

EXAM 5, FALL 2013

12. (2 points)

An insurance company has recently entered a new state and plans to invest heavily on marketing in an attempt to aggressively grow its homeowners book of business. Relative to the low initial premium in the state, these marketing expenses will be significant.

The company's senior management proposes that the actuary develop a rate level where the expense provisions reflect only the typical variable costs. Construct a thorough argument in support of this proposal.

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Exam 5 – Question #12 (example 1)

It makes sense to use only a typical variable expense cost in the rate level indication. The marketing expenses initially incurred will most likely not continue into the future. Also given that initial premium will be small it would be difficult to quantify based on the empirical premium what the future expense will be. This company seems to be using an asset sharing pricing model approach. Under this model the long term profitability is considered. It is understood the initial cost of obtaining business can cause losses. But as the book grows and matures it will become more profitable. Renewal business tends to have better loss ratios and maintaining a book is less expensive than growing. The company knows the current market expense will not continue.

Exam 5 – Question #12 (example 2)

Because there is a low volume of premium at the onset, marketing costs relative to premium are high. As premium volume grows, the ratio of marketing costs to premium will decline, most likely very substantially if the insurer is successful in gaining new business. Thus, including a fixed expense provision in the rate indication will wilding overstate the rate needed to charge equitable premiums.

An example to clarify:

Marketing costs in years 1-3 = 1M

Premium:	Year 1 = 1M	Fixed expense ratio = 1
	Year 2 = 10M	= .1
	Year 3 = 100M	= .001

If rates are set with a fixed expense provision of 1, the charged rate will be very high, which will a) hinder the company's ability to gain business and b) not truly reflect the expected future costs. Also, the indicated rate the next year with a fixed expense provision of .1 would be much lower than the prior year; rates should not vary so wildly. Finally, as demonstrated in the asset-share model, writing business at a loss in early years (which would be done by excluding the fixed ratio) proves to be profitable in later years as other expenses decline and renewal business has better loss experience than new business.

12.

In general, candidates did not provide a thorough argument in support of the proposal. Often, candidates provided either one thought out point or only briefly touched on two or three points. To provide a thorough argument, candidates needed to have at least two well vetted points or at least four basically discussed points. There were many points that were acceptable points, with varying level of discussion leading to different amount of points earned on the question.

When candidates did not receive points for their discussion it was usually for: not supporting the proposal when the question specifically asks to support it, misinterpreting the question to mean that all expenses should be treated as variable or including the unusually large marketing expense, or offering arguments that were not clear or not thorough.

13.

Many candidates did not discuss the impact of the rating structure reviews in discussing overall and territorial premium adequacy. Partial credit was given for stating overall premium inadequacy due to the underinsurance/inadequate rate in Territory A.

Candidates also struggled with addressing equity. Many did not understand the concept of equity, confusing it for equality in premium.

Several candidates did not recognize the loss cost differential between territories resulting in subsidization or unfairness.

14.

- a. The vast majority of candidates correctly answered this question. A small number made a calculation mistake or wrote a cumulative triangle instead of incremental.
- b. The vast majority of candidates correctly answered this question. A small number made a calculation mistake or wrote an incremental triangle instead of cumulative.
- c. Candidates generally answered this question correctly. Some responded that accident year is more appropriate because auto claims are typically reported quickly which was not accepted. Another common incorrect answer was that report year should be used since auto has a long tail or large reporting lag.
- d. Candidates generally answered this question correctly. Some responded that quarterly is more appropriate because there can be seasonality in the claims which was not accepted. Since the question was asking for a reason that is specific to small companies, credit was not awarded for that response.