OPINION, FINDINGS AND

DECISION ON

2006 PRIVATE PASSENGER

AUTOMOBILE INSURANCE RATES

December 15, 2005

Docket Nos. R2005-09
R2005-10
R2005-11

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INTRODUCTION

A. BACKGROUND AND PROCEDURAL HISTORY

This decision fixes and establishes private passenger motor vehicle insurance premiums for policies written during calendar year 2006. Under G. L c. 175, §113B and c. 175E, §5, the Commissioner of Insurance ("Commissioner") shall fix and establish motor vehicle insurance rates if she determines, after investigation and public hearing, that "with respect to any territory or to any kind, subdivision, or class of insurance, competition is either (i) insufficient to assure that rates will not be excessive, or (ii) so conducted as to be destructive of competition or detrimental to the solvency of insurers." The Division of Insurance ("Division") held a public hearing on the issue of competition in Boston on May 16, 2005. On June 16, the Commissioner determined that competition, if implemented in 2006, would be insufficient to assure that rates would not be excessive, and might be so conducted as to be destructive of competition. Therefore, she renewed the fix-and-establish rate setting procedure for the 2006 rates.

The rate setting proceeding is divided into several parts. On June 27, 2005, the Commissioner issued a notice of hearing establishing three separate dockets, as follows: *Underwriting Profits*, Docket No. R2005-09 ("Underwriting Profits") *Cost Containment and Fraudulent Claims*, Docket No. R2005-10 ("Cost Containment"); and *Main Rate*, Docket No. R2005-11 ("Main Rate"). The notice invited interested parties to participate in these proceedings, and scheduled a public comment hearing at the Division for August 22, 2005.

Parties to all these proceedings were the Automobile Insurers Bureau of Massachusetts ("AIB"), represented by Michael B. Meyer, Esq., and Catherine J. Keuthen, Esq.; the State Rating Bureau ("SRB"), represented by Thomas F. McCall, Jr., Esq., Elizabeth Brodeur, Esq., and Matthew Mancini, Esq.; and the Attorney General ("AG"), represented by Peter Leight, Esq., Glenn Kaplan, Esq., Tom O'Brien, Esq., Quentin Palfrey, Esq., Hilary Hershman, Esq., Pamela Meister, Esq., and Monica Brookman, Esq. The Massachusetts Association of Insurance Agents ("MAIA"), represented by James K. Brown, Esq., and Pat A. Cerundolo, Esq., petitioned to intervene in the Main Rate case on behalf of its members.

Underwriting Profits

The AIB submitted its filing on underwriting profits on July 8, 2005. A prehearing conference occurred on July 14. Jean F. Farrington, Esq. and Stephen M. Sumner, Esq. presided over this matter. Cross-examination of the AIB's witnesses took place on August 1 and 2. The AG and the SRB submitted their advisory filings on September 2. Cross-examination of the SRB's witnesses took place on September 21 and of the AG's witness on September 22. No party sought to make a rebuttal filing. Briefs were filed on October 21. On November 1, the SRB filed a letter correcting errata in its brief and responding to a footnote in the AG's brief. On December 2, we requested the AIB to provide documents updating those sections of its filing that it had indicated would be revised when later information became available. We informed the parties that we would enter those documents into the record unless we received objections by December 7. The AIB provided its response on December 2. No party objected to entering these documents into the record.

Cost Containment and Fraudulent Claims Payment

The AIB submitted its filing on cost containment and fraudulent claims payment on July 22, 2005. A prehearing conference occurred on July 29. Jean F. Farrington, Esq. and Amma Kokro, Esq. presided over this proceeding. The AIB's witness was cross-examined on August 10. On August 30 and 31, five witnesses testified on behalf of five insurance companies. The AG made a filing on September 15, and his witness was cross-examined on October 6. The SRB made no filing on Cost Containment. On October 19, the AIB submitted a rebuttal filing. Its witness was cross-examined on October 25. No surrebuttal filings were made, and briefs were submitted on November 7.

Main Rate

The Main Rate proceeding addresses losses; expenses, including those related to agents' commissions; and several miscellaneous issues. Jean F. Farrington, Esq. and Stephen M. Sumner, Esq. presided over this proceeding. The AIB submitted its recommendations for the loss and expense components on August 11. MAIA filed a petition to intervene, together with its filing, on August 24. A prehearing conference was held on August 18. The AIB's witnesses were cross-examined on September 14 and 15.

On September 19, MAIA's petition to intervene was allowed, and its witness was cross-examined. The AG and the SRB submitted their advisory filings on all issues other than agents' commissions on, respectively, September 29 and September 30. Their advisory filings on commissions were submitted on October 6. Cross-examination of the AG's witnesses took place on October 20 and 21, and of the SRB's witness on October 24 and 25. The AIB submitted miscellaneous filings on the SDIP reconciliation and the insolvency assessment on October 26, which were entered into the record on November 9.

The AIB made no rebuttal filing; MAIA asked to file a rebuttal and the AG stated that he wished to submit a rebuttal filing addressing some issues in the SRB's advisory filing. In response to objections to his request by the AIB and the SRB, the AG offered to file a motion and offer of proof. In accordance with orders from the presiding officers, the AG submitted his motion and offer of proof on October 27, and the other parties filed their responses on October 28. On November 2, an order entered allowing the AG's motion in part, requiring him to submit the rebuttal filing by November 4 and ordering the parties to complete cross-examination by November 9. Because of scheduling issues, cross-examination of the AG's witnesses regarding the rebuttal filing took place on November 9 and 10.

MAIA submitted its rebuttal filing on November 1, and its witness was cross-examined on November 7. The AG made a surrebuttal filing on November 14, and its witness was cross-examined on November 17. Briefs on Main Rate issues other than agent commissions were filed on November 23, and briefs on the agents' commissions on November 30.

B. MISCELLANEOUS ISSUES

1. Seat Belt Usage

Chapter 387, §7 of the Acts of 1993 requires the Commissioner, in setting rates, to consider the extent to which Massachusetts residents wear seat belts, as reported in an annual survey of seat belt use conducted by the Governor's Highway Safety Bureau. The statute requires reductions in such premiums if at any time the safety belt use rate in the Commonwealth exceeds the national average. On November 17, the 2005 Summary of Massachusetts State Wide Seat Belt Use was entered into evidence in this proceeding as

Exhibit 66. That survey reflected an increase in seat belt usage, but failed to compare Massachusetts use to other jurisdictions. To satisfy the statutory mandate, however, a comparison must be made between Massachusetts-specific and national data. On November 23, the presiding officers notified the parties that they proposed to take notice, pursuant to 211 CMR 77.07 (13), of national data from the National Highway Traffic Safety Administration of the United State Department of Transportation, published on Friday, September 30, 2005, specifically of the statement that the data show a national safety belt usage rate of 82 percent. We informed the parties that if no one objected, by November 30, to our taking notice of this fact, we would mark this document as Exhibit 70 in the Main Rate docket and enter it into evidence in this proceeding. No objections were received. The data indicate that seatbelt usage in Massachusetts remains below the national average and we conclude, as last year, that the statutory requirements for a specific rate adjustment have not been met. We again note, however, that in accordance with the statutory mandate, the survey results will be considered as a criterion in setting rates on bodily injury coverages, and as additional support for the specific decisions made on those rates. For the same reasons this year, we will make no specific adjustment to the 2006 rates based on seat belt use in Massachusetts.

I. UNDERWRITING PROFITS

A. INTRODUCTION AND BACKGROUND

The underwriting profit component of private passenger automobile rates is intended to address two goals: 1) to compensate investors in the insurance business fairly for risks associated with that investment; and 2) to ensure that the rates charged to policyholders reflect insurers' total income, both premium-related and from investments. Ratemaking must balance those goals equally. Absent an adequate return on capital invested in the Massachusetts private passenger automobile insurance market, insurers will choose to invest their capital in other enterprises, thereby potentially harming consumers by reducing the product choice available to them.

The fixed-and-established rates, historically set annually for policies that will be written during the following calendar year, are expected to cover losses and expenses that

relate to those policies.[1] Because some of those losses and expenses will be incurred or paid in the calendar years following the year in which the policy is issued, insurers hold premium income in reserve accounts from which they pay future expected claim costs; they also hold surplus funds that, by statute, they must keep in order to cover unforeseen liabilities. Insurers invest premiums they receive until such time as those funds are needed to pay claims and expenses, thereby earning investment income on both premiums received and surplus funds.[2] Historically, underwriting profits provision modelling has reflected, among other things, items such as investment and other income, including finance charge income, that may increase insurers' total receipts, and factors such as earned but uncollected premium ("EBUP") that reduce their expected income.

Beginning with hearings on the 1976 rates, and continuing thereafter, underwriting profits provisions have been set by applying mathematical models to financial data relating to the property casualty insurance industry. That year, the Capital Asset Pricing Model ("CAPM"), a method for determining the risk adjusted return which investors require to compensate them for the systematic risk of their investment, was introduced to determine profit needs. The resulting risk adjusted return, together with other mathematical models, is then applied to data reflecting the experience of the property casualty industry, as a whole, to calculate the underwriting profits provision in the rates.[3] The Myers Cohn discounted cash flow model, first proposed for use in the proceedings on rates for 1982, was used continuously, with some modifications, to determine the underwriting profits provision from1990 through 2003.[4] The Commissioner adopted an

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[1] This year, as a result of the passage of c. 213 of the Acts of 2004, the rates that are set for 2006 will remain in effect through the first quarter of 2007.

[2] The length of time an insurer holds reserves and must maintain surplus to cover liabilities varies with the type of coverage provided. As an example, in private passenger automobile insurance, bodily injury claims are resolved more slowly than claims for physical damage. Insurers receive less investment income on reserves for physical damage claims because they hold the funds for a relatively short time. Therefore, underwriting profit provisions are calculated separately for bodily injury, property damage liability, and physical damage coverages; a final recommendation is then developed based on a weighted average of these provisions.

[3] The "whole," for purposes of these proceedings, has no single definition. Estimates of the beta of equity, for example, traditionally rely on countrywide data for publicly traded property and casualty insurance companies; cash flows, however, may look only at the experience of companies offering private passenger automobile insurance in Massachusetts.

[4] The Myers Cohn model is generally considered a net present value model, in which the present value of premiums is equal to the present value of losses, expenses and taxes. The CAPM formula is used to calculate a risk adjustment to the risk-free rate.

internal rate of return ("IRR") model for use in 2004 and in 2005, but declined to commit to its future use.

For 2006, the AIB again recommends use of an IRR model to develop the underwriting profits provision. Its two witnesses, Kim Scott, FCAS, MAAA and Dr. Richard Derrig, testified in support of its proposed model. The SRB also supports continued use of an IRR model, albeit with different inputs than those the AIB proposes. It specifically recommends different physical damage cash flows and other model inputs. The SRB's expert witnesses in this proceeding were David Parcell, a principal in the consulting firm Technical Associates, Inc. ("TAI"), and Caleb Huntington, a mathematician for the SRB. The AG urges adoption of a calendar year accounting model ("CYAM") as an alternative methodology that, he claims, is superior to the IRR; he also recommends changes and alternative inputs to the AIB's IRR model. One witness, Allan I. Schwartz, FCAS, MAAA, testified for the AG.

As summarized by the AIB, the parties' final recommended underwriting profits provisions, calculated using an IRR model, are as follows:[5]

	AIB	SRB	AG
BI	+2.77 percent	-1.57 percent	-4.23 percent
PDL	+2.10 percent	-0.35 percent	-2.06 percent
Phys Dam	+6.54 percent	+0.24 percent	-0.97 percent
Overall	+3.80 percent	-0.69 percent	-2.66 percent

This year, the disputes over the underwriting profits provision again relate to the choice of a model for use in 2006, the structure of an appropriate IRR model, and the particular inputs that should be used in the chosen model.

[5] In addition, the AG calculated underwriting profits provisions using a Calendar Year Accounting Model ("CYAM"). The AIB reports that the AG's underwriting profit recommendations, based on application of that model, would be -5.24 percent for "other liability," -2.4 percent for Personal Injury Protection ("PIP") and -0.5 percent for physical damage, with an overall result of -3.3 percent. The AIB also commented that the SRB's IRR accepts some of the AIB recommendations for finance charge and other income.

B. THE CHOICE OF AN UNDERWRITING PROFITS MODEL

1. The Parties' Recommendations

a. The AIB

The AIB, characterizing its IRR model as the Commissioner's Decision Methodology ("CDM") for 2004 and 2005, recommends its use again to develop the underwriting profits provision in the 2006 rates.[6] The standard for a fair return in a regulated industry, the AIB argues, is set out in two cases, *Federal Power Commission, et al. v. Hope Natural Gas Co*., 320 U.S. 591 (1944), and *Bluefield Waterworks and Improvement Co. v. Public Service Commission of West Virginia, et al*., 262 U.S. 679 (1923). The *Hope Natural Gas* decision, in summary, states that from the investor's point of view: 1) revenue must be sufficient to cover operating expenses and the capital costs of the business; 2) return to the equity owner should be commensurate with returns on investments in other enterprises of comparable risk; and 3) the return should be sufficient to assure confidence in the financial integrity of the enterprise, in order to maintain its credit and attract capital.[7] The Massachusetts standard, the AIB states, is identical to the federal standard.

The AIB argues that the Commissioner has a legal duty to set underwriting profits provisions that reward risk similarly to national results for writers of private passenger automobile insurance. Of the proposals made in this proceeding, the AIB asserts, only its recommendations will achieve an underwriting profits provision that is even close to comparable national experience for automobile insurers or will appropriately reflect the greater risk of the insurance industry as compared to gas and electric utilities.

The AIB, characterizing its recommended IRR model as that which the Commissioner used in 2004 and 2005, draws a distinction between an underwriting profits model and the input values used in its actual application. It defines its model as the series

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[6] The concept of the Commissioner's Decision Methodology arises from the regulatory framework for conducting hearings on private passenger automobile insurance rates. 211 CMR 77.05 (6) allows presiding officers to rely on prior rate decisions as precedent and, in the absence of significant new evidence or other good cause to preclude the parties from relitigating facts or issues, including methodological issues, decided in previous decisions. A party is to identify in its filings aspects of methodologies used in the prior year's decision that it recommends not be used in the then current proceeding and to state with specificity each recommended methodological alternative. The CDM, therefore, refers to the methodology approved in the past year's rate decision.

[7] The earlier *Bluefield Waterworks* case, the AIB argues, also promulgates a standard of fair return for a utility that is based on return to the firm.

of formulas in its filing that determine the calculations shown in the detailed cash flows relating to the various coverages. The AIB characterizes issues such as the appropriate loss flow for the physical damage coverages, and the relationship, for modeling purposes, between premium flow and finance charge income, other income, and earned but uncollected premium ("EBUP"), as input values rather than as structural aspects of its model.

The Commissioner should adopt its IRR model, the AIB argues, because no party has criticized the model's basic structure, algorithms or algebraic formulas and because it was used to derive the underwriting profits provision in the 2004 and 2005. Further, the AIB notes, the SRB endorses the use of an IRR model to set the underwriting profits provision for 2006, and the only such model on the record in this case is that offered by the AIB. It argues, as well, that its IRR model is the only cash flow net present value model in the record, and the only profit model that complies with modern financial theory.

The AIB characterizes accounting models, such as the CYAMs proposed by the AG, as "crude and primitive devices" that have little direct meaning for modern financial pricing theory. It argues that CYAMs, because they focus on accounting quantities, violate the basic principles of modern financial theory, which instead value cash flows and cash items. The AIB asserts that modern financial theory analyzes the net present value of business operations, recognizing the time value of money by discounting expected future cash flows to a common point in time and allowing cash flows to be valued on a consistent and comparable basis. It points out that an internal rate of return model such as that adopted in the decisions on 2004 and 2005 automobile rates, and the Myers-Cohn model, used in the past, are both examples of net present value models. The AIB asserts that a CYAM has not been used to set Massachusetts private passenger automobile insurance rates for at least twenty-five years, and that its adoption now would shift from an *ex ante* prospective model to an *ex post* approach based on random accounting decisions and quantities. Such a reversion, the AIB argues, would generate an increase in regulatory risk.

Specifically addressing the CYAMs offered by the AG, the AIB argues that they generate profit provisions for groups of coverages that differ from the traditional CDM

groupings.[8] That the format of some data available to the AG's witness supports his approach is not, the AIB contends, sufficient reason to change those traditional groupings. Further, the AIB argues, the AG's CYAMs, even if based upon existing models, have not been peer-reviewed and are not in general use elsewhere. The AIB further questions whether the AG's "target cost of capital" CYAM is actually based on the ISO State X model, noting that the former is formulated as a total return model while the latter is an operating return model.[9] The "target operating profits" CYAM, it asserts, even if based on a North Carolina model, can have no application elsewhere because North Carolina, by statute, prohibits the consideration of surplus or return on surplus in profit modeling, a condition that is not present in Massachusetts. The AIB further objects to a CYAM because the Commissioner has been presented with variant CYAM constructs and parameter estimates that could lead to a range of results. It argues that CYAMs have not been shown to be sufficiently reliable and consistent for use in a fix-and-establish environment, and that the choice of CYAM input values is inherently arbitrary.

b. The SRB

The SRB urges the continued use of an IRR model to set the underwriting profits provision. While the SRB does not agree with all aspects of the AIB IRR model, it points out that there is a range of reasonable IRR models, and suggests that the AIB IRR model, with the changes and inputs proposed by the SRB, could reasonably be used to set the underwriting profits provision in 2006 rates. It supports the use of a net present value model and asserts that an IRR, as modified in accordance with its recommendations, would produce a fairer and more accurate provision than the AG's proposed CYAM.

The SRB argues that an IRR model is superior to a CYAM because it takes an economic view of the insurance business, reflects how potential insurers will decide to invest shareholder capital in Massachusetts, and recognizes that a decision to commit capital to a market is an ongoing decision. An IRR model, it asserts, also allows a

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[8] The underwriting profit model has historically calculated separate underwriting profit provisions for bodily injury coverages, including liability, personal injury protection ("PIP"), medical payments and uninsured and underinsured motorist, for property damage liability, and for physical damage, including collision and limited collision, and comprehensive. In contrast, the AG's model generates separate profit provisions for PIP, physical damage, and "other liability," a category that includes bodily injury and property damage liability.

[9] ISO is the Insurance Services Office, an organization that, among other things, develops models for rate filings.

company to treat each project and the associated cash flows independently. The SRB points out that the Massachusetts Supreme Judicial Court, in its decision in *Attorney General v. Commissioner of Insurance*, 442 Mass. 793, 802 (2004) recognized that an IRR is compatible with accessible concepts of corporate finance.

The SRB argues that the financial theory taught to financial decision makers reflects the importance of cash flow patterns. A net present value model, such as an IRR model, that depends on an analysis of forecasted cash flows and the opportunity cost of capital is, it asserts, consistent with the philosophy underlying Massachusetts private passenger automobile ratemaking for thirty years.[10] It contends that, in contrast to a CYAM, IRR models consider investment returns on both policyholder supplied funds and surplus, and capture the flow of shareholder and other funds. By iterative calculations, the net present value of the shareholder cash flow is adjusted to be equal to zero, the point at which the company is indifferent to investing in Massachusetts private passenger automobile insurance or other investments. The SRB argues that, of the choices offered this year, only an IRR model results in a rate for which an insurer is indifferent between expanding and contracting Massachusetts private passenger automobile insurance business. Such indifference, it asserts, ensures that the underwriting profit provision is fair to both insurers and consumers. The SRB argues, in addition, that an IRR model is superior to a CYAM because it is a widely used total return model, rather than an operating return model. Because it is based on a net present value analysis, it is not limited to a review of actual results, but takes a prospective appraoch.

The SRB argues that the AG has not met his burden of demonstrating that a CYAM is superior to an IRR model for setting underwriting profits provisions in 2006. Responding to the AG's arguments regarding the merits of CYAMs, the SRB characterizes their alleged simplicity as a flaw, because they look at the average duration of cash flows, rather than the actual patterns of such flows, and are therefore inconsistent with financial theory. Addressing the AG's assertion that the CYAM is commonly used by companies and regulators, the SRB argues that, even though companies may often use

[10] It notes, as well, that in the *2003 Decision on Workers' Compensation Rates*, the Commissioner noted that an IRR model, like the Myers-Cohn model, satisfies longstanding criteria for an underwriting profits model, in that it examines cash flows and recognizes insurers' investment yields. A net present value model, like Myers-Cohn, is a form of discounted cash flow model.

a CYAM to support rate filings, the rates those companies actually charge may be, for competitive reasons, lower than those they file.

The SRB asserts, as well, that the AG's "target rate of return" CYAM and his "target operating return" CYAM both differ from the criteria for underwriting profits models addressed by the National Association of Insurance Commissioners ("NAIC") in a 1983 report on "*ex post*" and "*ex ante*" profitability models.[11] It argues that the AG's target rate of return CYAM is a hybrid of "*ex post*" and "*ex ante*" models that adopts forward-looking values for investment and total return, while relying on accounting data for other rate components. It is unreasonable, the SRB argues, for a model to incorporate prospective values for some, but not all components. To be consistent, cash flows for premium, losses and expenses should also be viewed on a prospective basis. The SRB asserts that the AG's "target operating return" CYAM is an "*ex post*" model that also differs from the NAIC criteria. It notes that the return offers a consistent perspective, but contends that it does not offer a clear or rational method for determining the target operating return.[12] The SRB argues that the formulation of the AIB's IRR model as a single-policy model that follows cash flows as if issued by a start-up company should be viewed as an advantage, not a reason to reject it. In making an investment decision a prudent insurer will, according to the SRB, consider the marginal value of the next policy to be written, not the past underwriting results by state.

c. The AG

The AG proposes to replace the IRR model used in 2004 and 2005 with a CYAM. He argues that the AIB's IRR model is complex, has never been fully analyzed or objectively tested, or used by any company inside or outside of Massachusetts or by any state regulator in a jurisdiction other than Massachusetts. He asserts that it produced profits in 2004 and 2005 that are about three percent higher than the profits in the 2003 rates and that, in combination with overestimates of losses in 2004 and 2005, resulted in insurer profits that exceed any reasonable target level. The AG notes that the AIB's recommended underwriting profit provision for 2006, +3.8 percent, is nearly five percent

[11] The report, entered into the record of this proceeding as Exhibit 28, defines "*ex post*" methods as those that look back in time to analyze what actually happened and "*ex ante*" methods as those that look forward to some future policy period and forecast what is expected to happen.

[12] The AG's selected target, according to the SRB, appears to be the average operating return of Massachusetts private passenger automobile insurers from 1988-1993.

higher than any profit provision adopted in at least the past 28 years. External, objective benchmarks, he argues, provide unbiased standards for insurance company profits and demonstrate that the AIB's proposal is unreasonable. Because the goal of regulatory ratesetting is to produce profits comparable to those in an unregulated market, the overall average long-term competitive market profit is an appropriate measure. That value, he asserts, is about –four percent, although it has been lower in the past five years. NAIC profitability reports, the AG argues, also provide an unbiased indication of insurer earnings in competitive markets. A third benchmark, according to the AG, is the relationship between quarterly interest rates and underwriting profits, which tends to inverse. Therefore, interest rates that are higher now than in 2005, should produce lower profits provisions for 2006. The AG argues that, under the benchmark standards, his profit recommendation for 2006, -3.5 percent is reasonable.

Use of a CYAM to develop the underwriting profits provision is, the AG argues, consistent with the criteria of simplicity and uniformity in ratemaking across states that were articulated in the *Decision on 2004 Rates*, and further reflects a general criterion that a model should reflect the reality of the insurance transaction. A CYAM is both conceptually and operationally simpler than an IRR model, he argues, and permits a more direct understanding of the relationship between insurers' financial structures and underwriting profits provisions in rates. It requires fewer data inputs and is widely used in competitive markets and in North Carolina, the only other state that currently actively regulates rates.[13] Further, the AG argues, a CYAM properly represents the ongoing nature of the insurance business, accurately represents insurers' financial conditions and is consistent with data generated by an ongoing insurance business. It is, he contends, superior to the AIB IRR model that assumes a single policy, sold on one day, and incorporates cash flows that do not reflect a going concern. In the real world, the AG

[13] The AG, responding to the Commissioner's statement in the *Decision on 2004 Rates* that a CYAM might be a practical model for determining underwriting profits, describes the CYAM as practical, simple and transparent and asserts that its use would be consistent with ratemaking procedures in other states. In addition to its use in North Carolina, he states that California, by regulation, requires insurers to use a CYAM to determine the profit provision in rates. He notes that the Insurance Services Office ("ISO") for many years used a CYAM to determine profit for private passenger automobile insurance. The AG points out that the SRB's survey of rate filings made by ten insurers in four states, Connecticut, New York, New Jersey and Maryland showed that seven of the ten used the CYAM; two used different forms of a DCF model and one an IRR model.

notes, insurers write policies on a continuous basis, generally for many years, carry over surplus and invested assets from year to year, and do not obtain surplus or assets from investors on a per transaction basis, or in each year for each policy. A model, the AG asserts, should reflect insurance reality; the AIB's IRR model, he argues, fails to meet that test. The AG notes, as well, that both the CYAM and the AIB IRR model rely on calendar year data to calculate key inputs. Because such data reflect the continuous nature of the insurance business their use is, according to the AG, appropriate in a CYAM that models the ongoing business of insurance. However, he argues, their use in a single policy multi-period IRR model creates a mismatch that produces anomalous results.

The AG characterizes the AIB's resistance to a CYAM as "puzzling," because nearly all insurers use such a model in their businesses, and the AIB members who write in competitive states almost certainly use it. In response to the AIB's concerns about the reliability of CYAMs in a fix-and-establish environment, the AG argues that his witness offers two alternative CYAMs, one based on an ISO model and one used by regulators in North Carolina, both of which have been more widely used for a longer period of time than the AIB IRR. Addressing the issue of multiple forms of a CYAM, the AG points out that IRR models take different forms, and that the SRB has presented more than one IRR model. The AG's two CYAMS respectively generate underwriting profit provisions of -3.1 and -3.5 percent so, he argues, averaging those values is a reasonable approach. He further notes that the SRB and AIB inputs to the AIB IRR model produce far more disparate results.

Discussion and Analysis

As in the past two years, the parties again dispute the choice of a model to derive the underwriting profits provision. The AIB, in essence, urges retention of an IRR model, but offers one that differs from that adopted for use in the 2004 and 2005 rates, essentially by omitting the adjustments made by the Commissioner and including proposals that she has previously rejected. The AG argues that the AIB IRR model has inherent problems, and urges adoption of a CYAM. The SRB supports the use of an IRR, although it does not agree with all aspects of the AIB's chosen model and inputs and offers recommended alternatives. The Commissioner, in her decisions on 2004 and 2005 rates, accepted use of an IRR model to calculate the underwriting profits provision, but declined to approve it as

a blueprint for future proceedings. She did not find that any one of the models presented in those proceedings was entirely appropriate for developing an underwriting profits provision for industrywide ratemaking and, after reviewing the evidence, adopted a model that incorporated aspects of the proffered IRR models.

This year, we have been presented with the AIB's mathematical formulation of an IRR model and two CYAM options. The AIB argues, in essence, that its formulas constitute the CDM and should therefore be approved, and that the parties do not dispute the model itself, only inputs to that model. We do not find its arguments on the categorization of its proposed model as the CDM persuasive. The distinction that the AIB attempts to draw between the model structure, as expressed mathematically, and inputs to it artificially separates integral aspects of the CDM, particularly cash flows, that may reasonably be viewed as structural. We therefore find it inappropriate to characterize the AIB's particular IRR model as the CDM and, as in the past, consider the disputed issues relating to the IRR without regard to the AIB's characterization.

Because an IRR model has been used for the past two years, the SRB argues that the AG has the burden of demonstrating that a CYAM, as a new methodology, is superior to an IRR model for deriving the underwriting profits provision. It asserts that the AG has not met that burden. Both the AIB and the SRB argue that an IRR is superior to a CYAM because it provides an economic view of the industry that is consistent with the way potential insurers will decide to invest in Massachusetts private passenger automobile insurance. They take the position that an IRR, as a net present value model, is consistent with the underlying philosophy that supports Massachusetts ratemaking, and that implementing an *ex post* approach to ratesetting, in the form of a CYAM, would represent a shift from the *ex ante* perspective that has prevailed in Massachusetts for many years. The SRB also views an IRR, because it is a total return model widely used in business, as superior to a CYAM, which it characterizes as an operating return model. Further, it asserts, unlike a CYAM, the IRR captures the flow of shareholder and other funds.

The AG again takes the position that a CYAM, because it is practical, simple, transparent, and widely used to develop underwriting profits provisions in other states, satisfies criteria articulated in the *Decision on 2004 Rates* as desirable qualities for an

underwriting profits model.[14] He questions the reasons for rejecting the CYAM set out in the *Decision on 2005 Rates*, arguing that none is sufficient to outweigh its simplicity, practicality and widespread use.

The proceeding to set rates for 2004 presented the Commissioner with a choice between two theoretical net present value models, the Myers-Cohn model and an IRR, and a third alternative, a CYAM. The *Decision on 2004 Rates* adopted an IRR model that incorporated aspects of the models offered by the various parties, noting that CYAMs had been offered as reasonability checks on the results of other models but that their merits had not been closely analyzed. In the proceeding to set rates for 2005, the AG proposed that the Commissioner adopt a CYAM rather than an IRR model, focusing on its simplicity and its widespread use in other jurisdictions, either to comply with regulatory requirements or as a matter of company preference. The Commissioner declined to reject a CYAM outright, again leaving open the possibility of its adoption in the future.

As pointed out in the *Decision on 2004 Rates*, while the burden is on the proponent of a new methodology to demonstrate that its proposed methodology is superior to one in place, demonstrating such superiority, when either methodology is capable of producing a reasonable result, may present subtle and elusive issues. The decision also observed that, because the ultimate goal of an underwriting profits provision is to ensure that rates comply with the statutory standards, the choice of an underwriting profits model should not focus solely on its possible effect, upward or downward, on the results previously generated by an underwriting profits provision. A model itself is correctly viewed as a starting point; its actual output is determined not only by the model's structure but also by the inputs to it. We remain persuaded that either a CYAM or an IRR model could, depending on the chosen inputs, produce an underwriting profits provision that satisfies the statutory standard, and that it would be inappropriate categorically to reject either model on the grounds that it is incapable of producing a reasonable result.

In the *Decision on 2004 Rates,* the Commissioner chose to continue the use of a theoretical financial model to develop the underwriting profits provision, but adopted an IRR model that was more widely used in a business context than the Myers Cohn model.

[14] That decision noted that a CYAM may be a practical model for developing an underwriting profits provision that reflects actual, real world financial results and is less theoretical than either an IRR or the Myers Cohn model.

Her selection retained the long-standing net present value approach that incorporates a cash flow analysis and an analysis of the revenue that insurers expect to receive from sources other than policyholder premiums to estimate what is reasonable compensation to investors for committing funds to the Massachusetts private passenger automobile market. The AIB and the SRB this year again urge the Commissioner to retain the theoretical financial framework to set underwriting profits for 2006.

As noted in the *Decision on 2004 Rates*, a CYAM, in contrast to theoretical models, is a model that reflects actual financial experience. The record in this proceeding demonstrates that, in the real world, insurers use both approaches to financial analysis. The SRB testified that, in making decisions to commit capital to an enterprise, businesses rely on IRR models; the AG notes that the CYAM is widely used in rate filings. Given two different approaches, each of which has merit, the task is to decide which is more appropriate for developing an industrywide underwriting profits provision for 2006. In the context of prospective ratemaking, a CYAM, because it looks back at operating results, may be a useful indicator of the extent to which performance matches anticipated results. On the other hand, an IRR model informs insurers of the regulator's conclusions about the financial parameters that are expected to produce a reasonable underwriting profit for the following year. Further, its use is consistent with the long-standing *ex ante* approach embodied in the net present value methodology. A change to a modeling philosophy, whatever the form of its methodological implementation, should not be undertaken lightly. The longstanding history of the *ex ante* approach in Massachusetts presents a significant barrier for a party advocating a change to an *ex post* analysis.

The AG's arguments in favor of adopting a CYAM for 2006 focus on its purported simplicity and wide acceptance, considerations that were discussed in the *Decision on 2004 Rates*. However, that decision also recognized that the selection of a model occurs within the larger context of the complex Massachusetts market for private passenger automobile insurance. For example, the decision specifically acknowledged that adoption of an IRR model would not achieve uniformity with rate regulation in other states, noting testimony that some insurers use IRR models for pricing in other states but that they are not typically used for regulatory purposes in private passenger automobile insurance. The *Decision on 2004 Rates* also noted consensus that Massachusetts consumers would

ultimately benefit from rates set on a competitive basis. In circumstances in which companies file individual rate requests, utilizing a required format that would allow regulators and consumers to compare companies may well be advantageous; it would also be appropriate to consider adoption of a model that is compatible with what companies use in other jurisdictions.[15] We are not persuaded, however, that for 2006 industrywide ratesetting, achieving uniformity with other states should be the deciding factor. Furthermore, we remain unpersuaded that the use of a CYAM to evaluate individual insurance company rate filings, however widespread, is a sound reason for adopting it for use in a fix-and-establish environment. The SRB's witness testified that companies file rates using a CYAM but then vary the rates for competitive reasons. A methodology that relies on CYAM regulatory filings, then, does not appear to provide a reliable basis for determining the underwriting profits provision that will satisfy Massachusetts statutory requirements.

On this record, we conclude that the use of an IRR model is consistent with the goal of understandable ratesetting. Mr. Huntington testified that net present value models are well understood and widely used in the business world. Further, because a profits provision developed from an IRR model provides a reasonable basis for a company to make a meaningful decision on whether to commit capital to the Massachusetts private passenger insurance market, we are persuaded that it will not prove a barrier to entry into the market.[16] Even a CYAM that was based on company historic operating results in Massachusetts might not be helpful to a new company with no operating history. For an insurer that is considering entry into the Massachusetts market, decisionmaking may equally well be based on a net present value analysis of the business opportunity.

A decision to choose a particular model must be made after a careful review of the options.[17] This year, we note that the AG's CYAM model develops profit provisions for

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[15] A competitive environment would also provide greater incentive to consumers to compare financial data on individual companies.

[16] The AIB's recommendation for continued use of an IRR model suggests that the industry is not pressing for a CYAM because it does not understand a theoretical model. As noted in the *Decision on 2004 Rates*, it is likely that the reduction in the number of insurance carriers offering private passenger automobile insurance in Massachusetts results from the convergence of many elements. Nothing in this record would support a conclusion that the choice of an IRR underwriting profits model has discouraged companies from entering the market, or has contributed to any company's decision to withdraw.

[17] We do not reject any model out of hand because it can be formulated in different ways. The evidence in this case indicates that neither CYAMs nor IRR models exist in a single form.

groups of individual coverages that differ from the groupings historically used in Massachusetts. The stated reason for his choice is data availability. Absent agreement among the parties to reconfigure the longstanding approach to the analysis of underwriting profits, we are not persuaded that it is reasonable to adopt a profits model that departs from the historical coverage groupings. We perceive no benefit from making such a change.[18]

We have considered the parties' arguments this year and remain unpersuaded that we should adopt a CYAM for use in setting 2006 rates. On this record, we will, as we did for 2004 and 2005, again adopt an IRR model for developing an underwriting profits provision in the 2006 rates. However, in an environment where the future of private passenger automobile rate regulation is uncertain, we do not consider this decision a commitment to its use in later years. We again encourage the parties to work outside the constraints of an adversarial proceeding to develop a generally acceptable profits model that will simplify the process of developing rate recommendations.[19]

2. The AIB IRR Model for 2006

The AIB IRR model proposed this year is consistent, in large measure, with the approach it has recommended in the past, notwithstanding the rejection of some aspects of that model in prior decisions. The proper modeling of loss flows for the physical damage coverages, an issue which is again disputed this year, is addressed in a later section of this decision. New this year, and a principal difference between this year's AIB IRR model and that which it has proposed in the past, is the treatment of premium cash flows and finance charge and other income. The proposed 2006 model makes two assumptions about premium cash flows and finance charge and other income: first, that all premium is received at time zero, the date of policy inception; and second, that companies do not receive finance charge or other income.

In support of its proposed methodology, the AIB points out that the SRB, during the proceeding to set rates for 2005, proposed to simplify IRR modeling by assuming that

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[18] The *Decision on 2004 Rates* noted that a CYAM had not been subject to careful analysis as a model, because it had been offered in past rate proceedings only as a reasonability check. Although the AG has offered considerably more evidence on CYAMs, it remains apparent that there is no consensus among the parties that either CYAM that he proposes, or any other CYAM variant, is preferable to a net present value model. Further, the parties do not discuss the amount of lead time that might be necessary, if such a change were adopted, to ensure adequate data collection and analysis.

[19] We note that we have made this recommendation for several years.

all premium is paid at policy inception and that provisions for finance charges, earned but uncollected premium, and other revenue be set at zero.[20] The AIB argues that it incorporated the SRB's proposal in its 2006 IRR model. It asserts that, based on AIB calculations, the cost to policyholders of adopting its proposal, on a net present value basis, would be about $1 per policy less than the nominal cost of premium plus finance charge.[21]

The AIB argues that setting finance charges, which compensate insurers for delays in the receipt of premium, is a competitive undertaking subject to the Commissioner's prior approval. It contends that the correct calculation of the net present value of premium flows demonstrates that policyholders who finance premiums are not paying enough under the current regulatory scheme, and those who do not finance are paying too much. Putting actual premium flows back into the rates, the AIB argues, raises both the underwriting profits provision and the rates. Its proposal, it concludes, will produce lower underwriting profits provisions, and therefore lower rates, for policyholders who do not finance premiums and, by simplifying the model, will be a "modest" improvement in the overall methodology. Further, adoption of its proposal would, eventually, eliminate the premium and finance charge survey that is currently sent annually to Massachusetts insurers and the costs attendant to that survey.

a. The AG

The AG argues that the AIB IRR model is fundamentally flawed because it does not represent the business reality of insurance. He alleges that several discrepancies exist between the model and real world insurance transactions, including but not limited to the treatment of premium flow, finance charges, and other income. The AG argues that the model's assumption of a single policy, sold on one day, and its cash flows do not reflect an on-going concern, while in reality insurers write policies continuously and generally for many years.

The AG argues that the treatment of premium and finance charge flows further demonstrates that the AIB IRR model is inconsistent with the reality of the insurance business. He asserts that the AIB's 2006 IRR model inaccurately models premium flow

[20] The proposal was submitted in the SRB's surrebuttal filing.
[21] The AIB characterizes this result as unsurprising, given that the finance charge is expected to pay for delays in premium payments and that earned but uncollected premium is one cost of delayed premium.

and finance charge income because it is inconsistent with reported data on the actual receipt of premiums, finance charge income, and other income. Pointing to Ms. Scott's testimony and to data in the AIB filing, the AG asserts that the average delay in the receipt of premium is three months, and that, in 2006, finance charges and other income are expected to generate for insurers 1.81 percent of premium, or almost $80 million. He argues that a model that is inconsistent with reported data and the insurance business should not be adopted to set underwriting profits. Further, he points out, finance charge and other income revenue have both been included in the underwriting profit calculation since 2001.

