1992 VALUATION ACTUARY SYMPOSIUM PROCEEDINGS

SESSION 6

Other Medical

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OTHER MEDICAL

MR. LARRY M. GORSKI: Much has been said and written about the appointed actuary concept and asset adequacy analysis with regard to life insurance and annuity business. Very little has been said about these ideas as they apply to health insurance. In this session you will hear the views of one regulator.

The Actuarial Opinion and Memorandum Regulation exempts certain companies based on size, mix of business and type of assets from asset adequacy analysis, but it does *not* exempt lines of business. Section 5.E. of the model regulation states that "Under authority of Section 3 of the Standard Valuation Law, the statement of actuarial opinion shall apply to *all* in force business regardless of when or where issued . . . ." The statement that the actuary is asked to make is that "The reserves and related items, when considered in light of the assets held by the company with respect to such reserves and related actuarial items including, but not limited to, the investment earnings on such assets, and the considerations anticipated to be received and retained under such policies and contracts, make adequate provisions, according to presently accepted actuarial standards of practice, for the anticipated cash flows required by the contractual obligations and related expenses of the company."

My understanding of this sentence is that its perspective is long term in nature. What I mean by this is that simply testing gross unearned premium reserves for computational accuracy and comparison against anticipated claims and expenses related to the term of coverage beyond the valuation date represented by the unearned premium is an inadequate test of reserve adequacy. The reason for my position is based on the phrase "considerations anticipated to be received," which is contained in the above statement that is to be made by the appointed actuary.

However, my position does not necessarily result in the requirement that the appointed actuary do a cash-flow-testing-type analysis as currently understood. The model regulation defines "Asset Adequacy Analysis" as "an analysis that meets the standards and other requirements

referred to in Section 5D of this regulation. It may take many forms, including, but not limited to, cash-flow testing, sensitivity testing or applications of risk theory." In my view, any chosen method must incorporate all of the significant risks that a block of business is exposed to. I hope that by the end of this session you will have a feel for what I consider the significant risks that are associated with different blocks of business.

The current version of the Valuation Law and Actuarial Opinion and Memorandum Regulation is not the first attempt to go beyond formula reserves for health insurance. The current version of the NAIC minimum reserve standards for individual and group health insurance contracts states that "Such a gross premium valuation is to be performed whenever a significant doubt exists as to reserve adequacy with respect to any major block of contracts, or with respect to the insurers' health business as a whole." A gross premium valuation coupled with sensitivity testing of key parameters along with a review of supporting assets should be sufficient for an actuary to sign off on the health reserves of a company from an asset adequacy standpoint.

The Actuarial Memorandum is the document that the appointed actuary will prepare to support his/her opinion. The Memorandum will not be provided to any regulatory body unless requested by that regulatory body. The opinion regulation spells out the minimum contents of the memorandum but unfortunately its perspective is life insurance and annuity business. It does require that the actuary state the:

A. Methodology.
B. Rationale for inclusion/exclusion of different blocks of business and how pertinent risks were analyzed.
C. Rationale for degree of rigor in analyzing different blocks of business.
D. Criteria for determining asset adequacy.
E. Effect of federal income taxes, reinsurance and other relevant factors.

I do not view (B) as carte blanche approval to exclude significant blocks of business from asset adequacy analysis. However, this may be an area of further discussion by the profession and regulators.

Assuming that a block of health business is being subjected to asset adequacy analysis, assets equal to statutory reserves must be allocated to that block of business. This might be an issue that you have not had to face. The memorandums that I have reviewed have generally allocated the best assets to the interest-sensitive life and annuity business. In this case *best* refers to quality, cash-flow patterns, and ease of modeling.

Possibly for the first time you will have to think about the characteristics of the assets that have been so graciously allocated to you.

Another general issue that you may have to ponder is with respect to the aggregation of reserves.

