0%	101.2%	116.1%	136.6%	101.4%
21	16.6%	16.8%	16.7%	20.9%	17.0%	100.0%	100.7%	100.4%	125.8%	102.1%
22	19.5%	19.5%	16.8%	22.1%	19.6%	100.0%	100.3%	86.2%	113.4%	100.7%
23	21.0%	21.1%	16.9%	21.6%	22.1%	100.0%	100.3%	80.1%	102.4%	104.9%
24	23.4%	23.4%	17.0%	23.6%	22.4%	100.0%	100.1%	72.6%	100.9%	95.8%
25	23.9%	24.0%	17.1%	23.5%	23.6%	100.0%	100.4%	71.5%	98.6%	98.9%
26	24.3%	24.3%	17.2%	23.7%	23.9%	100.0%	100.3%	70.9%	97.6%	98.4%
27	24.3%	24.3%	17.3%	23.4%	24.2%	100.0%	100.2%	71.2%	96.2%	99.6%
28	24.2%	20.8%	17.4%	23.0%	24.1%	100.0%	85.9%	71.9%	95.0%	99.6%
29	24.0%	18.5%	17.5%	22.4%	23.9%	100.0%	77.4%	73.0%	93.7%	99.9%
30	23.6%	12.4%	17.6%	21.9%	23.6%	100.0%	52.6%	74.5%	92.6%	99.9%

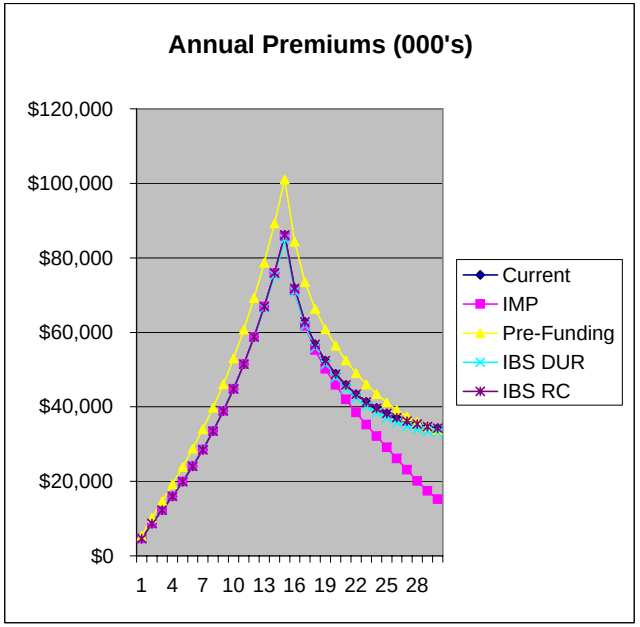


Trend Scenario: 1

Company Financial Results

All Blocks Combined Annual Premiums (in $1,000's)