The AG argues that the AIB's position that the inclusion of finance charge income and correct data on cash flows in its IRR model increases the underwriting profit provision is inconsistent with regulatory filings on finance charges, and produces an unreasonable result. He asserts that the AIB's position that the time value of the delay in premium payment is greater than the finance charge income is incorrect, noting that a Liberty Mutual Insurance Company filing on finance charges estimates that about 40 percent of the value of each finance charge installment represents foregone investment income; 60 percent of the finance charge payment does not.[22] The AG points out that the Liberty Mutual filing specifically provides that the additional 60 percent of finance charge payments covers administrative expenses associated with the plan. Those expenses, the AG argues, are already reported by companies as part of the expense component that is included in the rates. Allowing companies to collect finance charge income without a corresponding decrease in company expenses would, he asserts, mean that consumers are paying for these expenses twice, once in the rates once as part of their finance charge payments. The AG argues that a reasonable model would treat finance charge income and other income as offsets to underwriting profit, as is done in the Myers Cohn model and the CYAM.

Further, the AG argues, inclusion of finance charge income in an underwriting profits model does not subsidize any policyholders, because the expense of finance charge programs is incorporated into the expense provisions in rates, and is paid by all

[22] The AG also notes that Liberty Mutual calculates that value using a 2004 investment return of six percent, higher than the AIB's proposed 5.41 percent 2006 investment return.

policyholders, regardless of whether they finance the policy. Finance charge income in excess of the expenses of operating the programs is either profit or relates to a delay in premium flow. Therefore, the AG argues, if finance charge income does not offset underwriting profit, policyholders will subsidize insurers by paying the program expenses twice. Any model that increases premiums when insurer's income increases is, he asserts, unreasonable. He concludes that the Commissioner, if she uses the AIB IRR model, must adjust it to reflect the collection of finance charge income.

b. The SRB

The SRB makes no formal recommendation as to the proper treatment of premium flows, finance charges, other income and EBUP in an IRR model. It notes that it ran the IRR model following the AIB's assumptions and again with empirical data on premium flow, finance charges, other income and EBUP and concluded that the choice between them was a matter of philosophy. Mr. Huntington testified that the Commissioner has two options on this matter. She could decide that finance charges should be priced independently and basic premiums determined as if policyholders paid at inception, or that the profit provision should have an equalizing value that looks at actual finance charges and includes them in the calculation. The SRB notes that finance charges are addressed by statute, and could be viewed separately from the ratemaking process. Companies, it asserts, make separate business decisions on whether to offer such programs and the terms by which to offer them, but all such programs must be approved by the Commissioner.

Discussion and Analysis

a. The Single Policy Model

The AG argues, as he did last year, that the AIB IRR model should be rejected because, as a single-policy model, it does not properly reflect the ongoing nature of the insurance business. The *Decision on 2005 Rates* found that argument to be unpersuasive, noting that private passenger automobile insurance ratemaking has, for many years, utilized a single-policy model. It concluded that, because these rates are set for one year only, and the underwriting profit provision applies to individual policies, it is reasonable to use a single policy model to derive that component of the rates. The inputs to the model use historic experience as a basis for determining future expectations; as noted in the *Decision on 2005 Rates,* the asset returns and the method of calculating the cost of

capital and the leverage ratio are all empirical values derived from insurance industry data that recognize that it is an ongoing enterprise. The *Decision on 2005 Rates* also concluded that the use of three different time horizons to estimate the CAPM cost of capital balances the analysis of very short and longer investment horizons, noting testimony from Dr. Derrig that this methodology acknowledges that insurers writing automobile insurance in Massachusetts are going concerns, and that their returns should be commensurate with longer horizons. We note that the parties have continued to use this approach. Further, the use of net physical damage loss flows, as the AG recommends, also recognizes that Massachusetts automobile insurance is an ongoing enterprise.

We have been presented with no new argument this year that persuades us to revise our historical conclusion that a single policy model is appropriate for ratemaking.[23]

b. Premium flow and finance charge income

The AIB this year adopts a proposal made by the SRB last year to assume that premium is received at policy inception and to make no provision for finance charges, EBUP, and other revenue. It simply states that the principal basis for its choice is its more extended review of the SRB's proposal, without any substantive explanation of the underlying reasoning. Last year the AIB questioned the results generated by the SRB's model, noting that the model would work only under the totally unrealistic assumptions that full premium is collected at policy inception and finance income is zero. The AG last year opposed the SRB's proposal, in essence making the same arguments that he articulates this year regarding the AIB's IRR model.

The *Decision on 2005 Rates* observed that the SRB based its proposal on the premise that policy financing is a matter of consumer choice and on the effect of delayed premium receipts on insurers' invested assets and investment income. The SRB viewed finance charges as assessments to compensate for higher servicing expenses and lost investment income. The Decision noted that the proposed model took the position that policy financing should be considered a part of insurers' expenses, a rate component that is addressed in the Main Rate proceedings. The Commissioner concluded that a model that is based on assumptions that depart dramatically from the real world should not be

[23] That the rates set for 2006 will remain in effect for fifteen, rather than twelve, months does not alter our conclusion on this matter.

adopted without an opportunity for extensive review and analysis by all parties to the rate proceedings. Furthermore, she found that because the SRB's proposal linked policy financing to company expenses, it could not be adopted without addressing the interrelationship between finance charge programs and the expense provisions in the Main Rate. Because there had been no opportunity to consider these issues, she declined to adopt the SRB's proposal.

No new arguments or evidence have been presented this year to persuade us to adopt an IRR model that assumes premium payment at policy inception and does not reflect the receipt of finance charge income and other revenue, or allow for EBUP. No party suggests that the model reflects the reality of the insurance transactions. On this record, it is undisputed that insurers receive finance charge and other income in addition to premium, or that the amount of income is estimated to be 1.81 percent of premium in 2006. Further, no party objects to crediting insurers with the amount of earned premium that they realistically expect they will not collect in 2006. The AIB did not propose to adjust the company expense provisions to ensure that all policyholders would not pay for expenses associated with finance charge programs. Although the Commissioner approves finance plans, the record does not indicate that, in connection with that review, the rate effect of the finance plans is considered.[24] We are also not persuaded that elimination of rate provisions for finance charge income, other revenue and EBUP is necessary in order to reduce the industry's reporting costs. Exploring the possibility of combining the finance charge survey with the expense survey appears to be a more reasonable approach.

C. Inputs To The IRR Model

Implementation of an IRR model begins with an estimate of the fair and reasonable rate of return, or cost of capital, to insurers, and establishes a profits provision that will produce that fair return. After estimating the target cost of capital, the model analyzes discounted cash flows to determine what factor is required to achieve that rate of return. The parties take different approaches to estimating the cost of capital, the return on invested assets, and the treatment of salvage and subrogation recoveries in the physical

[24] Although the SRB correctly states that insurers are not required by statute to offer premium finance plans, it did not consider requirements that may be imposed by the residual market on most writers of Massachusetts private passenger automobile insurance.

damage coverage cash flows, as they affect surplus needs for those coverages. These disputed issues will be addressed in turn.

1. The Cost of Capital

a. The AIB

The AIB's final recommended weighted cost of capital is 11.90 percent. That value is built from averaging two separately generated cost of capital estimates, adjusting that average by adding a small size premium, and then weighting the result to reflect the cost of equity and the cost of debt. The averaged cost of capital estimate, 11.30 percent, is derived from the 11.37 result of a Discounted Cash Flow ("DCF") growth model analysis and the 11.23 percent result of applying a Capital Asset Pricing ("CAPM") model to financial data.

The AIB derives its DCF model input from the application of three DCF models, dividend growth, earnings growth, and plowback, as reported in four issues of the Value Line Investment Survey ("Value Line") (the fourth quarter of calendar year 2004 and the first three quarters of 2005).[25] This year, however, it bases its estimate on ten years of historical growth records, rather than the five years utilized in the past. It opts for this time period because historic five-year growth rates appear to be both unstable and biased low because they include the effects of September 11 and the collapse of the high technology sector. By looking at the historic ten-year growth rate data, the effect of these events is somewhat leveled. As further justification for its selection, the AIB points to the rate filing made by the Workers' Compensation Rating and Inspection Bureau in March 2005, which shows a historic five-year earnings growth rate of 1.28 percent.

The AIB's CAPM result is derived from estimates for three time horizons for each of those four quarters. As inputs to the CAPM, it employs a single 0.99 adjusted equity beta as published by Value Line for an industry sample that includes 27 property and casualty insurance companies and three diversified financial services companies. It argues that the use of a single adjusted beta is theoretically correct because it is designed to take into account that betas tend to regress toward a value of 1.00. Citing to academic studies of two types of beta adjustments, it asserts that adjusted betas are more accurate

[25] The AIB used identical values for the second and third quarters of 2005, stating that it would update the third quarter when the data became available.

than unadjusted betas at estimating future betas. The AIB also points to a statement in a publication by the SRB's witness, Mr. Parcell, that it is "necessary" to adjust equity betas. Further, the AIB argues, adjusted betas are more stable than unadjusted or raw betas.

The AIB argues that the product that Value Line sells to investors includes its expertise at creating adjusted betas. Investors, it contends, trust established financial analysts who produce adjusted betas, and would not go to sources like Yahoo! for raw betas. In addition, the AIB argues, adjusted betas do not over-reflect the financial dislocation caused by September 11 and the collapse of high-technology enterprises. Finally, the AIB asserts, an equity beta that weights adjusted and unadjusted betas cannot produce a reasonable estimate of the cost of equity. It argues that the use of an unadjusted beta alone produces such low estimates of the cost of capital that it proves that any use of raw betas is improper.

The AIB's recommended market risk premium ("MRP") value, 8.63 percent, is the average of the historical MRP estimate published in the Ibbotson Associates 2005 Yearbook. It argues that only values in this range can produce a CAPM cost of equity that is commensurate with the AIB's DCF result.

The AIB recommends the use of four consecutive quarters of DCF and CAPM calculations, arguing that using only a single quarter's analysis of a growth rate will exacerbate the problem of instability and low bias. Addressing the general issue of using three-month as opposed a year's worth of data, the AIB recommends that the Commissioner adopt the general rule that twelve months of data be used for all input values related to the cost of capital, as it is for spot yields. It argues that using twelve months of data will protect all parties from unexpected and aberrant values contained in a data point for a single quarter, and will also establish an unbiased rule, if applied regardless of the direction of the movement of the financial markets.

b. The SRB

The SRB develops its weighted cost of capital based on an analysis of Value Line data for the same sample industry group of thirty companies that the AIB uses. However, its cost of capital relies on an analysis of data in a single edition of the Value Line survey, the most recent at the time its analysis was prepared, rather than the AIB's averaging

methodology. The SRB argues, as it did last year, that its witness testified that the older Value Line editions do not add any significant value to the AIB's calculations.

The SRB uses the term Return on Equity ("ROE") to refer to the cost of capital or the cost of equity and, like the AIB, estimates that cost by applying a DCF model and the CAPM to financial data. The SRB urges the Commissioner to adopt a 10.25 percent DCF return on equity, asserting that it falls within a range of reasonableness. Two reasons, it argues, account for the difference between its DCF estimate and that of the AIB. First, the SRB uses a three-month dividend yield component, rather than a spot yield price, and second, it uses five-year historic and projected values for earnings per share, dividends per share, and earnings retention growth, rather than the ten years of historic data that the AIB proposes to use this year.[26] With respect to the dividend yield component, its witness testified that the results of using the two methods were nearly identical. The SRB argues that the five-year historic period is consistent with the approach taken in past years, and that the AIB has not demonstrated that the five-year time period should be changed.

The SRB recommends an 11.36 percent CAPM estimated cost of capital, noting that the results generated by applying that methodology range from 10.97 percent to 11.36, a spread that its witness testified is within a range of reasonableness. The differences between the AIB's estimated CAPM cost of capital of 11.23 percent and the SRB's recommendation are explained, according to the SRB, in part by use of a single edition of the Value Line Investment Survey and in part by the methodology for selecting an MRP value. The SRB proposes a weighting procedure that would weight the period from 1975 to 2004 at 75 percent and the period from 1926 to 2004 by 25 percent. The 1975 to date period, the SRB argues, equate to the last three business cycles and the current cycle to date.

The SRB notes that, as with other CAPM inputs, equity betas are calculated and published by several major investment or financial information sources. However, like the AIB, it proposes to use a single value for the beta of equity, the Value Line adjusted betas. It notes Mr. Parcell's testimony that the adjusted beta is that most commonly used in the CAPM context and that Value Line betas are most commonly and widely cited among regulators. The SRB acknowledges that the use of a single adjusted equity beta

[26] The SRB uses a three-month average of stock prices, while the AIB uses single day prices (spot yields.)

has been rejected in the past, but argues that its position is based on the witness's empirical experience on investors' use of equity betas, and that his choice will generate a reasonable weighted average cost of capital. It asserts that even if Value Line adjusted betas are poor predictors of unadjusted betas, they should not be rejected for that reason, because that is not the purpose of the adjustment. The focus of the choice, the SRB argues, should be on what investors consider when committing their funds. It concludes, therefore, that if investors rely on Value Line, so should rate makers. As an alternative to the use of a single estimate of the equity beta, the SRB offers a table showing the results of averaging Value Line and Standard & Poors estimates of the beta of equity; that input produces a short-term CAPM value of 9.13 for all 30 companies.

c. The AG

The AG, using the CDM, calculates a weighted average cost of capital of 8.43 percent. He argues that this value is similar to the long-term historical return on net worth for property/casualty insurers and to cost of capital values calculated by Ibbotson Associates using several different methods. His witness testified that the AG intended to follow the CDM in developing its cost of capital. The AG points out that the SRB's cost of capital calculations depart from the CDM, but only by using a single Value Line equity beta. The AIB, he argues, not only uses a single value for the equity beta but also uses a ten year historical period in its DCF calculations, adds a small size premium, and alters the method for determining the capital structure of the industry. None of these departures from the CDM, the AG asserts, is justified. He urges the Commissioner to continue to use the CDM to estimate the cost of capital.

With respect to the AIB's DCF calculations, the AG argues that the substitution of a ten-year calculation for a five-year historical analysis is a departure from the CDM. He further questions the reliability of the AIB's calculations, noting that the five-year values calculated by the SRB's witness, Mr. Parcell, average 7.3 percent. The AG asserts that the AIB's sole justification for its choice is that the five year value is too low, and argues that it is biased, result-oriented and unreasonable for the AIB to ignore the CDM when it produces a lower underwriting profits provision and to substitute methods that would produce higher profits.

The AG notes that in the CAPM the risk of the stock market, embodied in the market risk premium, is adjusted to reflect the relative risk of a company or an industry by applying a beta of equity. Equity betas are calculated by several commercial services, including but not limited to Value Line, Yahoo! and Standard & Poors. Although the last six decisions on underwriting profits, beginning in 1994, have averaged betas from different services, this year the AIB and the SRB both recommend use of the Value Line adjusted beta alone. The AG points out that using Value Line data alone produces CAPM cost of capital estimates that are substantially higher than estimates produced by Ibbotson Associates or by application of the CDM.

The AG characterizes the Value Line adjusted beta, 0.99, as an extreme value that is inconsistent with historical or adjusted betas produced by other services, with Value Line's own historical betas and Value Line's adjustment procedures. He points out that the Value Line three-year adjusted beta is .74. An equity beta calculated according to the CDM is, he asserts, higher than virtually all reported betas. The use of a beta value that is significantly higher than values reported by all other services is, he argues, unreasonable.

In addition to the discrepancies in the equity betas produced by different services, the AG argues that a second significant problem with the Value Line estimate is that its adjustment cannot be replicated by any known adjustment formula. The AG observes that the witnesses for the AIB and the SRB made contradictory statements about the purpose and nature of the Value Line adjustment, and that the SRB witness could not explain the inconsistency between the Value Line number and its data. If, as the AIB witness testified, the purpose of the adjustment is to predict future betas, the AG argues, it has been a poor predictor of actual results. In response to the SRB's position that investors rely on Value Line, the AG argues that investors rely on numerous beta sources, and that even those who rely on Value Line are presented with a printed format that includes four different Value Line betas. He notes that the current average of those values produces an equity beta of 0.67. There is no evidence, the AG argues, that investors rely on the 0.99 adjusted value rather than on the others. Concerns about the use of a single data source and the reasons for utilizing data from various sources, he asserts, were set out in earlier decisions.

Discussion and Analysis

a. The Time Frame

We have been presented with no arguments that persuade us to alter the methodologies approved in the *Decision on 2005 Rates* to estimate the cost of capital, including the three-horizon approach, the methodology for determining the risk-free rate, and estimating inputs from more recent data. Therefore we adopt the approach proposed by the SRB in this proceeding. The AIB's arguments for setting a rule regarding the use of twelve months of data are not persuasive, and we decline to adopt its recommendation.

b. The Beta of Equity

The CAPM is one of two approaches to determining the cost of capital that has been used for the past two years to develop underwriting profits provisions in the rates. Two key CAPM inputs, the beta of equity and the MRP are again contested this year. Historically, the beta of equity has been considered an all lines, countrywide value, and has been estimated based on a sample of companies in the Value Line Investment Survey ("Value Line"). The parties do not contest the sample of companies this year.

Beginning with the *Decision on 1999 Rates*, the CDM, rather than rely exclusively on Value Line, developed the equity beta by averaging the results of estimates prepared by at least two financial services.[27] Both the AIB and the SRB prefer to use Value Line alone this year. The AG recommends an equity beta that is the average of the Value Line adjusted betas and the raw betas produced by Standard & Poors, one of the two services whose estimates have in the past been averaged with those of Value Line. The AIB argues that it is improper to use unadjusted equity betas produced by financial services other than Value Line because they produce unreasonable CAPM results that are inconsistent with the DCF estimate and with the cost of equity in the real world. The SRB argues that its approach is to pick the calculations that investors are most likely to use. The AIB's argument that a methodology must be changed simply because it produces a result that the AIB considers unreasonable has been addressed and rejected in past years. That investors rely on Value Line data is not, by itself, a sufficient reason to reject the use

[27] The *Decisions* on 1999, 2001, 2003 and 2004 rates average betas from three sources. For 2005, two sources were averaged.

of unadjusted as well as adjusted betas to estimate an industrywide equity beta. We note the testimony of the SRB's witness that investors rely on other services as well.

The AIB and the SRB, as an alternative to using Value Line betas exclusively, recommend that its values be averaged with those of only one other service that produces unadjusted betas, thus giving equal weight to each. The value of estimating an equity beta from more than one data source is supported by testimony on the differences between the methodologies used by Value Line and other companies to compute raw betas, and the formulas used to adjust them.[28] Further, because industry betas fluctuate depending on investors' perception of the relative riskiness of the industry, the use of estimates from different sources should help offset potential bias in the formulas developed by individual sources. In the *Decision on 2005 Rates*, we found it reasonable to average Value Line's estimate with one of the other services and concluded that it is appropriate to weight Value Line and Standard & Poors estimates equally. We have been provided with no arguments this year that persuade us to alter that conclusion.

In the *Decision on 2005 Rates*, we also noted that the record demonstrated that betas of equity, both adjusted and unadjusted, are estimated using a variety of formulas, and commented that it might be appropriate to consider sources in addition to Value Line, Standard & Poors and Yahoo! to develop an appropriate industry-wide estimate of the beta of equity. That decision reiterated that the parties' recommendations should fairly balance the results of adjusted and unadjusted estimates.

c. The Market Risk Premium

Over time, the approach to estimating the market risk premium for use in the CAPM has changed, from use of a single long-term average from 1926 to the most recent year to balancing an average for a shorter time period from with that long-term average.[29] The premise underlying that choice is that investors tend to place greater reliance on more recent data, but are not unaware of the effects of historical events on the stock market. The AIB again argues this year that the MRP value it recommends is necessary in order to

[28]Mr. Parcell testified that Value Line derives its raw betas from weekly deviations of stocks versus the New York Stock Exchange, while Yahoo! uses monthly deviations of the security versus the Standard & Poors 500. A third company, Merrill Lynch, uses different data from Value Line, and makes adjustments to it using a formula that, according to Mr. Parcell, is similar to that used by Value Line.

[29] Until the *Decision on 2005 Rates*, the balancing was between a time period from 1960 to the most recent year with the long-term average.

produce a CAPM cost of capital that is commensurate with the cost of capital it estimates from its DCF model. That argument was rejected in both the *Decision on 2004 Rates and* the *Decision on 2005 Rates*. This year, the SRB recommends continued use of the approach taken in the *Decision on 2005 Rates* that preserved the balancing principle in the CDM but assigned 75 percent weight to a series beginning in 1975 and continuing to date and 25 percent weight to the entire long Ibbotson series. We have been presented with no argument this year that would support a change from that approach, and will therefore adopt an MRP that gives 75 percent weights to the series from 1975 through 2004 and 25 percent weight to the series from 1926 through 2004.

d. Dividend Growth in the DCF model

The AIB's argument that it is appropriate to utilize a ten-year historical data period to estimate dividend growth is not persuasive. The effects of September 11 are not new, nor are problems in various business sectors.[30] We therefore will make no change to the CDM, as implemented in the *Decision on 2005 Rates*, for estimating growth in dividends per share, earnings per share and earnings retention rate, or "plowback" rate. We agree that it is reasonable, as we have in the past, to use five years of historical and projected data from the same source to develop a DCF cost of capital.

e. Adjustments to the Cost of Capital

i. Calculating the Risk Free Rate

The risk-free return, as customarily calculated from United States Treasury strips, has consistently been adjusted to account for expenses that insurers incur in managing their portfolios. This year, the AIB initially recommended adjusting the risk-free interest rate by 0.37 percent, the average of interest and investment expense incurred by countrywide insurers for the years 2002-2004, as reported in *Best's Aggregates and Averages*. The AIB notes in its filing that the values it shows for 2004 are equal to the reported values for 2003, and will be updated when *Best's Aggregates and Averages* for 2005 is issued. Its supplemental information shows that it has reduced the risk-free rates by 0.35 to reflect countrywide investment and interest expense. The AG adjusted the spot

[30] We note that the AIB's proposal this year differs from the methodology it recommended last year for determining retained earnings, or plowback, which used a single year's value and relied on calculations performed by the AIB.

yield curve by 0.28 percent rate to account for investment expense. The SRB's filing does not directly address the issue of expenses relating to the risk-free yield.

In past years, the adjustment to the risk-free return to reflect the expense allowance has been set at a rate lower than the expense allowance applied to insurers' return on all assets. As explained in the *Decision on 2004 Rates*, the lower rate reflects lower expenses associated with a passive investment strategy that is used to manage a portfolio of both risk-free and risky securities and other investments. This year the AG and the AIB apply an investment expense adjustment to the risk-free yield that is the same as that applied to other asset returns. Our selection of a value of 0.28 percent for investment expense is addressed in a later section of this decision addressing asset returns. We will approve the same value this year as an adjustment to the risk free rate, but decline to adopt a rule that the two values should always be identical.

ii. Adjustment for the Cost of Debt Financing

Consistent with past decisions on underwriting profits, the parties adjust their otherwise calculated cost of capital to reflect the role of debt in the capital structure of insurance holding companies. In implementing that adjustment, the AIB recommends that the Commissioner use a debt/equity ratio of 12.5/87.5 percent based on the actual market value of the debt and equity at the holding company level for twenty companies in the Value Line sample. The AIB recommends an average pre-tax 6.10 percent cost of debt.

The SRB and the AG recommend a debt/equity ratio of 20/80 percent, based on Mr. Parcell's analysis of the same proxy group of Value Line companies used for the DCF and CAPM analyses. The SRB argues that its proposed capital structure is consistent with the *Decision on 2005 Rates* that approved measuring capital structure by book value and adopted as the cost of debt the median cost of long-term debt. It argues that the AIB's proposed calculation of the debt/equity ratio improperly includes trust preferred securities, that are equities, not debt. The AG argues that the AIB's calculation of the capital structure of the industry is based on a new methodology that eliminates some Value Line companies from the calculations and bases it on what the AIB refers to as "market value" capital. The AG asserts that there is no justification for removing companies from the sample, and that book value correctly reflects the quantity that is to be measured, the

actual dollars of capital that are available for investment. He argues that the AIB's new method is not superior to the CDM and should be rejected.

The AIB opposes the debt/equity ratio proposed by the AG and the SRB for three reasons. First, it asserts that the actual debt ratio that they calculated is 18.6 percent, arguing that there is no reason to round this value up to 20 percent. In addition, it argues that the value that they calculate is erroneous because it includes short-term, as well as long-term debt, when the *Decision on 2005 Rates* concluded that only long-term debt should be considered. Finally, the AIB argues that the correct measure of debt/capital structure is market, not book value, because market definitions are used to determine other aspects of the rates.

Discussion and Analysis

The AIB's arguments opposing the 20/80 debt equity ratio proposed by the AG and the SRB are not persuasive. The SRB's filing shows that its estimate is based on a median, not an average, debt level for the same sample of companies used to estimate the cost of capital, rather than the smaller sample chosen by the AIB. The 5.78 pre-tax cost of debt, as calculated in the SRB's filing, represents the median cost of long-term debt for that group. The AIB's arguments for utilizing market, rather than book value to evaluate the debt/equity ratio are not persuasive. We have been presented with no new evidence or argument that persuades us that the methodology used to calculate the debt/equity ratio in the *Decision on 2005 Rates* should be changed. We will therefore adopt a debt/equity ratio of 20/80 percent and a pre-tax cost of debt of 5.78 percent for the purpose of calculating the 2006 underwriting profits provision.

iii. The Small Size Factor

The AIB argues that a small stock premium adjustment of 1.73 should be added to the cost of capital it generated by averaging the results of applying CAPM and DCF methods to Value Line data. The adjustment is proper, it asserts, because the Value Line group of insurance companies is much larger, on average, than the companies writing Massachusetts private passenger automobile insurance, and because, all else equal, smaller companies, measured by market capitalization, have higher costs of equity than larger companies. The AIB asserts that in the field of finance there is widespread agreement that a simple, single factor CAPM is not adequate to measure equity returns,

and that size is an explanatory variable. As support for its position, it points to articles by Fama & French, the Ibbotson Yearbook, and a recent paper by Cummins and Phillips. The AIB states that it has produced a clear and straightforward calculation of the size premium based on the weighted average size premium for companies writing Massachusetts auto insurance, following the general Ibbotson methodology. It compares the result of that calculation, 1.96 percent, to the corresponding weighted average size premium it calculated for the Value Line group of companies, 0.23 percent. The difference between those two values produces the size premium that the AIB proposes to add. The AIB argues that Mr. Parcell agrees that size affects equity returns, and that the companies in the Value Line group are, on average, larger than the group of insurers who will utilize the rates that are fixed and established in this proceeding. No other party, the AIB notes, has submitted an alternative to its calculated size premium.

The SRB points out that the AIB, as the proponent of a new methodology, bears the burden of demonstrating that its proposal is reasonable and superior to that now in place. It argues that in prior decisions the Commissioner has consistently rejected any adjustment based on a size premium. The SRB argues that a size adjustment is neither justified nor appropriate, relying on the testimony of its witness that concluded, among other things, that the AIB's size premium study was flawed because it assigned companies to deciles by policy surplus, not market capitalization.

The AG agrees that no size premium should be added to the otherwise calculated cost of capital. He points out that the *Decisions* on 1994, 1999, 2001 and 2003 rates all rejected such an adjustment, and that there is no evidence that any insurance or utility regulator in any jurisdiction has applied a small stock premium to set rates. The AG argues that a small size premium measures unsystematic risk, an element for which, according to past rate decisions, insurers should not be compensated in the rates, because it can be eliminated through diversification. He contends that a small size premium is unreasonable and inappropriate for Massachusetts ratesetting, because there is no evidence of any link between size and profitability in the Massachusetts automobile insurance industry, or that the cost of equity of small insurers in Massachusetts is greater than the cost of equity of larger insurers. Further, the AG argues, if the small stock effect exists, it is a stock market effect, because smaller companies have thinner markets and are not

followed by analysts. For companies that are not publicly traded, including most Massachusetts insurers, he asserts, there is no evidence linking size and profitability, or of any effect of size difference.

The AG agrees with the SRB that the AIB's analysis of comparative company size incorrectly looks at statutory surplus, rather than market value. He also argues that the AIB's formulation largely depends on its selected form of averaging; a simple average, he asserts, does not show such different results.

Discussion and Analysis

The issue of a size premium has been raised in prior ratesetting proceedings, and has been consistently rejected, on the ground that there is no evidence that the small size effect exists for Massachusetts automobile insurers. An extensive discussion of the reasons for rejecting such an adjustment appears in the *Decision on 2003 Rates*. Although that decision did not address a small stock premium in the specific context of an IRR model, we are not persuaded that the AIB's arguments for adoption of such an adjustment differ significantly this year. We conclude that our discussion and analysis in the *Decision on 2003 Rates* is equally applicable to the AIB's proposal this year. We note, further, that following rejection of its proposal in the *Decision on 2003 Rates*, the AIB attempted to link a size premium to a decision on a debt equity adjustment in the proceeding to set rates for 2004, and sought a size premium in the proceeding to set rates for 2005 only if the Commissioner declined to use a single Value Line estimate for the CAPM equity beta. In neither year did the Commissioner follow the AIB's recommendation. The AIB has made no persuasive argument for a size adjustment this year that persuades us to depart from our past decisions. We note, particularly, Dr. Derrig's testimony that he had not studied the issue of size and profitability for Massachusetts automobile insurers.

We will therefore make no adjustment to the cost of capital to reflect differences in the size of insurance companies.

2. Asset Returns

Insurer revenues include returns on their investments as well as premiums from policyholders. If investment yields are understated, the underwriting profits provision will increase, and policyholders will pay more in premium. To produce rates that comply with

the statutory standards, the Commissioner must review the evidence to determine what level of asset returns is realistic. Asset distributions are taken from countrywide data published in *Best's Aggregates and Averages*. Per $1,000 of invested assets, approximately sixty-six percent is invested in bonds, twenty percent in stocks, and the remainder in mortgages, real estate, and cash.

The updated exhibit provided by the AIB shows an initial overall asset return of 5.47 percent, which is then adjusted downward to 5.11 percent to reflect investment expense of 0.35 percent, and ultimately to 3.71 percent to reflect investment tax rates. The SRB recommends asset returns of 5.65 percent before taxes and expenses and 3.95 percent post-tax and expenses. The AG recommends a pre-tax investment return of 6.2 percent and an after-tax value of 4.7 percent.

a. The AIB

The AIB asserts that the parties generally agree on the calculation of asset returns, with the exception of the SRB's methodology for calculating bond durations and, therefore, bond yields. The AIB opposes the SRB's approach to calculating bond durations, which estimates durations from the time of purchase to the time of maturity rather than from the date of the insurer's current balance sheet to maturity. The SRB's methodology, the AIB argues, inflates the calculation of current bond yields because the resulting durations are longer. It contends that it improperly assigns different yields to identical bonds based on the date when the current holder purchased the bond. The AIB asserts that this approach is inconsistent with the price of securities in the real world market which does not depend on the identity of the seller or the seller's original purchase date. The AIB argues that bond durations should be measured according to the NAIC approach that determines time to maturity as of the date of the balance sheet that is under examination. It asserts that if the Commissioner's adoption of the SRB's approach in the *Decision on 2005 Rates* is viewed as approving the use of embedded yields, it is incorrect because current, not embedded yields are appropriate for use in an IRR model.

The AIB recommends an actual stock investment tax rate of 34.1 percent for stock capital gains, and of 14.2 percent for stock dividends. Those values produce an overall common stock investment tax rate of 30.9 percent. It opposes the 17.5 percent common stock investment tax rate proposed by the SRB and the AG, arguing that the SRB's

witness is simply using a value from past decisions and has, in rate proceedings in another state, used a 26.67 percent stock investment tax rate. The AIB argues that the 17.5 percent rate, although used for several years in rates, has always been wrong, and has no evidentiary support in this record. It asserts that no party has offered any criticism of the AIB's calculation of an actual stock investment tax rate of 30.9 percent. Referring to the stock turnover study that it conducted in 2004, it argues that the results of that study demonstrate a turnover rate that results in a common stock capital gains tax rate of 34.1 percent. It concludes that the stock study shows that Massachusetts insurers held stock for an average of only three years, a very short period for deferring capital gains. Further, the AIB asserts, it has offered mathematical proof that, even with an unrealistic stock holding period, a tax rate of 17.5 percent cannot be produced. No other party, it argues, has been able to show how to calculate a stock investment tax rate at that level.

b. The SRB

The SRB utilizes a four-step process to estimate the asset returns for its IRR model, relying in each case on Mr. Parcell's testimony to support its recommendations. The SRB, like the AIB, bases its calculations on consolidated property/casualty industry group data on insurers' investment portfolios, as reported in *Best's Aggregates and Averages*, using the same categories of investments and the same allocations of assets to each category to develop its asset return recommendations.

The SRB asserts that it and the AIB generally agree that the calculation of asset returns should be based on fair estimates of returns on the typical insurer investment portfolio for 2006. However, the SRB recommends calculating asset returns for each class of security, except for common stock, on the basis of a three-month average yield, from May through July 2005, while the AIB uses a twelve-month trailing historical average for the risk-free spot yield. The SRB argues that in the *Decision on 2005 Rates*, the Commissioner adopted a proposal similar to its recommended approach.

The SRB and the AIB also differ on the estimates of current yields for intermediate-term and long-term bonds. As it did last year, the SRB recommends use of ten-year maturities for intermediate and twenty-year maturities for long-term bonds, while the AIB defines intermediate-term bonds as those with maturities of one to ten years and long-term bonds as those with maturities of more than ten years. The SRB argues that the

crux of the disagreement is whether expected bond yields should be based on their actual maturities, as measured by the date of purchase or as measured by the remaining time to the maturity date, regardless of the purchase date. The SRB asserts that it utilizes appropriate yields in its asset return analysis and applies those yields to a maturity structure that more appropriately reflects the expected structure of a property and casualty insurer's asset portfolio.

The SRB argues that the Commissioner should adopt its recommendation because she adopted a similar recommendation in the *Decision on 2005 Rates* and has specifically rejected the AIB's methodology. The AIB, it argues, has presented no reason to reverse those decisions. It argues that the Commissioner should adopt its recommendations this year because, with the exception of using a three-month average to estimate current yields, it is similar to the recommendation she adopted in the *Decision on 2005 Rates.*

The SRB also recommends using ValuBond as the source of yields for intermediate and long-term bond maturities to be used in calculating the asset rate of return. In contrast, it asserts, the AIB uses the Wall Street Journal as the source of yields for bond maturities greater than one year. ValuBond data is, the SRB points out, the source that it used in the proceeding to fix-and-establish rates for 2005. It argues that the AIB has offered no reason to use Wall Street Journal data instead of ValuBond.

c. The AG

The AG observes that the SRB agrees with the premise articulated by the Supreme Judicial Court almost twenty-five years ago, that insurers typically earn profit on investments, not underwriting. Therefore, the AG argues, it is important that the investment rate of return in the profit model be fair and reasonable. The AIB's IRR model, the AG argues, did not reflect the correct ratio of invested assets to surplus, because it initially understated the assets that insurers invest, and was inconsistent with reported data on companies' average invested assets and surplus. However, the AG points out, data in the AIB's filing demonstrate that the insurance industry's invested assets are virtually identical to the sum of reserves and surplus. Therefore, the model should include a value for invested assets that is consistent with those data. Understating the invested assets reduces the expected investment income, and results in a higher underwriting profits provision.

The AG argues that if the Commissioner adopts the recommendation to rely solely on Value Line data to calculate the cost of capital, she should also use Value Line data to estimate the 2006 asset return. Citing to testimony from the SRB's witness, he asserts that the Value Line data and projections that are used in the cost of capital calculations are in part based on Value Line companies' investment returns, and on asset return projections made by Value Line analysts based on their idiosyncratic views of future returns. In addition, the AG notes that the Value Line companies are a small group that includes few Massachusetts insurers and also may differ from the average property/casualty insurer. If data from this group are used to calculate the cost of capital, the AG argues, data from the same companies should be used to calculate the asset rate of return. He asserts that this consistency is important in the IRR and CYAM models because it is the spread between the target and the asset return, not the absolute value of the target, that determines the underwriting profit provision. Further, the AG argues, to the extent that investors are presumed to rely on Value Line data, they may also be presumed to rely on Value Line asset returns. Therefore, he asserts, it is unreasonable to assume that investors rely on Value Line financial reporting data, but not on its estimated asset returns. The AG concludes that the average of Value Line's reported historical and projected investment returns is 6.3 percent, higher than the values estimated by the CDM.

The AG argues that the AIB's modeled bond distribution is incorrect, because it classifies bonds according to the time to maturity rather than their actual durations. He points out that although insurers report time to maturity on their annual statements, the information provides a snapshot of the stability of their portfolios but has nothing to do with the duration of the bonds or the investment returns that companies receive. He asserts that returns on bonds that insurers hold do not change when the time to maturity change. The assumption underlying the AIB's model, that insurers turn over their entire bond portfolio each year and purchase new bonds with the maturity date indicated on the annual statement is, the AG argues, not consistent with the real world. It assumes that insurers will invest premiums and surplus in the same historical portfolio of assets as in the past. This method, the AG argues, misstates asset portfolios. The issue, he states, is not a choice between embedded or current yields; it is how the distribution of assets is

described. The AG asserts that the AIB's method underestimates the average maturity of the bonds that insurers hold, and therefore underestimates their average yield.

Discussion and Analysis

a. The time period for estimating asset yields

To estimate asset yields, the SRB generally uses three months of data from the period May through July, 2005. For United States Government bonds Mr. Parcell relies on Federal Reserve Statistical Releases, and for other bonds on ValuBond, a reporting service. The common stock he relies on a three-horizon CAPM, with a beta of 1.0. Preferred stock data are taken from the Mergent Bond Record.[31] For all types of bonds, the AIB averages twelve months of data taken from the Wall Street Journal. Like the SRB, it estimates returns on common stock from its three-horizon CAPM estimates, and preferred stock from the Mergent Bond Record.

The sources that the SRB uses this year are consistent with its recommendations that were adopted in the *Decision on 2005 Rates*.[32] Its use of three months of data on asset yields is consistent with our conclusion in that Decision that the methodology for estimating asset returns should be responsive to current conditions and emphasize more recent data. We will therefore adopt the data sources and time periods utilized by the SRB to estimate asset returns.[33]

b. Bond maturities and yields

The AIB, as it did in the proceedings to set rates for 2004 and 2005, again estimates bond yields by calculating bond maturities as the time remaining on the bond as reflected in insurers' 2004 annual statements, and adopting as bond yields the current market yield for bonds of that maturity. That approach, it argues, is consistent with the NAIC approach to evaluating company portfolios. The *Decision on 2004 Rates* and the *Decision on 2005 Rates* rejected the AIB's methodology, finding that it would significantly understate what insurers would reasonably expect to earn on investments that they hold, not what they might earn if they purchased the investments at this time. It

[31] The preferred stock estimate is based on data for the period January-March 2005.

[32] We note that last year the AIB recommended the same twelve-month period to calculate bond yields as well as the cost of capital. Our decision this year is consistent with the position that both should reflect similar time periods.

