



SOCIETY OF ACTUARIES

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Renewal rating cont'd

Under a different approach to tiered rating, some companies use diagnostic cost groupings. Here a company analyzes the diagnoses of the claimants in the group in one year, using this as a predictor of future experience, and then assigns the group to a tier based on the diagnoses. Although significant administrative costs are associated with this method, some companies believe it to be cost-effective.

With regard to medical underwriting, it has become fairly common among carriers to increase the number of lives above which a group will be written on a guaranteed issue basis. Thus, by requiring medical underwriting on more groups, a carrier's morbidity experience should improve because more "bad" groups will be either declined or rated up. Some companies now allow a group to be medically underwritten upon renewal to gain a more favorable rate.

I have described three major approaches — demographic rating, experience analysis, medical underwriting — that carriers have implemented to better manage their small-group pools. Other methods also have been tried.

Summary

Whereas life/health insurance companies tended to lead the movement toward a more active role in rating small groups, many Blue Cross/Blue Shield Plans have also made substantial changes. This is a significant departure from the Blues' long tradition of "community rating," which treated all groups the same.

With regard to the six rating principles mentioned earlier, companies clearly are making a concerted effort to give more weight to "equity" and less weight to "simplicity." Any company involved in small group will need to manage its pools in a more active fashion than would have been the norm five or 10 years ago.

The message is clear: Companies will have to become more active in managing their small-group pools, or they will not survive in the small-group market.

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MEC-ing sense out of TAMRA

Features Editor Deborah Poppel recently spoke with Cary Lakenbach, Vice President and Actuary at American Financial Systems (AFS), about TAMRA: the U.S. Technical and Miscellaneous Revenue Act of 1988.

Lakenbach has worked in several insurance companies, most recently as head of life insurance product development at Connecticut Mutual. His current company, AFS, is a consulting firm focusing on the nonqualified benefits marketplace.

Poppel: Why was TAMRA, the recent tax law, passed?

Lakenbach: The law was meant to limit the use of life insurance as an investment vehicle. It was especially targeted to deter the use of single-premium life insurance as a vehicle to avoid taxes on income taken from an insurance contract.

Poppel: TAMRA created a beast called a "Modified Endowment Contract (MEC)." What is a MEC, and how is it different from all other contracts?

Lakenbach: A MEC is a life insurance contract where, to put it simply, the premiums paid in exceed the premiums that would be necessary to pay up the contract in seven years or less.

Poppel: How is a MEC taxed differently from a non-MEC?

Lakenbach: There are three primary areas where an MEC is taxed differently from a non-MEC. First, distributions are assumed to be made out of income first, then principal. Consequently, taxation occurs earlier.

Second, loans are considered distributions, including loans used to pay premiums.

Third, distributions made before the policyholder is 59.5 years old are subject to a 10% penalty tax. This penalty tax never disappears for corporate policyholders, except under very limited circumstances.

Poppel: Are there any circumstances when purchasing a MEC is appropriate for a customer to do?

Lakenbach: There's not necessarily anything wrong with owning a MEC, particularly within the corporate marketplace. MECs are treated like non-MECs in two respects: Death proceeds are still income tax free, and the inside build-up continues

unabated. It's when you get distributions that the treatment is radically different.

I like to think of a MEC as a "cash-rich" contract. One reason that a corporation would want to buy a cash-rich contract is that it has a quicker positive impact on its income and balance sheets. Said another way, the more cash-rich the contract is, the less of the cash is going out to fund insurance. Usually, the corporation doesn't care about access to the cash — it has other fully deductible credit lines or other sources of capital.

Poppel: How does a contract become a MEC?

Lakenbach: A contract becomes a MEC if it fails the "7-pay test." This test compares the premiums paid into a specific policy to "7-pay premiums" defined in TAMRA. If the accumulated policy premiums in any of the first seven policy years exceed the accumulated "7-pay premiums," the policy is a MEC.

Poppel: What policies are subject to TAMRA and must pass the 7-pay test?

Lakenbach: Basically, policies entered into after June 20, 1988, are subject to TAMRA. Policies issued before June 21, 1988, are grandfathered and are therefore not subject to the 7-pay test.

Poppel: If a policy is grandfathered, is it never subject to the 7-pay test?

Lakenbach: A policy will lose its grandfathering if it is "materially changed."

Poppel: What is a material change?

Lakenbach: Pretty much what it sounds like — a material change in the provisions of a contract. The most common kind of material change is an increase in benefits, although the law defines certain increases that are not considered material changes. If there is a material change, a new 7-pay test period begins, whether or not the contract changed was grandfathered. Keep in mind that even if a policy is subject to the 7-pay test, it will not necessarily become a MEC.