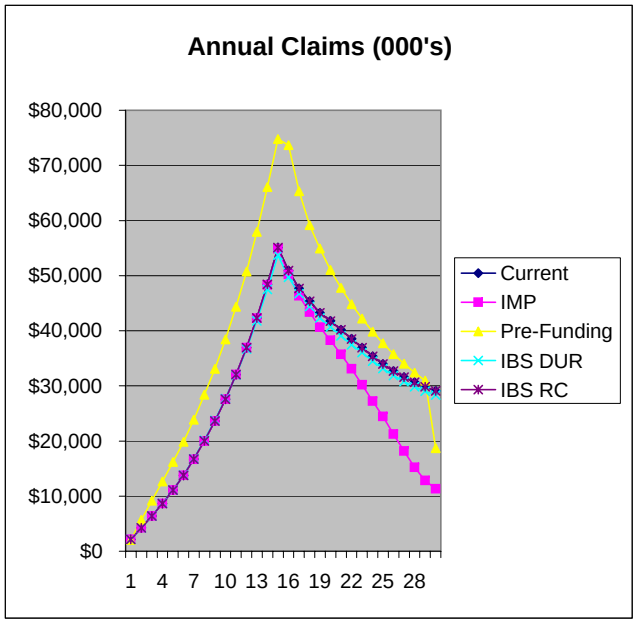
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	$4,670	$4,670	$5,441	$4,670	$4,670	100.0%	100.0%	116.5%	100.0%	100.0%
2	$8,640	$8,640	$10,191	$8,640	$8,640	100.0%	100.0%	117.9%	100.0%	100.0%
3	$12,323	$12,323	$14,685	$12,323	$12,323	100.0%	100.0%	119.2%	100.0%	100.0%
4	$16,007	$16,007	$19,237	$16,028	$16,007	100.0%	100.0%	120.2%	100.1%	100.0%
5	$19,897	$19,898	$23,867	$19,922	$19,897	100.0%	100.0%	120.0%	100.1%	100.0%
6	$24,068	$24,068	$28,777	$24,111	$24,068	100.0%	100.0%	119.6%	100.2%	100.0%
7	$28,558	$28,557	$34,007	$28,651	$28,558	100.0%	100.0%	119.1%	100.3%	100.0%
8	$33,483	$33,482	$39,754	$33,602	$33,483	100.0%	100.0%	118.7%	100.4%	100.0%
9	$38,890	$38,888	$46,081	$39,016	$38,890	100.0%	100.0%	118.5%	100.3%	100.0%
10	$44,828	$44,824	$53,009	$44,948	$44,828	100.0%	100.0%	118.3%	100.3%	100.0%
11	$51,432	$51,429	$60,704	$51,463	$51,432	100.0%	100.0%	118.0%	100.1%	100.0%
12	$58,770	$58,764	$69,255	$58,634	$58,770	100.0%	100.0%	117.8%	99.8%	100.0%
13	$66,888	$66,880	$78,693	$66,541	$66,888	100.0%	100.0%	117.6%	99.5%	100.0%
14	$75,976	$75,858	$89,244	$75,272	$75,976	100.0%	99.8%	117.5%	99.1%	100.0%
15	$86,123	$85,782	$101,031	$84,923	$86,123	100.0%	99.6%	117.3%	98.6%	100.0%
16	$71,844	$71,205	$84,324	$70,825	$71,844	100.0%	99.1%	117.4%	98.6%	100.0%
17	$62,775	$61,714	$73,550	$61,789	$62,775	100.0%	98.3%	117.2%	98.4%	100.0%
18	$56,789	$55,205	$66,287	$55,809	$56,789	100.0%	97.2%	116.7%	98.3%	100.0%
19	$52,396	$50,200	$60,813	$51,376	$52,396	100.0%	95.8%	116.1%	98.1%	100.0%
20	$48,835	$45,852	$56,394	$47,862	$48,825	100.0%	93.9%	115.5%	98.0%	100.0%
21	$45,873	$41,993	$52,495	$44,874	$45,843	100.0%	91.5%	114.4%	97.8%	99.9%
22	$43,419	$38,525	$49,070	$42,355	$43,378	100.0%	88.7%	113.0%	97.6%	99.9%
23	$41,356	$35,213	$46,069	$40,138	$41,310	100.0%	85.1%	111.4%	97.1%	99.9%
24	$39,677	$32,121	$43,447	$38,388	$39,637	100.0%	81.0%	109.5%	96.8%	99.9%
25	$38,251	$29,158	$41,163	$36,925	$38,226	100.0%	76.2%	107.6%	96.5%	99.9%
26	$37,070	$26,117	$39,181	$35,744	$37,066	100.0%	70.5%	105.7%	96.4%	100.0%
27	$36,130	$23,101	$37,469	$34,795	$36,127	100.0%	63.9%	103.7%	96.3%	100.0%
28	$35,349	$20,080	$35,996	$34,056	$35,347	100.0%	56.8%	101.8%	96.3%	100.0%
29	$34,736	$17,419	$34,739	$33,492	$34,734	100.0%	50.1%	100.0%	96.4%	100.0%
30	$34,305	$15,241	$33,672	$33,078	$34,301	100.0%	44.4%	98.2%	96.4%	100.0%
LT PV	$594,496	$560,865	$688,788	$587,905	$594,428					



Trend Scenario: 1

All Blocks Combined Annual Claims (in $1,000's)