[33] Because we do not rely exclusively on the Value Line estimate of the equity beta, we need not consider the AG's recommendation for use of Value Line data on asset returns.

remains appropriate for the asset rate of return that is incorporated into the underwriting profits provision for 2006 to reflect a reasonable expectation of income from fixed rate securities, such as bonds. We have been presented with no reason to reverse our prior decisions on this issue. Both the SRB and the AG agree that the AIB's methodology should not be adopted. We will adopt, for purposes of this proceeding, as the intermediate and long-term bond yields for all bond asset classes, the average of three months of data as estimated by Mr. Parcell.

c. The Investment Tax Rate

The AIB recommends that the Commissioner use an average investment tax rate on equities of 30.9 percent. That value is comprised of a 14.2 federal tax rate on dividends and a capital gains tax rate of 34.1 percent. The AIB argues that it calculated its capital gains component from a real-world portfolio turnover rate of 36 percent for an actively managed portfolio. The AIB contends that the 17.5 percent tax rate on equities, as recommended by the SRB and the AG, is incorrect because it is a fabricated number with no basis in reality and could not be realized by holding stocks for many years. It asserts that it has never been, and could never be, defended on the merits, observes that the SRB's witness, David Parcell, offered no evidentiary support for a 17.5 percent rate, and notes that Mr. Parcell has previously estimated the appropriate tax rate on equities, based on actual data, to be 26.67 percent.

The SRB recommends an overall tax rate of 23.46 percent on insurers' investment income. On common stock, it and the AG recommend an investment tax rate of 17.5 percent. The SRB refers to that value as the CDM. Arguing that the AIB has, as in prior years, failed to provide any new or persuasive evidence that the continued use of a 17.5 percent tax rate for common stock is no longer appropriate, the SRB urges that the Commissioner adopt a common stock tax rate of 17.5 percent.

The AG, characterizing the AIB's investment tax rate as inflated, argues that the tax rate should be determined in accordance with the CDM. Addressing the AIB's stock turnover study, he points out that it does not determine the average holding period for any company's stock, the portion of stock that a company sold during the year, or the tax effect of the sales. Companies, the AG asserts, manage their taxes, and concludes that 17.5 percent remains a reasonable tax rate on common stock.

Discussion and Analysis

The question of an appropriate tax rate on common stock has been raised in past years. The *Decision on 2005 Rates*, citing to the *Decision on 2004 Rates*, noted that the reasoning underlying the estimate of a 17.50 percent investment tax rate on common stock had been extensively addressed in other years. In brief, because the tax code taxes capital gains when gain is actually realized, and permits gains to be offset by losses, insurers can make investment decisions that will minimize the tax effect of changes to their stock portfolios. We have been provided with no new argument and no persuasive evidence this year that insurers no longer have the opportunity through tax planning to reduce capital gains taxes below the 35 percent marginal rate. We therefore approve the continued use of a 17.50 tax rate on stock transactions to calculate the investment tax rate. We will adopt the AIB's proposed values for the investment tax rate on other asset yields.

d. Investment Expense

Two issues have arisen this year in connection with insurer investment expenses: 1) the use of the same expense provision to reduce both the risk-free rate and the asset return rate; and 2) the selection of the actual expense provision. On the first issue, the AIB applies a value of 0.35 value to adjust both the risk-free return and the overall asset returns; the AG also applies a single, but lower, value to adjust both the risk-free return and all asset returns. The AIB argues that it and the AG both agree that it is correct to use the same value in both places. It characterizes as an oversight the use of two different values in the *Decision on 2005 Rates*, and urges the Commissioner to use the same investment expense value in both places.

On the second issue, the AIB argues that its recommendation reflects the actual investment and interest expenses associated with insurance company investment portfolios, and that no party has challenged the accuracy of its calculation. It asserts that this value is an unbiased estimate of the expected future cost of investment expenses to insurance companies. It opposes the AG's omission of the interest expense component of the AIB's estimate of investment expense.

The AG argues that the companies' investment expense for 2004, as reported by Best's Aggregates and Averages, is 0.28 percent, further noting that the Commissioner has used this value in past rate decisions. He asserts that the AIB increases the investment

expense to 0.37 percent by incorrectly adding interest expense. The AG argues that, to the extent that the reported interest is interest on debt, it is already captured in the cost of debt, and to the extent that it is not, the AIB has not met its burden of showing what it is and why it should be included in the rates. The SRB concurs with a 0.28 adjustment to asset returns to reflect investment expense.

As noted in the section on adjustments to the risk-free rate, in calculating the underwriting profits provision for 2006, we have allowed an adjustment of 0.28 percent to the risk-free rate, while declining to adopt a rule that identical investment expense adjustments should always be made to the risk-free rate and to asset returns. On the second issue, the *Decision on 2005 Rates* rejected the inclusion of interest expense as an element of insurer investment expense. The AIB has offered no persuasive reason to depart from that decision. We will therefore again approve an investment expense provision of 0.28 percent as an adjustment to insurers' overall asset returns and, as stated earlier, will apply the same expense provision to the risk free rate.

3. Other Issues

a. Premium Cash Flows in the IRR Model

The AIB's 2006 IRR model assumes that all premium is received at policy inception. However, the record includes a summary of a 2005 Premium payment study that summarizes all payment flows. The AIB's witness testified that, in preparing his analysis, he omitted data from one insurance company that appeared to be anomalous. Because we decline to adopt the AIB's assumption on receipt of premium, premium flows will again be used to calculate the underwriting profits provision for 2006. Consistent with statements in the *Decisions* on 2004 and 2005 rates that premium flow studies should be conducted periodically, to capture the effect of changes in the marketplace and of the payment choices that insurers offer to consumers, the results of the 2005 study reflecting combined premium and finance charge flows will be used to develop the underwriting profits provision for 2006.[34] Because the record is insufficient to establish that it is reasonable to exclude from the survey data from the Amica Insurance Company, we

[34] We note, for example, that although the issue of payment through electronic fund transfers has been periodically raised in these proceedings, no study has been undertaken to determine the effect of that option on collections.

conclude that it is appropriate to calculate the premium flows utilizing data provided by all companies.

b. Data issues

The AIB recommends that all input values, for which only three quarters worth of data currently exist, be routinely updated to include a fourth quarter of data when it becomes available. It argues that a general rule should be implemented in order to preclude gamesmanship related to upward or downward changes in interest rates. Four quarters of data, it asserts, provide a more stable and less noisy estimate of input values that a single quarter of data.

c. Loss Cash Flows

The AIB this year included in its filing loss cash flows for the physical damage coverages based on both gross losses and losses adjusted to reflect the receipt of salvage and subrogation recoveries, *i.e.*, net losses. It asserts that its model explicitly acknowledges the anticipated receipt of those recoveries. The AIB argues that the use of net loss flows, as recommended by the AG and the SRB, produces plainly unreasonable results that are out of line with the values in the SRB's five-state survey, while the AIB's recommendation of +6.54 percent is in line with the survey results. Further, the AIB asserts, net loss flows produce negative surplus, negative assets and negative asset returns, results that the AIB characterizes as "nonsensical" and indefensible on the merits. The AIB argues that past criticisms of its approach to physical damage losses are misleading. It asserts that past rejections of the AIB's position on physical damage loss flows appear to have been based on incorrect assertions and that, therefore, the issue should be reconsidered this year. The AIB concludes that using gross loss flows is the only way to produce a reasonable underwriting profits provision for the physical damage coverages and to avoid setting rates based on negative surplus.

The SRB argues that the IRR should incorporate physical damage loss flows that are net of salvage and subrogation, noting that the CDM employs that approach. It notes that the *Decisions* on 2004 and 2005 rates both rejected the AIB's methodology, and argues that the burden is therefore on the AIB to demonstrate that its approach is reasonable and superior to that now in place. It asserts that the AIB has offered no

additional evidence this year to support using gross, rather than net, loss flows, and that therefore the model should continue to follow the CDM.

The SRB argues that net flows are appropriate because they are consistent with the actual experience of insurers and policyholders, and properly reflect cash that insurers pay out or receive as well as the calculation of their federal taxes. They also capture the amount of risk requiring support from policyholder surplus. Further, the SRB notes, in all other lines of coverage the ratemaking process considered losses on a net basis.

The AG argues that the AIB IRR model misrepresents the physical damage insurance transaction by largely ignoring the reduction in physical damage losses resulting from salvage and subrogation payments. He notes, as does the SRB, that the AIB's methodology has been rejected in the past. The AG argues that the AIB, by excluding expected salvage and subrogation payments from the required policyholder account balance, increases the surplus commitment that supports the policy and therefore, because surplus is supplied at the cost of capital, increases the underwriting profits provision. He points out that for accounting, reporting and reserving purposes, physical damage losses are reported as net, not gross. Further, the AG argues, if the IRR model is to reflect surplus needs in the real world, it should be based on net losses. He asserts that the AIB IRR model mistakenly treats salvage and subrogation recoveries as if they were not expected, although historical data show that they have been paid according to a particular temporal pattern. In addition, the AG argues, on an industrywide basis, subrogation has no effect on losses, because it is simply a transfer of funds among insurers. The payments received under the physical damage coverage represent losses under the property damage coverage. Further, they are treated as losses and included in the calculation of property damage loss reserves. The AIB's methodology, because it incorporates physical damage losses into loss reserves for that line of coverage and into the loss reserves for property damage effectively double counts losses and creates an artificial "cash deficiency."

The AG argues that the negative values produced by using net cash flows or physical damage coverages are evidence that the AIB's IRR model is flawed because it does not accurately represent the insurance transaction. He points out that negative values only occur in the abstract AIB model; in the real world, because insurance is written over a number of years, there are no negative values.

Discussion and Analysis

The dispute over the use of net or gross cash flows to calculate an underwriting profits provision for physical damage coverages is, in large measure, a timing issue. Losses are paid before salvage or subrogation payments are received. As a result of looking at losses on a gross basis, before the anticipated receipt of salvage and subrogation, the AIB increases the surplus commitment that temporarily must be maintained to cover those losses. The *Decision on 2004 Rates* considered, and rejected, the AIB's arguments that the underwriting profits provision for physical damage coverages should be based on gross loss flows. The reasons for the Commissioner's conclusion are articulated at length in that decision and need not be repeated here. We do not find persuasive the AIB's argument that decisions rejecting its position were based on incorrect assertions about its methodology or arguments. The negative values to which the AIB objects are artifacts of modeling losses on a net basis; as the AG points out, in the real world in which insurance is written on a continuous basis, they do not occur. The AIB this year has offered no additional evidence that persuades us to reverse the methodology adopted in the *Decision on 2004 Rates*.[35] The underwriting profits provision for the physical damage coverages should continue to be developed on the basis of net, rather than gross, loss flows.

d. Leverage Ratios

Leverage ratios are utilized to determine the amount of surplus that must be committed to support the insurance policy obligations. The AIB provisionally recommends a leverage ratio, *i.e*., the ratio of reserve to surplus, of 1.72 percent, based on a five-year average of annual statement surplus and reserves for all insurers except state funds, as published in *Best's Aggregates and Averages*.[36] It asserts that this value is high because it is undiscounted. The AIB argues that the SRB, although it made no specific recommendation on a reserve to surplus ratio used the AIB's 1.72 ratio in at least one IRR model run, and that its final rate recommendations filed in the Main Rate docket adopt that value.

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[35] The *Decision on 2004 Rates* invited an overall analysis of the effects of subrogation on all coverages, but no such analysis was submitted either in the proceeding to set rates for 2005 or this year.

[36] The AIB notes that, for purposes of its filing, it utilized the data that Best's reported for year-end 2003 for 2004, but that it would update its calculation upon publication of the *2005 Best's Aggregates and Averages*. The data submitted in December showed a value of 1.63 for 2004 and a five-year average of 1.70.

The AG notes that the reserve to surplus ratio is used to determine the appropriate amount of surplus in the IRR model, and has always been based on all lines, countrywide data. However, he argues, the 2003 year-end data in the AIB's filing show that the old data are incorrect. The AG argues that, based on current company reports, the reserves reported by Best's for the years ending 12/31/99, 12/31/00, 12/31/01 and 12/31/02 understated reserves. Further, these data include reserves for hurricanes, asbestos liability, and other claims not related to automobile insurance. Adjusting the AIB data for reserve adequacy, the AG recommends a reserve to surplus ratio of 1.91.

The AIB objects to the AG's proposed adjustment to its recommended value, arguing that his witness inflated reserves, and thereby decreased surplus, for an estimated amount of reserve inadequacy. It argues that the Commissioner rejected the AG's adjustment in the *Decision on 2005 Rates*. Further, the AIB asserts, the calculations on which the AG relies are solely those of his witness, and are not supported by the data source to which he cites. The AIB states that the A.M. Best publication referred to by Mr. Schwartz does not provide an opinion on "known reserve deficiencies", and points to a recent study by the Insurance Services Office ("ISO") which states that reserves for private passenger automobile insurance are excessive, not inadequate.

Discussion and Analysis

The AG's recommendations and arguments are similar to those made in last year's proceeding. Mr. Schwartz testified this year that he adjusted the leverage ratio based on his opinion that the reserve development over time reported by insurance companies and published by A.M. Best demonstrated that their earlier reserves were too low. He acknowledged, however, that "people might have a different interpretation of what that number means," but that it was reasonable that everyone would agree that company reserves have increased over time. His conclusion, however, is that earlier reserves were inadequate. On this record, we are not persuaded that the AG's adjustment is reasonable. In the *Decision on 2004 Rates*, the Commissioner adopted a value for the reserve to surplus ratio based on countrywide data published in *Best's Aggregates and Averages*. No party has recommended that we use a reserve to surplus ratio that is limited to estimates for private passenger automobile insurance, rather than all lines data. We will therefore

again adopt a reserve to surplus ratio that is the average of five years of data reported by A.M. Best, including the year ending December 31, 2004. That value is 1.70.

e. Finance Charge Income

Each year, private passenger automobile insurers are asked to respond to a premium and finance charge survey that collects information on finance charge income, earned but uncollected premium, and other revenue relating to premium payments. Although the AIB's IRR model this year assumes that insurers receive all premium at policy inception, a survey was conducted in 2005 to collect data as of December 31, 2004. The results of that survey, which were entered into the record of this proceeding as Exhibit 9, incorporate data on finance charges received in 2004 and an estimate of the effect of known subsequent changes to company finance plans. The summary indicates that, as adjusted, finance charges amounted to 1.61 percent of written premium. The finance charge income from 2004 is reported on the 2005 Premium and Finance Charge Survey that companies complete annually, and is then adjusted by changes that companies report in that survey. I note that the AG adopts the AIB's recommendation in his models, and the SRB did not challenge it.

On this record, we are persuaded that the value of 1.61 percent for finance charge income is reasonable and will adopt it.

f. Earned But Uncollected Premium (EBUP)

The 2005 Premium/Finance Charge Survey also summarized Earned But Uncollected Premium for 2004. Ms. Scott testified that the EBUP value was $3.40 for each $1,000 in premium. No party disputed that value, and we therefore will adopt an EBUP provision of 0.34 to be included in the calculation of the 2006 Rates.

g. Other Revenue

In addition to premium, insurers collect other revenue in the form of various fees and charges. An adjustment of 0.14 percent of premium to reflect other income was approved in the *Decision on 2001 Rates.* The *Decision on 2004 Rates* noted that, for the reasons set out in the *Decision on 2001 Rates,* it remained reasonable to include other revenue in the underwriting profits provision, and the *Decision on 2005 Rates* affirmed that conclusion. Like the value of EBUP, the value of other revenue is estimated from information reported in the Premium and Finance Charge Survey. The 2005 Survey

provides a value of 0.20, which we adopt for purposes of calculating the underwriting profits provision for 2006.

h. Reasonability of Results

The AIB argues that the reasonability of an underwriting profits provision should be measured in comparison to results reported in the SRB survey of automobile insurance rate filings in five other states, and that setting underwriting profits that are lower than those in that survey would violate the Commissioner's legal and constitutional obligations. Its position is not persuasive. The survey data are from a number of companies, some of which do not write private passenger automobile insurance in Massachusetts, and relate to dated time periods ranging from 1994-1996 to 2001-2002. Furthermore, the data relate to filings in states with competitive markets for automobile insurance. The AG notes that in competitive markets insurers may target any profit level they choose, but need not charge premiums that reflect that target. The survey serves as mute evidence of the varied approaches to determining underwriting profits that insurers have taken in different jurisdictions, but provides no sound basis for a comparison of historic experience in Massachusetts to that in other states or any guidance as to what is a reasonable underwriting profits provision for insurers writing private passenger automobile insurance in Massachusetts in 2006.

i. Comparison to Public Utilities

The AIB argues that the insurance industry is entitled to higher underwriting profits provisions because it is riskier than public utilities such as electric and gas. As evidence of that relative riskiness, it points to the difference between Value Line estimated betas for the property and casualty insurance industry and for the gas and electric utility industry, and to a similar difference in the raw betas for those groups estimated by Standard & Poors. It then notes that public utilities have recently been granted an average 10.82 percent cost of equity, a value higher than the allowed cost of equity for automobile insurers in the *Decision on 2005 Rates*. Using a simple CAPM analysis of the cost of equity for utilities would also, the AIB argues, produce a value lower than the return allowed by regulators. The AIB concludes that its proposed cost of equity is the only one that would satisfy the standards for returns in regulated industries. We do not find persuasive the AIB's argument that the reasonability of an underwriting

profits provision for private passenger automobile insurance in Massachusetts should be measured by comparison to cost of capital allowances in public utilities regulation. The risk of an industry, as measured by the equity beta, is not the only factor that is addressed in ratemaking proceedings. We note, as well, that the comparative data provided by the AIB does not relate to Massachusetts.

_____	_____
Stephen M. Sumner, Esq.	Jean F. Farrington, Esq.
Hearing Officer	Hearing Officer

II. COST CONTAINMENT AND FRAUDULENT CLAIMS

As part of the Commissioner's private passenger automobile ratesetting proceedings, G.L. c. 175, §113B requires the AIB to submit a filing that addresses the adequacy of industry cost containment programs. The statute requires that, at a minimum, the programs should be designed to have a material impact on premium charges by reducing costs and expenses. *See Decision on 1999 Rates* (describing the purpose of Chapter 622 of the Acts of 1986). 211 CMR 93.00, promulgated pursuant to §113B hereunder, states that the Commissioner must "determin[e] whether the insurers' cost and expense containment efforts are adequate and reasonable."

211 CMR 93.00 requires the AIB to submit a filing that provides data on industry practices and cost containment programs, as evinced through the data from a representative group of companies. In particular, the AIB is to address cost and expense containment programs for bodyshop payments, voluntary and ceded claims handling, fraudulent claims, expenses, and glass claims payments. The Commissioner must assess the adequacy and reasonableness of insurers' programs for expenses, cost containment and fraud based on the "filings made and the evidence introduced at the hearing to fix and establish motor vehicle insurance rates."

The regulation directs the AIB to provide a narrative description of the insurers' cost containment programs that, *inter alia,* identifies the person responsible for the program and the number of staff; sets out the form of the program and the coverages and losses that it affects and explains mechanisms to audit, monitor and evaluate the program. For all programs, the AIB must present the expense data for the prior year, the current

year and estimates for the next year. The filing must prove that each program results in authentic savings or cost containment.

The AIB argues that its filing demonstrates that the industry cost containment programs are adequate and reasonable, that no other party has presented any evidence to support a rate adjustment, and that therefore the Commissioner should make no adjustment based on cost containment. The SRB expresses a few concerns about the AIB filing, but also recommends that no adjustment be made for next year. The AG recommends that, based on the inadequacies of the industry's cost containment efforts, any request by the AIB to increase premiums for the affected coverages should be denied, or that in the alternative, rates should be adjusted downward by one percent.

1. The Adequacy of the AIB Filing

The AIB's 2005 filing addresses bodyshop payments, bodily injury claim payments, fraudulent claims, glass claim payments, voluntary/ceded claims handling differential and expenses. It argues that its filing comports with the applicable statutory and regulatory requirements. It notes that in the most recent decision on cost containment, the *Decision on 2004 Rates*, the Commissioner advised the AIB to revise the format of its cost containment filing.[37] This year's filing, it asserts, addresses the Commissioner's concerns as expressed in that Decision. It notes, rather than include reports from the representative insurers, as it has in the past, this year the AIB interviewed employees of the six representative companies who are responsible for cost containment, reviewed relevant data, including data from the Detail Claims Database ("DCD") and used the information it gathered to develop narrative reports on each topic.[38]

Although the AIB states that it has met its burden under the regulations, it contends that the overriding problem with cost containment review is that the regulations provide no concrete standards for reviewing and evaluating substantive programs.[39] It asserts that no single company witness could provide specific information on all programs. The AIB argues that the regulations provide no guidelines to assess the

[37] In the proceeding to set rates for 2005, the parties stipulated to a cost containment adjustment.
[38] As described in the *Decision on 2004 Rates*, the DCD is a Massachusetts-specific data base that collects and analyzes information on PIP and bodily injury claims from all insurers in Massachusetts. It assembles data that allow review of particular claims handling techniques, including utilization and effectiveness as reducing costs. It produces reports summarizing data in the system and also allows insurers on-line access.
[39] In its filing, it characterizes them as "vague and outdated."

adequacy of cost containment programs or costs and savings, characterizing the requirements as ambiguous, asserting that the subject matter is outdated, and that the mandated information is unavailable. It objects particularly because the regulation does not define the term "program." Absent a common baseline on what constitutes a program and objective review standards, the AIB asserts, commentary is largely subjective and parties are free to criticize the industry's efforts with impunity. The AIB also contends that the Commissioner has not, when making a downward premium adjustment to reflect inadequacy of cost and containment programs, provided guidance on specific improvements.

To remedy this problem, the AIB recommends revising the cost containment regulation to specify the standards for reviewing cost containment efforts. It argues that the regulations should be consistent with the performance standards issued by Commonwealth Automobile Reinsurers ("CAR"), and with its review process, even though the CAR standards need not be the sole determinant of the effectiveness of insurer's cost containment efforts.

The SRB and the AG both assert that the AIB's filing is deficient and offer specific criticisms to support their positions. The SRB expresses concern about the AIB's filing because: 1) the AIB failed to review claims or SIU files from the six representative insurance companies; 2) the AIB's sole witness and sponsor for its filing had no claims, SIU or actuarial experience and had never worked for an insurance company; 3) the data in the filing, as it related to savings from the companies' cost containment efforts, was inaccurate due to under reporting errors; 4) it was unclear whether reported decreases in medical audits were to be attributed to a change in the definition of "medical audit" or to the performance of fewer medical audits; 5) some of the six representative companies were unable to provide the costs of their injury evaluation methods; 6) company methodologies for projections of 2005 and 2006 were inconsistent and/or actuarially questionable; and 7) the breadth of the information provided through the filing was truncated and the testimony of company witnesses was necessary to supplement the filing.

The AG argues that the AIB's filing is deficient, first, because it failed to provide detailed information on all of the types of programs as required by the regulation, or include the specific subject matter mandated by the regulations. Characterizing the AIB's

discussion of differential handling of claims on voluntary and ceded policies, as "perfunctory," he asserts that the AIB's position is directly contrary to conclusions reached by the State Rating Bureau in a separate hearing on the CAR Performance Standards, which are included in the record of this proceeding.[40] Second, the AG contends, the AIB failed to provide detailed expense information, arguing only that it should not be obliged to do so. A third deficiency, the AG asserts, is inclusion of inaccurate data on companies' savings, because of "claims systems implementation problems" and discrepancies in reporting data to the DCD. He notes that the AIB's witness confirmed these errors in his testimony. The AG points out that some relevant data such as, for one company, the actual costs of medical audits and peer reviews, are entirely missing.[41] Because the burden is on the AIB to demonstrate that insurers are making reasonable efforts to contain costs and expenses, the AG argues that its failure to supply complete and accurate data is a failure to meet that burden. He therefore asserts that the Commissioner should, based on the overall inadequacy of the filing and the AIB's failure to comply with the regulations, refuse any increases in premium charges that the AIB requests for the affected coverages.

Discussion and Analysis

Both the SRB and the AG have identified a number of deficiencies with the AIB's filing, beginning with its failure to comply with the regulatory requirements. The SRB questions the AIB's use of a methodology that did not include review of actual claims files, the qualifications of the AIB's expert witness, and the methodology employed to estimate cost projections for 2005 and 2006. Both the SRB and the AG question the quality of the data on which the AIB relies to reach its conclusion. On this record, we are persuaded that the AIB's filing is insufficient overall and does not meet the statutory and regulatory requirements.[42]

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[40] Testimony submitted in that proceeding was entered into the record of this proceeding as Exhibit 24.

[41] As additional examples, the AG observes that two thirds of the representative companies could not isolate some of the costs of their injury evaluation methods, and that the costs of one company's apparently successful glass program were omitted.

[42] The AIB argues that the AG and the SRB, absent affirmative evidence or expert opinion on the issue, are precluded from arguing that insurers' cost containment efforts are insufficient. We do not find its argument persuasive. Both intervenors can offer appropriate evidence to rebut the AIB's filing and the testimony of its witness, without regard to its characterization as "affirmative evidence" or "expert testimony." The contrived standard the AIB proposes would impermissibly limit the Commissioner's ability to evaluate such evidence. In any event, any party may argue the weight to be given any evidence.

In particular, we note that the filing had token sections on voluntary/ceded claims handling and expense which fail to meet the regulatory requirements and, with regard to the former, did not address widely publicized claim handling issues. It utilized inaccurate data, particularly relating to cost containment for bodily injury and PIP claims, because of underreporting from some of the insurers. The testimony indicates that the representative companies did not completely understand the AIB's definitions and instructions with respect to the filing. Testimony from the AIB's witness confirmed that that there were errors in the data collection and in compiling the filing. Although he asserted that the errors and inconsistencies did not result in any significant changes in the data reported, that result, even if assumed to be correct, does not justify the AIB's failure to ensure that its filing utilizes accurate data, that insurers understand what is required of them, and that they maintain information systems that will allow them to meet those requirements.

The *Decision on 2004 Rates* noted that, as detailed in the *Decision on 1999 Rates*, the AIB has long complained that it is unable to or should not be required to comply with the regulatory requirements. It has repeatedly argued that the cost containment regulation should be revised. That argument, however, does not justify ignoring certain portions of 211 CMR 93.00. The AIB has, in the past, proposed regulatory changes, and we recommend that it work with the other parties to this proceeding with the goal of determining what changes may be appropriate in light of factors such as evolving information systems. However formulated, the goal of the regulation must be to provide sufficient information to the Commissioner to enable her to determine the reasonability and adequacy of insurer cost containment programs.

On this record, we find that the AIB's filing is deficient under the statutory and regulatory standards. Therefore, pursuant to 211 CMR 93.06, the Commissioner is authorized to refuse to allow increases in premium charges for affected coverages that insurers recommend and may make such other adjustments in premium charges as she determines to be appropriate. As in our *Decision on 2004 Rates*, we note that the AIB has persistently refused to accept its responsibility to present evidence on industry cost containment measures.

Even though we deem the AIB's filing to be deficient, we note that neither the AG nor the SRB moved to strike it. Pursuant to 211 CMR 93.06(1) the Commissioner of

Insurance is obligated to evaluate any filing that the AIB makes, irrespective of its deficiencies. We will therefore consider the merits of those specific sections of the AIB's filing that have been challenged by the other parties.

2. The Adequacy of Industry Cost Containment Programs

The Commissioner of Insurance determines the adequacy and reasonableness of the cost containment and expense programs based on the AIB's filing and the evidence presented during the cost containment proceedings.[43] The applicable regulation requires assessment of the programs "in light of sound management practices, due diligence and legal obligations of insurers to pay claims."

The AIB argues that its filing, overall, establishes that the industry's cost containment programs are adequate and reasonable. As support for its position, it asserts that the effectiveness of the companies cost containment efforts is evident in the significant drop in losses from 2003 to 2004. It argues that the testimony of its witness and those from the representative companies confirmed that the companies are taking reasonable steps to control costs and expenses and to prevent fraud. Even though each company manages its claims processes somewhat differently, collectively, the AIB argues, their practices demonstrate commitment to cost containment and fraud prevention. Further, it asserts, there is no evidence that the differences in company practices are significant, or indicate that there are material gaps and omissions in their cost control efforts. The variety of approaches, the AIB argues, merely establishes that there are many ways to control costs and that different insurers have found success with varying program combinations.

The AG disagrees with the AIB, arguing that the data show that insurers do not make adequate use of special handling techniques that have proven effective. He argues that the fact that, according to the AIB's witness, the companies have not instituted any substantial or major changes to their claims handling practices since January 1, 2004 is further evidence that they are not taking appropriate measures to control costs.

a. Special Handling Techniques for Bodily Injury and PIP Claims

As noted in the AIB's filing, bodily injury and PIP claims represent about 44 percent of insurance losses and are, often more susceptible to fraud and overreaching than

[43] In its filing the AIB asserts that the insurers' cost containment programs are "adequate and reasonable."

property damage claims. For that reason, the AIB includes information on the special handling programs that insurers use in connection with such claims including, but not limited to, the use of adjusters who specialize in bodily injury claims, low impact claim units, Preferred Provider Organization ("PPO") networks, bill repricing, claims screening processes, independent medical examinations ("IMEs"), DCD and ISO Claim searches.[44] The AIB filing describes a general process by which insurers initially screen claims and subsequently refer them for investigation and evaluation, and summarizes the injury evaluation techniques employed by each of the representative insurers. Those summaries show that each of them utilizes IMEs and various approaches to bill reviews to contain medical costs in bodily injury claims. Of the six companies, three use PPOs and two employ on-site nurses. Addressing future cost containment efforts, the AIB notes the passage of St. 2004, c. 464, which made the use of runners in insurance fraud a felony, enabled the Boards of Registration of Chiropractic to license chiropractic facilities instead of the individual chiropractors, and mandated that the AIB provide DCD data on medical providers and findings of fraud to the medical boards. Funds have been distributed to the Board of Registration in Medicine and the Division of Professional Licensure to support fraud control efforts.

The AG argues that special investigations, medical audits and IMEs are, undisputedly, effective methods for discovering and reducing claim fraud and build-up (exaggeration of the injuries associated with a claim.) He also notes that the use of such techniques has a deterrent effect on claims. The AG argues that the DCD data for the years 2002, 2003 and 2004, provided by the AIB, and the testimony of the company witnesses show that insurers have not been using these techniques to the extent that they should. The DCD reports information provided by individual companies, and identifies claims on which the insurer requested an IME, those on which it performed a medical audit, and those subject to special investigation. It then separately computes, by individual company, the percentage of bodily injury and PIP claims that had some special handling.

[44] IMEs are an independent assessment of the severity of a claimant's injury and the appropriate amount and duration of medical treatment necessary. Insurers' require claimants to undergo IMEs to ensure that medical providers are not over treating claimants or billing for treatments which do not take place. PPOs enable an insurer to use a network of hospitals and health care providers who agree to use a discounted rate for care and services for network members.

Testimony of the company witnesses this year affirmed the continued effectiveness of IMEs. Mr. Sloman noted that one company conducted IMEs on 28 percent of its claims, and had thereby prevented 211 bodily injury claims. One witness testified that its company adjusters call medical providers and advise them of the recommended course of treatment for the claimant's type and severity of injury. It found that, as a result of this new practice, medical providers were informing the adjuster that the person had finished treating or was close to doing so.

The AG points out that, industrywide, the percentage of PIP claims for which companies conduct IMEs has remained relatively flat. He characterizes this result as "disappointing," particularly in light of the Commissioner's observation in the Decision on 2004 Rates that requiring claimants to undergo an IME helps resolve claims at a savings to the company and to lower claim frequency and severity.

Three representative companies use PPOs to control claim costs. The effectiveness of PPOs is confirmed by testimony from the company witnesses, one of whom noted that, while it cost his company $4000 to use the PPO, it had saved them $20,000 in claims costs this year alone. A second witness testified that his company had saved money on PIP claims through the use of a PPO. The AG, pointing out that in the *Decision on 2004 Rates* the Commissioner considered PPO use to be an effective cost containment tool, criticizes insurers' limited use of PPOs.

In addition, the AG notes that although all companies require their adjusters to use the DCD data base to check BI and PIP claims, not all use the DCD's batch processing service. He argues that entering inquiries into the DCD by individual claim increases the company's costs.

On this record, it appears that companies have available to them tools that are effective to control medical costs for PIP and BI claims, but that their use of these tools varies considerably. We are particularly concerned that there is no evidence that companies are expanding their requests for IMEs, a technique that all agree is effective at reducing claim costs. At the same time, we note that companies are paying particular attention to low impact claims, and training specialized adjusters to handle bodily injury claims. We encourage insurers to continue to evaluate their claims handling procedures, and to develop techniques that fully utilize advances in technology and can be shown to

reduce claim costs. Because PPO networks have been shown to be an efficacious approach to containing medical costs, we recommend that companies continue to analyze their operations to determine whether they would benefit from a PPO network.

We note, in addition, that an SRB analysis of claim handling for ceded and voluntary claims demonstrated significant differences in the average loss per vehicle, the number of claims per accident, and the number of injuries that qualify as bodily injury claims and concluded that those differences indicated that claim management in the residual market is not the same as that in the voluntary market. The SRB's analysis raises an additional concern about the adequacy of insurer cost containment activities, particularly as they relate to bodily injury claims.

b. Fraudulent Claim Investigation

The importance of effective detection and prevention of fraud in automobile insurance claims cannot be underestimated. The AG's witness testified that ten to fifteen percent of all claims were fraudulent. The representative company witnesses testified that companies generally employ lists of fraud indicators to help identify claims that require further investigation.[45]

i. Special Investigations Units ("SIUs")

Every automobile insurer in the Commonwealth has an SIU. Testimony from the company witnesses shows consensus that SIUs are a cost effective means of detecting and preventing fraudulent claims. The witnesses testified that their SIUs were well equipped with access to computers, the DCD, and software to assist in their investigations. SIU staff duties include training claims handlers on how to identify fraud, identifying fraud patterns, referring cases to the IFB, and screening losses from ERPs. At least one company, does not refer suspicious claims to its SIU, unless it also has some proof that the claim is suspect.

ii. Referrals to the Insurance Fraud Bureau

The IFB was created in 1991 to investigate and prosecute insurance fraud in Massachusetts. The AIB notes that insurers are required to refer to the IFB all insurance transactions in which fraud is reasonably suspected. Testimony from the company

[45] For at least one company, fraud triggers include the injury history of the claimant or vehicle owner and claims associated with doctors or attorneys who are notorious or reputed to compromise claims for many clients.

witnesses about their companies' fraud referral practices demonstrated, however, that in practice companies do not follow uniform procedures, and do not always refer suspicious claims to the IFB. At least one company refers jump-in and physical damage claims, but not always built up claims.[46] Cases associated with medical providers and attorneys who are known for their connections to fraudulent claims are also not referred to the IFB, nor are claims which are withdrawn, even if the company suspects fraud. One company refers claims that are denied and have a strong chance of prosecution, unless the claim was for a small amount. Other companies refer only clear fraud cases to the IFB.

iii. Community Insurance Fraud Initiatives ("CIFI")

In September of 2003, a Community Insurance Fraud Initiative ("CIFI") was launched in the city of Lawrence, to detect and prosecute insurance fraud in that community. In mid-2004, CIFIs were instituted in Lowell, Brockton, Lynn, Boston and Springfield/Holyoke, communities that, like Lawrence exhibited exceptionally high claim frequencies. CIFIs are cooperative arrangement among the IFB, the District Attorneys and police departments of the affected municipalities. All parties agree that, since implementation, the Lawrence CIFI has substantially reduced losses in that city.[47]

The AIB has stated that insurers' have contributed to the success of the Lawrence CIFI, arguing that "SIUs remain an important component of the CIFI efforts as the insurers provide the underlying claim files and data that reveal the organizations and patterns of fraudulent activity." It argues that companies have devoted adequate resources to the CIFIs, commenting that the insurers do not directly fund the CIFI, but support the IFB budget. The AG, it contends, criticizes insurer involvement in the CIFIs, but cannot document any actions that insurers might take to improve fraudulent claim payments.

The AG argues that the task forces would show even better results if they were implemented more widely with higher levels of industry participation. He asserts that the industry should make greater efforts to ensure the expansion of the CIFIs into other areas. Further, he argues that the insurers' cost containment and fraudulent claims efforts are insufficient because of their failure to participate more fully in the CIFIs. The AG's witness testified that the industry has offered little evidence on outreach efforts to

[46] "Jump-in" claims are those made by claimants who were not actually in an accident, but who allege that they were injured in it.
[47] The witnesses offered different estimates of the amount of the reduction.

determine what resources municipalities need to detect and combat fraud. The AG argues that the success of the CIFI at reducing losses makes expanded cost containment programs a priority for insurers, and demonstrates that, with sufficient attention, great results can be achieved in deterring fraud and reducing payment of fraudulent and inflated claims. Because companies, he asserts, have benefited from the unexpected decreases in losses, the programs are affordable.

The AG argues, as well, that the companies have not demonstrated how they intend to put procedures in place to implement the provisions of St. 2004, c. 464. He argues that the AIB recognizes that this legislation is a powerful tool.

The testimony demonstrates a range of insurer involvement in the CIFIs. The AIB's witness stated that one insurance company has contributed $250, 000 per year, as it was required to do when it entered the insurance industry in Massachusetts, and those funds were used to fund the CIFI. One company has been involved in all of the investigations in Lawrence, including donating cameras and deploying three SIU staff, and is also involved in the CIFIs in Lowell, Brockton and Revere. Another company has been cooperative with the investigations, but has not participated in any other meaningful way. A third company stated that it conducted its own investigations in Lowell and Lawrence before the CIFIs, and has now designated one SIU investigator to each CIFI city. In addition, it has provided vehicles for use in undercover work and technical experts to train on the analysis of theft reports.

Discussion and Analysis

The evidence shows that all insurers have internal special investigation units that are used to assist in the identification and investigation of fraudulent claims. Among SIU responsibilities is referral of cases to the IFB. On this record, it is clear that company referral practices are not identical; it is unclear whether the variation reflects an interpretation of what the IFB requires or company preference. In the *Decision on 2004 Rates*, we noted that the companies have a responsibility to make referrals to the IFB, pointing out a correlation between the investigation of suspect claims and cost reduction, independent of prosecution of the claimant. The record indicates that companies still do not report all cases in which fraud is suspected to the IFB.

The company witnesses offered little information on company use of civil prosecutions to fight payment of fraudulent claims, or of possible deterrent effects of initiating such litigation. While we do not expect companies to pursue every claim for fraud by referral to the IFB or through litigation, it is reasonable to expect them to take appropriate action to ensure that payments are not made in cases in which they *know* fraud exists.

Overall, we note that insurers' participation in the CIFI and the task forces varied from active involvement to *de minimus* participation in the form of merely being available to provide requested information on referred cases. Given the effectiveness of the Lawrence CIFIs in reducing losses, we are persuaded that it is appropriate for insurers to undertake proactive programs for participation in the CIFIs, and consider such participation as a barometer of their commitment to fighting fraud.

c. Motor Vehicle Glass Replacement and Repair

For the glass claims payments portion of the filing, the regulation requires the AIB to provide information on fraud reduction and efforts to ascertain the reasonableness of the pricing for parts and services. Glass claims constitute a significant percentage of losses under comprehensive coverage. The AIB states that glass claims handling has changed significantly since the amendment of 211 CMR 133.04(3) to require repair, rather than replacement, of some damaged glass. The AIB characterizes the regulation as weak and of no consequence and argues that for that reason, the glass repair rate in the Commonwealth is less than four percent while it is thirty percent nationwide.