The Actuarial Opinion Regulation permits aggregation if performed under two different methods:

1. Aggregate the reserves and related actuarial items, and the supporting assets, for different products or lines of business, before analyzing the adequacy of the combined assets to mature the combined liabilities.
2. Aggregate the results of asset adequacy of one or more products or lines of business, the reserves for which prove through analysis to be redundant, with the results of one or more product or lines of business, the reserves for which prove through analysis to be deficient.

The second method also requires that the results:

A. Are developed using consistent economic scenarios, or
B. Are subject to mutually independent risks.

My reading of these requirements is that unless a company builds a corporatewide financial model that includes both health and nonhealth business, health and nonhealth business cannot be aggregated for purposes of determining adequacy.

Of all the things that I have said, the most important is that health business is subject to asset adequacy analysis, the method used to demonstrate adequacy needs a long-term perspective and all relevant risk factors need to be incorporated in the analysis. As an extreme example, a block of business with $0 reserves may need testing to see if $0 is the correct (adequate) amount of reserve.

What are these long-term risk factors for specific lines of business?

A. Medicare Supplement
   1. Cost trend
   2. Utilization
   3. Adverse selection due to pricing structures
   4. Impact of open enrollment
   5. Regulatory requirements
      a. Minimum loss ratios
      b. Refunds
   6. Expenses

B. Administrative Services Only
   1. Expenses
   2. Credit risk

C. Stop Loss
   1. Deductible leveraging
   2. Excessive variation due to limited exposure

D. Group Medical (Small/Large)
   1. Regulatory requirements
   2. Retrospective refunds
   3. Multiyear rate guarantees
   4. Data quality

5. Rate structure
6. Competitive position
7. Trend
8. Expense levels
9. Changes in underwriting/claim administration
10. Commission bonuses

The end product of all this analysis is an Actuarial Opinion and Memorandum. Ideally, I will be able to sit back in my chair and review the required opinions and, in some cases, memorandums, and with this information feel confident that the insurance industry as a whole, and specific companies in particular, will meet their obligations. The opinions and memorandums that I have reviewed this year have generated more questions than answers. I expect that this session will do the same.

Notwithstanding the myriad of assumptions that must be made to do asset adequacy analysis, the most difficult task is to "bring it all together" and develop an opinion. Remember that there is a single appointed actuary and a single opinion covering all lines of business. While other actuaries may be responsible for the mechanical modeling of specific lines of business, the final opinion concerning adequacy is from a single appointed actuary.

How will regulators use the opinion and memorandum? We in Illinois are using the memorandum as a diagnostic tool to better understand the companies we regulate. For example, the memorandum discusses reinvestment strategy. Because of this, we are better able to understand the direction a company will be moving. On the health side, a proper asset adequacy analysis will need to address rating strategy. This may be helpful from both a financial standpoint and a consumer standpoint.

This brings up an interesting issue. I have seen at least one Actuarial Memorandum that relied upon "management action" in order for the actuary to be able to "sign off" on the reserves. I suppose that some company may rely on its ability to "nonreview" a block of business as

justification for not testing the reserves of that block of business. We may have an interesting discussion. Another thing to remember is that the Actuarial Memorandum is designed to be confidential.

Implementation of the concepts in the new standard valuation law and opinion regulation will not be easy. Hopefully, the Actuarial Standards Board (ASB) will proceed with the development of appropriate standards of practice and guidance notes with the perspective of life, annuity and health insurance business in mind.

OTHER MEDICAL

MR. RONALD M. WOLF: It is a pleasure to be a part of this symposium and of this panel. I believe that the medical expense and related lines of business provide unique challenges to the appointed actuary for life and health and insurance companies and am pleased to offer my comments on these issues. Larry Gorski has discussed regulatory aspects, and I will begin my remarks by discussing professional guidelines.

I believe that there are five actuarial standards of practice (ASPs) that the appointed actuary should consider when performing valuation work for other medical expense lines. The four standards are:

- ASP 5 -- Incurred Health Claim Liabilities
- ASP 7 -- Concerning Cash-Flow Testing for Life and Health Insurance Companies
- ASP 14 -- When to Do Cash-Flow Testing
- Proposed ASP -- Statutory Statements of Opinion by Appointed Actuaries for Life or Health Insurers

Before offering some detail on each of these, let me offer some general comments as to the nature of actuarial standards.