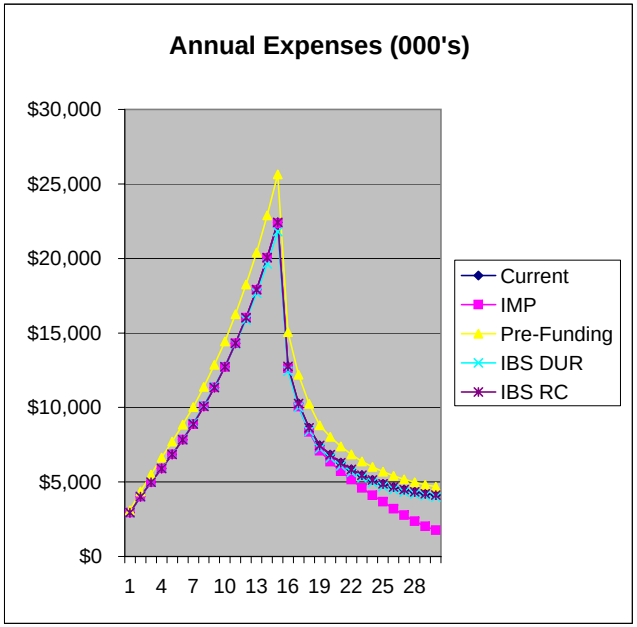
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	$2,125	$2,125	$2,020	$2,125	$2,125	100.0%	100.0%	95.0%	100.0%	100.0%
2	$4,262	$4,262	$5,688	$4,262	$4,262	100.0%	100.0%	133.5%	100.0%	100.0%
3	$6,390	$6,390	$9,174	$6,390	$6,390	100.0%	100.0%	143.6%	100.0%	100.0%
4	$8,660	$8,653	$12,644	$8,686	$8,660	100.0%	99.9%	146.0%	100.3%	100.0%
5	$11,087	$11,074	$16,206	$11,114	$11,087	100.0%	99.9%	146.2%	100.2%	100.0%
6	$13,750	$13,740	$19,875	$13,808	$13,750	100.0%	99.9%	144.5%	100.4%	100.0%
7	$16,695	$16,678	$23,859	$16,806	$16,695	100.0%	99.9%	142.9%	100.7%	100.0%
8	$20,012	$19,987	$28,390	$20,146	$20,012	100.0%	99.9%	141.9%	100.7%	100.0%
9	$23,624	$23,604	$33,117	$23,761	$23,624	100.0%	99.9%	140.2%	100.6%	100.0%
10	$27,589	$27,562	$38,416	$27,693	$27,589	100.0%	99.9%	139.2%	100.4%	100.0%
11	$32,066	$32,028	$44,374	$31,979	$32,066	100.0%	99.9%	138.4%	99.7%	100.0%
12	$36,935	$36,904	$50,736	$36,669	$36,935	100.0%	99.9%	137.4%	99.3%	100.0%
13	$42,315	$42,275	$57,919	$41,813	$42,315	100.0%	99.9%	136.9%	98.8%	100.0%
14	$48,430	$48,302	$66,060	$47,467	$48,430	100.0%	99.7%	136.4%	98.0%	100.0%
15	$55,114	$54,853	$74,791	$53,693	$55,114	100.0%	99.5%	135.7%	97.4%	100.0%
16	$50,908	$50,206	$73,645	$49,712	$50,908	100.0%	98.6%	144.7%	97.7%	100.0%
17	$47,683	$46,346	$65,298	$46,760	$47,683	100.0%	97.2%	136.9%	98.1%	100.0%
18	$45,326	$43,355	$59,166	$44,396	$45,326	100.0%	95.7%	130.5%	97.9%	100.0%
19	$43,238	$40,611	$54,944	$42,305	$43,238	100.0%	93.9%	127.1%	97.8%	100.0%
20	$41,775	$38,247	$51,028	$40,706	$41,768	100.0%	91.6%	122.1%	97.4%	100.0%
21	$40,187	$35,709	$47,782	$39,076	$40,161	100.0%	88.9%	118.9%	97.2%	99.9%
22	$38,536	$33,109	$44,829	$37,429	$38,501	100.0%	85.9%	116.3%	97.1%	99.9%
23	$36,947	$30,186	$42,206	$36,046	$36,908	100.0%	81.7%	114.2%	97.6%	99.9%
24	$35,364	$27,228	$39,845	$34,504	$35,329	100.0%	77.0%	112.7%	97.6%	99.9%
25	$33,958	$24,439	$37,712	$33,129	$33,937	100.0%	72.0%	111.1%	97.6%	99.9%
26	$32,704	$21,253	$35,776	$31,875	$32,689	100.0%	65.0%	109.4%	97.5%	100.0%
27	$31,586	$18,151	$34,012	$30,780	$31,577	100.0%	57.5%	107.7%	97.4%	100.0%
28	$30,638	$15,234	$32,400	$29,831	$30,632	100.0%	49.7%	105.7%	97.4%	100.0%
29	$29,824	$12,829	$30,921	$29,023	$29,819	100.0%	43.0%	103.7%	97.3%	100.0%
30	$29,102	$11,292	$18,679	$28,342	$29,098	100.0%	38.8%	64.2%	97.4%	100.0%
LT PV	$413,639	$378,368	$538,027	$407,548	$413,573					



Trend Scenario: 1

All Blocks Combined Annual Expenses (in $1,000's)