Although the parties' briefs do not address glass claims, we note the wide variance in the repair rate percentage among companies. The three representative companies that use a particular vendor have higher repair rates than the others, but even among those three companies the difference is significant.[48] The increase in the percentage of glass repairs is a positive development, but the gradual rate of improvement is cause for concern. We urge the companies to exercise more stringent controls over glass claims to ensure compliance with the amended regulation mandating glass repair. We recommend that insurers examine their operations for effectiveness and undertake programs that will replicate the successful programs of companies with high repair rates.

[48] Among these three, the highest repair percentage is 14.4 percent, the lowest 6.5 percent.

d. CAR Performance Standards

The AIB argues that the CAR Performance Standards and claim audits provide uniform procedures for effective and efficient claims handling, the issue that the cost containment standards are intended to address. CAR's 2004 evaluation of company compliance with those standards, it asserts, confirms that companies are in full compliance with the performance standards. The AIB argues that the AG's reliance on a finding in a report by Tillinghast Towers Perrin of shortcomings in CAR's claims oversight as evidence that the companies have not taken appropriate measures to control losses, expenses and fraud, is misplaced. It observes that the performance standards have been revised and that the effect of those revised standards on cost containment cannot be predicted.

The AG argues that the AIB cannot rely on the CAR Performance Standards as evidence that its cost containment programs are satisfactory, citing to *Automobile Insurers Bureau of Massachusetts v. Commissioner of Insurance*, 415 Mass. 455 (1993), which found that the statutory review of cost containment is independent of CAR's obligation to establish performance standards. Further, he notes, the Decision on 2004 Rates concluded that the Performance Standards are not designed to form a basis for comprehensive evaluation of companies and their cost containment efforts. The AG further asserts that the CAR Performance Standards in effect in 2004 have been found to be inadequate, arguing that insurers have not been required to adhere to sufficiently stringent standards to produce adequate cost containment.

The *Decision on 2004 Rates* addressed CAR's report on compliance with the Performance Standards at some length, noting that the standards set minimum requirements and that failure to comply with them is evidence that company cost containment efforts are inadequate. It also stated that the standards are not designed as a basis for a comprehensive evaluation of cost containment. We have been provided with no argument that persuades us to depart from that position.[49] We do not view the CAR report on 2004 compliance with the performance standards as evidence of the adequacy of company cost containment programs. Because no party predicts the effect that revised

[49] We note the AG's comment that the Commissioner's decision on cost containment must be based on the record adduced in this docket. We agree that our findings must be based on the evidentiary record before us in this proceeding, after careful review and analysis of the substance of all submissions.

standards will have on claims reduction, we find that the performance standards provide no basis for adjusting rates.

e. Company savings from cost containment

The AG argues that insurance companies' cost containment efforts are achieving a relatively low level of savings, less than three percent of losses. He also contends that the data show a large variance in savings as a percentage of losses among companies, ranging from a high of 5.8 percent to a low of 1.8 percent. The AG argues that such a variance raises question about whether the poorer performers are devoting appropriate time, effort and resources to cost containment. His witness estimated that if the companies with below average savings as a percentage of losses reached the average level by more effectively implementing special handling techniques, the additional savings would be about $8.7 million. Mr. Schwartz made a similar calculation of savings as a percentage of costs combined for four different claims functions for the representative companies, again finding a large variation among them. He also calculated the cost per employee for four different claims functions, finding a large variation in the cost per employee across functions and insurers, thus raising issues about whether insurers are operating efficiently.

The AIB argues that the AG's approach, that if all companies operated at an average level, greater loss savings would be achieved, impractically forgets that the result of improved losses would, itself, raise the average. Not all companies, it asserts, will ever realize identical savings, because they are all different. The estimates of individual company savings, the AIB contends, are not a suitable quantitative measure of industrywide cost containment. The variations in the reported data, it asserts, do not demonstrate that cost containment efforts are deficient, but only show that reporting methodologies are different. In addition, the information in the AIB filing consists of accounting entries and is not related to the data that the Commissioner uses to establish the rates. The AIB argues that the actual costs and savings of cost containment efforts are included in the statistical plan data underlying the rates, and that adjusting rates because of difference in those costs among individual insurers would, therefore, double count the effect of cost containment efforts.

The AIB further argues that the AG's assertion that company expenditures to fight fraudulent claims are too small is not supported by any analysis of the appropriate amount

of resources that insurers should spend to avoid paying fraudulent claims. It notes that Mr. Schwartz testified that examining fraud expenses as a percentage of premium is not a valid measure of the effectiveness of an insurer's cost containment efforts. The AIB argues, further, that there is no basis for the AG's assertion that savings from claims with special handling are too low in relation to the amount of fraud in the system, and that the validity of his observations on the variance in company costs and savings is questionable.

We are not persuaded that the AG's analyses of company savings provide a reasonable basis for adjusting premiums. The AG acknowledges that the inaccurate and incomplete data in the filing make it difficult to know to what extent the variations calculated by his witness result from data reporting deficiencies or company inefficiencies. Nevertheless, he asserts that there is no doubt that companies can improve their level of efficiency and that some could develop programs that match successful initiatives of other companies. Variances in company expenses are not unusual, as is evident from the data submitted in the Main Rate portion of this proceeding. It is therefore not surprising that expenses for cost containment would show variances. We are also not persuaded that, even if the percentage of expenses used to fight fraudulent claims were found to be relevant, that it is impossible on this record to estimate effectively the percentage of loss adjustment expenses that relate to such claims.

3. Adjustments for Cost Containment

Despite the SRB's concerns about the AIB's filing, it notes that the decrease in 2004 losses, especially in Lawrence as well as other areas where the CIFIs are operating, cannot be attributed with certainty to companies' cost containment efforts or to other factors. Because of that uncertainty, the SRB recommends that the Commissioner make no adjustment for cost containment. Instead, it suggests that she continue to monitor the industry's efforts and urge increased diligence in containing costs and identifying and reducing fraudulent claims.

Nevertheless, the testimony of the company witnesses uniformly indicated that no one was surprised by the amount of fraud in the system, as demonstrated by the success of the Lawrence CIFI. We are troubled that the screening and investigative procedures that insurers, who are the first to receive claims, follow have been inadequate to identify and

prevent payment of fraudulent claims. The data also indicate that insurers are not taking proactive approaches to using techniques that have been demonstrated to save claim costs.

Based on our determination that the AIB filing is deficient, and our conclusion that, based on the evidence presented in this proceeding, the industry's cost containment programs are inadequate, we find that it is appropriate to adjust the otherwise determined rate. This year, we find that it is appropriate to adjust PIP and bodily injury loss pure premiums, for both basic and increased limits, downward by one percent. These are the coverages where increased use of techniques and programs that have been demonstrated to achieve claim savings and more rigorous efforts to identify fraudulent claims may reasonably be expected to reduce losses. Because two of the adjustments are made to mandatory coverages, they will benefit all policyholders in Massachusetts.

Amma A. Kokro, Esq.	Jean F. Farrington, Esq.
Hearing Officer	Hearing Officer

III. COMMISSION EXPENSE PURE PREMIUM

A. Background

Pursuant to G.L. c. 175, § 113B, the Commissioner includes in the fixed and established rates a commission allowance. For many years, the allowance has been set in the form of a commission expense pure premium ("CEPP"). As described in past rate decisions, the CEPP is set at a level that will cover the reasonable expenses producers incur in connection with the sale of private passenger automobile insurance.[50] The dollar CEPP is the basis for developing commissions as a percentage of premium for individual coverages, utilizing a weighting formula.

MAIA, the AG and the SRB submitted testimony and evidence relating to their recommended CEPPs for 2006. The AIB made no recommendation on the CEPP.[51]

B. MAIA's Cost Study and Its Recommendations for the 2006 CEPP

[50] Although "producers" is the statutory term that is used to refer to Massachusetts licensed insurance agents, this discussion of the CEPP will adopt the practice of the parties, which is to refer to these licensed insurance personnel as "agents."

[51] In its rate filing, the AIB utilizes, *pro forma*, the CEPP approved last year.

MAIA recommends a CEPP of $141.10 for 2006, based on a cost study done this year by Tillinghast Towers Perrin ("Tillinghast") on its behalf (the "2005 Cost Study").[52] Its recommendation represents an increase of approximately 18 percent over the CEPP of $119.50 adopted in the *Decision on 2005 Rates*. MAIA argues that its 2005 Cost Study is "a brand new and rigorous study of agent expenses associated with the production and servicing of Massachusetts PPA insurance policies" and that its underlying methodology "incorporates all ten of the Commissioner's comments and recommendations as set forth in the *Decision on 2005 Rates*."[53]

The 2005 Cost Study is based on five data sources: 1) detailed 2004 premiums, commissions, expenses and other operational information provided by randomly selected individual agencies writing PPA insurance in Massachusetts; 2) expense trend data from the United States Department of Labor Bureau of Labor Statistics ("BLS") and the Massachusetts Department of Employment and Training ("DET"); 3) MAIA membership information; 4) exposure information from the Commonwealth Automobile Reinsurers ("CAR") and -5) seasonality adjustment and effective date information from the AIB.

MAIA classified the total agency force writing PPA insurance in Massachusetts in 2004 into 18 categories, including geographical regions, size, number of carriers writing PPA insurance business with that agency and ERP status. The size categories in the 2005 Cost Study were based on the number of PPA insurance exposures the participating agency wrote in 2004, rather than the number of employees, a classification that the Commissioner had found to be not meaningful for purposes of setting a CEPP.[54] CAR provided information on the number of carriers writing PPA insurance business by agency.

The study sample, MAIA asserts, this year reflects the demographics of all agencies in the Commonwealth writing PPA insurance, rather than just MAIA members alone. It also, in response to the Commissioner's recommendation that future cost studies

[52] MAIA's original recommendation was $141.23, which it later adjusted based on additional information.
[53] MAIA uses the acronym PPA to refer to private passenger automobile insurance, and we have adopted that convention in this section of the Decision.
[54] This represents a change from the methodology followed in earlier cost studies that classified agencies as small or large depending on the number of employees. In the 2002 and 2004 Cost Studies agencies with four or more employees were classified as "large".

include data from an appropriate and representative sample of Exclusive Representative Producers ("ERPs"), expressly considers the ERP status of the participating agencies.

For each of the 18 categories, MAIA "randomly selected" MAIA-member agencies writing PPA insurance business in proportion to the distribution of all similar agencies in Massachusetts, both MAIA members and non-members. The selected sample size was ten percent of the MAIA membership as of February 7, 2005, or 153 agencies. Each of the 153 agencies was contacted. MAIA reported initially that 130 agencies provided all of the requested data on 2004 premiums, commissions, expenses and other operational information, a response rate of 85 percent. Subsequently, an additional agency provided all the requested data, for a final response rate of 86 percent. That response rate, MAIA asserts, makes the 2005 Cost Study more reliable than the previous study, which had a participation rate of only 77 percent.

MAIA notes that the methodology on which it bases its CEPP recommendation differs from the methodology used by the Commissioner to adopt the CEPP in the *Decision on 2005 Rates* because it is based on actual data, whereas the 2005 CEPP was judgmentally selected. It asserts that the 2005 Cost Study is "substantially improved" over all of MAIA's past cost studies, and therefore has "greatly improved reliability." because "it faithfully incorporates each and every one of the Commissioner's ten separate and comprehensive recommendations for MAIA's future cost studies."

MAIA develops its recommendation from the weighted average data from each of 131 representative participants in the 2005 Cost Study.[55] In contrast to the 2004 Cost Study, a Tillinghast representative collected the 2005 Cost Study data during actual visits to each of the participating agencies and verified such information. MAIA argues that Ms. Barnes was able personally to verify and assess the reasonableness of the reported data, and asserts that all expense data was cross checked against the audited financial figures for each agency. Ms. Barnes testified that she relied primarily on the participants' tax returns to verify the costs reported in the 2005 Cost Study. MAIA notes that "full tax return data" was obtained for 123 of the 131 participating agencies.

[55] The number of participating agencies was reported as 130 in MAIA's initial filing. Thereafter, an additional agency participated, making a total of 131 participants.

In response to the Commissioner's concern that the CEPP must be based only on expenses directly related to PPA insurance business, MAIA asserts that its 2005 Cost Study excludes all wages, benefits and travel for agency employees writing non-PPA lines of insurance. It believes the wages reported by the agencies in the 2005 Cost Study to be "reasonable" based on its review of the average wages per employee for the agencies that participated in the study, further noting that no "exceptional salaries" were reported in the 2005 Cost Study.

MAIA's methodology this year allocates agency expenses based on the average of their relationship to both commissions and premiums. MAIA admits that a CEPP value that is based on a commission allocation alone is two percent lower than its proposed CEPP. However, it argues that this value is understated, because commissions for almost all other lines of business in 2004 were determined by a competitive market, while the PPA insurance commission allowance was set in the *Decision on 2004 Rates*, and MAIA asserts, was set at a level that it believes was inadequate. MAIA argues, based on its analysis, that the 2004 CEPP should have been set at $128, rather than the $114 value adopted in the *Decision on 2004 Rates*.[56]

MAIA asserts that it has responded to the Commissioner's comments about the "other expense" category in the 2004 MAIA Cost Study by obtaining the expense data in the 2005 Cost Study "directly from the numerous detailed categories of certain income tax schedules and supporting tables from agencies' 2004 federal income tax returns" and that the study "specifically identifies the types of data contained in the 'all other' expense categories." Ms. Barnes collected data from several different tax schedules in numerous categories, which allowed for a more extensive listing of individual expenses and, according to MAIA, reduced the value of the "other" category to a nominal 6/10^{ths} of one percent. Furthermore, it argues, she explained the kinds of expenses left in the "other" category.

MAIA for its 2005 Cost Study consolidated agency expenses into the same seven categories it had used in past cost studies: wages, benefits, taxes, rent, office expenses, travel expenses and "all other expenses." The values assigned to each category were

[56] MAIA's discussion is somewhat confusing, because it seemingly makes reference to the CEPP established by the *Decision on 2004 Rates* as both a "2004 CEPP" and a "2005 CEPP:"

based on the individual agencies' federal income tax forms. To estimate the average costs per agency, MAIA then divided the total expense dollars by the number of agencies that provided expense information. Because these total costs relate to sales of lines of insurance other than PPA, MAIA then separated total costs by line of business. In doing so, MAIA allocated expenses to PPA expenses based on three factors: premiums, commissions and wages.

For premiums, MAIA determined a PPA expense ratio by dividing the PPA premiums by the all-lines-combined premiums for each agency. The same approach was used to create a commission ratio. MAIA allocated wages to PPA insurance business by grouping job titles into three categories distinguished by job descriptions primarily related to personal lines insurance, commercial lines business and all other job titles. Wages for job descriptions related to personal lines insurance and wages for all other job titles were allocated to PPA insurance business based on an agency's PPA to personal lines ratios for premiums and commissions; i.e., based on the average of (1) the proportion of PPA insurance commissions to the total commissions of an agency (all lines) and (2) the proportion of PPA insurance premiums to the total writings of an agency. Commercial lines business wages were not allocated to PPA insurance business. The PPA wage allocation was applied to wages, benefits and travel expenses.

MAIA allocated rent, office expenses, and "other expenses" to PPA insurance business based on the average of the proportion of PPA insurance commissions to the total commissions of an agency and the proportion of PPA insurance premiums to the total writings of an agency. The PPA commission allocation was applied to the remaining expense category, taxes. As Ms. Barnes explained, this was done "[p]rimarily for consistency with prior years" and so as to link taxes to revenue, with revenues being the commissions.

MAIA asserts that the three allocation percentages for PPA insurance business imply a PPA insurance expense percentage of 35 percent. Applied to total business expenses of $84.3 million reported by the study participants, the dollar value of PA insurance expenses for the 2005 Cost Study participants was $29.5 million.

MAIA asserts that the PPA expenses were converted to a pure premium basis using data provided by CAR, which reported approximately 231,000 PPA insurance

exposures for the 2005 Cost Study participants. That value represents approximately seven percent of all PPA exposures written by agencies in 2004. MAIA argues that this constitutes a "sufficiently robust" sample on which to base conclusions as to the indicated 2006 CEPP.

Because the expenses used in its 2005 Cost Study are from 2004, MAIA trended the results forward two years. In contrast to the methodology it used in the 2004 Cost Study, MAIA's trend methodology this year combines various trend indices into a single factor, using weights directly from the 2005 Cost Study expense data. Its trend factor is a weighted average of various trend indices based on BLS and DET information that, it argues, is reflective of costs incurred by agencies. However, unlike the AIB, whose weighting scheme is based on *Best's Aggregates and Averages*, 2004 data, the weights applied by MAIA to each index are based on the data in the expense categories in the 2005 Cost Study. The weighted trend factor, MAIA states, relying on Massachusetts wage data reported by the Massachusetts DET, is 1.105, which implies an annual trend rate of approximately 4.7 percent. MAIA argues that this year's methodology produces a more reliable trend value.

Based on its estimated PPA insurance business expenses for the 2005 Cost Study participants and the number of exposures for those agencies, MAIA calculated the estimated cost per exposure to produce and service PPA insurance business as $127.81. That figure, when trended to a 2006 basis, results in MAIA's recommended 2006 CEPP of $141.10.[57]

C. The Responses of the AG and the SRB to MAIA's Recommendation

i. The AG

The AG expressed a number of methodological concerns about the 2005 Cost Study. He asserts that MAIA's methodology does not result in a proper random sample: MAIA selected the agencies surveyed in the 2005 Cost Study by first separating its membership by certain demographics and then selecting agencies from those separate categories, with not all selected agencies choosing to participate. The AG also criticizes the study because MAIA instructed the participating agencies to include all overall agency

[57] As noted above, MAIA's original recommendation was $141.23.

expenses, but then neglected to confirm whether these expenses related to PPA insurance business.

Further, the AG argues that: 1) wage figures used in the 2005 Cost Study do not reconcile with the tax returns; 2) using premiums and commissions as an allocation basis likely overstates expenses; 3) the wage values reported include a profit component; 4) there is a "very wide disparity" across agencies in the cost allocation among the various expense categories; and 5) not all expenses reported by the agencies have been shown to be appropriate to include in the commission allowance that will be paid in the rates by policyholders. The AG notes that there are many agencies for which the wage values used in the 2005 Cost Study are considerably higher than the value contained in the tax returns. Notwithstanding MAIA's explanation that not all wages are reported in the tax returns, the AG emphasizes that there does not appear to be any independent verification or means of checking that such unreported wages have been accurately included in the 2005 Cost Study data. The AG also comments that tax return data on eight agencies was missing at the end of the hearing process, despite MAIA's assertion in its initial filing that each study participant had supplied all requested information.

The AG criticizes the 2005 Cost Study for using all the reported wages as an expense, arguing that this deficiency also appeared in the 2004 Cost Study that was criticized in the *Decision on 2005 Rates*. The AG argues that MAIA's uncritical reliance upon the amounts that are reported on federal tax returns as "wages" means that discretionary earnings, which could be reported as "wages" for tax purposes on the tax forms, could be accounted part of expenses under the methodology of the 2005 Cost Study. He objects because MAIA did not compare the wages of the participating agencies to their profits, thereby ignoring any potential inclusion of profits in the CEPP. The AG further asserts that, while MAIA excluded wages for agency employees writing non-PPA insurance business, it did not exclude those employees' benefits or office expenses.

The AG alleges that the use by the 2005 Cost Study of premiums and commissions to allocate expenses to PPA insurance will allocate a disproportionately high amount of those expenses to PPA insurance business. He argues that this result occurs because PPA insurance premiums and commissions per exposure and policy tend to be "much higher" than those for other personal lines of insurance, such as homeowners, fire and allied lines

and inland marine. As an alternative, he recommends using a combination of exposure and policy counts to allocate expenses among the personal lines of insurance, which he asserts will give a more accurate result and would likely result in a lower amount of expenses being assigned to PPA insurance business. Although the AG asserts that using commissions is superior to using premiums as a basis for allocating agency expenses to PPA business, he cautions that a commissions approach also has shortcomings. He asserts that allocating expenses by commission would still inflate the CEPP, because commissions for PPA insurance also are significantly greater than those for other lines of insurance.

The AG criticizes MAIA for essentially taking the position that all expenses that are deductible for federal income tax purposes must be allowed to be passed through to consumers in the form of higher commission allowance. He argues that the 2005 Cost Study simply inventories agency expenditures and that MAIA recommends that consumers pay the full amount of those expenses in the form of commissions. Such an approach, the AG argues, encourages waste and promotes fiscal irresponsibility on the part of agencies. Indeed, the AG argues that the 2005 Cost Study data, which show a large variation in the expense per exposure across the participating agencies, demonstrate that waste may be occurring. That some agents report expenses that are 5.4 times the expenses of other agents is evidence, according to the AG, that some agencies are wasteful and less efficient, that MAIA's study contains errors, or both. Furthermore, the AG avers that the 2005 Cost Study data also show that expenses vary significantly both overall and in specific expense categories. The AG stresses that, other than noting that some agents work out of their homes or garages, MAIA was unable to explain why these disparities are so large.

To address the assertion by MAIA that differences in expected costs exist across agencies, the AG performed a regression analysis which, he asserts, demonstrates that variations in the expense per exposure across agencies are almost totally unrelated in a statistically significant manner to differences in the agency's size or geographical location. Furthermore, the AG argues that considering potential differences in agency expenses per exposure based upon size and region has virtually no impact on the indicated "expense efficiency factor." The AG contends that MAIA's assertion that the variation in

agency expenses is a function of size and location does not explain those variations, and that MAIA has not provided any reasonable alternative explanation for them. With respect to MAIA's opinion that the average commission for each demographic category is different, the AG counters that his regression analysis demonstrates that this difference is not statistically significant.

If the 2005 Cost Study is used as a basis for setting a CEPP, the AG asserts that the Commissioner should make several adjustments to the data in order to arrive at a reasonable rate. The AG's recommended adjustments include applying: 1) an "expense efficiency provision;" 2) a "disallowed expense provision" to remove unnecessary expenses from the data; and 3) a "productivity factor" to the wage component of MAIA's trend factor. The AG argues, as well that expenses should be allocated based on exposures rather than by premiums, commissions, or the average of premiums and commissions. When these adjustments are made to the 2005 Cost Study data, the AG asserts that no increase in the CEPP is indicated.

For the 131 participants in the 2005 Cost Study, the AG notes a range for cost per exposure from $55.88 to $302.48, a factor of 5.4. The AG contends that MAIA's filing has provided no explanation for why it should cost one agency more than five times as much as another to handle PPA insurance business. He therefore applied an "expense efficiency provision," which was calculated by limiting the expense per exposure for each agency to the average value across all agencies combined. He used the average expense per exposure across all agencies combined as a "cap," disregarding reported expenses in excess of this cap.

In response to MAIA's argument that the AG's capping approach is inconsistent with the two standard deviation adjustment for outlier in the company expense provision, the AG argues that the methodology used to determine the CEPP historically has differed from the methodology used to produce a rate for companies. A single standard deviation approach, the AG asserts, would give a tighter sample than would a two standard deviation adjustment, and thus would be appropriate for this data. The AG asserts that a single standard deviation approach to MAIA's data to account for the 2005 Cost Study's deficiencies results in a CEPP of $119, even without removing what the AG views as unnecessary or unrelated costs from MAIA's data or reallocating the data based on

number of exposures. The AG's recommendation takes more costs out of the 2006 CEPP calculation than would occur if the costs that were removed were limited to those that were two standard deviations above the mean expense per exposure.

Because the CEPP methodology does not include a provision for cost containment, the AG asserts, an expense efficiency adjustment is necessary in order to hold agents accountable for efficient spending. Such a provision, he argues, will ensure that wasteful practices do not skew the ratemaking process. He recommends that the expense per exposure for each participating agency be limited to the average of the total expenses of all of the participating agencies combined. Applying that value to MAIA's data results in an indicated "expense efficiency factor" of 90.3 percent. This limiting of the costs of the less efficient agencies to the average of all agencies combined, including those less efficient agencies, by the AG's reckoning, reduces overall expenses by 9.7 percent.

The AG notes that the expenses reported by the 2005 Cost Study participants in their tax returns include dozens of different types of expense categories. He claims that MAIA has not shown that each of these types of expense is appropriately allocated to PPA insurance business or that, as matter of public policy, each of these expenses should be passed through to policyholders. Based on review of the different expense categories reported in the insurance agency tax returns, the AG averred that the following categories of expense need further explanation before being passed through to policyholders in the form of higher rates: travel and entertainment, advertising, marketing, sales promotions, bad debt, penalties, interest, charitable contributions, meals and entertainment, gifts, lawsuit settlement, miscellaneous and "other."

The AG notes that certain expenses are excluded from the Massachusetts Automobile Expense Call, including 1) expenses related to investments, 2) real estate investment expense and depreciation, 3) uncollected merit rating or SDIP surcharges, 4) uncollected premium and 5) bad debt reserve. The AG argues that it is an accepted practice to exclude certain expense items from being passed through to consumers in the form of higher rates.

In response to MAIA's claim that travel is related to PPA insurance business because agents may attend seminars or inspect vehicles, the AG counters that MAIA's actuary did not ask those agencies that reported travel expenses whether or how the travel

was related to PPA insurance business. Furthermore, the AG notes that MAIA's actuary could not explain how often agents actually conducted such inspections or identify instances where they did so. On the issue of advertising, the AG belittled MAIA's proffered evidence of pages from the Boston telephone directory, some of which featured pictures of automobiles. He noted that many of the advertisements may have nothing to do with PPA insurance business and that their costs should not be part of the CEPP. He also avers that it is unclear why agent advertisements provide any value to consumers. The AG's expert, furthermore, stated that the purpose of advertising is to gather business for a particular agent, which he alleges is similar to how insurers use contingent commissions to attract or retain agents. He noted that contingent commissions are not included in the Main Rate calculations.

The AG avers that MAIA also fails to explain how any of the other expense categories relate to PPA insurance business. For example, he notes that MAIA suggests that entertainment expenses could be used for holiday parties, summer picnics or the entertainment of clients. The AG also expressed concern that the wages reported in the 2005 Cost Study, although lower than last year's reported wages, still are not verified and therefore may be inflated by the unfair loading of profits into the reported expenses.

The AG maintains that debt service on debt capital, cost of equity for equity capital, federal income taxes and state income taxes all should be excluded from the CEPP because the Commissioner has determined that there should not be an underwriting profit load in the CEPP. The concern, expressed by the AG's expert witness, was that the owner of an agency could realize a take-out of equity and then service the agency's debt through a third party. He argues that the interest charge to an agency arises because that agency in essence borrows money instead of using its own capital to run the operation. In contrast, an agency that uses its own capital to run its operation incurs no interest charge, but is not allowed, for purposes of the CEPP calculation, to have a profit provision considered. Thus, if a profit provision for agencies that use their own capital is not considered, then the capital charge that results when other agencies incur interest payments, rather than using their own capital/equity, also should not be considered in calculating the CEPP. The AG argues that there should be comparable treatment for these different financing approaches by agencies.

The AG also criticizes MAIA for including unusual, non-recurring costs in the 2005 Cost Study. He notes that Tillinghast did not ask the agencies to explain the variations or whether the expenses were related to PPA insurance business. Inclusion of these expenses, he claims, produces an inflated CEPP.

The AG also criticizes the MAIA filing because its wage trend factor does not reflect increases in productivity. The AG notes that wages are the major component of the MAIA expense trend factor, constituting 65.7 percent of the costs included in the MAIA trend calculation. He argues that MAIA's approach will lead to an inflated cost projection because increases in wages are offset to a significant extent by increases in worker productivity. In support of his position, the AG points to BLS data that those employed in non-farm business have increased productivity annually by 3.1 percent from 1998 to 2004, and by 3.7 % from 2002 to 2004. The AG argues that MAIA has not provided any evidence that indicates that the productivity of insurance agencies will not follow the trend of other industries. He contends that this "productivity factor" should be applied to MAIA's trend factor of 1.105, which would produce an overall trend factor of 1.058.

The AG argues that a productivity adjustment has been adopted in the past. See, e.g., *Decision on 1986 Rates* at 114; *Decision on 1987 Rates* at 228. The AG argues that MAIA appears to take the position that, even though agents can expect to receive annual wage increases of about six percent per year, they need not increase productivity in order to justify these very large wage increases; increases that are much higher than inflation. He also claims that MAIA is contending, without explanation, that agents cannot work more productively even though productivity is increasing for the economy as a whole. The AG also alleges biased high projection of wage increases as a result of MAIA's decision to use data through December 2004. He claims that data after December 2004 shows not only a decrease in the upward wage trend; it shows that wages are trending downward from 2004 to 2005. Applying an annual productivity trend of three percent per year for MAIA's trend period of 2.234 years (total trend factor of 1.105 and an annual rate of change of 1.047), the AG arrives at a total productivity adjustment of 6.7 percent, which value he uses in his corrected analysis.

With regard to his use of BLS data, the AG points out that he has used figures for "non-farm business." Therefore, the AG argues, MAIA's assertion that this data is

"weak" and "should be interpreted with caution" is misplaced; those comments in the *BLS Handbook of Statistics* refer to the "financial services" sector. In summary, the AG argues that MAIA has not provided any evidence that indicates that agents' productivity will not follow the trend of other industries, but instead remain stagnant.

With respect to MAIA's use of DET data for Massachusetts "Insurance Agents, Brokers and Service Employees," the AG states that MAIA has not provided a justification for agent wage expenses to increase in Massachusetts while decreasing everywhere else. He argues that nationwide data is a more objective measure of the real trend than is Massachusetts data because the setting of the CEPP can artificially increase the wage trend, especially because commissions for PPA insurance business are greater than they are in other lines.

With respect to MAIA's claim that agents are performing increasing amounts of work, the AG states that MAIA was not able to provide any detailed explanation of what constitutes this additional work. Moreover, the AG's expert testified that "companies and agents using the insurance industry in general are developing more sophisticated computer systems for handling data processing and therefore [entering data] is expected to get easier over time, not harder." Furthermore, the AG argues that there is no indication that companies will continue to shift more work to agents, even if that has occurred in the past. Furthermore, the AG disputes MAIA's contention that the AIB has proposed a lower rate in its 2005 filing than in the "2004 Decision" because agents now are performing some of the work previously done by the companies. Finally, the AG points out that the 2005 CEPP approved by the Commissioner already reflects consideration of additional expenses that agencies may have incurred in implementing the revised rating system. Since these planned reforms did not occur last year, and the increased CEPP was designed to cover reform implementation, the AG claims that the agents reaped a windfall in last year's CEPP. He recommends that another increase should not be added to the 2006 CEPP for the same implementation expenses. Hence, the AG states that his recommendation to continue with the 2005 CEPP includes a provision for any such additional expenses. Based on his analysis, the AG maintains that the use of an annual productivity increase in the output per hour of three percent per year is appropriate, resulting in an overall trend factor of 1.058, rather than MAIA's value of 1.105. In

summary, the AG alleges that MAIA has presented no concrete evidence to explain why agents' productivity will not increase.

The AG argues that the CEPP for 2006 should not be increased because MAIA has not met its burden of producing evidence to justify the increase that it recommends. Although the AG's analysis indicated a CEPP of $116.62 based upon the 2005 Cost Study, in "consideration of the various issues," the AG recommends that the CEPP for 2006 remain at the value used for 2005 rates; $119.50. [58]

ii. The SRB

The SRB notes that the 2005 Cost Study was conducted in a much more rigorous manner than in past MAIA studies, and accepts its results. It proposes two methodological changes to the process of calculating the CEPP from the study data. First, the SRB asserts that the only meaningful basis for determining the CEPP is to express the expenses associated with servicing PPA insurance business within an agency as a percentage of the commissions earned from that line. Second, the SRB argues that, because the CEPP is intended to represent the average costs of the average agency writing the average policyholder, the cost study results should be restated to match the statewide average premium level and commission percentage for 2004. The SRB, comparing the cost study results to those averages, concludes that the participants wrote premium and received commissions at a level above those averages. It then restates the cost study data to conform to the statewide averages, recalculates the average commission dollars for 2004, and trends that value forward to 2006, using MAIA's proposed trend factors.

The SRB argues that agency expenses should be allocated to PPA insurance business based on commissions received by line of business, rather than on commissions and premiums. Because the average premium per car is considerably higher than the average premium per homeowners or other line of insurance that affects total personal lines premium volume, the SRB asserts that using premium volume to allocate agency expenses is inappropriate, and results in overestimates of expenses by more than $2 million. The SRB argues that the commissions-based ratio should be used to allocate rent, office expenses and other expenses to an agency's PPA insurance business. Furthermore,

[58] During his testimony on October 20, 2005, the AG's witness corrected the CEPP figure of $115.41 that originally appeared in his filing.

the SRB argues that any agency is likely to allocate expenses based on the revenue that the agency expects to receive from its sales of various lines of insurance, not on the basis of the premiums that its customers pay to insurance companies. Furthermore, the SRB states that, because premiums for personal lines products vary much more widely by line of business than do either the costs or the revenues of producing such business, premiums should not be used to allocate expenses.

The SRB agrees that the 2005 Cost Study sample should reasonably approximate both the statewide distribution of agencies by type, size and location, and acknowledges that this study does a good job of meeting that criterion. However, the SRB argues, the study should reflect the average customer serviced by agencies statewide, a standard that it does not meet. It states that the objective in setting the CEPP is to set a commission expense pure premium that reflects the "average risk," and is sufficient to cover the basic expenses of an average performing insurance agency. Because the objective of industrywide ratemaking is to determine a standard commission rate for all risks statewide, the SRB adjusts the cost study data to the average statewide premiums and commissions for 2004. The SRB asserts that the average insured in the MAIA 2005 Cost Study did not represent an "average customer" in two respects: (1) the commission percentage of the 2005 Cost Study participants was 11 percent versus a 10.7 percent commission percentage statewide and (2) the average premium per exposure was $1,167 for the 2005 Cost Study participants compared to $1,112 statewide.[59]

The SRB rejects MAIA's contention that PPA insurance commissions are *per se* inadequate because they are set by the Commissioner. It declares that, based on MAIA's own filing, commissions are apparently more than sufficient to cover agency PPA insurance expenses, even when allocated using MAIA's methodology. The SRB claims that MAIA's own study shows that the agencies participating in the 2005 Cost Study received sufficient commissions in 2004, and that the testimony of its witness affirmed that they did so. Furthermore, the SRB argues, if MAIA's sample does not actually represent agencies statewide, but instead overstates average PPA insurance premiums,

[59] The statewide average rate represents all premiums, whether the policy is sold through an agent or by a direct writer.

then the 2004 PPA insurance commissions received by the 2005 Cost Study participants, excluding contingent commissions, will have been even more excessive.

The SRB agrees with the AG that MAIA incorrectly assigns too much expense to the PPA insurance line. The CEPP, it argues, should cover average expenses but should also place limits on what agents can pay themselves and pass on to consumers in insurance rates. In response to MAIA's assertions that relying on commissions alone does not take into consideration the "differences in workload that an agency performs based on the riskiness/frequency of the business it produces," and that carriers may, in various lines, including PPA insurance, sometimes pay a higher commission where claims-related expenses are expected to be lower, and a lower commission where such expenses are expected to be higher, the SRB asserts, first, that no bias would result from such a practice if it were done for each line of business. Second, it notes, acquisition costs can be expected to be higher for better business, even if claims costs may be lower.

The SRB's calculations restating the 2005 Cost Study data to the average levels for 2004 produce an average statewide 2004 commission expense per vehicle of $109.81. The SRB considers that MAIA's trend factor of 4.7 percent per year is consistent with trend selections in prior filings and is within the range of reasonableness; applying that trend factor to the adjusted expense pure premium produces a 2006 indicated expense pure premium of $121.34.

C. MAIA's Responses to the Criticisms of the AG and the SRB

MAIA argues that the two adjustments made by the SRB to the 2005 Cost Study analysis are not appropriate. It argues that allocating agencies' expenses to PPA insurance business based solely on commissions compares commissions for other lines of business that are adequate, because they are set by market forces in a competitive marketplace, and commissions for PPA insurance business that are inadequate because they were set by the Commissioner. MAIA maintains that this procedure results in an inadequate expense allocation to PPA insurance business.

MAIA argues that allocating expenses by commission also ignores the differences in an agency's workload relating to the "riskiness/frequency" of the business that it produces. Riskiness, MAIA asserts, relates in large part to differences in accident frequency for various types of insureds. Assuming that agencies are involved with at least

some part of the claims process, MAIA states that increased claims frequency will increase agency workloads, but does not necessarily result in correspondingly higher compensation for agencies. Indeed, MAIA asserts, some carriers pay agencies a reduced commission percentage for business written at higher SDIP steps and a higher commission for lower SDIP step business, and pay some agencies with high loss ratios a lower than average commission percentage. MAIA asserts that differences in risk represent differences in cost that are not captured by looking at commissions, but can only be recognized by incorporating premiums into the expense allocation process. Furthermore, MAIA argues that it is appropriate to rely on premiums as an allocation factor because the Commissioner, in converting the approved CEPP into an overall commission percentage, uses average premium size to vary the commissions actually received by agencies. Asserting that the SRB's filing demonstrates that commissions in lower rated territories are lower than commissions in higher rated territories, MAIA argues that this variation is based on the fact, supported by its 2005 Cost Study, that an agency's costs in a lower rated territory are on average lower than the costs incurred by a similar agency located in a higher rated territory. This demonstrates, MAIA contends, that premiums are a direct indicator of the underlying costs to the agency.

MAIA claims that the SRB is engaged in circular arguments when it allocates expenses to PPA insurance business based solely on commissions because it relies on the 2004 CEPP set by the Commissioner. Thus, the SRB's allocation of expenses to PPA insurance business would vary with the CEPPs set by the Commissioner, with no evidence that the actual expenses of the agencies would be mirroring these changes.

MAIA asserts that the SRB's recommendation that the CEPP should be changed to reflect the "average insured" is flawed, because Massachusetts law requires that the CEPP be set at a level that is adequate for the "average risk" written by the "average agency;" not the "average risk statewide." It argues that premiums vary depending on whether the policy is written by an agent or a direct writer, and that the CEPP should not be adjusted using data related to direct written exposures. MAIA argues that the SRB adjustment assumes that the "average agency" writes the "average exposure statewide," but that the 2004 Expense Call data show that agency-produced business generates higher average

premiums than does business written by direct writers. Therefore, MAIA concludes, the "average agency" does not write the "average exposure statewide."

MAIA asserts, as well, that the SRB miscalculates the average statewide PPA insurance commission in 2004. It claims that the SRB's adjustments assume that the commissions received by 2005 Cost Study participants, if they reflected the "average agency," would be 10.7 percent, but that the 2004 Expense Call data show an average agency-produced 2004 PPA insurance commission percentage of 11.3 percent. MAIA calculates that the average PPA insurance commission percentage for the 2005 Cost Study participants is eleven percent, a value that would be less, not greater, than the average as calculated by MAIA. MAIA argues that the SRB's comparison is flawed because it incorrectly compares commission percentages that are based on hypothetical projections with actual experience, while MAIA's figure is based on the 2004 Expense Call.