Poppel: Could a material change actually prevent a contract from becoming a MEC? For example, if a term rider is added to a contract the year before it is expected to fail the 7-pay test, does

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the 7-pay clock start again with a higher 7-pay premium?

Lakenbach: I think the addition of a term rider at an appropriate point in time may well prevent a contract from becoming a MEC. Material change may be your friend.

Poppel: *Can a policy be materially changed without a customer's knowledge?*

Lakenbach: Absolutely.

Poppel: *Under what circumstances would that happen?*

Lakenbach: There are situations where you can wind up having face amount increases that result from actions taken several years prior. If those increases result from earnings on "unnecessary premiums" (premiums in excess of those necessary to fund the initial death benefit), they are considered material changes.

Poppel: *Other than single premium policies, what contracts are likely to become MECs?*

Lakenbach: Two-premium policies. Seriously, universal life policies where you pay out the cash value as well as the face amount are at risk. Also, policies with large premiums going into paid-up additions riders.

Poppel: *Does TAMRA essentially ring the death knell of paid-up additions riders?*

Lakenbach: That sounds like a question a news reporter would ask a crime suspect! I think that paid-up additions riders serve a valuable purpose. They actually can help a policy avoid becoming a MEC, because their flexibility lets you control the amount of money you pay into a contract. In the corporate marketplace, a lot of the benefits are salary-related. A paid-up additions rider allows the insurance proceeds to track the benefit more efficiently than in the past.

My view is that paid-up additions riders will continue to be popular. A policy may be judiciously structured to include such riders while still staying clear of MEC status.

Poppel: *Are companies still selling single-premium plans?*

Lakenbach: Many are. Some are adding certain clever features to make sure they are in compliance with TAMRA.

Poppel: *For example?*

Lakenbach: For example, term riders where there is an intent, though perhaps not a contractual agreement, to take the rider off after seven years.

Poppel: *How does that help? Don't you need to recalculate the 7-pay test at the lower amount, once the term rider is dropped?*

Lakenbach: There is some controversy in this area. One school says that reductions after the first seven years don't require any sort of look-back treatment.

Poppel: *If companies come up with clever schemes to get around TAMRA, won't that rile the IRS and put the remaining bastions of favorable tax treatment in jeopardy?*

Lakenbach: I'm not sure that I agree with that. After all, the law is essentially saying that to be treated as you always have been treated for tax purposes, you now need to have a certain amount of insurance in your contract, relative to the premiums you've put in. By designing a term rider like the one above, you're in effect saying, "Okay law, this is what you want; this is what I will do." I don't think there is anything inappropriate about this treatment.

Poppel: *In the companies you've worked with, does the responsibility for TAMRA compliance and administration generally reside in any particular department?*

Lakenbach: Many companies have teams of actuaries, administrative personnel and lawyers who address these issues.

Poppel: *Who is responsible for protecting our customers from buying or creating MECs? The pricing actuary? The agent? The customer? The customer's tax attorney?*

Lakenbach: There are responsibilities in several different areas. Surely, attorneys who are specialists in tax law should disseminate opinions to those in the company who are likely to be involved. The product development actuaries, who I strongly believe should be experts in the marketplaces in which their products are sold, have to be very knowledgeable as to the provisions of the act. It's appropriate to notify the clients of the potential impact of TAMRA on the policy they purchased. The agents need to understand the law well enough to discuss it with their clients.

It's probably not a bad idea for a company to produce a pamphlet describing the provisions of the act in terms that their clients can understand. Certainly, such a pamphlet is a marketing opportunity at the same time that it is an informational and educational guide.

Poppel: *What needs to happen at point of sale?*

Lakenbach: A client should receive disclosure concerning the tax implications of the type of policy purchased.

Poppel: *Is mere disclosure enough? Should the client sign off on the tax status of the policy?*

Lakenbach: Not necessarily. You have to draw the line somewhere. There are other issues, such as dividends not being guaranteed, that are disclosed all over the place, but no sign-off is required. Sometimes companies bend over backward to be careful but still get into trouble. I will say that I've seen more companies than not moving in the direction of requiring the disclosure to be signed.

Poppel: *What needs to happen when a contractual change is proposed?*

Lakenbach: Again, disclosure is warranted, especially if the contractual change will affect the tax status of a grandfathered policy.

Poppel: *Should companies design products so that they will never become MECs?*

Lakenbach: I'm a strong believer in the use of components — base policy, paid-up additions riders, term riders, dividend options, and such — to form a precise insurance plan to meet the purchaser's objectives. Thus, some combinations of these components will result in MECs and others will not.

Poppel: *Doesn't that require some level of sophistication in your market? Some companies' customers and agents may not want to make those decisions and may rather buy a product off the shelf.*

Lakenbach: That's true; for some markets it may not be important. Nevertheless, if the market is at all sophisticated, the use of components allows it to structure a solution to its needs that doesn't cost any more than it has to. Some products, such as a typical whole life policy, will never become MECs.