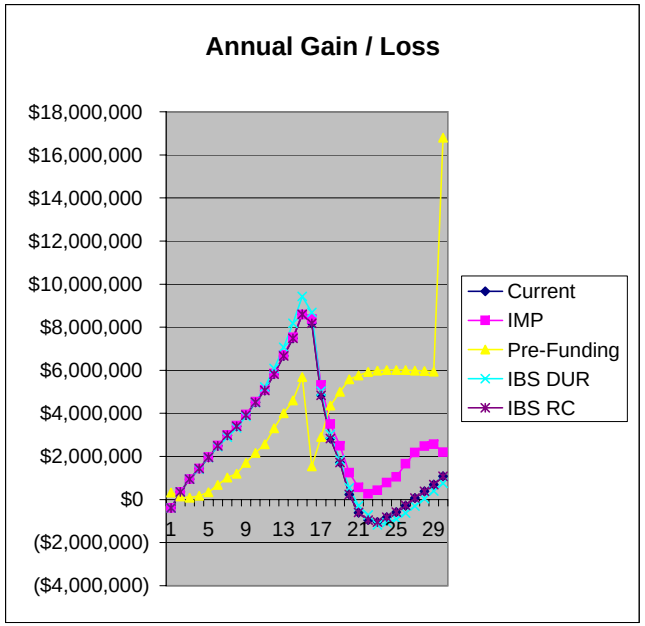
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	$2,933	$2,933	$3,094	$2,933	$2,933	100.0%	100.0%	105.5%	100.0%	100.0%
2	$4,022	$4,022	$4,352	$4,022	$4,022	100.0%	100.0%	108.2%	100.0%	100.0%
3	$4,983	$4,983	$5,504	$4,983	$4,983	100.0%	100.0%	110.5%	100.0%	100.0%
4	$5,913	$5,912	$6,626	$5,935	$5,913	100.0%	100.0%	112.1%	100.4%	100.0%
5	$6,848	$6,845	$7,711	$6,862	$6,848	100.0%	100.0%	112.6%	100.2%	100.0%
6	$7,830	$7,828	$8,842	$7,861	$7,830	100.0%	100.0%	112.9%	100.4%	100.0%
7	$8,882	$8,879	$10,027	$8,946	$8,882	100.0%	100.0%	112.9%	100.7%	100.0%
8	$10,071	$10,067	$11,384	$10,132	$10,071	100.0%	100.0%	113.0%	100.6%	100.0%
9	$11,343	$11,341	$12,854	$11,398	$11,343	100.0%	100.0%	113.3%	100.5%	100.0%
10	$12,728	$12,723	$14,437	$12,765	$12,728	100.0%	100.0%	113.4%	100.3%	100.0%
11	$14,310	$14,303	$16,257	$14,252	$14,310	100.0%	100.0%	113.6%	99.6%	100.0%
12	$16,021	$16,017	$18,247	$15,878	$16,021	100.0%	100.0%	113.9%	99.1%	100.0%
13	$17,901	$17,894	$20,408	$17,664	$17,901	100.0%	100.0%	114.0%	98.7%	100.0%
14	$20,060	$20,031	$22,902	$19,629	$20,060	100.0%	99.9%	114.2%	97.9%	100.0%
15	$22,411	$22,349	$25,643	$21,797	$22,411	100.0%	99.7%	114.4%	97.3%	100.0%
16	$12,751	$12,620	$15,053	$12,427	$12,751	100.0%	99.0%	118.1%	97.5%	100.0%
17	$10,257	$10,049	$12,196	$9,998	$10,257	100.0%	98.0%	118.9%	97.5%	100.0%
18	$8,627	$8,350	$10,248	$8,388	$8,627	100.0%	96.8%	118.8%	97.2%	100.0%
19	$7,446	$7,094	$8,797	$7,231	$7,446	100.0%	95.3%	118.1%	97.1%	100.0%
20	$6,824	$6,367	$8,024	$6,608	$6,822	100.0%	93.3%	117.6%	96.8%	100.0%
21	$6,293	$5,721	$7,380	$6,082	$6,287	100.0%	90.9%	117.3%	96.7%	99.9%
22	$5,840	$5,147	$6,841	$5,638	$5,833	100.0%	88.1%	117.1%	96.5%	99.9%
23	$5,460	$4,606	$6,387	$5,273	$5,452	100.0%	84.4%	117.0%	96.6%	99.8%
24	$5,140	$4,111	$6,005	$4,960	$5,133	100.0%	80.0%	116.8%	96.5%	99.9%
25	$4,874	$3,663	$5,683	$4,703	$4,871	100.0%	75.2%	116.6%	96.5%	99.9%
26	$4,656	$3,207	$5,410	$4,492	$4,655	100.0%	68.9%	116.2%	96.5%	100.0%
27	$4,478	$2,773	$5,180	$4,320	$4,478	100.0%	61.9%	115.7%	96.5%	100.0%
28	$4,333	$2,364	$4,985	$4,182	$4,333	100.0%	54.6%	115.0%	96.5%	100.0%
29	$4,217	$2,017	$4,820	$4,073	$4,216	100.0%	47.8%	114.3%	96.6%	100.0%
30	$4,125	$1,760	$4,681	$3,987	$4,125	100.0%	42.7%	113.5%	96.7%	100.0%
LT PV	$140,225	$135,623	$159,988	$138,597	$140,212					



Trend Scenario: 1

All Blocks Combined Annual Gain (Loss)