MAIA also alleges that the SRB made an unexplained and unwarranted adjustment to the expenses of the 2005 Cost Study participants as part of its adjustments for alleged excess revenues. If this error is eliminated, MAIA claims that the indicated CEPP for 2004, if the SRB's allocation methodology and excess premium and commissions collections arguments are accepted, is $118.75, a value that, if trended using MAIA's trend factors would produce an indicated CEPP of $131.22 for 2006.

The AG's proposal to cap agency expenses at the average expenses of all 131 participants in the 2005 Cost Study would produce a CEPP that is inadequate on a statewide basis, according to MAIA, because it would cap the expenses of agencies that are expected to have higher than average costs. Regarding the AG's comments regarding the wide range of expenses that agencies report, MAIA asserts a wide range of values in the expense categories is reasonable because of the wide range of types of agencies and their diverse locations. According to MAIA, agencies that operate inside of Route 128 tend to have higher average expenses per exposure than do those further outside the metropolitan Boston area, which in turn have higher average expenses per exposure than agencies on Cape Cod and in the western, more rural parts of the Commonwealth. Further, MAIA argues, the AG has capped higher expenses at the average level across the state but has not adjusted the lower than average expenses that tend to be associated with agencies operating in the more rural areas. Moreover, MAIA argues, larger agencies on

average have lower expenses per exposure than smaller agencies, likely due to economies of scale. MAIA argues that these factors explain the reasonable, and expected, pattern behind the expense per exposure variations in the 2005 Cost Study. The AG's "expense efficiency provision" therefore unduly excludes cost data of participants that legitimately incur higher costs per exposure.

MAIA asserts that the AG's capping also is inconsistent with other adjustments made in the Massachusetts PPA insurance rate-setting procedures, specifically referring to the "adjustment for outliers" in the company expense provision in the *Decision on 2005 Rates.* MAIA notes that the Commissioner has stated that the two standard deviation methodology was "a reliable method of ensuring that only reasonable company expenses would be passed along to consumers." *Decision on 2005 Rates* at 24; *Decision on 2004 Rates* at 120. MAIA argues that the Commissioner's two standard deviation methodology, which is used for company expenses, would render insignificant the variations noted by the AG if the methodology were to be applied in the context of establishing the CEPP.

MAIA also asserts that the AG's capping recommendation is inconsistent with prior decisions, specifically referencing the *Decision on 1998 Rates*, in which the Commissioner rejected both the AG's proposed "trimmed mean" methodology, which was "intended to address the variation in the average per exposure expenses of the agencies surveyed in the 1997 Cost Study," as well as the SRB's proposed "CAF-type" methodology, which limited the expenses included in the study to only those below the 65^{th} percentile. In contrast, the 1998 CEPP relied explicitly on the un-trimmed data from the 1997 Cost Study in spite of a range of "nearly 12 to 1" in expenses in the 1997 Cost Study. In comparison, the range in the 2005 Cost Study is only 5.4 to 1.

With regard to the twelve categories of expenses that are listed in the 2005 Cost Study that the AG asserts "need further explanation" before they are included in the 2006 CEPP, MAIA argues that two are of no moment and defends the remaining ten as "standard expense categories that reflect necessary and routine aspects of running an insurance agency and that consistently have been allowed in prior PPA insurance rate decisions." Furthermore, MAIA states that each of these categories has been allowed for carriers in the Main Rate Decision.

MAIA defends the expenses claimed for advertising, marketing, sales promotions, and gifts as costs associated with acquiring business for an agency that are necessary if it is to compete effectively in the PPA insurance marketplace, and as analogous to the same types of expenses that are used in calculating the insurance company expense pure premium and are included as part of the expense call for companies and in the insurance expense exhibits to company annual statements. Therefore, it argues, the AG's 2.4 percent disallowance for advertising expenses is baseless and should be rejected.

MAIA defends the claimed "meals and entertainment" expenses as an explicit line item on federal income tax returns for sole proprietors and as a category typically included in other federal income tax return schedules. MAIA notes that the two types of entertainment that could be included in an agency's federal income tax deductions, for employees and for customers, are both included in company expense provisions for carriers, based on NAIC expense definitions. It argues that employee entertainment is a reasonable cost of doing business.

Regarding the "travel and entertainment" category of expenses, MAIA argues that it offered testimony on a number of travel-related expenses that an agency may regularly incur, including attending continuing education classes, traveling to perform vehicle inspections and delivering license plates. MAIA explains that the "interest" expense category might relate to interest paid by agencies in connection with the funding of large purchases such as an office building, cars, or computer systems, noting that carriers include interest paid within the "purchase" category in their expense reporting. MAIA notes that the SRB believes that interest is a reasonable basic expense of insurance agencies.

Similarly, MAIA describes charitable contributions expense as a reasonable cost of doing business and as analogous to charitable contributions made by carriers, which are explicitly allowed in the company expense pure premiums. MAIA also argues that this expense category is part of the participants' federal income tax returns, are included in the Massachusetts Automobile Expense Call and are included in the Insurance Expense Exhibits for the companies. MAIA calculates that rejecting these expenses would result in a 0.1 percent reduction in the expenses of the 2005 Cost Study participants.

With respect to the "miscellaneous and other" expense category, MAIA notes that these expenses tend to be a small proportion of an agency's overall expenses and that NAIC expense categories include "miscellaneous" expenses that are incorporated into the company expense pure premiums. MAIA again asserts that this expense category appears as part of the federal income tax returns of the 2005 Cost Study participants, are included in the Massachusetts Automobile Expense Call and are included in the Insurance Expense Exhibits for the companies. MAIA calculates that rejecting these expenses would result in a 0.3 percent reduction in the expenses of the 2005 Cost Study participants.

With respect to certain expenses that the AG noted are excluded from the Massachusetts Automobile Expense Call, MAIA stresses that (1) expenses related to investments and (2) real estate investment expense and depreciation were, and still are included in PPA insurance rates by virtue of being included in the profit provision. Furthermore, MAIA emphasizes that (3) uncollected merit rating or SDIP surcharges and (4) uncollected premium were, until this year, included in the profit provision, and thus in the final PPA insurance rates, by virtue of the Earned But Uncollected Premium ("EBUP") adjustment to the profit allowance computation for carriers. With respect to (5) bad debt reserve, MAIA noted that no definitive opinion was proffered about the treatment of bad debt or bad debt reserve in the profit provision. Since there is no profit provision in setting the CEPP, MAIA contends that this means that legitimate expenses that are not pure profit -- such as investment expense and bad debt -- are properly included in the CEPP by virtue of the 2005 Cost Study. MAIA maintains that the claimed "bad debt" expenses are a reasonable business expense analogous to the EBUP provision for insurance carriers. MAIA argues that the precedent of allowing a provision for bad debts is well established in the Massachusetts rate-setting process. MAIA's actuary testified that "premium payments due from a policyholder to a carrier which an agency pays on behalf [of] the policyholder" is the only reason for which an agency would have any "bad debt" expenses.

MAIA asserts that the AG's recommended "productivity factor" adjustment is inappropriate for several reasons. First, the adjustment is based on data from the BLS for financial services and industries that are unrelated to the work performed by PPA insurance agencies. The data that the AG relies upon is aggregated "non-farm business"

data, including all business sectors in the United States other than farming. MAIA argues that the BLS itself states that this data is "weak" and "should be interpreted with caution."[60] Second, MAIA asserts that the AG's recommended productivity adjustment is inconsistent with wage trends specifically for the insurance agency business in Massachusetts. Whereas the AG's evidence on trends in agent wages is derived from BLS data that purports to show a nationwide decrease in wages for agents, MAIA argues that it has introduced data from DET that demonstrate that wages for Massachusetts "Insurance Agents, Brokers and Service Employees" have been steadily increasing each year from 1998 through the first quarter of 2005. MAIA argues that such wages have increased 3.8 percent from the first quarter of 2004 to the first quarter of 2005. MAIA avers that there is no reasonable support for the AG's assertion that MAIA's wage trend "gives a high projection of the wage increases." MAIA also argues that the AG fails to consider any expected changes in the workload of agencies between 2004 and 2006. Additionally, MAIA comments that its understanding is that there has been an increase in the amount of work and computer expenses over the last several years as agencies have been asked by carriers to perform additional uploading of data. MAIA argues that the company expense pure premium for 2006 as filed by the AIB is lower than the amount for the "2004 Decision," which would be consistent with this trend. Additionally, MAIA argues that the annual productivity adjustment is applied incorrectly because the AG does not take into account the length of the trend period for which the BLS reports data.

MAIA rejects the AG's proposal that personal lines expenses should be allocated to PPA insurance business based on exposures or policies. MAIA's analyst asserts that, "based on numerous conversations," the work required to produce and service a PPA insurance policy is greater than for other personal lines policies. MAIA asserts that an agency interacts with an insured more often regarding PPA insurance business than it does for other personal lines insurance. PPA insurance business requires more agency work than does homeowners insurance because new cars are added or deleted to a policy more often than are new homes. MAIA also states that frequency of claims is higher on a PPA insurance policy than on a homeowners policy.

[60] MAIA states that BLS does not release any productivity results for the "finance and insurance" sector.

With respect to other miscellaneous issues raised by the AG, MAIA asserted that the wages used in the 2005 Cost Study do not always match the wages included in the federal tax returns filed by the agencies because some wages -- such as the wages of a sole proprietor, a partner of a limited partnership or an owner of an "Subchapter S" corporation -- are not included in the "wages" category for federal income tax return purposes. Furthermore, MAIA asserts that its review of the annual wages of those owners of agencies whose wages were not included in the federal income tax returns, in comparison to those agencies for which all wages were reported on the returns, demonstrated that these wages were reasonable.

D. Discussion, Analysis and Conclusion

This year, as it has several times in the past decade, MAIA has submitted a cost study as the basis for its recommended CEPP. Both the SRB and the AG use the 2005 Cost Study as a basis for developing their recommendations although they criticize, among other things, MAIA's methodologies, recommend adjustments to its approach, and each recommends a different 2006 CEPP value. Our review of the evidence is guided by the precept that the CEPP should be set at a level that is expected to cover the reasonable expenses that agents incur in connection with the sale of private passenger automobile insurance.

MAIA's selection methodology this year looked at the characteristics of all agencies in Massachusetts, but all participants were MAIA members, a group that includes about 72 percent of all agencies. However, a selection process that does not include non-members cannot be considered truly representative of all Massachusetts insurance agencies. MAIA's study, in essence, requires us to assume that non-member agencies have the same expenses as member agencies. In addition, 22 out of 153 agencies contacted by MAIA to participate in the 2005 Cost Study declined to do so. Ms. Barnes testified that these agencies tended to be geographically located inside Route 128 and were more likely to be smaller agencies, as measured by exposures, but considered that, even so, the distribution was not "significantly off." Despite improvements in MAIA's cost study methodology for this year, we are not persuaded that any cost study that eliminates from participation about 28 percent of Massachusetts insurance agencies and

relies entirely on volunteer participation will not exhibit some degree of bias. The selection of the cost study sample remains a matter of concern.[61]

MAIA relies in large measure on data reported by agencies on a form developed by Tillinghast, cross-checked with income tax returns, to support agency expenses. It instructed cost participants to include all overall agency expenses. This year, it appears to have obtained greater cooperation from survey participants with respect to review of their tax return. Tax return data, however, is not without its shortcomings. The AG noted that some agencies did not report wages on tax returns. Because tax reporting differs for sole proprietorships, partnerships and corporations, any analysis based on tax return entries must carefully consider and adjust for any differences in expense categorization. In addition, a study based on tax reporting should distinguish between expenses that are deductible for tax purposes but that may not be appropriate for reimbursement in the industry-wide rates. Because agencies were instructed to report all expenses, careful review of their data is necessary to ensure that the cost study does not overstate expenses associated with the production of PPA insurance. Although Ms. Barnes visited the participating agencies and reviewed their tax returns, she testified that she is not a tax expert.

We are also not persuaded that MAIA's procedures for identifying and isolating the specific expenses that are associated with production of PPA produce accurate results. The 2005 Cost Study continues to show, on a per exposure basis, wide variations in the agency expenses related to PPA. The AG considers this evidence that some agencies are wasteful and inefficient, or that there are errors in the 2005 Cost Study. MAIA attributes this disparity to differences in the types of agencies included in the survey, and to variations in size and geographical location. Because it offers no data analysis to support its position, we remain unpersuaded that the wide variance is reasonable, even if it is considerably less this year than it has been in the past, as reported in previous cost studies. We are also not persuaded that because an expense item is reported by insurers on the Expense Call it is valid to include it in the agency expenses that should be covered through the CEPP. Overall, the 2005 Cost Study does not allay concerns expressed in the

[61] We note, as well, that measured by exposures, the cost study addresses a very small percentage of the policies written in Massachusetts, approximately 231,000 of 3,874, 017 earned exposures in 2004.

past, notably in the *Decision on 1998 Rates*, that agents may be passing on to consumers expenses that are not reasonably related to their PPA business.

MAIA determines the overall percentage of total agency expenses to be allocated to private passenger insurance business by averaging allocations based on premiums, commissions and wages. The SRB asserts that allocation based on commissions only is a better approach, arguing that in the *Decision on 2005 Rates*, the Commissioner found that the best practice would be to allocate agency expenses to private passenger automobile insurance on the basis of commissions per exposure, and to compare it to an allocation based on premiums. It points out that she never suggested averaging separate allocations to determine the PPA expense ratio. We agree with the SRB that commissions are the actual revenue to an agency, and that it is reasonable to allocate internal agency expenses based on the income, in the form of commissions, that it expects to receive from selling a particular line of insurance.[62] We find persuasive the arguments made by the SRB and the AG that using premiums as an allocation basis for agency expenses will overstate expenses.

We do not find persuasive MAIA's argument that expenses should not be allocated by commissions only because PPA commissions are set by the Commissioner, rather than by the free market, and ignore the differences in risk in PPA business, depending on where it is written. MAIA's argument is based on the premise that agents with books of business in territories where premiums are higher, on average, have greater workloads and incur higher costs and that carriers adjust commissions for business written at higher or lower SDIP steps. It offers no evidence to support its contentions. Assuming, *arguendo*, that an agency's workload varies directly with the characteristics of its book of business, MAIA does not consider the extent to which premium level determines the commission dollars that agents receive. In higher rated territories, which are generally urban areas, premiums are higher, and therefore the commission percentage produces higher revenue to the agent. Even if MAIA had shown that agents in higher rated territories have more claim handling responsibilities, they are also receiving higher compensation. MAIA does not address the effect of commission percentage adjustments on commissions earned by

[62] From a business management perspective, it is reasonable to conclude that an agency, in allocating its resources and estimating its expenses, will consider the revenue it expects to receive from particular types of activities.

an agency with a mixed book of business at all SDIP steps, or the adjustments to commissions that insurers are permitted, by statute, to apply.

Similarly, we do not find persuasive MAIA's assertion that commissions for lines other than PPA are set by market forces and are therefore accurate, while the commissions set by the Commissioner are inadequate. The SRB points out that, according to MAIA's witness, the cost study participants actually received commission revenue in 2004 that was adequate to cover their expenses.

The objective in setting the CEPP, consonant with the ratesetting that results in an average statewide premium, is to set a commission expense pure premium that reflects the average costs to the average agency statewide. The SRB's comparison of the 2005 Cost Study data on premiums and commission payments received by the participants demonstrates that their receipts exceeded the statewide average premiums and the statewide average commission for 2004. The SRB has therefore adjusted the cost study results to match the statewide average and statewide commission percentage for 2004. MAIA's argument that the statewide average premium should reflect only policies sold by agency companies is not persuasive. The CEPP is a value that all companies receive through the rates, and it should therefore reflect premiums on policies written by all companies. We find that the SRB's methodology for recalculating both the statewide average premium and the average commission percentage for 2004 is reasonable and should be adopted. We therefore find that the commission expense pure premium for 2004 should be set at a value of $109.81.

. The 2004 CEPP must then be trended forward to 2006. The methodology that MAIA applies to develop its trend factors is consistent with that used in the past, and the SRB agrees that they are reasonable. We will therefore approve their use to determine the CEPP for 2006. Applying a 4.7 percent trend factor to $109.81 produces a CEPP of $121.34.

We note, however, that allocating PPA commissions as a percentage of premium will always create differences in the amount of revenue that agents receive, because a reduction in the average premium level will, if the CEPP remains level, constitute a higher percentage of premium. Further, agents who write business in higher rated territories will inevitably receive higher dollar commissions, because the average premiums are higher.

The agents should consider whether there are other approaches to setting the CEPP that would address concerns about the basic methodology for allocating commissions to agents.

IV. MAIN RATE

The Main Rate portion of this proceeding addresses losses and expenses. The contested issues this year include: loss development; loss trending; company expenses; inclusion of contingent and override commissions in the rates; calculation of increased limits factors, and class/territorial relativities, as well as the commission expense pure premium.

A. Loss Development and Loss Trending

1. Loss Pure Premium, Basic Limits Loss Development Factors and Loss Trending

Ratesetting relies on loss data from previous Accident Years that is ultimately factored into the rate. Loss data changes over time, as more recent information on claims and claim payments becomes available. Because the number of claims and the ultimate value of each claim that is submitted in a given accident year will not be known for many years, it is necessary to estimate or develop, based on early loss reports, the ultimate value of claims that will be paid for accidents which occurred in 2004. Loss development involves reviewing loss reports at different reporting periods in order to determine changes from one report to the next. See, e.g., *Decision on 1999 Rates* at 7-8 (describing loss report and loss development). Once losses are projected for Accident Year 2004, they are trended forward to estimate what losses may be expected for 2006.

This is an unusual year for ratesetting because the data from Accident Year 2004 shows a significant improvement in losses. The struggle for all parties this year is how best to interpret and use this data to reliably project future losses. The goal is to determine how to best incorporate that data in order to obtain as fair and accurate a rate as possible. The optimal method is for rates to develop smoothly over time rather than having extreme spikes and dips. The parties this year, however, have very different ideas as to how best to calculate the data.

In the 1999 rate setting process, we encountered a similar issue in that the data from 1996 showed higher losses than prior years. The decision in 1999 was to completely exclude the data from 1996 because it was such an aberrant year from a data perspective. No party has specifically advocated for the exclusion of the data for Accident Year 2004. They do, however, recommend divergent ways for best accounting for it.

One way of evaluating data is to use both ultimate accident year paid and incurred losses to increase the understanding of the factors affecting losses and confidence in the final estimate of ultimate loss. The parties differ this year in their opinions on the appropriateness of using paid data in loss development.

Sections 100A and 100B of the AIB's advisory filing address the calculation of the loss pure premium for Accident Year 2004 and calculation of the basic limits loss development factors. The purpose is first to estimate ultimate losses for 2004, and second to trend them forward to 2006. For all coverages except collision, limited collision and comprehensive, the estimate of loss pure premium includes both claim costs and allocated loss adjustment expenses ("ALAE"). At issue this year is the optimal loss development factor ("LDF") for A-1/B, A-2, U-1, and PDL coverages, and the trend factor for all coverages except medical payments.

a. Loss Pure Premium

The initial loss pure premium must first be established in the loss development process. That pure premium is calculated based on industry wide data on reported losses and case reserves for a certain period of time. There is no dispute as to the 2004 loss pure premium calculated by the AIB, as shown in line one of Form 100 of the AIB's filing. Accordingly, that value is hereby adopted in this proceeding, and this is the benchmark for the remainder of the loss development process.

b. Basic Limits Loss Development Factors

The basic limits loss development factors are used to determine the ultimate costs of claims for a given Accident Year. Historically, the Commissioner has begun this analysis with a two year average of the two most recent development factors, with a 50% weight applied to each using only incurred losses. Depending on the facts and

circumstances of the data, the formula is adjusted to produce as accurate a result as possible.

Recommendations of the Parties by Coverage

The parties do not dispute the basic limits loss development factors for collision, limited collision, comprehensive and Med Pay coverages as calculated on line 2 two of Form 100 of the AIB's filing. We hereby approve these figures.

A-1/B (Bodily Injury)

The AIB calculated its recommended ultimate factors based on a two year average of the two most recent factors, with 50% weight applied to each year, using incurred losses that include direct defense and cost containment expenses. For the A-1/B coverage, the AIB made two adjustments. The first adjustment, adopted in the 2004 and 2005 decisions, relates to the increase in market share of the Commerce Insurance Company ("Commerce"), and the difference between its development factors and the rest of the industry. The AIB specifically notes that this method uses the average of the latest two years development factors[63] for each company in order to develop 2004 first report losses to ultimate (for each company). This allows the 2004 loss weight to be reflected for Commerce (and each other company).

The second adjustment made by the AIB is based on an analysis introduced by the SRB in the 2005 rate proceedings on the A-1/B coverage. The AIB examined each company's average loss results to determine whether the 2004 results fluctuated by more than +/- 10% from the average of the 2002-2003 results. For the three companies that had results outside of this range, loss adjustments were made by multiplying the difference between the 2002-2003 average losses and the 2004 average losses by the 2004 claim counts. These adjustments were then added or subtracted from each company's 2004 15-month reported losses and then developed to ultimate. Its industry-wide factor is the average of those values.

The 2005 decision allowed an adjustment to Safety's reported losses in an amount that represents a greater than 10 percent change in Safety's reported losses between

[63] Development factors are the rate of change in losses from one reporting period to the next reporting period.

2001/2002 and 2003**.** *See Decision on 2005 Rates, pg. 8.* As noted in that decision, the AIB asserts a change in Safety's accounting/reserving practices for Accident Year 2003 that reduced its Accident Year 2003 estimate losses. The AIB, characterizing this as an accounting change rather than as a "real" improvement to losses, concluded that an adjustment was appropriate. *See Decision on 2005 Rates, pg. 5.*

Based on its analysis, the AIB is recommending an age-to-ultimate loss development factor for A-1/B of 0.9637.

For A-1/B coverages, the SRB argues it would be an error to use the historical two year average to project incurred claims and losses for 2004, as it would produce an understated estimate of their ultimate value. The SRB notes that 2004 reported claims are significantly reduced in comparison to prior years. It notes that the majority of this improvement comes from vehicles ceded to the residual market, and that this is an important element to factor into this year's loss development.[64] In order to better assess this data, and to calculate a more accurate development factor, the SRB looked at three factors relevant to the 2004 Accident Year results: overall trends in accident rates, levels of opportunistic claiming behavior, and individual company reserving practices affecting the overall industry loss and claim development patterns. The SRB determined its 2004 age-to-ultimate factor by averaging five ultimate loss estimates, giving equal weight to each estimate and 50% weight to both paid and incurred data. The SRB believes that the use of paid and incurred data provides a better understanding of the factors affecting losses and gives more confidence in the final estimate of ultimate loss. The first estimate is based on Accident Year incurred losses and direct defense and cost containment expenses. The second estimate is based on Accident Year paid losses and direct defense and cost containment expenses.

To better estimate the ultimate value of the A-1/B claims, the SRB implemented three techniques in addition to the customary development of incurred losses. First, the SRB estimated ultimate losses using Accident Year paid loss, claim and severity data. Second, for the third and fourth estimates, the SRB estimated ultimate loss levels using

[64] According to the SRB's filing, only 6.7% of all vehicles are ceded to CAR. See SRB's Main Rate filing, page 6.

the product of ultimate Accident Year claim counts and severity estimates, (count x amount), using incurred and paid data, respectively. Third, the SRB estimated the ultimate loss level using the average incurred, paid and count x amount techniques independently for both voluntary and involuntary business. This methodology leads to five estimates of ultimate losses for 2004, which the SRB weighed equally in reaching its final recommendation. Based on its analysis, the SRB recommends an age-to-ultimate factor of 1.0126 for developing Accident Year 2004 A-1/B 15-month incurred pure premium to ultimate.

The SRB considered two additional adjustments. Following the adjustments adopted in the 2004 and 2005 decisions to reflect the changing market share of Commerce, the SRB performed the calculations for all losses, claims and severity as well as for voluntary and involuntary losses, claims and severity, respectively. Based on this analysis, the SRB concluded that "the changing mix of companies and their respective reserving practices appear to have no real effect on exposures voluntarily insured. The primary effect from a loss development is on the incurred severity for exposures involuntarily insured." As a result, the SRB recommends an adjustment to loss development only with regard to involuntarily incurred severities using the same calculations as recommended by the AIB.

The SRB addressed the change in Safety's case reserving procedure by applying an age-to-ultimate development factor for Safety and Safety Servicing that is based on the most recent two year average development factor at all development intervals except 15 – 24 months. For this latter development interval, the age-to-age development factor was selected to be equal to the most recent diagonal. The SRB believes this accurately captures the changes to Safety's case reserving practices that were initiated in 2003, and eliminates the need to make a separate adjustment as the AIB proposes.

Based on its analysis, the SRB recommends an LDF for A-1/B of 1.0126.

The AG made no specific recommendation for a loss development factor for the A-1/B coverage.

A-2 (PIP)

The AIB calculated its selected loss development factor for A-2 on an average of the current and first prior age-to-age factors. The AIB evaluated losses on an incurred basis that include direct defense and cost containment expenses. Based on its analysis, the AIB recommends a factor of 0.5872 for A-2.

The SRB acknowledges that the A-2 reported claims and losses are, like the A-1/B claims and losses, down significantly since 2003. The SRB determined that using the typical calculations for the A-2 trend factor would, as with the A-2/B calculation, underestimate the ultimate value. Because of the change in data for Accident Year 2004, the SRB determined additional adjustment was needed to the typical methodology in order to accurately project the losses. Based on this, the SRB used the same analysis and methodologies for the A-2 coverages as it did for the A-1/B coverages, including reviewing overall trends in accident rates, levels of opportunistic claiming behavior and individual company reserving practices affecting the overall industry loss and claim development patterns. The SRB again determined its age-to-ultimate factor by averaging five ultimate loss estimates, giving equal weight to each estimate and 50% weight to both paid and incurred data because it believed that the historical average of the current and first prior age-to age factor would produce an understated result. Based on its analysis, the SRB recommends a factor of 0.6142 to develop Accident Year 2004 A-2 incurred pure premium to ultimate.

The AG made no recommendation of a loss development factor for the A2-coverage.

U-1 (Uninsured Motorist)

The AIB calculated its selected loss development factor for U-1 using an average of the current and first prior age-to-age factors. Based on its analysis, the AIB recommends a factor of 1.0274 for the U-1 coverage.

Based on its analysis, the SRB recommends an age-to-ultimate factor of 1.0631 for the purpose of developing Accident Year 2004 U-1 incurred pure premium to ultimate.

The AG made no recommendation for a loss development factor for the U-1 coverage.

PDL (Property Damage Liability)

For property damage coverage, the AIB calculated its selected loss development factor for PDL using an average of the current and first prime age-to-age factors. Based on its analysis, the AIB recommends a factor of 1.0565 for the PDL coverages.

The SRB notes that property damage claims and losses are also down for Accident Year 2004, though not as dramatically as those for BI and PIP. The SRB averaged five ultimate loss estimates using the same technique applied to BI, PI and UM, giving equal weight to each estimate 50% weight to both paid and incurred data. Based on its analysis, the SRB recommends an age-to-ultimate factor of 1.0531 for developing Accident Year 2004 PDL incurred pure premium to ultimate.

Analysis and Discussion

The SRB argues that its LDFs are more reasonable than those of the AIB and urges their adoption. After analyzing the trends in accident rates, opportunistic claiming behavior and individual company reserving practices, the SRB concluded that it would be incorrect to use the customary two year average to project incurred claims and losses for 2004, as they would understate its estimated value. The AIB apparently agrees that using the traditional two year average would underestimate the value.[65] The SRB argues that its recommendation for deviating somewhat from the traditional values are reasonable and actuarially supported, and that it accurately reflects the market and the manner that the overall trends in accident rates, levels of opportunistic claiming behavior and individual company reserving practices impact the overall industry loss and claim development patterns. The SRB argues that its methodology more reasonably and accurately estimates how losses will ultimately develop for this specific year because of the Accident Year 2004 data.

The AIB concedes that the SRB's methodology incorporates traditional approaches to these issues, but argues that it is too complicated. The sheer number of decisions needed to implement the methodology, the AIB maintains, complicates the matter unnecessarily. The AIB states that the SRB examined three sets of experiences (all

[65] See testimony of William J. Scully, Volume 1, page 61.

business, voluntary only and involuntary only), calculated three types of LDFs (loss, frequency and severity), and analyzed two types of data (paid and incurred). For the SRB's calculations, 72 choices had to be made for each of the disputed coverages. The SRB then permitted itself certain choices within each of the 72 places in which choices were made, which made the total number of possible arrays chosen by the SRB to 504. The AIB argues that it is difficult or impossible to critique the SRB's inputs and methods because of the sheer number of the decisions required, and that even future SRB staff would have difficulty replicating these calculations should this method be adopted as the CDM.

The AIB also argues that the SRB recommends an extremely complicated and new methodology with regard to the paid/incurred 50/50 weighting. The AIB argues that it has adequately addressed the unique data of Accident Year 2004 using the same desirable 50/50 incurred/paid weighting, but by a far simpler method. The AIB (for BI and PIP) simply performed two regressions per coverage; one on incurred loss data (developed per the CDM for LDFs) and one on paid loss data (using the two prior diagonals for LDFs). The AIB argues that its method is simpler, more superior, more consistent with the previous CDM and more reproducible in the future than the SRB's method.

The AIB further cautions the Commissioner not to mix and match the LDFs and trend factors between the AIB and the SRB's results. In particular, the AIB emphasizes, the AIB's LDFs should not be mixed and matched with the SRB's loss trend factors as this would eliminate the desirable 50/50 weighting discussed above.

Notwithstanding the fact that the AG chose to make no specific LDF recommendations of his own, he claims that the SRB's method is unreasonably complex, arbitrary, and inconsistent with the Commissioner's longstanding use of incurred development and the reasoning underlying the Commissioner's adoption of the market-mix methodology to develop loss pure premium. The AG argues that the SRB's LDFs are unreasonable for these four coverages, asserting that the Commissioner has traditionally used a single method, averaging the last two diagonals of incurred losses to develop losses to ultimate. The Commissioner has never, according to the AG, used multiple loss development methods or used paid losses in the development of bodily injury losses. The

projected increases for A-1/B and A-2 are inconsistent with the 2005 data, argues the AG, which shows that those losses continue to develop downward. The AG argues the SRB's would result in unreasonable and excessive rates.

The AG also takes exception to the fact that the SRB used paid data in its analysis of loss development factors. The SRB notes, however, that the AG's position is disingenuous because the AG's actuary recommended full reliance on paid data in setting BI rates in the 2004 rate case. The AG's actuary also testified that she considered the use of paid data to be "pretty standard procedure".[66]

In its Rebuttal Filing, the AG takes issue again with the SRB's use of the average of paid and incurred data rather than relying only on the incurred, arguing that paid ultimate indications have overstated actual indications in the past and because the AG asserts that paid data is less responsive than incurred, which would further reduce the responsiveness to the most recent accident year experience.

The AG also criticizes the SRB's description of the traditional two year case incurred average as inadequate due to severe winters in 2002 and 2003. The AG states that the 2002 winter was less severe than average and lower than 2004, and that the 2005 decision determined that 2003 was insufficiently affected by snowfall as to require an adjustment. Citing the SRB's referral to a change in BI to PD ratios for the involuntary market for 24 months versus 15 months, the AG argues that no such change in BI to PD ratios was observed in the market as a whole and that would be unreasonable to make an adjustment to the total market for a change seen in only seven percent of the market. For these and other reasons, the AG again urged the Commissioner to reject the SRB's recommendations.

Decision

The Accident Year 2004 data produces difficulty in accurately predicting losses because of its rather extreme nature. One of our goals in ratesetting is to smooth out data from these extreme years such that we don't have erratic spikes and dips in rates that

[66] Transcript of testimony of Stacy Gotham, Volume 5 at page 47.

ultimately prove to be one-time aberrations. We find ourselves in such a situation this year, in which losses were greatly reduced.

Traditionally, the Commissioner has used the average of the current and the first prior age-to-age factors and adjusted them to obtain the best fit based on the facts and circumstances in any given year. The party seeking a change to this methodology bears the burden of showing the superiority of its recommended change. However, we note that this is an unusual year in that the Accident Year 2004 data is extreme as compared to other years, thereby creating divergent views as to how it should best, and most accurately, be interpreted. Both the AIB and the SRB have attempted to account for the extremeness of the data for this Accident Year, while the AG has refrained from making any specific recommendations at all.

Specifically, the AIB has made two adjustments to the loss development methodology for the A1/B factor while generally following the CDM for other calculations. However, because of the data for the prior two years, both the SRB and AIB agree this methodology likely produces an understated value for the loss development factor. The AIB seeks to remedy this low value by making adjustments to the CDM in calculating its recommended trend factor, which is, perhaps, why the AIB is concerned that the Commissioner not select its loss development factor and the SRB's trend factor. Using the low AIB recommended loss development factor and the lower SRB trend factor would produce a skewed result. The AG apparently is content with the low loss development factor as calculated by the AIB and makes no specific recommendations of his own.

In order to determine a loss development factor that more accurately predicts what the actual losses will be for Accident Year 2004, the SRB used an average of paid and incurred data, and then further processed the result to obtain an LDF that it determined to be more accurate than the CDM or the AIB's modified CDM method. The SRB recommends this mix of paid and incurred data because it gives a better understanding of the factors affecting losses and confidence in the final estimate of ultimate loss. For example, the SRB's determination that the improvement in bodily injury (A-1/B) claims occurred predominantly in the ceded market is an important factor in predicting how

losses will develop in the future. This consideration is not contemplated by the AIB and, as previously noted, the AG did not advance any recommendation in this regard. Therefore, the more simplistic AIB method, and the CDM, fail to factor in this data, thereby producing a less accurate projection of losses.

While we are mindful that the method introduced by the SRB is complicated and not as easily reproduced as the AIB's modified CDM version, we are nonetheless persuaded that the SRB's method is the most thorough, accurate and superior methodology under these unusual circumstances due to the high uncertainty surrounding the Accident Year 2004 data. We adopt this method only for this rate year, as we acknowledge the difficulty in accurately reproducing it in the future. Accordingly, we adopt the SRB's LDFs with regard to A-1/B, A-2, U-1 and PDL coverages for this rate year only, making no change to the CDM.

Loss Pure Premium Trend Factors

Loss trending is the process by which ultimate loss pure premiums developed from the latest experience period are trended forward to the average accident date in policy year 2006. Once it is estimated what losses are likely to be for a given year, that information is factored in as part of the ultimate rate determination for that year. It is well recognized that predicting pure premium levels almost two years into the future is challenging. Careful evaluation of the evidence is required and accuracy is critical. For loss trending purposes, coverages may be grouped together or considered separately. This year the parties dispute all trend factors for all coverages except for medical payments. The key disputed issue with regard to trend factors is the optimal manner in which to address the reduction in losses that occurred in 2004. The parties disagree on the interpretation of the data and its use in forward trending.

A-1/B (Bodily Injury)

The AIB based its trend factor for A-1/B on the average of the results of a six year incurred regression and a five year paid regression. The AIB uses two regressions based on its ultimate accident year incurred and paid loss estimates to provide a range of reasonable outcomes from which it determines its best estimate of 2006 ultimate losses. The AIB notes that projections of ultimate losses can be affected by changing rates of

claim settlement, changes to the frequency and severity characteristics of the losses, changing rates of subrogation and by random variation in losses from year to year. The AIB states the increase in the industry wide average case reserves in 2004 also indicates a shift away from cases that settle quickly. The AIB asserts the 2004 data point reflects changes to the level and type of injury claims, so both the paid and incurred ultimate loss estimates have a larger amount of uncertainty than do past first report data points. For this reason, the AIB used both paid and incurred accident year ultimate losses for the purpose of estimating future pure premiums.

The AIB mentions the possibility that the reduction in losses for Accident Year 2004 may be attributable in part to the CIFI initiatives. However, the AIB cautions that whether further improvement based on the CIFI and other fraud initiatives will be achieved is currently unknown. The AIB argues that it is important, therefore, to look not only at the recent data but also at historical Massachusetts losses in projecting the trend for 2006. Based on its analysis and calculations, the AIB recommends a trend factor for A-1/B of 1.1240.

The SRB used the same methodology for all coverages. It calculated the trends based on six point, five point and four point linear regressions for all coverages, and then selected the point estimate with the smallest mean squared error over the period 1996-2004, with the exception of medical payments and uninsured motorist coverage. The SRB argues its recommendation is more reasonable than that of either the AIB or the AG, because the five year regression it selected for the A-1/B coverage has the lowest mean squared error when considered over the 9-year term the SRB evaluated. Based on its analysis, the SRB used a five year regression for A-1/B and recommends a trend factor of 1.0422 for this coverage.

The AG argues the reduction in Accident Year 2004 losses was not random but was primarily the result of community fraud initiatives, in addition to improvements in vehicle safety, demographics, gas prices and the weather. The AG assumes the continuation of Accident Year 2004 reductions into the future. Accordingly, the AG chose a unity trend of 1.0 for A1-B, A-2, PDL, Collision and Comprehensive coverages based largely on judgment. In making its recommendation, the AG considered each of the

three, four, five and six year statewide annual regressions and the coefficients of determination and mean square errors. The AG found the three and four year regressions to have the highest R-squared values. The AG performed a four-six year annual regression on the A-1/B and A-2 coverages, excluding communities that appear to have been significantly affected by the ongoing fraud initiatives.[67] The AG also considered the four quarter rolling accident quarter trends which the AG believes is a method similar to that used by the ISO in other states. After considering all methodologies and analyzing the data, the AG recommends the unity trend.

A-2 (PIP)

Each party used the same methodology for the A-2 (PIP) coverage trend factor as it did for the A-1/B trend factor because the data and analysis required is similar. Based on its analysis, the AIB recommends a trend factor of 1.1410 for this coverage based on the average of six year incurred and paid projections. The SRB used a six year regression for the A-2 (PIP) coverage as it had the lowest mean squared error. Based on its analysis, the SRB recommends a trend factor for A-2 (PIP) coverage of 1.0956. The AG, using a unity trend based on judgment, recommends a 1.0 trend factor for this coverage.

U-1 (Uninsured Motorist)

The AIB used a six year incurred regression for the analysis of the U-1 trend factor even though a shorter period regression showed better goodness-of-fit statistics. The U-1 coverage experienced a large frequency-driven decrease to pure premium, similar to the other injury coverages, which the AIB surmises was likely caused by large reductions in opportunistic claims during 2003-2004. The AIB asserts its calculations showed a continued projected decrease while also providing a reasonable amount of tempering to the latest change. The AIB asserts this compensates for the uncertainty of the Accident Year 2004 data point for this coverage. Based on its analysis, the AIB recommends a trend factor for this coverage of 0.9410.

Due to the continuing and significant declines in the ultimate loss pure premium for U-1 coverage, the SRB recommends a trend factor of 1.0 based on judgment. The

[67] The AG appears to provide no specific rationale for excluding this data.

SRB argues that this factor will allow for the full improvement in the loss pure premium to be reflected in the 2006 rate without speculation regarding if and how much more the losses will continue to improve.

The AG recommends the same 0.9410 trend factor for this coverage as the AIB.

Medical Payments

All three parties recommend a unity trend factor of 1.0 for this coverage, which we hereby adopt.