Poppel: *In cases where TAMRA is unclear on a topic, what should companies do?*

Lakenbach: TAMRA, as with most laws, doesn't clearly address every issue, so it's natural for questions to come up. Different intelligent people will have different rational interpretations of the ambiguous areas. Ultimately, some of the issues won't be

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resolved until regulations are written by the Treasury.

In these instances, one of our client companies asks three sensible questions. First, do we have to make a decision on this issue? If we do, is our position a reasonable one? And finally, what is the risk — what's the worst that can happen if we take this approach? If the answers to these questions suggest an answer is needed and the risk reasonable, then go ahead.

Poppel: What new legislation or clarifications to existing legislation do you expect in the short and long term?

Lakenbach: One rumor floating around is that, partly because of the demand for more revenue, certain favored tax treatments of life insurance are at risk. One is the deductibility for corporations of the first \$50,000 of life insurance; another is the treatment of any distributions from a life insurance contract, whether or not it is a MEC. Last, although I don't hear much talk about this one, maybe because of fear, is the tax treatment of the inside build-up. I've heard there may be some major tax changes next year.

We have to deal with the law and the environment as it is now. If you're going to wait until everything has been settled, you'll never come out with products, and you'll never develop solutions to the client's current needs.

Summary outline

Ghislain Nadeau has published a summary outline for part I-542. For more information, write him at 195 Begin, St-Romuald, Quebec, Canada G6W 2W8, or call (416) 644-8096.

Correction

In the color insert to the July/August issue of *The Actuary*, there was an error in a photo caption identifying Robert Hoskins and Ken Clark. Clark is at the far left of the photo; Hoskins is third from the left.

Book review

Text is pedagogically impeccable

by Jean Lemaire

Actuarial Mathematics by N. Bowers, H. Gerber, J. Hickman, D. Jones and C. Nesbitt. Published by the Society of Actuaries, 1986. 624 pages.

(Ed. Note: The following review is a condensation of a review that appeared in the April 1989 IAA Bulletin.)

The monumental new textbook, *Actuarial Mathematics*, published by the Society of Actuaries, has finally arrived after years of preparation by its five authors.

From a pedagogical point of view, the presentation of the book is impeccable. Interesting examples illustrate each new concept. Interpretations are provided for the most important formulas. Each chapter concludes with a lengthy series of exercises. The solutions of most exercises, without derivation, are to be found in an appendix. Among the seven appendices, appendix 4 is especially noteworthy, since it presents a comprehensive survey of the international actuarial notation.

The major innovation introduced by the book is the totally probabilistic approach to the mathematics of life contingencies. This breakthrough is definitely not going to facilitate the task of actuarial students, but it is long overdue. It is best illustrated by the very first example in the life insurance chapter. Example 4.1 reads, "The density function of the time-until-death random variable is assumed to be uniform over the range (0, 80). At a given force of interest δ , calculate the net single premium, the variance and the 90th percentile of the claim random variable for a whole life insurance of unit amount issued to (x)."

A basic knowledge of financial mathematics is assumed at all times, as well as a solid background in undergraduate calculus and probability theory. A three-page appendix reminds the reader of the most common probability distributions and of some formulas from the calculus of finite

differences. Otherwise, many theorems from calculus and probability theory are routinely used without restatement. The reader should be prepared for a constant use of conditional expectations, moment-generating functions, integration by parts, etc. Quite often only the key steps of a mathematical derivation are provided, and some computation is required to "move from one line to the next."

The book does not cover the following:

- Stochastic interest rates — the interest rates used to convert future payments to a present value are considered deterministic at all times and are usually taken as constants.
- Estimation of parameters — for example, the construction of mortality tables.
- Computing methods — issues like the optimal organization of input data, simulation, and computation in actuarial models.

The study of chapters 3 to 10, 14 and 15 is required for all SOA students as preparation for their most important examination on life contingencies. Chapter 2 and chapters 11 to 13 cover the material of the examination on risk theory. Students of the Casualty Actuarial Society must study chapters 3 to 7 and chapter 9 for their Part 4 examination. Since very little of the material is specifically geared to the United States or Canada, the book could be adopted by other actuarial associations and non-American universities.

Chapter 1 introduces the economics of insurance, using utility theory. It serves as a background for the remainder of the book, but it is not essential, since utility theory is not used in the sequel.

Chapters 2, 11, 12, and 13 provide an excellent and modern introduction to risk theory, despite some important recent developments that had to be bypassed. Chapter 2 gives a welcome survey of important probabilistic concepts, presented in an insurance framework. Chapter 11 focuses on the

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