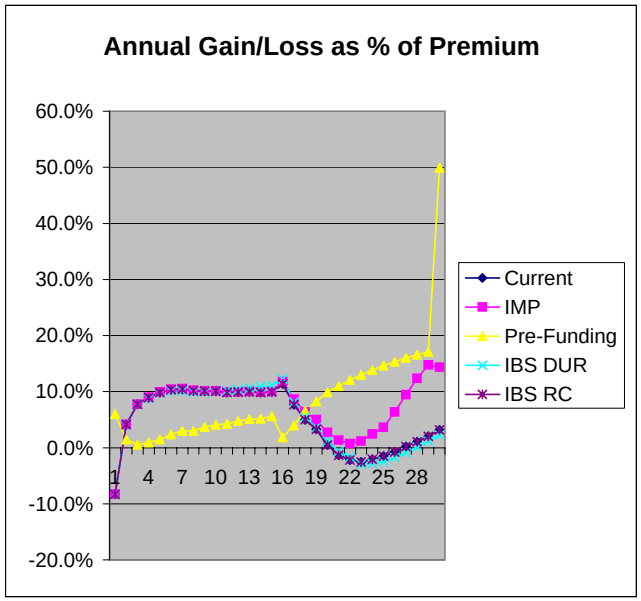
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	($388,531)	($388,531)	$326,891	($388,531)	($388,531)	100.0%	100.0%	-84.1%	100.0%	100.0%
2	$356,070	$356,070	$150,589	$356,070	$356,070	100.0%	100.0%	42.3%	100.0%	100.0%
3	$950,286	$950,286	$81,311	$950,286	$950,286	100.0%	100.0%	8.6%	100.0%	100.0%
4	$1,433,189	$1,441,911	$176,385	$1,407,624	$1,433,189	100.0%	100.6%	12.3%	98.2%	100.0%
5	$1,961,953	$1,978,369	$343,262	$1,945,817	$1,961,953	100.0%	100.8%	17.5%	99.2%	100.0%
6	$2,488,053	$2,499,720	$682,975	$2,442,368	$2,488,053	100.0%	100.5%	27.5%	98.2%	100.0%
7	$2,981,081	$3,000,774	$1,015,103	$2,899,315	$2,981,081	100.0%	100.7%	34.1%	97.3%	100.0%
8	$3,400,213	$3,428,338	$1,194,217	$3,323,064	$3,400,213	100.0%	100.8%	35.1%	97.7%	100.0%
9	$3,922,984	$3,943,225	$1,699,344	$3,857,962	$3,922,984	100.0%	100.5%	43.3%	98.3%	100.0%
10	$4,510,863	$4,539,256	$2,168,604	$4,490,747	$4,510,863	100.0%	100.6%	48.1%	99.6%	100.0%
11	$5,057,226	$5,097,239	$2,567,494	$5,232,199	$5,057,226	100.0%	100.8%	50.8%	103.5%	100.0%
12	$5,813,604	$5,842,225	$3,312,219	$6,087,209	$5,813,604	100.0%	100.5%	57.0%	104.7%	100.0%
13	$6,671,208	$6,711,154	$4,009,886	$7,065,054	$6,671,208	100.0%	100.6%	60.1%	105.9%	100.0%
14	$7,486,828	$7,524,929	$4,603,747	$8,176,048	$7,486,828	100.0%	100.5%	61.5%	109.2%	100.0%
15	$8,597,736	$8,580,507	$5,678,956	$9,432,373	$8,597,736	100.0%	99.8%	66.1%	109.7%	100.0%
16	$8,185,188	$8,379,145	$1,544,226	$8,685,610	$8,185,188	100.0%	102.4%	18.9%	106.1%	100.0%
17	$4,835,162	$5,318,311	$2,906,414	$5,031,341	$4,835,162	100.0%	110.0%	60.1%	104.1%	100.0%
18	$2,836,558	$3,500,019	$4,367,367	$3,026,216	$2,836,558	100.0%	123.4%	154.0%	106.7%	100.0%
19	$1,711,990	$2,494,960	$5,001,547	$1,840,753	$1,711,990	100.0%	145.7%	292.1%	107.5%	100.0%
20	$235,123	$1,238,827	$5,585,578	$548,725	$235,762	100.0%	526.9%	2375.6%	233.4%	100.3%
21	($606,054)	$562,968	$5,765,015	($284,085)	($604,545)	100.0%	-92.9%	-951.2%	46.9%	99.8%
22	($957,722)	$269,096	$5,917,944	($711,959)	($955,778)	100.0%	-28.1%	-617.9%	74.3%	99.8%
23	($1,051,063)	$421,426	$5,983,693	($1,181,208)	($1,048,928)	100.0%	-40.1%	-569.3%	112.4%	99.8%
24	($826,735)	$782,454	$6,012,526	($1,076,359)	($824,952)	100.0%	-94.6%	-727.3%	130.2%	99.8%
25	($581,993)	$1,056,308	$6,016,135	($906,880)	($581,103)	100.0%	-181.5%	-1033.7%	155.8%	99.8%
26	($289,754)	$1,657,182	$6,006,427	($622,414)	($277,870)	100.0%	-571.9%	-2072.9%	214.8%	95.9%
27	$65,494	$2,176,574	$5,989,294	($304,667)	$72,873	100.0%	3323.3%	9144.7%	-465.2%	111.3%
28	$377,393	$2,482,661	$5,968,435	$42,417	$382,834	100.0%	657.8%	1581.5%	11.2%	101.4%
29	$695,707	$2,572,757	$5,945,086	$396,753	$698,395	100.0%	369.8%	854.5%	57.0%	100.4%
30	$1,077,766	$2,189,270	$16,801,397	$748,398	$1,078,706	100.0%	203.1%	1558.9%	69.4%	100.1%
LT PV	$40,632,500	$46,874,520	$44,708,508	$41,760,091	$40,643,295					