PDL (Property Damage Liability)

The AIB argues that PDL coverage has behaved predictably in the past so that regressions with longer experience periods of five or six years have historically provided reasonably accurate predictions. Accident Year 2004 produced a five percent decrease in PDL claims frequency that resulted in the first PDL pure premium decrease in nine years. As the AIB asserts there are no indicators that there has been a systematic change to the PDL claims, the AIB continues to use a six year regression to project this trend. The AIB states that this recent decrease is unpredictable and random, so the six year regression does not place any undue weight on the recent reduction. The AIB recommends a PDL trend factor of 1.1100.

The SRB also used a six year regression to calculate its recommendation for the PDL trend factor, again relying on that which produced the lowest mean squared error over a nine year period. The SRB recommends a PDL trend factor of 1.1095.

As with the liability coverages, the AG considered various methodologies. Similar to the liability coverage analysis, the AG again considered the highest R-squared indication and quarterly rolling trends of annual data when considering the appropriate trend factor for physical damage coverages. Nothwithstanding his analysis, the AG again recommends a unity trend factor based on judgment of 1.0.

Collision and Limited Collision

The AIB selected a six year regression to analyze the data in its calculation of the collision and limited collision trend factor. The AIB finds similarities between PDL and collision coverages in that frequencies can react to random factors. The AIB points out

that these premiums have generally been increasing over the trend period until the frequency driven decline in Accident Year 2004. The AIB finds that the 2003-2004 frequency change is most likely random, so it used the six year regression to balance out that data more fairly. The AIB recommends a collision and limited collision trend factor of 1.1310.

The SRB essentially agrees with the AIB's trend factor.[68]

The AG selected a unity trend factor of 1.0 for these coverages based on judgment.

Comprehensive

The AIB cites the variation in the frequency of this component, similar to that for PDL and collision. The AIB attributes much of this variation to glass coverage, but finds much of it to be random. Removing the 2001 and 2004 data points which the AIB asserts were skewed by glass frequencies, the AIB argues the loss pure premiums have been stable for this coverage. Based on this premise, the AIB used an average of the latest six accident years of pure premiums to determine the trend factor. The AIB recommends a trend factor of 1.1730 for this coverage.

The SRB recommends a trend factor of 1.0362 based on a six year regression as it has the lowest mean squared error.

The AG recommends a unity trend factor of 1.0 based on judgment.

Discussion and Analysis

The main issue with regard to trend factors is the weight that should be accorded to the Accident Year 2004 data point for each coverage. There is no dispute that across the board reductions exist with regard to loss pure premium for Accident Year 2004. The AG argues that its nearly across-the-board recommendation of a unity trend factor is the optimal factor as it gives the greatest credence to the loss reductions achieved in Accident Year 2004, which it believes were predominantly achieved through increased fraud fighting efforts. He argues that the AIB, by recommending higher trend factors this year

[68] We note that the SRB states in its brief that the AIB's trend factor numbers for collision and limited collision are identical to the SRB's recommended trend factors for those coverages. However, the SRB's filing indicates that a deviance of .0001 exists between the AIB's and the SRB's actual trend factor numbers for these coverages. This variance is de minimis.

than it has in the past, gave insufficient weight to the Accident Year 2004 data and essentially reverses the loss decreases achieved in that year. The AG argues that there is little that is "random" about the Accident Year 2004 data, citing in particular the decreases in bodily injury claims which he asserts are a result of the CIFI.[69] As the CIFI was in full force only in one city in the Commonwealth in 2003, and was expanded to another six cities during the next year, the AG argues that this loss data can only improve and is not random. The AG points to the first six months of data from 2005, which shows continued loss reductions, to support his argument. The AG argues that improvements in vehicle safety, changes in demographics and increased gas prices also lead to reductions in injury claims, and that all of these factors will be maintained or will have a greater impact in the coming year.

The AIB cites the *Decision on 1999 Rates* for the proposition that when a data point is unexpectedly high, it should be omitted entirely and reliance should be placed only on the remaining data points. This principle, the AIB maintains, should apply equally if the data point is unexpectedly low. The AIB argues that the AG's recommendation of a unity trend factor, however, belies the rationale used in the 1999 rate decision. In other words, the AIB alleges that the AG's recommendation of a unity trend factor for almost all coverages is flawed because the AG is rejecting all other accident year data *other* than the Accident Year 2004 data, which is the year with the exceptionally low data point. Although this is the inverse of the situation in 1999, the outcome is the same--- a skewed analysis. The AIB, along with the SRB, however, are not advocating for discarding the Accident Year 2004 data point. Rather, they are seeking the best method, in their opinions, as to how to temper that point to accurately trend the losses going forward.

The AIB argues that the AG fails to use Massachusetts statistical plan paid data in his recommendation for BI and PIP trends, in spite of the fact that he used paid data exclusively in his BI trend projections two years ago and gave zero weight to incurred data. This year, where the Accident Year 2004 data point is uncertain, the AIB argues that using paid data would be extremely valuable in analyzing the low data point. And yet, the

[69] We note, however, that the CIFI in Boston did not begin until June 2004. Furthermore, there is no data to suggest that the purported $63 million cited by the AG in loss savings was even related to the CIFI efforts. Indeed, the program was not even operational in Boston until 2005

AIB points out, the AG gave paid data no weight whatsoever and relied exclusively on incurred data. The AIB argues that the 50-50 weighting used by the AIB and SRB reasonably handles the Accident Year 2004 low data point. The AG's failure to use paid data for BI and PIP factors ignores valuable, available data and is, according to the AIB, a complete reversal of the very position the AG took just two years ago and, therefore, is result oriented.

The AIB also cites to the fact that the statistical plan data, including incurred and paid data, includes 100% of the Massachusetts private passenger auto experience, and that the Accident Year 2004 paid data covers 100% of Accident Year 2004. The ISO fast track data cited to by the AG's expert, covers approximately only 25% of the Massachusetts private passenger market, and only 25% of the 2005 CY, but is paid data which the AG's expert claims to oppose using for ratemaking for 2006. The ISO data relied on by the AG's expert also is reported on a calendar quarter basis, which is inappropriate in the view of the AIB. Based on this, the AIB argues that the AG's loss trend factors are overly impacted by the Accident Year 2004 data point because no data points prior to Accident Year 2004 are considered and because they ignore Accident Year 2004 paid data.

In addition, the AIB argues that the AG's trend recommendations are purely result driven, relying on r-squared values that suit the AG's purposes and ignoring those that did not, such as the AIB's PDL loss trend regression which had an r-squared value of 0.76. The AG rejected that regression while advocating for a regression result on the number of P&C insurance industry employees in the company expense trend area which had an r-squared value below 0.05. The AG also accepted the AIB's loss trend factor of 0.9410 for the U-1 coverage without any discussion presumably, surmises the AIB, because that lone loss trend factor was below 1.0. The AG accepted this factor despite the fact that the U-1 regression had an r-squared value of 0.68, which is lower than the PDL regression's r-squared value of 0.76 which the AG rejected.

The AIB further criticizes the AG's analysis because, the AIB maintains, the AG assumes that an outlier data point will remain an outlier and will not change even with mature data. The AIB argues that the AG's assumption is not necessarily correct, and that

a low data point could end up trending upward while a high data point could ultimately trend down. In addition, future data points can turn what appears to be an outlier into a non-outlier, regardless of how it develops. In support of its position, the AIB cites to the 1996 data point which was excluded from consideration in the 1999 rate case as it was deemed to be an outlier on the high side. In the current context, however, the AIB points out that the 1996 data point no longer looks like an outlier as it now has a relatively low squared error value in the SRB's selected 5-year BI regression. In fact, the AIB asserts that if the AG's analogy that improvements in fraud fighting results are similar to coverage changes or law changes, than that analogy actually works *against* the AG's unity loss trend factors. The AIB argues that coverage and law changes are usually modeled as one time effects, after which the underlying trends in the data reappear. The AG's unity trend factors imply that the underlying trends in loss costs will not reappear.

In addition, the AIB argues that the AG unreasonably relies on its expert's opinion regarding future gas prices by noting that the AG has never considered gas prices to be a relevant factor when they are decreasing. Incorporating a rise in gas prices into the trend recommendation this year, while ignoring a decrease to the same in other years is indicative of bias. In addition, the AIB argues that there is no accurate data to predict gas prices, and certainly not for as far into the future as would be required to allow them to impact insurance rates. The AIB characterizes such a prediction as highly speculative and risky.

The AIB further criticized the AG's reliance on six-month data as erroneous and that such reliance infects the AG's selected factors. The AIB points out that the Commissioner has recently rejected the use of both six and nine month data, when those data points indicated higher losses. If such data cannot be considered when the data indicates higher losses, the AIB argues, six month data cannot be used simply because the AG claims such data now indicates a reduction in losses. The AIB also points out that this rate case encompasses longer than the usual one year period, as the 2006 rate case will cover policies beginning during the policy year of January 1, 2006 through March 31, 2007, due to the statutory change in policy year. Some of the 2006 rates will cover accidents that occur as late as March 31, 2008. The AIB argues that using six month data to determine events that occur three years later is wrong. The AIB also argues that six

month data does not predict even its own Accident Year ultimate losses well. The AIB cites the six month data from Accident Year 2001 which showed an apparent 10.4% decrease in BI losses when compared to six month Accident Year 2000 data, but at 18 months the Accident Year 2001 data showed a 2.6% increase in BI losses over Accident Year 2000 18 month data. The AIB contends the six month data shows sign reversals in at least once in four of the five years shown, and in three of the five years between six and thirty months. The AIB argues that the AG hid the unfavorable BI correlation by combining the basic limits losses of all coverages into a single quantity in his correlation analysis. The AIB notes, however, that the AIB pointed out that comprehensive coverage six month results are highly correlated with 18 and 30 month results, but six month results for BI coverage are not highly correlated with 18 and 30 month results. This year, the AIB contends, the six month data in comprehensive is up compared to 2004, but the six month data for BI is down.

The AIB argues that, in her zeal to cite data to support her position, the AG's expert cited data she misunderstood. The AIB asserts that the AG's expert believed the six month loss ratio data from CAR that she cited to support her position was based on policy year projections when, according to the AIB, the CAR loss ratios cited by the AG's expert are based on Accident Year projections. The AIB contends that the AG's expert apparently didn't realize that the CAR six month private passenger loss data actually shows a worsening loss experience overall, in all four coverage groupings shown by CAR. In addition, the AIB argues, the AG's expert erroneously compared six month data from 2004 to six month data from 2005 as if the CAR loss ratios were not developed to ultimate when she should have compared the most recent or best CAR estimate (such as the 2004 at 18 months compared to 2005 at six months) because all of the CAR loss ratio data is already developed to ultimate. The AIB contends that the AG not only misunderstood what the CAR data represents, but that his expert also looked at the wrong comparisons.

The AIB further contends that the AG erroneously relied on Commerce and Safety data that is irrelevant to this case. The AIB argues that the data is irrelevant because it is calendar year/calendar quarter data and as such reflects the results of many Accident Years. In addition, the AIB asserts, the data is financial data and not statistical plan data and it is presented on a GAAP accounting basis and not on a statutory accounting basis.

Furthermore, the data is presented on a net basis and not on a direct basis and for Commerce, it includes results for Ohio and California auto and commercial auto and homeowners for Massachusetts. The AIB characterizes the AG's search for any data that points downward as "feverish" and alleges the AG uses data regardless of its relevance, thereby indicating that that AG's analytical work is of low quality.

Finally, the AIB argues that the Wiser method advocated by the AG, depends on and requires the existence of paid loss data. The AIB contends that this point is not disclosed anywhere on the AG's exhibit. It is unusual, asserts the AIB, for the AG to reject the use of paid data for loss trending purposes but to then put forth an LDF methodology that requires the use of paid data. In addition, while the AG claims his Wiser method calculations are labeled BI only, the AIB contends that the AG's Wiser analysis was actually conducted on a combination of BI and PIP data. The AIB argues that reserving is not done on BI and PIP coverages together, and that LDFs are not calculated for BI and PIP loss data.

The AIB argues that its methodology for calculating loss trend factors is superior to that of the SRB because it generally uses the CDM approach of selecting between four, five and six year regressions based on the nine year sum of the mean squared errors test. The AIB then makes two additional adjustments to the CDM. For A-1/B and A-2, the AIB adjusted the CDM by averaging the separate results of regressions made on incurred and paid losses. This, the AIB asserts, takes into consideration a high level of uncertainty regarding the Accident Year 2004 data point. The AIB argues that its methodology nevertheless follows the CDM in that it calculated the trend factors as the ratio of the fitted projected 2006 point to the last incurred (or 2004) point. The AIB also chose the time period for its selected regressions based on the nine year sum of the mean squared errors test. The AIB argues that its method is superior because it handled the low Accident Year 2004 data point by weighting incurred and paid regressions equally for BI and PIP.

The SRB claims its method for trending losses produces the most superior result. The use of four, five or six point regressions for all coverages which resulted in the selection of the trend factor with the smallest mean squared error over a nine year period

is the same general methodology the Commissioner used in the 2004 and 2005 rate decisions for the A-1/B and A-2 coverages. The SRB has recommended extending this same methodology to the PDL, collision and comprehensive coverages.

The SRB argues that the AG's unity trend factor has never been used or endorsed by the Commissioner, or any party to the rate case. It agrees with the AIB's assertion that a trend factor of one gives full credibility to the Accident Year 2004 data point and no credibility to all preceding data points. This is too extreme of a position. The SRB surmises that the AG bases his recommendation on the assumption that the Accident Year 2004 data indicates a turning point, a position that, the SRB argues, he has not established on the record. The SRB further argues that while the AG claims that his judgment was informed by standard actuarial techniques, his trend selections belie that claim. It characterizes the AG's selected trend factors as result oriented and unreasonable.

The SRB argues that the AIB did not follow the CDM with respect to the A-1/B, A-2 and U-1 coverages because it trended paid and incurred losses separately and then averaged them. Its selected trend factors for A-1/B and A-2 are based respectively on a six year incurred regression and a five year paid regression. The SRB argues that this is a departure from the CDM and that the AIB has not adequately shown why this change from the CDM is justified and how it will improve ratemaking.

The AG argues that the AIB loss trends are overly conservative, and give little weight to the most current data. He asserts that the AIB methodology virtually assures that long term data will be used to project the 2006 losses and virtually ignores the Accident Year 2004 data. The AG points out that the AIB's method has overstated losses in recent years, and that fraud fighting efforts have dramatically changed the loss environment. When such a fundamental change occurs, he contends, it is improper to ignore the change and to rely on historical data. The AG argues the nine year backfitting method used by both the AIB and SRB is unreasonable and should not be used to project losses in 2006.

The AG argues that the SRB's trend method is also unreasonable because it is overly conservative and that the mean squared method used by the SRB gives insufficient weight to the most current data, virtually ensuring the 2006 projection will be too high.

The AG argues the SRB's methodology is not standard actuarial procedure and it is not used outside the rate making proceeding. Further, the AG alleges the nine year backfitted method espoused by the SRB is particularly unreasonable for the BI and PIP coverages because the R-squared values produced by this method are miniscule.

Discussion and Conclusion

This is a unique year because of the extreme low point of the Accident Year 2004 data. All parties agree that losses declined in 2004 and that loss pure premium shows those reductions. This main issue before us is how to best incorporate this unique data into the calculations to best estimate losses for the upcoming rate period. The data requires us to weigh data in a non-typical way, and virtually requires us to depart from the CDM and find a way to address the unusual data point as we had to do in the 1999 rate case. This year no party advocates, and we do not suggest, that the Accident Year 2004 data point be excluded from consideration despite the uncertainty regarding what this data means. Rather, we need to determine the best way to balance the Accident Year 2004 data from other years to determine a rate that results in a smooth change to the rate. As we noted before, allowing an outlier data point to dictate the rate for any given year could result in radical rate changes from year to year, an outcome that serves neither consumers nor the industry. Our goal is to incorporate the Accident Year 2004 data in such a way as to smooth out the impact the data has on the rate, while still projecting as accurately as possible what losses will be in the future.

The AIB correctly points out that loss development factors and loss trend factors cannot be evaluated independently of each other. Loss trend factors are dependent on the loss development factors and cannot be mixed and matched between the various parties' recommendations. The AIB points out that the AG did not discuss LDFs in its filing, thereby ignoring the fact that LDFs and loss trend factors should be projected consistently to determine a best estimate of loss pure premium.

The AIB made many, extremely valuable points regarding the validity of the AG's approach to analyzing the available data in setting an appropriate trend factor. We agree that the AG's almost sole reliance on the Accident Year 2004 data point is in contrast to

the precedent set in the 1999 rate decision where such an extreme data point was entirely excluded from consideration.

The AG has also taken positions this year that are completely inconsistent with positions it has adopted in the past. The AG's complete disregard of paid data, while admitting that its use is pretty standard procedure, is in opposition to his argument in past cases where he relied on paid data in developing his recommendations. In addition, the AG's inconsistent reliance on the use of the R-squared test appears purely result oriented, in the AG's quest to lower the rate. As discussed and implemented in our prior two rate decisions, we have used the results of the mean squared error rather than the R-squared value in our calculation of the losses for the individual coverages, particularly for those coverages where the loss values fluctuate up and down from year to year. This has historically been a good way to smooth the effects of a single's year's data on the actual rate, including years with exceptionally high, or low values (as is the case this year). We again adopt this method for calculating the losses rather than the less reliable R-squared value that the AG has recommended. In addition, the AG cited to data from the ISO and other data that is of questionable relevance to this proceeding.

Additionally, we note that an additional infirmity of the AG's recommendation with regard to the trending of losses is his belief that six month data from 2004 and the first half of 2005 supports his supposition that losses attributed to fraud are continuing to decrease at the same rate, if not at a higher rate, than they were in 2004. The AG's use of six-month data is wholly unreliable and his recommendation as to the use of such data is a curious departure and contradiction from his recommendations in prior cases. In the Auto Rate Decision of 2001, the AIB recommended the use of six month data. Not only did we reject such data for the reason that it was too immature and, therefore, unreliable, but the AG also recommended against the use of the abbreviated data: "In addition, the AG states his belief that the six-month data offered by the AIB and the SRB may have some value, but are not comparable to 'full year accident data.' He argues specifically that the AIB's data are immature, that six-month data are not certainly correlated with full year data, and that comparison of one six-month period with another is not a tend." 2001 Auto Rate Decision, P. 26. Accordingly, we reject the use of such immature data for the same reasons as we have, and as the AG has supported, in the past.

The AG assumes that the data point from Accident Year 2004 will continue to develop in the same manner and that it is the beginning of a trend in reduced losses. The AG has introduced no evidence to support his position that such losses will continue, so his assumption is purely speculative. He also speculates as to the future of gas prices, something that is also unknowable at this time.

We are unpersuaded by the AG's arguments that the Accident Year 2004 data point constitutes a trend that will carry forward into the future. We are hopeful this is the case, but the data currently does not exist to support the AG's speculation. Indeed, the AG repeatedly argues that no data exists to rebut his speculation. However, and more importantly, he cites absolutely no data to support his supposition. The AG has also failed to show that his recommended change in methodology is superior to the CDM. We therefore reject the AG's recommendation of a unity trend factor.

The AIB's approach for BI uses a six year incurred projection averaged with a five year paid progression and the average of two six year regressions for PIP. This approach is new this year and is outside the current CDM. The AIB has failed to establish the superiority of this method over the current CDM, and failed to show that this methodology would produce a more accurate prediction of losses. Therefore, the AIB's methodology is rejected.

The SRB's approach, using six point, five point and four point regressions and then selecting the point estimate with the smallest mean squared error over a nine year period, considers the Accident Year 2004 data point without giving it undue weight, conforms most closely to the CDM and appears to produce a fairer and more accurate predictor of what the future holds in terms of losses, and is therefore adopted.

With regard to the PDL and collision trend factors, the AIB used a six point regression, and used a six year average for the comprehensive trend factor. The SRB used a six year regression for all three of these coverages. As the SRB most closely followed the CDM in its approach, we hereby adopt the SRB recommended trend factors for these coverages.

As a final matter, we address the AIB's concerns regarding our allowing the AG to submit additional data in the form of a rebuttal, and the allegation that the AG exceeded

the scope of our November 2, 2005 order by filing additional materials outside the four corners of the order. Specifically, the AIB claims that the order allowed the AG to rebut the SRB's proposed loss development methodology, but did not allow for the rebuttal on loss trending issues, which the AG included in his rebuttal filing. The AIB claims that our failure to strike this part of the AG's rebuttal filing from the record somehow rewards the AG for allegedly breaking the rules and "sets a dangerous precedent". We specifically note that we did not consider the AG's rebuttal filing on trend methodology in reaching this decision. However, had we been so inclined, it would have been within our purview, as factfinders in an administrative hearing, to do so. Hearing officers in administrative proceedings are not bound by the formal rules of evidence and can consider anything put before them. The key to this process, and the issue that the AIB neglects to see in this regard, is that it is the *weight* that we give the evidence before us that is pivotal.

Based on a careful weighing of the issues involved in determining the appropriate impact the Accident Year 2004 data point should have on the rates for the coming rating period, and after careful consideration of all arguments presented, we adopt the SRB's trend factor recommendations.

B. Company Expenses

1. The Data Base

The AIB points out that the parties' calculations of the 2004 company expense pure premiums differ because the AG and the AIB omit data relating to the Sentry Insurance Company ("Sentry") from their calculations, while the SRB includes it. The AIB states that Sentry notified the Commissioner that it intends to withdraw from the Massachusetts private passenger automobile insurance market as of January 1, 2006. We agree that, because Sentry will not be writing this line of coverage in Massachusetts in 2006, it is appropriate to remove its reported expenses from the 2004 pure premium calculation.

2. Company Expense Trend Factors

The AIB and the SRB recommend a company expense trend factor of 1.110. The AIB argues that its recommendation results from following the CDM exactly. The AG

recommends a lower expense trend of 1.075, based on adjusting the wage component of the calculation to reflect a reduction in the number of workers and an increase in the number of exposures. He asserts that the downward trending of company expense pure premiums, on a per exposure basis, supports his recommendation.

The AG points out that the external trend that the AIB uses to project 2006 expenses is primarily a wage trend, noting that wages, calculated from data from the Bureau of Labor Statistics on the weekly earnings of production workers, represent 70.5 percent of the composite trend. The AG argues that the AIB's methodology has consistently overstated the company expense trend, and that the adjusted pure premium has been reduced each year even though the AIB has, each year, recommended a positive expense trend factor. He contends that a trend factor of 1.0 for the past two years would have had more predictive accuracy than the AIB's recommendations. The reason for the problem, the AG argues, is that the AIB's methodology relies on an expense per worker trend but does not consider the number of workers or of exposures. Taking those factors into account, he asserts, in the form of a 1.1 percent reduction for exposure growth and a 1.4 reduction in the number of workers, would reduce the expense trend factor.

The AIB opposes the AG's proposal, arguing that similar proposals have been made and rejected in the proceedings to set rates for 2003, 2004 and 2005. Further, it asserts, the AG's recommendations are based on national figures, and take no account for actual or potential changes to the Massachusetts private passenger automobile system, including revisions to the SDIP, the CAR Rules and Performance Standards, and proposed legislation. The AIB argues that the data do not support a productivity adjustment for exposure growth. It contends that there is no evidence that productivity increases will outweigh increases in the work associated with writing Massachusetts private passenger automobile insurance or that more written exposures will not increase company expenses.

The AG has advocated for estimating company expenses on a basis of exposures rather than employees for several years. His recommendation was rejected in the *Decisions* on the 2003, 2004 and 2005 rates. Even if, in hindsight, the AIB's past trend estimates have overstated expected expense pure premium, we note Ms. Scott's testimony that such differences do not demonstrate that the estimates were incorrect based on the information available at the time. In this rate proceeding, we are determining what factors

will result in rates for 2006 that satisfy the statutory standards. The AIB identifies a number of changes to the Massachusetts private passenger automobile insurance system, including revision of the SDIP and changes to the rules relating to the residual market, that will affect all insurance companies in 2006, and posits that other changes may occur as a result of legislation. In these circumstances, we are not persuaded that it is reasonable to expect that companies will reduce the number of employees, or that added tasks will not offset possible increases in productivity. We therefore will not adopt the AG's recommended adjustment to the company expense trend.

3. Competitive Commissions (Contingent and Override Commissions)

Pursuant to G.L. c. 175, § 113B, the Commissioner must incorporate into the fixed and established rates a commission allowance that represents compensation to agents for placing private passenger automobile insurance. The pure premium methodology that is used to estimate losses and expenses, is also used to develop a commission expense pure premium ("CEPP"). The CEPP value is addressed in a later section of this Decision. It represents an amount that insurers who operate on an agency system must, pursuant to G.L. c. 175, §162D ("§162D"), distribute to their producers. However, §162D, in addition to allowing insurers to vary commissions paid to agents by plus or minus ten percent, permits insurers to compensate agents, "in the form of commission overrides, bonuses, profit sharing benefits and expense reimbursement." For the fourth consecutive year, the AIB asserts that the Commissioner should, for 2006, include such contingent and override commissions, collectively referred to as "competitive commissions," in company expenses that are reimbursed in the rates.[70] Both the SRB and the AG oppose inclusion of such commissions.

The AIB argues that the competitive commission expenses are reasonable, and that there is no contrary evidence in the record. If they are not included in the rates, the AIB asserts, companies will not be reimbursed for their total acquisition expenses. Pointing out that in Massachusetts companies that utilize an agency sales force ("agency companies") hold approximately 75 percent of the market, and citing to testimony from Ms. Blank on the importance of company investments in its distribution channels, the AIB

[70] AIB collectively referred to contingent and override commissions as "excessive commissions" in conjunction with the 2003 rate decision.

argues that competitive commissions are integral to company marketing efforts. It notes that Ms. Barnes, testifying for the MAIA, stated that any new agency company entering the Massachusetts would have to pay contingent and override commissions in order to gain a profitable market share. Therefore, the AIB argues, payment of competitive commissions is effectively neither voluntary nor discretionary.

Analogizing the payment of competitive commissions to the purchase of copy machines and computers and the payment of salaries, all of which it also characterizes as discretionary, the AIB argues that legitimate expenses should not be excluded from the rates because they are discretionary. The AIB argues that, even if the competitive commissions that it seeks to include in the rates are in part based on sales of other lines of insurance, it is fair that the rates compensate companies for that portion of those commissions that is fairly allocated to private passenger automobile insurance. It also asserts, for reasons set out in its filing, that inclusion of such commissions as an average value would not constitute a windfall to insurers because, among other things, it could be inadequate for some insurers who pay higher commissions than others.

In addition, the AIB argues, it appears that the MAIA study of agency expenses that forms the basis for its CEPP recommendations excludes agency tax payments and profits. It contends that the CEPP, as set, therefore does not compensate agencies for a cash expense and that, on this record, compensation for those expenses must have come, on average, from revenue received in the form of competitive commissions.

The SRB and the AG both argue that the Commissioner has consistently rejected the AIB's proposal and that she should do so again. They argue that allowing competitive commissions in the rates would effectively nullify the Commissioner's authority to set a CEPP. The SRB, pointing to the provision of 211 CMR 77.00 that precludes relitigating issues decided in past rate decisions, argues that the AIB has presented no new evidence this year or shown other good cause to relitigate the inclusion of contingent commissions in the rates. It cites the testimony of Ms. Scott that nothing has changed this year since the Commissioner's Decision in 2004 to support its position that the status quo should be maintained. Accordingly, the SRB argues, the AIB has not met its burden of showing that its new method is superior to the CDM.

The SRB argues that the payment of contingent commissions remains discretionary and that the AIB has not established that it is proper to pass such expenses on to policyholders. The burden is on the AIB, it notes, to prove that competitive commissions are reasonable, a standard that cannot be met when they are totally discretionary. The SRB argues that the AIB has not shown that consumers benefit from the payment of competitive commissions, characterizing as "illusory" what the AIB considers as benefits. Items such as computers, it asserts, even if their purchase is discretionary, may benefit consumers by enabling agents to provide faster service. Further, the SRB argues, there is no evidence that competitive commissions are paid exclusively for automobile insurance performance, or that companies would actually incur such expenses.

The AG argues that §162D distinguishes between the payment of the CEPP as established by the Commissioner and other types of compensation that insurers may offer their agents. The rates established pursuant to §113B include a commission allowance, but not excess commissions. The CEPP, the AG argues, fully compensates agents for the reasonable costs of writing and servicing private passenger automobile insurance, and no additional compensation is necessary in the rates. Competitive commissions, he asserts, provide no benefit to policyholders. The AG argues, further, that their inclusion in the rates would be unfair to consumers because it would constitute a double payment, requiring consumers to pay twice for the services that are covered through the CEPP. Pointing out that the AIB has admitted that there have been no changes since the Commissioner last considered and rejected this issue, the AG concludes that the Commissioner should not reconsider her past rulings on competitive commissions.

Discussion and Analysis

As in the proceeding to set rates for 2005, the AIB asks the Commissioner to reconsider her past decisions on the issue of including contingent commissions in the rates, even though market conditions have not changed. The crux of the AIB's argument is that contingent commissions are an expense that insurers may incur with respect to marketing private passenger automobile insurance in Massachusetts, and that they should therefore be permitted to pass on to consumers in the rates.

The *Decisions* on rates for 2003, 2004 and 2005 and all rejected proposals by the AIB to include override and contingent commissions as company expenses, concluding that the inclusion of such commissions would not comply with the Commissioner's statutory duty to set "adequate, just, reasonable and nondiscriminatory rates." It summarized the findings which supported the Commissioner's conclusion, and noted that those findings were supported by the record in the proceeding to set rates for 2005.

The AIB has offered no new evidence to warrant a departure from our prior decisions. Its witness acknowledges that there have been no changes in the marketplace since the *Decision on 2005 Rates* was issued. To the extent that it argues that companies require an expense component for competitive commissions to reward agents appropriately, we note that the statute instructs the Commissioner to include in the rates a commission expense allowance to be used "in connection with the issue or execution of motor vehicle liability policies or bonds." That expense allowance, in the form of the CEPP, is available to all insurers and represents the amount that agency companies must distribute to producers. Read in conjunction with §162D, it is apparent that insurers have some discretion in allocating the commission allowance.

The AIB's arguments this year are not materially different from those offered in past years, and do not persuade us to reach a contrary conclusion. Therefore, for the reasons set forth in greater detail in our prior decisions referenced above, competitive commissions will be excluded from the company expenses that are used to determine the company expense pure premium in the 2006 rates.

4. Revisions to the Company Expense Call

The SRB recommends that the Commissioner order changes to the annual company expense call to capture expenses that are associated with premium financing and the collection of other company revenue, and other relevant information that is now contained in the annual Premium and Finance Charge Survey. It points out that its recommendation would eliminate the need for two separate surveys. The SRB also asks that the AIB obtain the services of a professional accounting firm to assist in the design of the survey and to certify the survey data and results.

The AIB objects to the SRB's request, arguing that it is beyond the scope of the rate case, and that the Commissioner lacks authority to order the AIB to spend funds to

hire professional accountants to work on the expense call. Noting that it is a licensed rating agent under G.L. c. 175A, §§8-15, the AIB states that it is willing to consult with a party or parties about changes to the expense call, but that an order is not appropriate.

The issue of the adequacy of survey data has been raised in the past, notably in the *Decision on 1999 Rates*, in which the parties sought two adjustments to the underwriting profits provision. The Commissioner concluded that the responses to the then-utilized Premium Finance Charge Survey were inadequate to support the adjustments, and suggested that the parties work together to refine the annual survey so that the data collected would be useful in future years to determine appropriate adjustments. The survey was subsequently revised to collect additional data. We adopt that approach again this year.

We note, moreover, that the purpose of these industry surveys is to provide adequate and reliable information on which to base ratemaking, and that the interests of the various parties to these proceedings may not always be identical. A revised survey should therefore be developed with the advice and input from all parties to these proceedings. We express no opinion on whether it is necessary to engage outside consultants to develop the final product. Any new survey must also allow adequate lead time for implementing any necessary information system changes.

On the issue of engaging accountants to certify the survey data and results, we note that the reliability of any survey information largely depends on the accuracy of the reported data. The burden is on a ratefiler to satisfy the decisionmaker that the data on which it bases its recommendations is reliable, accurate and credible. To that end, certification of survey results by outside accountants or other qualified auditors may mitigate potential disputes over the quality of data submitted in these proceedings, and we encourage the use of such certifications.

D. Increased Limits Factors

1. Introduction

Massachusetts consumers may purchase additional amounts of insurance, in addition to the statutory minimums, for certain liability coverages such as property damage, uninsured or underinsured motorists and bodily injury ("BI"). These additional amounts of insurance are referred to as "increased limits". Increased limits factors

("ILFs") are used to determine the pure premiums that are charged policyholders for all additional amounts of insurance in excess of the statutory minimums.

The statutory minimum limits of insurance coverage for BI, known as the "basic limits," are $20,000 per person and $40,000 per accident (referred to as "20/40"). Policyholders may pay additional premiums to purchase higher limits of coverage. Data on increased limits losses is reported and developed separately from data on basic limits losses for each major limit-purchasing group (*e.g.*, the groups who purchase limits of 20/40, 25/50, 50/100, 100/300, 250/500, etc).[71] The basic limits pure premium underlying the ILF for each limit is based on the loss experience of only policyholders who purchase that increased limit. The methodology for preparing the data for the purpose of estimating BI ILFs has been unchanged since the Commissioner's *Decision on 1988 Rates*.

The initial step in preparing the data for estimating BI ILFs is to calculate the basic limits pure premium and the excess limits pure premium independently for each major limit-purchasing group. ILFs are calculated based on the ratio of total limits losses (basic limits plus increased limits) to basic limits losses for each such group. The ratio for policyholders who purchase the statutory minimum is unity (1.00); the ILF factor for policyholders who purchase higher limits of coverage will be greater than one because the increased limits pure premium for these policyholders will be greater than zero. This methodology recognizes the long-standing empirical evidence that the ratio of total limits to basic limits pure premiums varies by coverage limit (*e.g.*, 20/40, 25/50, *etc*). *Decision on 1988 Rates* at 61-73. In the interest of rate stability, the BI ILFs for a particular year historically have been calculated by taking an arithmetic average of the factors developed for the preceding six years.

The BI ILFs that result from this calculation are then used to determine: (a) the average dollars of increased limits premium that the industry as a whole expects to collect on a statewide basis; and (b) the actual premium for an increased limit of coverage that an individual policyholder will pay. Deriving the actual premium that an individual policyholder will pay requires application of the ILFs to the manual rate for a

[71] For ratemaking purposes, the experience of those who purchase limits between 20/40 and 50/100 is grouped, because the number at each such level is too small to be credible.

policyholder's driver class and territory. The manual rate is the starting point in the calculation of a given policyholder's premium. Manual rates are established for 162 driver class and territory combinations, which combinations reflect the operators' years of driving experience and the garaging location of the vehicle. Manual rates additionally reflect the discounts and accident violation records expected for each driver class and territory combination.

2. The AIB's Proposal

The AIB recommends that six year's worth of experienced increased limits factors ("ILFs") should be calculated this year according to the procedure set by the Commissioner in the past. The AIB estimated 2006 bodily injury ("BI") ILFs by using the average of the last six years' worth of experience of BI ILFs. It estimated 2006 property damage liability ("PDL") ILFs by using the trended loss pure premiums in the numerators and in the denominators of the six years' worth of experience of PDL ILFs. The AIB estimated 2006 U-1 ILFs by averaging the last six year's worth of experience of U-1 ILFs.

All parties agree that the AIB's proposal this year for the calculation of ILFs follows the method that has been used by the Commissioner in the past.

3. The SRB's Response to the AIB's Proposal

The SRB supports the continued use of the manner in which ILFs have been calculated in the past. In particular, the SRB supports the manner in which the AIB has calculated BI ILFs.

4. The AG's Response to the AIB's Proposal, the SRB's Proposal, and His Response to Criticisms of His Proposal

The AG did not make a recommendation with respect to PDL or U-1 ILFs. The testimony of the AG's expert concerning ILFs was limited to BI ILFs. Accordingly, the AG only takes exception to the AIB's calculation of BI ILFs.

As in the proceedings to determine the 2003, 2004, and 2005 private passenger automobile rates, the AG contends that the AIB's proposed BI ILFs are unreasonable and lead to excessive rates. The AG again takes the position that the AIB's BI ILFs produce excessive premium charges for more than two-thirds of the policyholders who purchase

increased limits BI coverage. He asserts that purchasers of increased limits BI coverage pay a rate higher than that indicated from the expected costs, and that the magnitude of the overcharge, $22 per exposure or approximately 20%, has varied little over time. According to the AG, in 2004 the increased limits overcharge was $62 million.

The AG again cites two reasons in support of his allegation: (1) subsidies paid by increased limits purchasers exceed subsidies received by these purchasers; and (2) a mismatch exists between the ILFs and the premiums to which they are applied, because the difference in loss experience within a given classification group (including both class and territory issues) between policyholders who purchase and do not purchase increased limits is not reflected in the premiums.[72] In the words of the AG's witness concerning ILFs, there are two basic issues: (1) there are subsidies in the rates that are balanced on a basic limits basis but not on a total limits basis; and (2) the experience of ILF purchasers are different from the experience of basic limits purchasers.

The first reason the AG maintains this occurs is due to subsidies that are built into the basic coverage ratemaking methodology, "deliberately increasing rates in some [territory/class] cells to offset the subsidy reductions in others." He claims that the average increased limits purchaser is in a subsidy paying cell, which necessarily means that the average basic limits premium of the increased limits purchaser is artificially raised by the addition of a net subsidy payment. Because increased limits premiums are the product of the ILF and the basic limits premium, any net subsidy in the basic limits premiums also would be found in the increased limit premium.

For basic limits coverage, the relativities are balanced, and subsidies received equal subsidies paid. For increased limits, on the other hand, the AG contends that no procedure balances increased limits subsidies. Thus, he asserts that increased limits purchasers pay a net positive subsidy on increased limits coverage, and the insurers retain the subsidy overcharge. To address the "subsidy overcharge," which he maintains is not in dispute, the AG proposes an algorithm for balancing relativities for all BI premiums, basic and excess limits. In the alternative, the AG recommends that a factor of .914

[72] The AG's expert testified that the method that the AG is proposing this year for BI ILFs is "not new from what we've proposed in the past;" it is "new from what the Commissioner has adopted in the past. What is new, Mr. Schwartz stated, is the underlying material to support the AG's proposal, "a lot of it is new."

(based on 2005 rates) be applied directly to the ILF to remove the improper subsidy from policyholders to insurance companies.

The AG further contends that the AIB's BI ILF methodology is flawed as a result of its application of the ILF to the average basic limits premium in each class/territory cell. This, in his opinion, is a "mismatch" to the extent that it costs less to provide basic coverages to increased limits purchasers than it does to the average policyholders in the same rating cells. The AG suggests that the increased limits premium becomes inflated because it is derived from the average basic limits premium, which he believes is too high as respects increased limit purchasers.

Specifically, the AG points to three factors that he believes contribute to the overcharge in the application of the ILF: (1) within virtually all class/territory cells, expected basic limits costs of increased limits purchasers are lower than the expected costs of the average policyholder; (2) basic limits premiums in each class/territory cell are based on the costs of all insureds within the cell, including those purchasing 20/40 coverage only; and (3) The BI ILF is the ratio of total limits to basic limits costs for increased limits purchasers, not for all insureds.