Standards of practice are more in the nature of guidelines rather than absolute requirements. They contain considerations that bear upon the actuary's work rather than constituting a cookbook of how to do certain things.

The actuary's responsibility then is to:

- Be aware of and attentive to the standards,
- Apply his/her judgment as to their applicability and application,
- In any event be prepared to support the work performed, including documentation of any deviation from the standard.

ASP 5 -- Incurred Health Claim Liabilities -- This was the first effort of the Health Committee of the Interim Actuarial Standards Board (IASB) and Actuarial Standards Board (ASB), of which I was privileged to serve as chairperson.

In writing our first standard, we were, to be quite honest, groping. Although the standard has since been reformatted from what we wrote, it still retains the same overall characteristic of being a checklist of items for consideration and analysis for the actuary estimating incurred health claim liabilities.

A good example of one of such considerations is follow-up studies to prior liability estimates. The standard states that the actuary is to secure data for such studies, perform such studies, and then use them in setting current liability estimates.

Other considerations brought forward for consideration include change in exposure, change in benefits, and claim settlement expenses.

ASP 7 -- Concerning Cash-Flow Testing -- This isn't usually thought of firsthand as being important for other medical lines. The standard states that if cash-flow testing is done by product line or segment, assets must be allocated to each line. This may cause some difficulties, as we have found that frequently medical expense business is allocated investments from the general or "leftover" account, after assets for interest-sensitive liabilities have been segregated.

Therefore, it may be necessary to assume that, for example, traditional life products and other medical expense products have a proportionate share of a general or nonsegregated asset account, if cash-flow testing is done.

Other items for consideration in cash-flow testing for other medical lines include management's posture towards rate action and/or termination of blocks of business. Even if the company has the right to aggressively change rates or to terminate business, if management has not shown

the proclivity to do so, it is questionable whether the actuary should rely on any salutory effect of such rights in the future. In addition, administrative expenses should be fully allocated and considered. ASP 7 specifically states that total expenses, including overhead expenses, should be provided for.

ASP 14 -- When to Do Cash-Flow Testing -- This gives guidelines for when to perform such tests. Interestingly, the statement is made that the sensitivity of cash flows to economic changes and the need to do cash-flow testing can be strengthened by analyzing the results of cash-flow testing. In the vernacular, when in doubt, try it.

The standard acknowledges that cash-flow testing may not always be necessary and that other forms of analyses may be more appropriate. It specifically mentions:

- Risk-theory techniques for short-term products.
- Statistical techniques for secular trends in disability income and medical expense products.

Proposed ASP -- Statutory Statements of Opinion by Appointed Actuaries for Life or Health Insurers -- Although not specifically stated in this ASP, I believe that it goes without saying that the actuary should only perform work in areas in which he or she is reasonably suited by training and experience (per Precept 3 of the new Code of Professional Conduct).

In this regard, other medical lines can present particularly difficult issues for companies in multiple lines of business.

The new standard valuation law allows only one actuary to sign as appointed actuary. Other parties may be relied on as to policies in force and asset cash flows, but only one actuary may be responsible for all lines of business. Materiality of the other medical lines, as well as covariance offsets of financial results with other lines, may be significant.

This ASP acknowledges that analysis methods other than cash-flow testing may be appropriate, including loss ratio, development, and follow-up studies as described in ASP 5.

General Considerations -- Larry Gorski has already given a thorough overview of general considerations applicable to other medical lines, but allow me to add a few additional thoughts.

I believe that a company (and its appointed actuary) should have for each of its significant lines of business a generalized facility to project financial results. This should measure statutory and perhaps GAAP earnings as well. Even if the line isn't interest sensitive, a facility to do a gross premium valuation with flexibility for sensitivity tests is necessary for not only appointed actuary work but also proper management of the line of business.

The appointed actuary, as well as the pricing actuary, should be aware of the competitiveness of the products comprising the (other medical) lines. A product that is priced very low in the market should have suspect financial results and is likely to have different future cash flows than a more moderately priced one.