Trend Scenario: 1

All Blocks Combined Annual Gain (Loss) as Percentage of Premium

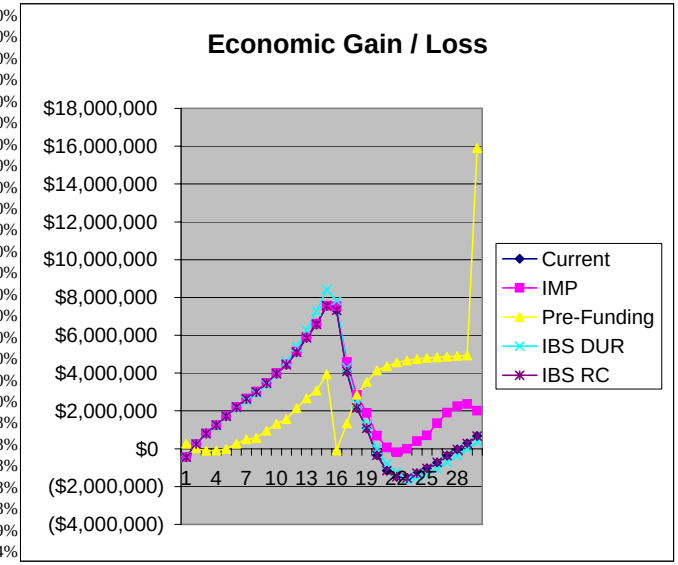
Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	-8.3%	-8.3%	6.0%	-8.3%	-8.3%	100.0%	100.0%	-72.2%	100.0%	100.0%
2	4.1%	4.1%	1.5%	4.1%	4.1%	100.0%	100.0%	35.9%	100.0%	100.0%
3	7.7%	7.7%	0.6%	7.7%	7.7%	100.0%	100.0%	7.2%	100.0%	100.0%
4	9.0%	9.0%	0.9%	8.8%	9.0%	100.0%	100.6%	10.2%	98.1%	100.0%
5	9.9%	9.9%	1.4%	9.8%	9.9%	100.0%	100.8%	14.6%	99.1%	100.0%
6	10.3%	10.4%	2.4%	10.1%	10.3%	100.0%	100.5%	23.0%	98.0%	100.0%
7	10.4%	10.5%	3.0%	10.1%	10.4%	100.0%	100.7%	28.6%	96.9%	100.0%
8	10.2%	10.2%	3.0%	9.9%	10.2%	100.0%	100.8%	29.6%	97.4%	100.0%
9	10.1%	10.1%	3.7%	9.9%	10.1%	100.0%	100.5%	36.6%	98.0%	100.0%
10	10.1%	10.1%	4.1%	10.0%	10.1%	100.0%	100.6%	40.7%	99.3%	100.0%
11	9.8%	9.9%	4.2%	10.2%	9.8%	100.0%	100.8%	43.0%	103.4%	100.0%
12	9.9%	9.9%	4.8%	10.4%	9.9%	100.0%	100.5%	48.3%	104.9%	100.0%
13	10.0%	10.0%	5.1%	10.6%	10.0%	100.0%	100.6%	51.1%	106.5%	100.0%
14	9.9%	9.9%	5.2%	10.9%	9.9%	100.0%	100.7%	52.3%	110.2%	100.0%
15	10.0%	10.0%	5.6%	11.1%	10.0%	100.0%	100.2%	56.3%	111.3%	100.0%
16	11.4%	11.8%	1.8%	12.3%	11.4%	100.0%	103.3%	16.1%	107.6%	100.0%
17	7.7%	8.6%	4.0%	8.1%	7.7%	100.0%	111.9%	51.3%	105.7%	100.0%
18	5.0%	6.3%	6.6%	5.4%	5.0%	100.0%	126.9%	131.9%	108.6%	100.0%
19	3.3%	5.0%	8.2%	3.6%	3.3%	100.0%	152.1%	251.7%	109.7%	100.0%
20	0.5%	2.7%	9.9%	1.1%	0.5%	100.0%	561.2%	2057.2%	238.1%	100.3%
21	-1.3%	1.3%	11.0%	-0.6%	-1.3%	100.0%	-101.5%	-831.2%	47.9%	99.8%
22	-2.2%	0.7%	12.1%	-1.7%	-2.2%	100.0%	-31.7%	-546.7%	76.2%	99.9%
23	-2.5%	1.2%	13.0%	-2.9%	-2.5%	100.0%	-47.1%	-511.1%	115.8%	99.9%
24	-2.1%	2.4%	13.8%	-2.8%	-2.1%	100.0%	-116.9%	-664.2%	134.6%	99.9%
25	-1.5%	3.6%	14.6%	-2.5%	-1.5%	100.0%	-238.1%	-960.6%	161.4%	99.9%
26	-0.8%	6.3%	15.3%	-1.7%	-0.7%	100.0%	-811.8%	-1961.3%	222.8%	95.9%
27	0.2%	9.4%	16.0%	-0.9%	0.2%	100.0%	5197.8%	8818.0%	-483.0%	111.3%
28	1.1%	12.4%	16.6%	0.1%	1.1%	100.0%	1158.0%	1553.0%	11.7%	101.4%
29	2.0%	14.8%	17.1%	1.2%	2.0%	100.0%	737.5%	854.5%	59.1%	100.4%
30	3.1%	14.4%	49.9%	2.3%	3.1%	100.0%	457.2%	1588.2%	72.0%	100.1%
LT PV	6.8%	8.4%	6.5%	7.1%	6.8%					