In addition, the AG goes to great length to make the point, including the use of schematics, that the BI increased limit coverage, unlike compulsory or certain optional coverages, such as comprehensive and collision, is distinctive in that it is based on the losses of a cohort of policyholders who do not purchase the coverage. As a result, he contends that the increased limits premiums are higher than the expected costs of increased limits coverage. Accordingly, the AG proposes that the Commissioner apply a market mix adjustment to BI ILFs (the Attorney General has recommended a phased-in adjustment for 2006 rates of .95).

In support of its position, the AG specifically addresses in his brief what he maintains were errors in the *Decision for 2005 Rates*. The AG also submitted a prospective comparison of the anticipated premiums based on the AIB's BI ILF's compared to the cost based rates for the increased limits of BI coverage.

The AG's witness concerning ILFs, states that the SRB in its filing shows a calculation of what the subsidies are in the increased limits rates by limit of coverage. Mr. Schwartz claims that this provides a comparison of a data excess charge, which is an

experience excess charge, to a rated excess charge that shows that the increased limits rates that are being charged are higher than the cost. He claims that the difference in values that the SRB has calculated is "consistent with our recommendation, generally speaking, in terms of an adjustment, in terms of how much rates should be adjusted to take into account that, under the current procedure, there's this unintended subsidy in the increased limits from policyholders to insurance companies."

The AG notes that concern was expressed in the *Decision on 2004 Rates* at 110 that a reduction in the costs of increased limits coverage might encourage policyholders who currently buy only basic limits insurance to increase those limits. The *Decision on 2004 Rates* noted that if the AG's proposal resulted in any substantial shift in purchasing patterns for increased limits coverage, this could materially affect the assumptions underlying the AG's proposed methodology. The AG asserts that his analysis demonstrates no significant impact on the distribution of increased limits purchasers if his recommended correction of the BI ILF method were to be adopted this year. He claims that his statistical analysis of the historical data shows the absence of any correlation between increased limits costs and purchasing patterns. He argues that the undisputed testimony is that "the distribution of increased limits purchasers is insensitive to historical changes in increased limits premiums," and the issue of whether the AG's proposal may have some impact on the BI increased limits purchasing pattern is "not of material concern."

The AG asserts that historical data demonstrates that purchasing patterns do not affect his proposed ILF adjustment. He points to data in the record that he says shows that what he terms the "ILF error," and the "required ILF adjustment," has not changed over time. Thus, he maintains that, even if there were some change in the distribution of increased limits purchasers, "[a]ctual experience has shown that . . . the adjustment that needs to be made to the current BI ILF . . . procedure has been relatively stable over time."[73]

In contrast to what his historical data demonstrates, the AG argues that the record contains no evidence to support any potential assertion that a price change will produce

[73] The AG in his brief presents a table showing the overall BI excess limits adjustment factors by year of data.

any substantial change in purchasing patterns for increased limits coverage. The AG asserts that no expert testified that a change in price will have any impact on purchasing patterns, that no evidence shows that a cost reduction will affect the purchase of increased limits; and that no evidence demonstrates that a change in purchasing patterns will affect or correct the "ILF error." He concludes that the undisputed evidence is that (1) his proposed correction of the "ILF error" will not affect the purchase of increased limits and that a shift in purchasing may not reasonably be expected, and that (2) any change in purchasing will not "materially affect the assumptions underlying the AG's proposed methodology."

5. The AIB's Response to the AG's Criticisms of Its Proposal and to the AG's Proposal

The AIB argues that the AG's proposal to modify the manner of calculating the BI ILFs should be rejected for twelve reasons.

First, the AIB asserts that the judgmental five percent reduction in BI ILFs recommended by the AG is less than 1/3 of the 18.2 percent reduction that the AG claims would be correct. The AIB argues that the Commissioner should not set rates for 2006 under a theory that the proponent is not even willing to fully support.

Second, the AIB states that proposals identical to the one that the AG makes this year have been rejected by the Commissioner four times before, in the *Decision on 2005 Rates* at 39-44, the *Decision on 2004 Rates* at 111-112, the *Decision on 2004 Rates on Remand* at 6-13, and the *Decision on 2003 Rates* at 16-17.

Third, the AIB charges that the fundamental premise of the AG's proposed methodology is false. The AG's expert testified that his methodology relied upon the concept that experience relativities should be identical, or very close, to rate relativities. The AIB states that this simply is not the case. It points to testimony in which the AG's expert admitted that the distributions of both variables that are prohibited from use in ratemaking for private passenger automobile insurance (race, gender, marital status, alienage, smoking, drinking, aggressive driving and age, other than with regard to the senior citizen discount) and the distributions of variables that are used in ratemaking for private passenger automobile insurance (SDIP step or points, low mileage discount and multi-vehicle discount) cause experience relativities to differ from rate relativities. In

other words, the AIB submits that experience relativities should be expected to differ from rate relativities, and to do so for numerous reasons.

The AIB explained that rates are calculated for individual risks (before the fact) by applying unbiased factors and discounts that reflect statewide loss experience to manual rates that vary by class and territory. However, the AIB points out that the distributions of the insured risks' characteristics, such as SDIP step or points, may not be identical across the class-territory cells.

In its Brief, the AIB presented in tabular form some of what it claimed were "just a few of many legitimate reasons for the divergence of ILF experience relativities and ILF rate relativities" and discussed one such circumstance. As an example, the AIB postulated that if senior citizens' loss experience is really only ten percent better than Class 10 loss experience, but senior citizens receive a 25 percent discount from Class 10 rates, then the difference between the actual loss experience and the rating discount in rates would appear in the difference between the values shown by the AG's expert in its filing. The AIB concludes that "[w]hen one considers the startling multiplicity of reasons or causes for the differences between ILF experience relativities and ILF rate relativities, the inappropriateness, and perhaps even the futility, of attempting to drive them together becomes apparent."

Fourth, the AIB warns that the AG's proposal to drive ILF experience relativities and ILF rate relativities together may have the effect of improperly reintroducing impermissible variables into ratemaking. The AIB maintains that all of the rate relativities calculated by the AG's expert necessarily include the effect on losses of all of the rating variables that are prohibited by Massachusetts law; i.e., race, age, gender, marital status, alienage, ethnicity, home ownership, credit score, smoking, drinking, aggressive driving. On the other hand, the AIB asserts that all of the ILF rate relativities calculated by the AG's expert necessarily exclude the effect of the differences in loss experience caused by these forbidden rating variables. Thus, besides being futile, the AIB argues that the AG's proposal is improper as it is an indirect way of reintroducing forbidden rating variables into BI ILF ratemaking.

Fifth, the AIB claims that the AG's BI ILF argument is based upon a confusion between rates, set by the Commissioner, and premiums, which are the dollars paid by

insureds to insurers and that result from applying the manual rates and rating factors to an individual insured's risk characteristics (e.g., territory, class, SDIP step) and to an individual insured's insurance and car purchasing decisions. The AIB states that the Commissioner historically sets BI basic limits rates and sets BI ILFs, but does not set BI increased limits rates. The AIB charges that the AG is attempting to force the Commissioner into the business of regulating BI increased limits premiums; he asserts that the AG's expert admitted this in his testimony. The AIB urges the Commissioner not to do so, since this would complicate the already difficult task of setting rates for private passenger automobile insurance.

Sixth, the AIB belittles the AG's proposal for BI ILFs because, despite four years' efforts, it maintains that the AG has proposed no competing BI ILF methodology to replace the historical methodology. The AIB describes the AG's proposal as merely calculating BI ILFs in the traditional way, as has been done in the past, and then reducing them on average by a judgmental reduction factor of five percent based upon a calculation the AIB terms "hideously complex" and makes no sense. Furthermore, the AIB predicts that the AG's proposal for BI ILFs will produce a different reduction factor every year, and then maybe reduce them again, sometime after rates are published and subsidies are calculated for the AG's proposed subsidy adjustment. The AIB concludes that if a better ILF formula existed, the AG presumably would have produced it by now.

Seventh, the AIB urges that the AG's recommendation should be rejected because the "balancing" that it involves has a "chicken-and-egg problem" and would delay publication of the rates for private passenger automobile insurance. The AIB rejects as impossible the AG's recommendation that subsidies be calculated before rates are published because the calculation of subsidies requires that rates already be calculated. It points to testimony in which the AG's expert agreed that his final recommendation cannot be calculated until sometime after manual rates are calculated, because they are post the subsidy adjustment. Furthermore, the AIB argues that since the Commissioner has never calculated subsidies, either for BI basic limits rates or for BI ILFs, she cannot be expected to "balance" what is not extant.[74]

[74] The AIB states that the Commissioner does calculate and balance BI basic limits rates, however.

Moreover, since the Commissioner does not calculate BI increased limits rates, but only calculates BI ILFs, there are no BI increased limits rates to balance. The AIB asserts that the AG cannot reasonably require the Commissioner to "balance" any of three quantities (BI basic limits subsidies, BI increased limits subsidies and/or BI increased limits rates) that the Commissioner does not calculate at all. The AIB notes that the only element of the combination that is calculated by the Commissioner is BI basic limits rates, which the Commissioner both calculates and balances.

Eighth, the AIB asserts that the "mismatch" claimed by the AG's expert does not exist. The AIB maintains that the use of each purchasing group's loss experience, in both the numerator and the denominator of each limit's experience ILFs, produces a match in calculating experience ILFs; not a "mismatch." BI experience ILFs for each set of limits are calculated as the ratio of the total limits BI losses for that set of limits purchasers to the basic limits BI losses for that same set of purchasers, and thus, the AIB maintains, are matched.

Ninth, the AIB urges rejection of the AG's proposed methodology because the testimony by the AG's expert was simply too confusing and too self-contradictory to provide guidance in the rate-setting process. It concludes that the Commissioner should not adopt an adjustment process that neither of the AG's experts understands.

Tenth, the AIB claims that the AG's final recommendation suffers from the flaw of double counting because it applies two adjustments and one of them represents a part of the other.

Eleventh, the AIB claims that the AG is comparing loss experience relativities for the six accident years 1999-2004 to rate relativities for rate year 2005. This focus is off, the AIB states, because the attempt in these dockets is to set rates for 2006. The rates for 2005, which the AIB say underlie the rate relativities shown by the AG's expert, do not contain any of the effects of the change from the 2005 SDIP to the 2006 SDIP and contain only some small portion of the effects of the tempering and capping changes that were begun in 2005 but that will continue in 2006 and thereafter. The AIB asserts that the comparison of past (1999-2004) loss experience relativities to present (2005) rate relativities tells nothing about 2006 rate relativities, which will change from those shown by the AG due to changes in the SDIP, in tempering and in capping.

Twelfth, the AIB states that the AG merely is displaying arithmetic that shows that ILF experience relativities can differ from ILF rate relativities by showing a difference in rates between rates that implicitly contain ILF rate relativities and rates that implicitly contain ILF experience relativities.

6. The SRB's Response to the AG's Criticisms of the AIB's Proposal and to the AG's Proposal

The SRB supports the manner in which the AIB has calculated BI ILFs for purposes of setting 2006 rates. It believes that the AG's proposals are not sufficiently complete or tested in order to ensure more accurate ILFs, or the continued availability of increased limits coverage for all Massachusetts consumers. Accordingly, the SRB recommends that the Commissioner reject the AG's recommended subsidy imbalance and his "mismatch" adjustments to the AIB's recommended ILFs.

The SRB argues that the AG's asserted "mismatch" between the basic limits pure premiums of increased limit buyers and the basic limit pure premium for all limit buyers is not a function of the ILF. Thus, the SRB argues that the AG has misinterpreted the chart that appears in its filing. The SRB explains that this chart calculates the excess limits loss pure premium as a function of the basic limits pure premium underlying the ILF ("data excess charge") and also as a function of the statewide basic limits pure premium for all limits purchasers ("rated excess charge"). Viewed in a "very simplistic way," the SRB states that it certainly appears from the chart that purchasers of increased limits of bodily injury coverage are paying a rate that contemplates higher excess loss pure premiums than those underlying the calculation of the ILF.

However, the SRB asserts that the chart also appears to confirm the fact that the rate subsidies introduced by the Commissioner's ratemaking methodology are not at fault for this effect. The primary flaw in the AG's logic, according to the SRB, is his failure to acknowledge that the difference between the basic limits pure premium of a given limit purchasing group and the basic limits pure premiums for all limits purchasers in total ***is not purely a function of the limit of coverage*** (emphasis in the original). Thus, the reasons for the differences in the limit purchasing groups experience can be a function of other characteristics about the drivers who purchase these limits.

Although this after the fact perspective underscores the fact that 20/40 limits purchasers, who represent 29.4 percent of the population, were responsible for 58 percent of the bodily injury ("BI") claims, the SRB's expert explained that this is simply the result of average cost ratemaking. This is because ILFs are not applied to pure premiums, but are applied to rates, says the SRB, where the AIB states that "BI increased limit factors are used to modify basic limits rates to derive corresponding rates for higher amounts of BI coverage." Thus, the SRB avers that the lower than average, after the fact, basic limits pure premiums of ILF purchasers are entirely independent of the coverage question and are accounted for in other ratemaking variables, such as rating territory, driver class and driving record. The SRB contends that, to determine whether the increased limits of coverage is determinative of future loss experience, the effects of other major characteristics that affect loss potential (three of which are rating territory, driver class and driving record) need to be quantified and be removed from the data before an estimate of limits effect can be made. The SRB concludes that the AG has offered nothing in this proceeding that provides an actuarially sound method of estimating increased limits factors on the merits of the risk and exposure presented by higher limits of coverage. Instead, the SRB charges that he has offered an adjustment that is based on faulty data and ill-conceived assumptions.

The SRB brands as false the AG's assumption that the proportions by which the basic limits pure premiums of increased limits purchasers are lower than the basic limits pure premium of all limits purchasers is constant across rating territory and driver class. The SRB asserts that the "mismatch" cited by the AG arises from an incorrect assumption that the loss pure premium underlying the increased limits premiums are calculated from single statewide basic limits premium, an assumption that the SRB alleges that the AG's expert even agreed was incorrect The SRB asserts that, while the ILFs are uniform for everyone in the Commonwealth, there are 243 different bodily injury rates to which they are applied, each with a varying degree of subsidy based upon the Commissioner's tempering, capping and interclass constraint methodologies. Noting that the AG's filing reports that "policyholders purchasing increased limits are predominantly in territories and classes that subsidize other territories and classes," the SRB responds that a "cursory review" of the average rate and subsidy data by territory and driver class

indicates that the territory and driver class combinations that pay a subsidy also pay some of the lowest rates available, and, in many instances, pay rates that are significantly lower than average.

With respect to the AG's analysis, which he claims shows that increased limits purchasers have better loss experience (reflected in lower pure premiums) than the average basic limits loss pure premium of the 20/40 purchaser in the same class and territory, the SRB challenges the denominator that was selected: the AG's "mismatch" adjustment is based upon the amount by which the average basic limits pure premium and rate relativities for increased limits purchasers differs from the ***statewide*** (all limits purchasers) average; ***not the average of the 20/40 limits purchaser*** (emphases in the original).

According to the SRB, the "problem" that the AG's expert claims to be solving changes form when his analysis is restated at the more relevant level of territory and driver class detail. When data and calculations from the AG's filing are used to display the ratio of the basic limits pure premiums for increased limits purchasers to the basic limits pure premiums for all limits purchasers based on a detailed class and territory analysis, the basic limits pure premium ratios of increased limits/all limits purchasers in the territories paying rate subsidies are considerably higher than the 0.76 statewide average. The SRB asserts that it is the basic limits pure premium ratios of increased limits/all limits purchasers in the subsidy receiving territories that are driving the statewide average performance of the increased limits purchasers to the level that it is, and that the AG's indicated "mismatch" adjustment factor of 0.818 "clearly" will not provide for a better match between the increased limits pure premium and the basic limits pure premium in most cases.

The SRB asserts that ratemaking methods intentionally restate the basic limits pure premiums underlying the basic limits rates in each driver class and territory based on statistical and public policy considerations. It states that the basic limits pure premiums that underlie the AG's ILF analysis are not the loss pure premiums that are incorporated into the Commissioner's final rate, regardless of the ILF calculation. The SRB explains that, as part of the rate setting process, these historic basic limits pure premiums are adjusted for statistical credibility and tempering. After this has been accomplished, the

Commissioner's ratemaking methodology imposes maximum percentage caps on the rate of change in the average rate, which incorporates expenses, followed by further adjustments to the manual rate, which adjusts rates for SDIP and discounts, after the application of the inter-class constraints.

The SRB argues that, with the exception of credibility adjustments, these adjustments are the only means by which subsidies are introduced in the rates. It states that at each of these steps the basic limits loss pure premium underlying the rate for each territory and driver class is modified from its original form. It states that for the purpose of prospective ratemaking, the historical basic limits pure premium is rarely, if ever, identical to the basic limits pure premium contemplated in the final rate.

The SRB further contends that the AG's "mismatch" adjustment relies on basic limits pure premium relativities by limit purchasing group that do not reflect loss differences exclusively attributable to the limit of coverage purchased. It also alleges that the AG's expert is inconsistent in his representation of what the basic limits pure premium relativities represent. The SRB maintains that the relativities that the in the AG's filing represent the proportionate amount by which basic limits pure premium of a given limit purchasing group varies from the average statewide basic limits pure premium. It notes that the AG's expert agrees that these relativities "reflect in part the differences between the distribution of that group by driver class and territory and that of the state as a whole." The SRB argues that, although the basic limits pure premium relativities upon which the AG's expert bases the calculation of the "mismatch" adjustment reflect both the effect of actual loss exposure differences by limit purchasing group and also differences by rating territory and driver class that are rated for separately, they have not been "normalized for class and territory" by the AG.

The SRB states that the effect of "normalizing for class and territory" has a measurable effect on the degree to which the basic limits pure premium of increased limits purchasers varies from the statewide average. Since the SRB calculates that the "normalized" basic limits pure premium relativities for the 50/100, 100/300 and 250/500 are between 15 percent to 37 percent higher than the relativities that are not normalized, and given that they represent approximately 88 percent of all increased limits purchased, the comparable average basic limits pure premium relativity for increased limits

purchasers normalized for driver class and territory would be considerably higher. The SRB therefore declares that the AG's failure to recognize the influence of territory and driver class on the basic limits pure premium relativities results in a broader range of relativities than the increased limits loss exposure alone would suggest.

The SRB disputes the claim of the AG's witness that his calculation of the "mismatch" adjustment is "normalized" for the territory and driver class mix for higher limits purchasers, pointing to the values of 0.745 and 0.911 at 131 of his filing. The SRB dismisses this calculation as simply the weighted averages of the basic limits pure premium and rate relativities, respectively, for increased limits purchasers. The SRB notes that Mr. Schwartz states that these calculations address the Commissioner's concern in the *Decision on 2003 Rates* that the average premiums paid by increased limits purchasers may vary for a variety of reasons, including driver class and territory and, to the extent that lower loss costs for these drivers are linked to lower SDIP ratings, they already receive credits.

In sharp disagreement with this assertion, the SRB identifies the AG's calculation as the same calculation that the AG has sponsored in previous filings, and argues that it does not address the concerns articulated in the Commissioner's *Decision on 2003 Rates* and again in her *Decision on 2005 Rates*. The SRB maintains that in order to properly estimate the effect of coverage limit on the prospective costs of the coverage, the costs accounted for by other rating variables must first be removed -- not included -- in the data used for that purpose. The SRB also notes that this calculation by the AG does not change, in any way, the fact that the basic limit relativities used to calculate that average continue to reflect differences that result from differences in the territory and driver class distributions of the different limit purchasing groups.

The SRB maintains that the examples that it has provided in its Exhibit 23 show the significance of driving record on the basic limits pure premium relativities by limit purchasing group. In this exhibit, which reflects the basic limits pure premium relativities for three driver classes and territory combinations, the SRB contends that within each combination the basic limits pure premium relativities continue to differ by increased limits. While there are a number of factors, both those used in rating and those that are not, that can affect the observed relativities, the SRB asserts that the average driving

record and age of the driver underlying the basic limits pure premium for each limit purchasing group are probably the most important factors when evaluating experience by limit purchasing group. Yet nowhere, the SRB charges, has the AG made any adjustment to the pure premiums or rate relativities for driving record.

The SRB claims that the AG's witness "attempts to dismiss" the effect of driving record on the basic limits pure premium relativities by focusing attention on the way driving record is handled in the increased limits portion of the rate. The SRB rejects the proffered explanation, noting that while the AG's witness adequately describes the ***excess limits rate*** adjustment, his testimony is not relevant to the analysis of ***basic limits loss pure premiums*** by limit purchasing group (emphases in the original). The SRB notes that the losses incurred under the BI coverage, purchased at higher limits, is a function of a ***single*** accident that may or may not result in a claim payment in excess of the basic limit (emphasis in the original). The SRB concludes that the frequency of loss in the excess layers clearly is a function of the loss at the basic layer.

In summary, the SRB asserts that the AG's proposed "mismatch" adjustment relies on basic limits pure premium relativities that exhibit broad variations relative to the statewide average due to differences that are already recognized in the driver class, territory and SDIP rating factors. It argues that it is simply not appropriate or actuarially sound to adjust ILFs for experience that is not related to increased limits loss exposure.

The SRB asserts that the AG's comparison of the basic limits rates for each limit purchasing group to the statewide average reflect nothing more than the differences in each group's territory and driver class distributions, and the varying level of average rate subsidy that these distributions produce. The SRB notes that the AG's expert, Mr. Schwartz, agrees that the basic limit rate relativities that form the basis of the proposed "mismatch adjustment" reflect differences in the territory and driver class distributions for each limit purchasing group. It also observes that the AG acknowledges that the basic limit rate relativities for increased limit purchasers would be lower than the ones he relies upon if the Commissioner's rate subsidies were removed and that the basic limit rate relativity for 20/40 purchasers would be higher. Furthermore, the SRB points out that Mr. Schwartz testified that a zero average subsidy in the basic limit rate is achieved using the statewide exposure distribution for all driver classes and territories, policyholders

purchasing increased limits are predominantly from territories and classes that subsidize other territories and classes, and that it is very unlikely for the average subsidy to be zero when the weights applied to rates differ from the statewide distribution. The SRB asserts that if Mr. Schwartz had removed the effects of subsidy from the calculation of his average basic limit rate relativity, using the statewide driver class and territory exposure distribution for each limit purchasing group, the average basic limits rate for each group would be the same. This, in turn, the SRB states, would result in the average basic limits rate relativity for each limit purchasing group to be unity (1.0).

The SRB avers that this truth is established by the data itself when viewed at the driver class and territory level of detail, which is the level at which the BI ILFs are established. The SRB concludes that the AG's failure to normalize the subsidy in the average basic limits rate for each limit purchasing group to zero is the only reason that the AG's proposed "mismatch" adjustment produces a value different from the basic limits pure premium relativity calculated with similar distortions. The SRB reiterates that, although Mr. Schwartz attempts to defend not adjusting for the effects of the SDIP in the basic limits rate because the average increased limits rate reflects the average driving record, the SDIP has a very measurable effect on the basic limits rate. Thus, the SRB maintains that the type of adjustment proposed by the AG reveals nothing about the level of "mismatch" inherent in either the statewide representation of the basic limits pure premium relativities or the basic limits pure premium relativities at the territory and driver level of detail.

The SRB comments about the AG's second argument, that, since the average basic limits rate will be balanced to zero when balanced on the 2003 all limits earned exposures by territory and class, this results in an "unintended subsidy from increased limits policyholders to insurance companies." The SRB describes the AG as asserting that the difference between the excess limits premiums at the Commissioner's rate and the actual cost based rate, since it is positive, reflects an overcharge in the prior year's expected rate that should be credited to the following year's rate. Although acknowledging that the AG's filing demonstrates that the average net subsidy in the Commissioner's 2005 basic limits rate, balanced on 2003 increased limits earned exposures by driver class and territory, does not equal zero, the SRB argues that fundamental to the AG's argument that

the non-zero net average subsidy amount is a "problem" requiring a "solution" is his assumption that a non-zero outcome was unintended. It also argues that a second assumption underlying the AG's argument is that this unintended outcome only applies to excess limits of BI and not to other limits or deductibles available for property damage liability, personal injury protection, collision or comprehensive.

The SRB recommends that the AG's calculations should not be incorporated into the Commissioner's 2006 rates for several reasons. First, the level of subsidy introduced by the Commissioner's ratemaking methods for policy years 2004 and 2005 can be expected to be significantly different in policy year 2006 and thereafter. Second, the AG's measurement of the amount by which the average net subsidy is the excess limit premiums differs from zero is not an appropriate reduction to the ILFs of all increased limits purchasers. Third, the AG's argument that the net average subsidy for excess limits produces an unintended subsidy to insurance companies assumes that all companies charge the Commissioner's rate and each company's distribution of risks by driver class, territory and limit is equal to the statewide distribution, neither of which is supported by the record in this proceeding.

Regarding the first point, the SRB argues that, since "virtually every ratemaking methodology traditionally used by the Commissioner has incorporated new features or new parameters for 2006," the AG's estimate of the historic "subsidy imbalance" in the Commissioner's excess limits premium has not been sufficiently modeled in the environment in which it is to be introduced to justify its adoption.[75]

Regarding the second point, the SRB argues that the effect of the AG's adjustment is to reduce all increased limits factors for all territory and driver combination, regardless of whether that combination is a subsidy payer or a subsidy recipient, even though the AG's filing "clearly shows" that not all increased limits purchasers pay a premium commensurate with their actual expected losses. Reducing the ILFs for these purchasers, the SRB contends, simply deepens the rate inadequacy of these purchasers and only partially reduces the rate redundancy of other increased limits purchasers. The SRB

[75] The SRB identifies these traditional methodologies as (1) rate relativity tempering, which caps all class/territory pure premium relativities to a certain maximum; (2) capping, which is the process of limiting the year-to-year increases for each class/territory cell to no more than a stated percentage in excess of the statewide average rate change; (3) flat loading, which is legislatively mandated, and (4) inter-class constraints, which are applied in order to ensure consistency and reasonableness of rates between classes.

concludes that the AG's approach does not result in any greater equity than does the current approach, and additionally presents the potential for reduced availability of higher limits of coverage in certain areas of the state.

Regarding the third point, the SRB asserts that Mr. Schwartz acknowledges that the subsidies that result from the Commissioner's ratemaking method are balanced to zero in the basic limits BI rate based on the statewide distribution of exposures by driver class and territory, and that the average net subsidy might differ from zero to the extent that the distribution of drivers varies from statewide The SRB argues that this means that, at an individual company level, the average net subsidy may or may not equal zero in the basic limit rate, as well as in the excess limit rate. Thus, the SRB concludes that the AG's assertion that all companies "profit" by virtue of the subsidy imbedded in the excess limit premium "is simply not supported with factual evidence."

Furthermore, the SRB states that Mr. Schwartz's calculation of the net average subsidy in the excess limits premium assumes that all drivers pay the Commissioner's rate, a fact that is not supported in the record. To the contrary, the SRB argues that group discounts and rate deviations apply to a significant portion of the driving population in Massachusetts and the AG has not accounted for the effects of these rate adjustments. Moreover, the SRB asserts that it is not known if there is any correlation between them and the limit of coverage purchased.

In conclusion, the SRB asserts that the AG's subsidy imbalance is based on assumptions that are not true in real life.

The AG's Response to Criticisms of His Proposal

The AG submitted a rebuttal filing in response to the SRB's filing on the issue of BI ILFs. He AG asserts that the SRB filing contains a comparison of the additional premium created by the ILFs recommended by the AIB and the SRB to the historical level of increased limits losses. The AG notes that the SRB's filing concluded that, on a ***retrospective*** basis (emphasis by the AG), there was no reason to expect these two results to be equal. Furthermore, the AG comments that the SRB's witness admitted during cross examination that, on a ***prospective*** basis, the rates should be calculated on a cost based analysis, and that the two numbers she had compared are not actually comparable.

In the opinion of the AG, any premium charge that, on a prospective basis, is greater than the cost of providing the coverage is excessive and unreasonable. The AG asserts that his comparison, on a prospective basis, of the projected premium charge based on the ILFs recommended by the SRB (and the AIB) to the cost based rates for the increased limits of BI coverage showed that the proposed indicated BI increased limits charge proposed by the SRB (and the AIB) is "significantly higher" than the cost based premium charge for the BI increased limits coverage. Furthermore, the AG reports that the disparity between the premium charge from the ILF recommended by the SRB (and the AIB) and the cost based rates increases as the limit of coverage becomes greater. Stating that these results are consistent with the AG's original advisory filing, the AG urges the Commissioner to adopt the AG's proposal so that the increased limits rates charged by companies will reflect the cost of providing that coverage and consumers will not be "significantly overcharge[d]."

Noting that the SRB filing contains evidence that the charges for increased BI limits are higher on average than the cost of providing that coverage, the AG dismisses the implication of the SRB's witness that this discrepancy is an unavoidable consequence of average cost ratemaking, which can also be seen in other rating and non-rating variables. However, the AG argues that there is a "critical difference" between those other rating and non-rating variables compared to BI ILFs. The AG asserts that a procedure of multiple balancing is used for coverages other than BI increased limits to ensure that the premium charge will match the costs on a prospective basis. He insists that, for every other rating factor mentioned by the SRB, a procedure is used whereby any imbalances between projected premium charges and costs are balanced out. This balancing process, he avers, also balances out any potential non-rating variables that could impact costs but that are not used in the rating plan, so that they have no overall net dollar impact on the combined average rate. The AG argues that for BI increased limits charges alone there is no balancing in the current ratemaking procedure, so that what he terms "inflated charges by insurance companies to policyholders for BI increased limits coverage" are never removed. The result, according to the AG, is inflated and actuarially inappropriate rates for BI increased limits charges.

The AG dismisses the argument of the SRB's witness that the risk of providing increased limits coverage is part of the cost that should be included in the rate. He notes that Ms. Blank conceded that the increased limits premium should cover the costs of providing the increased insurance, but stated that "part of the cost of providing excess limits coverage is risk itself." The AG, noting that insurers receive compensation for risk through the profit provision, which is tied to a cost of capital that reflects the market risk of insurance companies, argues that the profit provision "reflects the average risk across all limits of coverage." Indeed, the AG asserts that the SRB's witness acknowledged that the profit provision reflected increased limits risk and that no specific adjustment or risk factor is applied to increased limits risk.

Furthermore, the AG comments, if a special risk-related premium increase were to be applied to increased limits, a special offsetting premium reduction would need to be applied to basic limits premiums. Since profit currently is determined for the average BI risk, if the risk of a subset of BI coverage (*e.g.*, increased limits) is greater than average, the risk of the remainder of BI coverage (*e.g.*, basic limits) must be lower than average, according to the AG. Further, the AG notes that no one has recommended such a bifurcation of risk, which, in any event would be inappropriate in his opinion. For such a bifurcation to have any useful application, the AG argues that increased limits coverage would need to be more risky than basic limits coverage in Massachusetts by a quantifiable amount.

In this regard, the AG asserted that he had "examined the variation of pure premiums by limit of coverage across years to see if there is a discernable difference in risk by limit of coverage," and this analysis showed that, if anything, increased limits coverage is less risky than basic limits coverage and that increased limits losses are more stable and less variable than basic limits losses. Thus, the AG concludes, "[t]o the extent there is a difference in the variation in costs between years, the lower limits of coverage appear to have more variation than the higher limits of coverage." The data "would not support . . . an additional cost provision for risk for the higher limits of coverage." The AG argues that the data does not support the SRB's comment that an additional cost for risk be added for the higher limits of coverage.

The AG dismisses the AIB's asserted distinction between rates and premiums as incorrect and immaterial. The AG asserts that, pursuant to G.L. c. 175, §113B, the Commissioner fixes premium charges, not rates. He states that premium charges are set through various procedures, which include the determination of an average premium and adjustments that convert the average into charges for insureds, citing *MAIA v. Commissioner of Ins.*, 425 Mass. 477, 480-81 (1997) (premium charges include SDIP adjustments). The AG argues that the ILF itself is neither a rate nor a premium, but is a factor that is applied to the basic limits "premium" (not rate) in the Massachusetts' Private Passenger Automobile Rate Manual.

In support of this proposition, the AG quotes from the Manual: "[t]he charge for bodily injury increased limits is determined by applying the factors shown on the Increased Limits Tables to the total of the adjusted Part 1 premium and Part 5 basic limits premium . . .." Furthermore, the AG contends that, to the extent that there is any meaningful distinction between "rates" and "premium", the §113B proceeding and the Manual procedures establish the ***premiums*** that policyholders are charged (emphasis in the original). Thus, the AG states that the AIB's argument that the Decision on Private Passenger Automobile Rates has no role in setting the correct premiums is incorrect under the statute and inappropriate as a statement of policy.

In further response to the AIB's arguments, the AG asserts that he is not requesting that the Commissioner regulate total premiums or gross revenues. He acknowledges that, while every aspect of the Decision on Private Passenger Automobile Rates, including profits, losses, and the expense allowance, affects total premiums, the Commissioner does not directly "regulate" those amounts. He states that there is no proposal that the Decision on Private Passenger Automobile Rates should place any limit on overall premium or specifically regulate the revenues collected by the insurers. However, he asserts that the Commissioner should correct what he calls the "ILF errors" and thereby ensure that the premium charges that policyholders pay for increased limits coverage are correct and reasonable.

8. Discussion and Analysis

All parties agree that the AIB's proposal this year for the calculation of ILFs follows the method that has been used by the Commissioner in the past. Where the AIB and the SRB disagree with the AG is on the calculation of BI ILFs.

The AG first proposed a change to the methodology affecting BI ILFs in the proceeding to set 2003 Rates. As noted in the *Decision on 2003 Rates*, as well as in the years that followed, the AG bears the burden of demonstrating that his methodology is superior to the current CDM. As in prior years, we again reject the AG's proposed changes to the methodology establishing rates for increased limits BI coverage. We have carefully examined the testimony that the AIB, the SRB and the AG have presented this year and reach the following findings and conclusions.

The AG continues to argue that the application of the BI ILF to the basic limit BI rate produces increased limit BI premiums, which if analyzed in a particular manner appear to result in premiums that, on the whole, are excessive. The AG claims that the "overcharges" are derived from two sources: (1) an imbalance in subsidies paid by increased limits purchasers; and (2) a "mismatch" that occurs due to the application of BI ILFs to average losses of all policyholders in a class/territory cell rather than to losses incurred only by increased limits purchasers.

The AG recommends the application of an algorithm to address the "subsidy overcharge" for balancing relativities for all BI premiums, basic and excess limits. In the alternative, the AG recommends that a factor of .914 (based on 2005 rates) be applied directly to the ILF to reduce revenue to insurance companies to offset improper subsidies. To correct the "mismatch," he proposes that the Commissioner apply a market mix adjustment to BI ILFs, recommending a phased-in adjustment for 2006 rates of .95.

The record provides a number of bases undercutting the AG's rationale. Even though the AG supplied additional data in this year's record as compared to rate hearings in previous years to support some of his assertions, his underlying premises and ultimate conclusions remain unpersuasive and appear to overlook fundamental principles inherent to the fix and establish process.

a. Subsidy Overcharge

First and foremost, in fixing and establishing private passenger automobile rates, the Commissioner sets a single average rate, as if one company were writing a policy for a

single driver. Once this is accomplished the rate is allocated among the approved territories and driver classifications in order to calculate the manual rates to apply to individual risks. This process results in a set of rates with subsidies that result from the ratemaking process (i.e. tempering, capping, interclass constraints and flat loading) to produce the statewide average premium approved in the Commissioner's decision.[76]

Rates, and eventually premium for increased limits coverages, are calculated by applying the ILF to the basic coverage rate for a particular class and territory combination. As noted by the AIB, it would be impossible to balance any resulting subsidies included in the increased limit rates to zero because the subsidies are not manually set. The subsidies that arise in the setting of the basic rate empirically flow from when the single rate set pursuant to G.L. c. 175, §113B is applied across the recognized class and territories. This is not an area where the Commissioner has the ability to exercise judgment by manipulating the values of relative subsidies. Accordingly, it is inappropriate to conclude, as the AG does, that the BI increased limit rates may be "balanced." in the basic rate setting process.[77]

As the AIB points out, inherent in the AG's proposal to "balance" the alleged subsidies in the rate for increased limit BI coverage is the confusion between rates, which are established by the Commissioner, and premiums, which are the amounts owed by policyholders after the Commissioner's manual rates and rating factors are applied to a particular risk based on each individual's purchasing decisions. As noted, a basic limit rate and ILFs are set in the ratemaking process, not increased limit rates. The AIB describes the CDM for determining rates for the BI coverage as follows:

> BI increased limits factors are used to modify basic limits rates to derive corresponding rates for higher amounts of BI coverage. The ILFs are

[76] In discussing the zero balance of subsidies on a basic limit basis, the AG in his initial advisory filing, the AG's stated in his brief that "On a basic limits basis, the overcharges in the subsidizing class/territories balance the undercharges in the subsidized class/territories, and the net subsidy is $0 -- that is, every dollar of basic limits subsidy flows from a subsidizing policyholder to a subsidized policyholder, and no excess basic limits subsidy is retained by the companies." While the characterization of the subsidy offset is theoretically correct, the AG's statement is misleading because it ignores the fact that in the marketplace subsidies rarely match up because there is more than one company writing private passenger automobile insurance, each having a different book of business, and the types and locations of risks are not evenly distributed throughout the state, let alone within each territory and class.

[77] Mr. Schwartz admitted that he was not aware of the Commissioner ever calculating subsidies in Massachusetts private passenger automobile insurance rates, acknowledged that he did not recollect that in decisions that are issued by the Commissioner there are discussions of subsidy issues. We note that this is true of this Decision.

> uniform statewide factors that apply to any risk that opts to purchase BI coverage higher than the 20/40 basic limit. (footnote omitted) The methodology used by the Commissioner to determine BI ILFs relies on the actual historic basic and total limits loss experience produced by the risks that purchased each limit in each accident year. This experience directly estimates the expected cost of the limit relative to the basic 20/40 limit. Because the historical experience for each limit includes the losses for only those exposures that purchased the limit (i.e. all risks statewide that purchased the limit), the historical ratio of total limits to basic limits losses for all risks statewide that purchased the limit produces an unbiased estimate of the expected increased cost for the limit relative to the basic limit cost.

Because the Commissioner does not directly set BI increased limits rates, let alone the amounts of BI basic limit subsidies or BI increased limit subsidies, it would be impossible to "balance" any resulting subsidies that are carried into the BI increased limit rate. To the extent the AG's witness, Mr. Schwartz, apparently fails to appreciate this, we find his testimony to be unpersuasive.

There is a further practical problem related to the AG's proposal to "balance" increased limit rates for BI, which the AIB aptly refers to in its brief as a "chicken-and-egg problem." Even if the Commissioner did set increased limits BI rates, and therefore could "balance" such rates, such a "balancing" process would necessitate that the AIB publish the actuarial notice of the subsidies prior to the Commissioner's calculation and publication of the BI ILFs. The AIB calculates the "Subsidy in Rates" Actuarial Notice after manual rates are published, and manual rates are one of the inputs required for this Notice. Therefore, the BI ILFs, which are part of the manual rates, cannot be calculated with the results of the AIB's subsidy calculations. As the AIB put it, "Mr. Schwartz's recommendation, to the effect that subsidies be calculated before rates are calculated, is impossibility, because the calculation of subsidies requires that rates already be calculated."

For all of the above reasons, it is neither desirable nor practical to adopt the AG's proposed algorithm to balance increased limits rates. That is not to say that the AG's position with regard to subsidies completely lacks merit. There is no dispute that subsidies built into the basic limit rate impact increase limit BI rates in the many instances

where a subsidy paying policyholder elects increased limits coverage.[78] In such cases, the subsidies are carried over from basic limit rates to the increased limits rates.

This does not necessarily lead to the conclusion, however, that the rates for increased limit coverage as a whole are overpriced or underpriced, or result in excess revenue for a particular company based on that company's book of business, rate deviations and group discounts. Group discounts and rate deviations apply to a significant portion of the driving population in Massachusetts, and the AG has not accounted for the effects of these rate adjustments.

We are also not persuaded that the subsidy carryover is inherently inappropriate. The AG conspicuously overlooks the fact that subsidies on overpriced risks are also built into deductibles available for comprehensive and collision, as well as PDL and PIP. In pricing increased limits coverage, the goal is to reflect the additional costs that arise due to the higher coverage available, regardless of who purchases it. It follows that the basic limit rate for a particular risk should be the starting point for that premium, particularly given the limited experience relativities that are permitted in private passenger automobile ratemaking in Massachusetts.

This is not to say that an adjustment would never be appropriate. However, the AG's current recommendation does not appear to offer a viable solution. To quantify and remove excess amounts from the increased limits BI rate, the AG proposes that a factor of .914 be applied to the BI ILFs. Adopting this change to the CDM for the purpose of determining 2006 rates would be problematic for the following reasons.

First, a number of changes were made in the *Decision on 2005 Rates* to the Commissioner's rate making methodologies, including tempering, capping and interclass constraints, which undercut assumptions utilized by the AG's witness in developing the .914 factor. Therefore, even though the AG asserts that the effect of the subsidy carry-over has been fairly consistent over time, there is no way to predict the effect that the changes implemented in the 2005 rate decision will have in the future. There is nothing in the present record that attempts to quantify the perceived subsidies going forward. Our concern is that the AG's estimate of the historic "subsidy imbalance" in the

[78] Of course, not all increased limit purchasers are subsidy paying.

Commissioner's excess limits rates has not been sufficiently modeled in the environment in which it is to be introduced to justify its adoption.

In addition, application of a single factor to the ILFs as proposed by the AG attempts to provide a one-size-fits-all solution to a multi-faceted set of circumstances, and does not account for territory and class differences within each limit purchasing group. The AG's proposed adjustment factor was calculated as the ratio of the average excess limits premium for all increased limits purchasers based on the actual cost based rates divided by the average excess limits premium for all increased limits purchasers based on the Commissioner's approved rate. The effect of this adjustment would be the reduction of all increased limits factors for all class and territory combinations, regardless of whether that combination is a subsidy payer or a subsidy recipient. Even the AG's own witness admits that not all increased limits purchasers pay a premium commensurate with their actual expected losses. Such an across the board approach would only serve to exaggerate rate inadequacy of underpriced purchasers and only partially reduce the rate subsidy of other increased limits purchasers. As noted by the SRB, this approach is not equitable and may affect the availability of increased limits, which companies are not required to provide, in certain areas of the state.

b. Mismatch Overcharge

We find that there is insufficient evidence to conclude that there is a "mismatch" or overcharge as the result of the application of a BI ILF, calculated solely based on the collective loss experience of increased limit purchasers, to the basic coverage rate, even though such a rate also takes into account the loss experience of other drivers, specifically those with only 20/40 limits of coverage. The fact that certain data might suggest that increased limit purchasers have fewer losses than those with basic coverage does not persuade us that the purchase of increased limits is an accurate, or appropriate, basis for predicting loss. As stated in the SRB's filing:

> The bodily [injury] coverage in Massachusetts is unique in that it is essentially two coverages. The first part is the minimum coverage that all drivers must purchase – which is currently at limits of 20/40. This coverage is often referred to as A-1 and covers accidents that occur in Massachusetts. The second bodily injury coverage is optional. Often referred to as coverage B, this coverage covers accidents that occur outside

> of Massachusetts and also provides coverage to guest occupants of the vehicle. Only coverage B can be purchased in amounts greater than 20/40. The practice of calculating increased limit factors as the ratio of excess to basic mirrors this coverage set up. It is important, however, to keep in mind that accidents and injuries do not occur in two parts.
> Drivers who carry only 20/40 limits of coverage will not necessarily have enough coverage to completely compensate the victim for their injuries or expenses. [footnote omitted] Drivers who purchase higher limits of coverage are less likely to encounter that problem. From a pricing perspective, what is of interest is determining an estimate of the additional cost that will be incurred as a result of the higher limit. This is not a minor question when using insurance data because the losses under limits lower than the one being priced are capped at the lower limit.
> This is one of the reasons the current method of developing bodily injury increased limits factors is reasonable. The data indicates that [for accident years 2001-2003 approximately] 58% of all bodily injury claims are against policies with 20/40 limits …. It cannot be known how many of these claims would have been compensated at a higher level had coverage been available.

Moreover, in arguing that the loss experience for increased limit purchasers is somehow superior to that of other risks, the AG fails to acknowledge that the difference between the basic limit rate of a given limit purchasing group and the basic limit pure premiums for all limit purchasers in total is not purely a function of the limit of coverage. In fact, the below average experience relativities of ILF purchasers appear to be entirely unrelated to coverage and, as the record shows, accounted for in other ratemaking variables such as rating territory, driver class, and driving record.

At a minimum, the AG's witness, as he has acknowledged, would have to remove the effects of other major variables affecting loss experience in order to accurately determine whether or not the increased limit of coverage is determinative of future loss experience. In large part, however, such an analysis is academic because the principle variables allowed in Massachusetts private passenger automobile ratemaking are rating territory, driver class, and driving record. Indeed, the AG's argument that that loss experience of increased limits BI purchasers should somehow be used to set rates for

those risks ignores the fact that limited variables are allowed for use in ratemaking in the Commonwealth.[79]

We agree with the AIB's characterization of the fundamental premise of Mr. Schwartz's methodology as false. A divergence between experience and rate relativities does not in and of itself credibly establish a mismatch resulting from the application of the ILFs to the basic limit pure premiums. In fact, even Mr. Schwartz admitted that the distribution of variables both prohibited and allowed in the Massachusetts would cause experience relativities to differ from rate relativities. Thus, it is not surprising that this is what he found. The AIB further pointed to a number of other reasons why ILF experience relativities and rate relativities might differ, including causes related to the SDIP, discounts, mileage, etc. Moreover, any attempt to drive the relativities together might, as the AIB noted, indirectly utilize the many rating variables that are prohibited under MA law to establish increased limits BI rates.

The underlying basic limit pure premium for each increased limit level reflects the experience of all policyholders in all territories and driver classes who purchase that increased limit. The resulting ILF recognizes the risk associated with the higher level of coverage. This is consistent with the objective of pricing increased limits coverages, which as previously noted is to reflect the additional costs that arise due to the higher coverage available, regardless of who purchases it. It is most reasonable, therefore, to have the starting point for determining increased limit costs be the basic limit rate.

We find that a foundation for the "mismatch" presented by the AG is an unsubstantiated assumption that the loss pure premium underlying the increased limits premiums is calculated from single statewide basic limits premium, an assumption that the AG's expert even agreed was incorrect. As has been noted, while the ILFs are uniform for everyone in the Commonwealth, there are 243 different bodily injury rates to which they are applied, each with a varying degree of subsidy based upon the Commissioner's tempering, capping and interclass constraint methodologies. Indeed, our review of the average rate and subsidy data by territory and driver class indicates that the territory and

[79] It should be noted that of the three, only class and territory are currently used to set increased limits rates. In the future, the parties may wish to identify and measure the effect that driving experience might have on rates for increased limit coverages, including BI.

driver class combinations that pay a subsidy also pay some of the lowest rates available, and, in many instances, pay rates that are significantly lower than average.

What the AG refers to as a "mismatch" or an overpayment resulting from the application of the ILF appears to be an attempt to conform premiums to the actual losses of increased limit purchasers, which is not an appropriate goal for prospective ratemaking. Consequently, the AG's proposal to apply a market mix adjustment to the BI ILFs is rejected.

For all of the foregoing reasons, we find that the current CDM for BI ILFs (as with other ILFs) satisfies the Commissioner's obligation, pursuant to M.G.L. c. 175, § 113B, to "fix and establish ... just, reasonable and nondiscriminatory premium charges" for increased limits BI coverage. The AG has not met his burden to demonstrate a superior methodology. Consequently, for 2006 rates, we will continue to base BI ILFs on the arithmetic average of the last six years of ILF experience.

Notwithstanding this decision, the AG appears to have the worthwhile goal of providing premium relief to increased limits purchasers with good driving records. As noted, driving experience is not presently a factor used to set increased limits rates, only classification and territory. Unlike rates for property damage, PIP and collision, BI increased limits rates have historically been derived using an average SDIP rating. Before any change to this methodology is adopted, it would be necessary to measure the impact on the balance between SDIP credits and debits because of the need for the SDIP to be revenue neutral. M.G.L. c. 175, § 113B. Accordingly, the AIB is directed to prepare an analysis, to be included in the proceedings to establish 2007 rates, of the impacts and costs of applying an individual's driving record to both the basic and excess limits portion of the BI rate as is done with other coverages.

E. Rate Subsidies and Territorial Adjustments

As a final step in developing rates, average rates are converted to manual rates, by applying a series of relativities that reflect loss experience by driver class and in the territory in which the vehicle is garaged. Individual policyholder's premiums are calculated from those manual rates. The application of those relativities, for reasons of public policy, is modified through various procedures, including adjustments, tempering and capping, generally to recognize that non-urban drivers contribute to traffic density in

urban areas and to make insurance more affordable for inexperienced operators. The calculation of manual rates incorporating class and territorial relativities and modifications to them has become a complex system, generating procedures, such as interclass constraints, to compensate for unreasonable results produced by the basic subsidy methodologies.

The AIB recommends calculating PIP relativities using PIP loss experience, rather than the bodily injury loss experience. The SRB agrees with its recommendation and proposes two additional changes to the methodology for calculating manual rates: 1) a change to the calculation that determines the credibility weight assigned to each class/territory cell; and 2) adjustments to the interclass constraint subsidies. The AIB takes no position on the SRB's proposed methodological changes. The AG objects to adoption of any of the AIB or SRB proposals until such time as the Commissioner adopts a subsidy method or grid that will make rate subsidies transparent and accessible to policyholders.

1. PIP Relativities

Currently, PIP relativities in the manual rates are calculated based on relativities developed from experience relating to the basic bodily injury coverage. As they did in the proceeding to set rates for 2005, the AIB and the SRB propose to change that methodology and to calculate PIP relativities from PIP experience. The basis for the recommendation is the difference between PIP class/territory experience and BI class/territory experience. Establishing the manual rates for PIP using the actual experience for that coverage, instead of for the bodily injury coverage will, according to the AIB and the SRB, result in more accurate PIP rates for all drivers. The AIB argues that there is no evidentiary reason to oppose its proposal.

In the *Decision on 2005 Rates* the Commissioner declined to approve the use of actual PIP experience to establish the manual rates, noting that because PIP is a mandatory coverage, any change would affect all insureds, and that the record did not provide an analysis of the precise effect on policyholders. She stated that although she did not adopt that recommendation for 2005, she would reconsider the issue in the future if the record more fully analyzed its effect on policyholders in all territories and driver classes.

The record this year, the AG argues, shows that the SRB's proposal would have a significant impact on the PIP rates for experienced drivers in many, primarily urban territories. The AG asserts that 17 territories would see their relativities increase by amounts ranging from 25 to 50 percent and that, without knowing the subsidies provided to the PIP coverage, the reasons for the changes in relativities are unknown. The AG contends that the discrepancy between the PIP and bodily injury data relativities has not been explained. He notes testimony that the SRB's proposal would raise the PIP relativity in Lawrence by 56.5 percent, thus increasing PIP rates for consumers there. He expresses concern that the SRB's proposal for overall PIP relativity changes may increase rates and be a disincentive to municipal efforts to fight fraud.

The AIB's filing includes its comparative analysis of PIP and bodily injury experience by territory for accident years 2001-2003; it points out that the actual effect of its recommendation on any class/territory combination for 2006 will be a function of the rate decision and updated class/territory experience. Its analysis, therefore, does not reflect experience changes in 2004. The SRB, using experience data for 2002-2004, has provided two sets of calculations showing the effect of the use of PIP experience-based relativities on PIP rates; one shows the estimated changes if the Commissioner uses the current credibility calculations and the other the results if she adopts the SRB's recommended change to the credibility calculation. Measured simply in terms of a positive or negative rate direction, both sets of SRB calculations show similar rate directions for each territory. However, adopting both the proposal to use PIP experience and the proposal to change the credibility formula produces a far wider range of results. The SRB's analysis of the combined effect of its two proposals demonstrate that PIP rates would rise in 17 territories by 25 percent or more, and in Lawrence by over 50 percent.

Although the SRB's witness testified that the actual final rates would be subject to tempering and capping, the ultimate effect of the proposal to use PIP experience, either under the current or proposed credibility calculation, cannot be determined on this record. Without a more precise analysis of the actual rates that would result from adopting the AIB/SRB proposal, we decline to approve the use of PIP data to set PIP relativities for 2006. Consistent with the *Decision on 2005 Rates*, we remain willing to reconsider the

issue in the future if the record more fully analyzes the effect off the proposed change on policyholders in all territories and driver classes.

2. Credibility Calculations

The SRB proposes to change the methodology for calculating the credibility of loss experience data for each territory and driver class combination, or cell. Rates for each such cell are in part based on the average loss pure premium calculated from the loss experience for that cell. However, the number of exposures in a particular cell affects the statistical reliability of the observed loss results and, therefore, its usefulness as a predictor of prospective losses. The SRB argues that it is desirable to use the actual loss pure premium for a cell only to the extent that it is truly predictive of future losses for that cell.

The SRB states that the current credibility calculation is based on two assumptions: 1) that the variance (from 1) of an actual cell decreases in proportion to an increase in the number of exposures in that cell and, conversely, that credibility increases with an increase in exposure volume; and 2) that the variance of a cell increases in proportion to an increase in the pure premium relativity for that combination. Therefore, the SRB notes, less credibility is assigned to cells with higher pure premium relativities. The first assumption, the SRB asserts, is common in credibility calculations, but the second is fairly unique to this ratesetting proceeding. Taken as a whole, it contends, the current formula is conservative in that it creates a long lag between alignment of the formula and data relativity when the number of exposures in the cell is small and their data relativities are high.

The SRB argues that, for three reasons, such a conservative formula is no longer necessary. First, it states, the current credibility formula was introduced long before the practice of tempering pure premium relativities was introduced in ratemaking. Tempering automatically limits the pure premium relativity that can be captured in any single rates, and therefore controls recognition of deteriorating experience in a cell. Second, rates are fixed and established in Massachusetts based on the entire population, not a sample. Therefore the credibility formula does not need to control for sample error to the same degree that such formulas do when applied to company-specific rates. Third, the SRB notes, the current formula delays recognition of improvements in loss experience in areas where it is appropriate to acknowledge such improved experience in timely fashion. To

allow faster recognition of reductions in loss experience in particular cells, the SRB recommends changing the credibility methodology by omitting calculations based on the second assumption described above. This change, it argues, will create a credibility formula that substantially improves current methodology because it will allow rates to reflect changes in pure premium loss experience on a timelier basis, and will particularly benefit experienced drivers in urban areas. For example, it will allow the 2006 rates to recognize the improvement in 2004 losses in Lawrence resulting from implementation of the CIFI in that city.

The AG, noting that the credibility calculation is one of the first steps in the manual rate calculation, asserts that the effect of the SRB's proposal is to eliminate the concept of "a priori" relativity in determining the credibility weight assigned to the experience of each cell, and make credibility a function only of the experience of exposures in that cell. He argues that the impact on rates is unknown and may be impossible to determine, and that, without an analysis of the effect of the proposal on subsidies he cannot determine if the change is reasonable or unreasonable.

We are persuaded that a change to the credibility calculation methodology will benefit consumers in areas where loss experience has recently improved and the pure premium calculated for a particular cell has therefore decreased. We are not persuaded that we should delay revising the credibility formula because at this point its exact effect cannot be estimated. We note Ms. Blank's testimony that the proposed change will have a larger effect on experience drivers in urban areas than in the lowest rated territories. The greatest improvement in loss experience for 2004 is in the city of Lawrence, where the CIFI has been in operation since 2003. Because CIFIs were not established in other cities until 2004, the results of their efforts are less dramatic. In any case, we are persuaded that the positive effects of anti-fraud efforts should be reflected in the rates for policyholders in those cities, particularly experienced operators. The SRB's proposal will permit timely recognition of that improvement, and is therefore superior to the current methodology. For consumers in areas where experience has deteriorated, tempering will continue to limit any indicated premium increases.

Although the precise effect of the SRB's recommendation is not shown on the record, Ms. Blank testified to a methodology that could be used to demonstrate the results

of applying it to a particular community, such as Lawrence.[80] No suggestion has been made that the SRB's proposal would not achieve the salutary goal of ensuring faster rate recognition of improved experience for particular driver/class combinations. We are aware of no reason to postpone recognition of the success of the CIFIs, particularly in Lawrence, and we therefore adopt the SRB's recommended change to the credibility calculation methodology.

3. Subsidies through Interclass Constraints

An additional step in the manual rate calculation applies so-called interclass constraints to align the rates so that experienced operators pay less than inexperienced operators. The SRB proposes dual changes in the application of interclass constraints in 2006. First, it points out that the introduction of the new SDIP point system in 2006 will change the level of subsidy that the application of interclass constraints introduces into the rates, a change that will primarily affect the experienced driver classes. The SRB's filing quantifies the subsidy that would be lost because of the SDIP change and provides a series of recommended percentages that will reduce the manual rates of territories adversely affected by that change. Ms. Blank testified that the SRB's goal is to preserve the subsidy currently in place. The SRB argues that its recommendation is a reasonable and appropriate solution to the issues raised by the adoption of the SDIP point system and should be adopted. The SRB points out that the Commissioner's *Decision on the 2006 SDIP* asked that the adjustments for subsidies resulting from the interclass constraints be revised so that the territorial subsidy would not be lost as a result of the changes in the SDIP.

Second, the SRB argues that the subsidies created by the application of interclass constraints are unintentional and recommends that they be removed over time. It recommends removal at the rate of one percent per year or the extent to which the capped pure premium relativity underlying the rates, prior to the application of interclass constraints, moves toward the pure premium relativity implied by the 2005 rate, whichever is larger. This schedule for releasing the subsidies, the SRB asserts, is affordable to consumers and will restore equity to the rating plan.

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[80] All parties, therefore, had available to them a procedure for estimating the rate effect of the SRB's proposal. Neither the AG nor the AIB asserted that the formula was incorrect.

The AG does not object to the SRB's proposal to adjust interclass constraints to neutralize the effect of changes in the SDIP system, but opposed the elimination of the interclass constraint subsidy. He argues that this subsidy provides the most significant rate reduction in many urban territories and should not be reduced or eliminated without a careful analysis of the subsidy system and of the public policy issues relating to it. No such analysis, he comments, has been performed. Further, the AG argues, the SRB's proposal appears to phase out the subsidy in different proportions in different territories, thus raising a question of fairness and potential discriminatory impact. He asserts, as well, that the rate impact of the proposal is unknown. Citing to the *Decision on 1997 Rates*, he argues that subsidy changes should not be undertaken without careful consideration of the long-range effect of the change.

The AIB, while it takes no position on the SRB's recommendations, offers four comments on its proposal.[81] It asserts that the SRB's proposal is more a general methodology than a precise set of rate calculation parameters, and that complications may arise in the application that would require some flexibility. The AIB questions whether it might be preferable to unwind subsidies at a faster rate than one percent per year, noting that mechanical application of the SRB's formula could mean that some subsidies might take as long as 35 years to eliminate. It raises the question of excluding subsidies below a particular threshold value, such as five or ten percent, from those to be protected, and of the effect on subsidy values when a town's territorial assignment changes.

The first of the SRB's proposed changes to the interclass constraints will ensure retention of the subsidies they currently generate after implementation of the new SDIP in 2006. Although the results of the calculations in the SRB's filing change because of changes to the SDIP point differential, the logic will remain unchanged. We find that these changes are appropriate and, because they will eliminate adverse rate effects on experienced drivers resulting from the new SDIP, should be adopted.

The SRB's second proposal, to eliminate the subsidies due to the change in the SDIP design that arise from the application of interclass restraints, addresses an issue that has been raised before, albeit in somewhat different formats. We have been provided with

[81] In its filing, the AIB recommended reinstituting the phase-out approach to interclass constraints that was adopted in the *Decision on 2003 Rates*, although its brief does not address the issue. We note that the *Decision on 2004 Rates* suspended adoption of that approach.

no evidence that any changed circumstances in the marketplace support the SRB's proposal this year, or that the reasons underlying prior proposals to eliminate interclass constraints have changed. The *Decision on 2005 Rates*, in rejecting the SRB's recommendation, extensively reviewed past decisions considering the elimination of any portion of the interclass constraint subsidies. No new argument has been made this year that persuades us for 2006 again to introduce a system for reducing interclass constraints. We therefore reject the SRB's second proposal.

Manual Rate Development in the Ratesetting Process

For the first time ever, the AG takes exception to the longstanding approach to the process of calculating manual rates. He specifically refers to the section of the AIB's filing that addresses class/territory relativities and rates, notes that "unforeseen complications in the calculation of rates may make it necessary to resolve minor details in the calculation process." Citing to testimony that the AIB has made some calculations "outside the hearing process" that have perhaps affected premiums, the AG argues that by doing so the AIB has violated §113B, the state Administrative Procedures Act, c. 30A, §11, and 211 CMR 77.01, *et seq*. The AG asserts that §113B does not exclude the calculation of manual premiums from the public hearing process, and that the regulation requires that filings include all recommended rates, premium charges, and classifications of risks. The AG argues that determining matters related to premium charges outside the hearing process contravenes the statute and regulations, undermines the fix-and-establish process, and reduces confidence in the objectivity of the outcome. Any issues relating to the manual rates, he contends, should be subject to the hearing provisions of the regulations and resolved by the Commissioner or a hearing officer. The AIB should not be permitted to avoid the public hearing process because it is more convenient to make decisions in secrecy. The AG argues that the SRB agrees that there is no reason for rate complications to be resolved secretly or excluded from the record.

The AG states that he does not wish to protract the public hearing unduly, and notes that it is likely that, in many cases, manual premium matters may be resolved through an expedited process. However, he makes three requests: 1) that the record of the hearing remain open, and that any method or calculation not already in the record be entered into the record of the public hearing; 2) that the AG be permitted to participate in

the determination of manual premium charges, with timely access to all relevant information and the ability, if necessary, to obtain discovery and to engage in cross-examination; and 3) that the hearing officer or commissioner approve any premium charges not already approved in the overall decision in a written decision accessible to judicial review.

The basis for the AG's newfound concern, and his desire to create and participate in an adversarial process to the purely technical task of calculating the class/territory relativities in the manual rates is curious. Nothing in the record indicates that the language in the AIB's filing relating to the resolution of any unforeseen complications in the process of calculating manual rates is new or that it this year proposes a novel approach to developing those rates.[82] The AG does not object to similar statements that the AIB makes in those sections of its filing that address Model/Year Symbol Relativities and Deductible Relativities. He does not argue that the methodologies or formulas contained in the AIB's Summary Memorandum on Class-Territory Relativities and Rates are incorrect or unreasonable. All parties have had ample opportunity to review the data underlying the manual rate calculations, and none has identified any material errors.

We are not persuaded that the current manual ratesetting procedures violate either the applicable statute or regulations, or that the AG's proposals would even comply with them. In the first instance, neither §113B nor 211 CMR 77.00 specifically address the calculation of manual rates. Even though the Supreme Judicial Court, *in Century Cab Inc. v. Commissioner of Insurance,* 327 Mass. 652 (1951), 665, characterized the determination of manual rates as a"fixing and establishing of rates within the meaning of [§113B]", it also stated that a rate may be "fixed" when its elements are settled and all that remains to be done is to combine those elements by using a definite rule or, as in the case at bar, using a mathematical process.[83] The basis for the AG's assertion that the statute

[82] Ms. Blank noted that actual calculations of agent commissions are also performed after the decision is issued.

[83] We note also the Court's decision in *Consumers Organization for Fair Energy Equality, Inc. v. Dept. of Public Utilities*, 368 Mass. 599 (1975), which rejected the plaintiff's position that rate increases resulting from calculation of a fuel adjustment clause allowed under the current rate tariff should be subject to a public hearing. The Court noted that that long administrative understanding supported the DPU's argument that as long as the formula remained fixed, no mathematically calculated fluctuations resulting in rate increases were not "general increases" requiring a public hearing. It observed that the DPU conducted rate proceedings that included discussions of and rendered decisions on the desirability and content of cost

and regulation have been violated appears to be his belief that the technical process of translating a rate decision that establishes a statewide rate into a format that can be used to calculate premiums for individual policyholders requires the same level of adversarial review as the process for determining the overall statewide rate. Nothing in this year's record, or in any decision issued in any past ratesetting proceeding, supports that position. Moreover, as a practical matter, the AG's proposals would unreasonably delay the ratesetting procedure.

The Commissioner, as a result of the annual ratesetting proceeding, approves an average statewide premium, not the premium that will apply to any specific driver. In her annual decision, the Commissioner orders that rate manuals be prepared in conformity with the instructions specified in the decision. The calculation of manual rates, based on methods and data proposed in the filings as adopted in the Commissioner's decision, is a laborious post-hearing technical task undertaken by the experts in the field, the Commissioner's staff. The numbers are then cross-checked and verified by the industry's actuary. We have been presented with no sound reason to tinker with this highly technical process that, in essence, consists of the application of approved methodologies and formulas to defined data sets and to substitute a protracted and all too frequently contentious rate hearing.

The ratesetting proceeding anticipates that manual rates will be calculated by applying the methodologies approved by the Commissioner. Adoption of a different methodology in the process of calculating manual rates would therefore violate an order of the Commissioner, an act that could produce adverse consequences for the instigator of the change. It is unclear why the AG proposes to include all actual calculations in the record of the rate proceeding. Expected manual rates are not submitted by any party in its filing and, because they are based on recommendations adopted in the Decision, it would be unreasonable to offer them there. Industrywide ratesetting approves methods and values that are applied to a data set to produce manual rates. Those methodologies and values, such as loss trend factors, as well as the underlying data that companies report and

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adjustment clauses, but there was no precedent for conducting such hearings when the application of such a clause changed the dollar amount of a rate.

which form the basis for manual rate calculations, are topics addressed in the rate filings and discussed in the course of the public hearing.

We are also not persuaded that the AG's suggestions relating to the continuation of the hearing process throughout the time required to develop manual rates comply with the statute. Section 113B requires the Commissioner to fix and establish rates by December 15 of each year. The schedule for conducting rate hearings is cognizant of issues such as data availability; the AG does not suggest reconfiguring the timing of the rate hearings to allow time for the manual rates to be calculated by the December 15 deadline. Under the current system, keeping the record open, as the AG suggests, would effectively postpone issuing a final decision until some indefinite date.

Motorcycle Rates

The AG points out that, in calculating motorcycle rates, company expense pure premiums that are calculated on the basis of data for the private passenger automobile insurance market are loaded into the corresponding rates for motorcycles. However, motorcycle premium is, on average, about one-third of the premium for an automobile. The AG points out that the total company expenses relating to both markets do not balance the total of company expenses that is obtained by multiplying the premium for both markets by the expense to premium ratio calculated from the company expense call. Because motorcycle premium is lower, the expense ratio to premium for some coverages is more than 40 percent. The AG asks the Commissioner to apply the expense ratio derived from the expense call to the motorcycle premium and to distribute the amounts by coverage. He requests that she balance the total expenses to the value generated by the expense call, so as to remove net overcharges and expense distortions for motorcycle coverage.

The AIB has no objection to redistributing expense dollars among coverages for motorcycles, following the methodology used for private passenger automobiles. It does, however, object to applying private passenger automobile expense ratios, as percentages, to motorcycle rates. It argues that the cost of writing a motorcycle policy, in dollar terms, is about the same as for an automobile but that, expressed as a percentage of the premium, it will be higher, because motorcycle rates are, overall, lower. Using the same expense

ratio that is applied to private passenger automobiles would, it asserts, cause the dollar amounts to be too small.

The AG provided no evidence that the cost of writing a motorcycle policy is lower than it is for an automobile. The AIB's witness, Ms. Scott, testified that the fixed costs associated with writing an insurance policy for an automobile or a motorcycle are probably about the same, but confirmed that motorcycle premiums are lower than those for automobiles. She pointed out that the Commissioner's methodology assumes that the cost of writing a policy is the same for both types of vehicle. We find it reasonable to include an expense component in motorcycle rates that reflects the cost of writing the policy. We are persuaded that the AG's proposal to apply the identical expense percentage to automobiles and to motorcycles is not superior to the current methodology and should not be adopted. However, we will approve his proposal to distribute expense amounts by coverage, as is done for private passenger automobiles.

Miscellaneous Issues

Safe Driver Insurance Plan Point Values

In a decision dated April 29, 2005, the Commissioner approved revisions to the Safe Driver Insurance Plan ("SDIP") that, as of January 1, 2006, replaces the step system with a point system. She also approved the SRB's new methodology for developing point differentials for the SDIP that would take effect in 2006, and ordered the parties to address specific point differentials in the Main Rate portion of any proceeding to fix-and-establish private passenger automobile insurance rates for 2006.

The SRB states that it has since updated the SDIP point differential and determined that the pure premium differential, by step, has increased for both liability and physical damage coverages. For experienced operators in classes 10, 15 and 30, it recommends a 15 percent differential for both liability and collision coverages, even though the indicated rate differential is 18 percent. Using the same value, it comments, will simplify the first year of the point system. For other classes, the SRB recommends a point differential of 7.5 percent for both liability and collision.[84] The Excellent Driver Plus pure premium differential is similar to that previously calculated, and the SRB recommends a 17 percent rate reduction for drivers with six years of accident and

[84] This is identical to the current pure premium differential for liability.

violation-free experience. For Excellent Drivers, who have five such years of experience, the SRB recommends a seven percent rate differential, which reflects that the actual differential has increased from six to ten percent. These values, the SRB argues, are fair, reasonable and properly reflect changes to the 2006 SDIP.

The AIB concurs that the SRB's proposed point differentials are reasonable overall, and therefore does not object to using them to set rates for 2006. However, it states that the SRB has used a methodology to develop its point differentials that is substantially different from the methodology it employed in the earlier proceeding on the SDIP. It therefore suggests that the Commissioner approve the SRB's recommended values for the point differentials, but not the methodology it employed to develop those values. The AG did not comment on the proposed point differentials.

In the April 29 *Decision on the SDIP,* the Commissioner approved a methodology for calculating point differentials. To the extent that modifications have subsequently been made to that methodology, the parties have not had an opportunity to examine the changes. Furthermore, actual implementation of a point-based SDIP may make it desirable to refine the methodology for calculating point differentials. result in additional methodology or to recommend alternative We will therefore approve the SDIP point differentials recommended by the SRB for use in 2006, but decline at this time to approve its methodology for future use.

Changes to Form 110.

In its rate filing, the AIB includes two documents, Form 100 and Form 110, that have been used for many years to provide, respectively, a summary of proposed rate components by coverage and a summary of proposed manual rate changes. Form 110 compares the 2005 average manual rates to the proposed 2006 average manual rates, and expresses the change from one to the other in the form of percentages. A footnote to the AIB's Form 110 notes that expected changes in the model year and vehicle symbol will result in average annual premiums for both 2005 and 2006 that are higher than the averages shown on the form, and estimates that, taking those measures into account, 2006 premiums will rise 1.6 percent.

The SRB's filing includes a revised format for Form 110 that, it states, is intended to reflect more accurately the cost of private passenger automobile insurance by showing

rate level changes, rather than premium changes. Its goal is to measure the rate change as it is measured to establish manual rates. The SRB therefore restates the 2005 average rates to reflect the distribution of territory and driver class mix thata underlies the 2006 average rates. The proposed changes are also intended to show changes for drivers who continue to drive and insure the same vehicle as opposed to changes for drivers who acquire a different vehicle, and to show the effect of changes in the physical damage coverages. The SRB argues that the new format is more consumer friendly and more accurately reflects the true cost of private passenger automobile insurance in Massachusetts.

The AIB opposes the SRB's new format, arguing that the form makes no sense, and that it represents rate changes as higher than premium change. It asserts that it will be confusing to all parties and to the public to change radically the methodology for calculating a historical exhibit document that has been generated for many years. Consistency, the AIB argues, is important.

The stated purpose of the SRB's proposed revisions is to create a format that will be more consumer friendly and more accurately reflect changes in the cost of private passenger automobile insurance. Ms. Blank testified that it is intended to show rate changes as measured for the purpose of establishing manual rates, and attempts to restate the 2005 average rate for the distribution of territory and driver class mix that underlies the 2006 proposed average rate.

We agree that it is important to help consumers better understand the ratesetting process and the practical effect of the Commissioner's decision. At the same time, we are reluctant to approve changes to a format that has long been in place in this proceeding. The extent to which consumers rely on Form 110 is uncertain. As submitted by the AIB and as reconfigured by the SRB, it addresses only average rates. While the SRB's format may more accurately represent changes for particular coverages, it is still of limited value for consumers who seek to estimate the rates they will pay in 2006. We note that, as submitted, the SRB's form provides no explanatory notes. In the interest of providing consistent rate summaries, we will not change the historical format of Form 110 at this time. However, we are persuaded that the SRB's approach provides a useful analysis that should be adopted as a third approach to analyzing rate changes. Therefore we will adopt

the SRB's form as a third approach and order the parties, in future filing, to produce a such a form, suitably numbered and with appropriate notes, in addition to the traditional Forms 100 and 110.

Territory Renumbering

In its filing, the AIB asked the Commissioner to renumber the territories that are used to develop manual rates. It later withdrew its proposal. Nevertheless, the AIB's brief includes its arguments in favor of renumbering territories. No other party addressed the issue in its post-hearing submissions. We note that in 2006 the Commissioner will hold a hearing to consider changes in the assignment of communities to rating territories as of January 1, 2007. The parties will have a full opportunity to address the AIB's proposal at that hearing.

Rate-Based Loss Reduction Incentive Programs

The AG, in his brief, recommends that the Commissioner adopt a program that would provide incentives to cities and towns to cut losses through anti-fraud activities. He points out that CIFIs have substantially reduced losses in cities where they have been implemented, and thinks it likely that similar initiatives in other municipalities will further reduce losses. He seeks to reward cities and towns directly for establishing such initiatives so as to encourage the formation of such programs by other municipalities and continued anti-fraud activities in locations where such programs now exist. The AG's proposed method is a rate discount for individual municipalities that participate in a program that has objective elements and achieves savings in compulsory coverage losses above a set benchmark. He recommends, as a benchmark, a 30 percent reduction for the 2004 combined losses for coverages A1, B and A2, and the application of a discount of one-half of the reduction over the 30 percent threshold to those coverages, over any above any statewide reduction, for the cities and town that initiated CIFI activities in 2004 and achieved loss reductions greater than the threshold. The AG asserts that, based on the AIB 2004 city and town data base, four communities, Lawrence, South Boston, Roslindale and Jamaica Plain would qualify for the credit this year. He recommends that the discount be in place for three years from the start of the anti-fraud program, because after that period, loss data should directly influence the rates for the community that are set through the regular ratesetting process.

The AG suggests that the precise contours of the programs to be initiated be set by the Commissioner or by the agreement of the parties. He offers a number of specific items that should be included therein, including the presence of a law enforcement officer dedicated to handling auto insurance fraud, coordination with the county district attorneys, town outreach efforts, including the advertising of a tip line and a dedicated phone line for reporting auto insurance fraud, and cooperation between the Insurance Fraud Bureau and the AG in enforcement efforts.

Underlying the AG's recommendation is concern that the industrywide ratesetting process examines statewide data to determine an average statewide rate, and makes no provision for immediately reducing rates for individual cities and towns that have experienced improvements in the loss pure premiums. His proposal acknowledges that the ratesetting methodology incorporates loss reductions on a statewide level, but not by municipality, and adds a second layer that would further reduce rates for particular towns. The AG's recommendation departs from the traditional focus of Massachusetts ratesetting on developing a statewide average rate which is then modified through the application of relativities, to develop manual rates that reflect driver experience, where the vehicle is garaged, and the operators driving record. Further, he does not address the problems associated with setting rates on immature data. As noted in the discussion of loss development above, the use of six-month data to set rates is inappropriate.

The Commissioner fully supports efforts to fight fraud in insurance claims, and applauds the results that have been achieved in Lawrence, that are demonstrated in the 2004 data on reduced losses in that city. The formation of CIFIs in other cities and towns is encouraging, but because they have been active for limited time periods, the data reported from those municipalities is immature. The AG's proposal recommends a novel approach that would rely on recent, undeveloped data to make substantial rate reductions in some areas, without any substantive discussion of the effect of such a radical change on the entire ratesetting process. Furthermore, the AG's *ad hoc* proposal does not recognize that changes in rates for particular territories would affect rates statewide, because the average statewide rate is balanced at a revenue neutral point, where expected premiums match expected losses, expenses, and commissions and provide for underwriting profit, all as approved in the rate decision. In order to maintain rate neutrality, a rate reduction in

some territories would require increases in other territories. The AG's proposal does not address that effect.

No other party to this proceeding has had an opportunity to comment on the AG's proposal or his suggested parameters for the program.[85] A proposal by any party that would significantly alter the approach to ratemaking should be made available for review and discussion by all parties to these proceedings, and adopted only upon a record that fully addresses the issues raised by that proposal.

We note, as well, that the Commissioner has addressed in this decision the issue that the AG raises, timely recognition of improved loss experience, by adopting changes to the system for the credibility weighting of driver class/territory experience. Particularly in a municipality, like Lawrence, where the 2004 data clearly demonstrate substantial loss reductions, the revised credibility weighting will ensure that the improvements in pure premium loss experience are reflected in rates for particular class/territory combinations in a more timely fashion.

Stephen M. Sumner, Esq. Hearing Officer	Jean F. Farrington, Esq. Hearing Officer

[85] We note that the AIB commented in its filing that the Commissioner might want to give special attention to the effects of the CIFI in Lawrence and that it, if there were evidence of a significant, measurable and lasting impact reasonably attributable to anti-fraud efforts, would not object to specific on-balance adjustments to specific town rates and would work with the parties to structure an appropriate rate adjustment. However, the AIB made no recommendation in its brief.

V. CONCLUSION

The premium rates, classifications and ruling reflected in this decision are hereby promulgated in accordance with the authority granted to me by Section 113B of Chapter 175 and other sections of the Massachusetts General Laws. As ordered, rate manuals are to be prepared in conformity with the instructions specified in this decision.

Any person or organization aggrieved by any part of this decision may, within twenty days of the date hereof, file a petition for review by the Supreme Judicial Court as provided in Section 113B of Chapter 175 of the Massachusetts General Laws.

This decision has been filed on this 15th day of December, 2005 in my office and with the Secretary of State as a public document.

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Julianne M. Bowler
Commissioner of Insurance