Trend Scenario: 1

All Blocks Combined Annual Economic Gain (Loss) - Includes Cost of Capital

Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	($444,566)	($444,566)	$261,602	($444,566)	($444,566)	100.0%	100.0%	-58.8%	100.0%	100.0%
2	$252,388	$252,388	$21,491	$252,388	$252,388	100.0%	100.0%	8.5%	100.0%	100.0%
3	$802,412	$802,412	($113,976)	$802,412	$802,412	100.0%	100.0%	-14.2%	100.0%	100.0%
4	$1,241,110	$1,249,830	($90,230)	$1,215,283	$1,241,110	100.0%	100.7%	-7.3%	97.9%	100.0%
5	$1,723,187	$1,739,592	$232	$1,706,752	$1,723,187	100.0%	101.0%	0.0%	99.0%	100.0%
6	$2,199,240	$2,210,907	$256,322	$2,153,036	$2,199,240	100.0%	100.5%	11.7%	97.9%	100.0%
7	$2,638,384	$2,658,085	$496,626	$2,555,504	$2,638,384	100.0%	100.7%	18.8%	96.9%	100.0%
8	$2,998,419	$3,026,549	$572,683	$2,919,840	$2,998,419	100.0%	100.9%	19.1%	97.4%	100.0%
9	$3,456,304	$3,476,569	$963,423	$3,389,764	$3,456,304	100.0%	100.6%	27.9%	98.1%	100.0%
10	$3,972,931	$4,001,370	$1,305,719	$3,951,367	$3,972,931	100.0%	100.7%	32.9%	99.5%	100.0%
11	$4,440,037	$4,480,091	$1,562,721	$4,614,642	$4,440,037	100.0%	100.9%	35.2%	103.9%	100.0%
12	$5,108,370	$5,137,056	$2,149,912	$5,383,598	$5,108,370	100.0%	100.6%	42.1%	105.4%	100.0%
13	$5,868,552	$5,908,594	$2,672,655	$6,266,557	$5,868,552	100.0%	100.7%	45.5%	106.8%	100.0%
14	$6,575,111	$6,614,636	$3,070,856	$7,272,782	$6,575,111	100.0%	100.6%	46.7%	110.6%	100.0%
15	$7,564,266	$7,551,120	$3,928,636	$8,413,295	$7,564,266	100.0%	99.8%	51.9%	111.2%	100.0%
16	$7,323,065	$7,524,681	($90,528)	$7,835,714	$7,323,065	100.0%	102.8%	-1.2%	107.0%	100.0%
17	$4,081,861	$4,577,748	$1,342,511	$4,289,871	$4,081,861	100.0%	112.1%	32.9%	105.1%	100.0%
18	$2,155,084	$2,837,563	$2,851,130	$2,356,502	$2,155,084	100.0%	131.7%	132.3%	109.3%	100.0%
19	$1,083,238	$1,892,556	$3,522,333	$1,224,237	$1,083,238	100.0%	174.7%	325.2%	113.0%	100.0%
20	($350,892)	$688,598	$4,142,331	($25,624)	($350,140)	100.0%	-196.2%	-1180.5%	7.3%	99.8%
21	($1,156,533)	$59,054	$4,360,794	($822,574)	($1,154,661)	100.0%	-5.1%	-377.1%	71.1%	99.8%
22	($1,478,744)	($193,206)	$4,555,635	($1,220,222)	($1,476,319)	100.0%	13.1%	-308.1%	82.5%	99.8%
23	($1,547,333)	($1,132)	$4,665,796	($1,662,866)	($1,544,651)	100.0%	0.1%	-301.5%	107.5%	99.8%
24	($1,302,862)	$397,006	$4,741,351	($1,537,015)	($1,300,600)	100.0%	-30.5%	-363.9%	118.0%	99.8%
25	($1,041,001)	$706,409	$4,793,841	($1,349,978)	($1,039,819)	100.0%	-67.9%	-460.5%	129.7%	99.9%
26	($734,600)	$1,343,779	$4,835,075	($1,051,340)	($722,662)	100.0%	-182.9%	-658.2%	143.1%	98.4%
27	($368,067)	$1,899,368	$4,870,868	($722,212)	($360,654)	100.0%	-516.0%	-1323.4%	196.2%	98.0%
28	($46,794)	$2,241,695	$4,904,870	($366,249)	($41,336)	100.0%	-4790.5%	-10481.7%	782.7%	88.3%
29	$278,874	$2,363,731	$4,938,275	($5,154)	$281,593	100.0%	847.6%	1770.8%	-1.8%	101.0%
30	$666,108	$2,006,376	$15,902,667	$351,462	$667,091	100.0%	301.2%	2387.4%	52.8%	100.1%
LT PV	$33,498,544	$40,144,136	$31,177,343	$34,705,229	$33,510,155					



Trend Scenario: 1

All Blocks Combined Annual Economic Gain (Loss) as Percentage of Premium

Year	Current	IMP	Pre-Funding	IBS DUR	IBS RC	Current	IMP	Pre-Funding	IBS DUR	IBS RC
1	-9.5%	-9.5%	4.8%	-9.5%	-9.5%	100.0%	100.0%	-50.5%	100.0%	100.0%
2	2.9%	2.9%	0.2%	2.9%	2.9%	100.0%	100.0%	7.2%	100.0%	100.0%
3	6.5%	6.5%	-0.8%	6.5%	6.5%	100.0%	100.0%	-11.9%	100.0%	100.0%
4	7.8%	7.8%	-0.5%	7.6%	7.8%	100.0%	100.7%	-6.0%	97.8%	100.0%
5	8.7%	8.7%	0.0%	8.6%	8.7%	100.0%	100.9%	0.0%	98.9%	100.0%
6	9.1%	9.2%	0.9%	8.9%	9.1%	100.0%	100.5%	9.7%	97.7%	100.0%
7	9.2%	9.3%	1.5%	8.9%	9.2%	100.0%	100.7%	15.8%	96.5%	100.0%
8	9.0%	9.0%	1.4%	8.7%	9.0%	100.0%	100.9%	16.1%	97.0%	100.0%
9	8.9%	8.9%	2.1%	8.7%	8.9%	100.0%	100.6%	23.5%	97.8%	100.0%
10	8.9%	8.9%	2.5%	8.8%	8.9%	100.0%	100.7%	27.8%	99.2%	100.0%
11	8.6%	8.7%	2.6%	9.0%	8.6%	100.0%	100.9%	29.8%	103.9%	100.0%
12	8.7%	8.7%	3.1%	9.2%	8.7%	100.0%	100.6%	35.7%	105.6%	100.0%
13	8.8%	8.8%	3.4%	9.4%	8.8%	100.0%	100.7%	38.7%	107.3%	100.0%
14	8.7%	8.7%	3.4%	9.7%	8.7%	100.0%	100.8%	39.8%	111.6%	100.0%
15	8.8%	8.8%	3.9%	9.9%	8.8%	100.0%	100.2%	44.3%	112.8%	100.0%
16	10.2%	10.6%	-0.1%	11.1%	10.2%	100.0%	103.7%	-1.1%	108.5%	100.0%
17	6.5%	7.4%	1.8%	6.9%	6.5%	100.0%	114.1%	28.1%	106.8%	100.0%
18	3.8%	5.1%	4.3%	4.2%	3.8%	100.0%	135.4%	113.3%	111.3%	100.0%
19	2.1%	3.8%	5.8%	2.4%	2.1%	100.0%	182.4%	280.2%	115.3%	100.0%
20	-0.7%	1.5%	7.3%	-0.1%	-0.7%	100.0%	-209.0%	-1022.3%	7.5%	99.8%
21	-2.5%	0.1%	8.3%	-1.8%	-2.5%	100.0%	-5.6%	-329.5%	72.7%	99.9%
22	-3.4%	-0.5%	9.3%	-2.9%	-3.4%	100.0%	14.7%	-272.6%	84.6%	99.9%
23	-3.7%	0.0%	10.1%	-4.1%	-3.7%	100.0%	0.1%	-270.7%	110.7%	99.9%
24	-3.3%	1.2%	10.9%	-4.0%	-3.3%	100.0%	-37.6%	-332.3%	121.9%	99.9%
25	-2.7%	2.4%	11.6%	-3.7%	-2.7%	100.0%	-89.0%	-427.9%	134.3%	99.9%
26	-2.0%	5.1%	12.3%	-2.9%	-1.9%	100.0%	-259.6%	-622.7%	148.4%	98.4%
27	-1.0%	8.2%	13.0%	-2.1%	-1.0%	100.0%	-807.1%	-1276.1%	203.7%	98.0%
28	-0.1%	11.2%	13.6%	-1.1%	-0.1%	100.0%	-8433.1%	-10293.2%	812.4%	88.3%
29	0.8%	13.6%	14.2%	0.0%	0.8%	100.0%	1690.3%	1770.7%	-1.9%	101.0%
30	1.9%	13.2%	47.2%	1.1%	1.9%	100.0%	678.0%	2432.3%	54.7%	100.2%
LT PV	5.6%	7.2%	4.5%	5.9%	5.6%