As a corollary to competitiveness, rapidly rising growth in new business volume can be a warning signal. How many of us have seen a line of small group health business with exploding volume that was underpriced to begin with, with poor administrative backup, that leads to financial problems and perhaps even insolvency.

Even a mature, well-priced line may run into administrative problems and claim backlog that will test the appointed actuary's ability to set or judge reserves. It is critical that the appointed actuary demand and receive up-to-date status information from the administrative departments.

I will now follow up Larry's comments on the lines of business that he covered with similar comments on additional lines, including indemnity coverage, individual comprehensive medical, and managed-care/PPO/Point-of-Service benefits.

By *indemnity coverage*, I mean benefit types that generally are not subject to the effect of inflationary trend. Examples would include hospital indemnity benefits and scheduled dread disease policies. These contracts could be either group or individual.

The appointed actuary should be mindful of various contractual provisions and company practices, as follows:

- Renewability provision -- under what circumstances, if any, can the company terminate the policies. What has been management's posture in the past towards such considerations? Answers to these questions may bear upon the assumptions employed in financial projections supporting appointed actuary opinions.
- Premium revision provisions -- when may premiums be revised; what has been the company's proclivity and success at securing these increases in the past; what is the regulatory environment in which the company operates?
- Conversion -- what provisions are in the contracts with respect to the policyholders' rights to convert and thereby continue coverage?

These types of coverages may be more similar to disability income and individual life coverages in their financial characteristics and projection techniques typically employed.

There may be additional special considerations. Some of these contracts/benefits may have a return-of-premium provision, either of the 10-year rollover/maturity type or the cash-value type. Each of these has its own unique cash flows and patterns of expected actuarial assumptions, all of which the appointed actuary needs to be aware of.

The definition of incurral date of claim in the contract should be explored and recognized by the appointed actuary in the actuary's analysis of the line of business and the formulation of the opinion.

Individual comprehensive medical insurance contracts also have unique characteristics. Since these benefits are typically well open to secular trend, the appointed actuary should consider the horizon over which the business is analyzed.

The effect of secular trend and rate increases will be particularly significant. Depending on how the product is positioned competitively and how it was priced, the appointed actuary may wish to consider reserves based on the theory of cumulative antiselection.

Even more so than for indemnity products, the regulatory aspects of renewal and rerating are important. The concept of rating and managing these products on a guaranteed loss ratio basis is now statutorily possible in approximately a dozen states. The appointed actuary needs to be mindful of the effect of such provisions on the actuary's projection and analysis.

Regarding managed care benefits, I am speaking only on those benefits written through insurance companies filing a blue statement blank. Appointed actuary statements for HMOs are covered elsewhere in this program.

The appointed actuary should be knowledgeable about contractual provisions in managed care plans regarding agreements with providers. The actuary should be knowledgeable about which party -- the insurer, the employer/insured, or the provider -- ultimately bears the risk.

Concerning POS plans, the appointed actuary should consider to what extent the gatekeeper and choice provisions may allow the insureds to select against the company.

The appointed actuary should consider various points with respect to trend rates for managed care plans and expected "savings" from them as follows:

- Underwriting cycle -- Will these cycles follow the same pattern, or will they be flatter, for example, than such cycles for nonmanaged care plans?
- Cost of network -- Will the expenses associated with establishing and maintaining a provider network be reasonably related to the discounts and real savings achieved?

- Trends -- Will the managed care mechanism actually result in lower trend rates?

Continuing on with my comments, I'll speak next to the subject of what companies are doing currently with respect to addressing the appointed actuary issue for other medical expense lines of business.

It should be common knowledge that appointed actuaries and companies tend to focus their cash-flow testing efforts initially on lines that are economically sensitive, such as interest-sensitive life and annuities. However, as we have stated and will state numerous times in this presentation, other medical expense lines have their own characteristics and risks that make fulfilling appointed actuary responsibilities challenging enough.

In my own work, and I believe in the work that many companies are doing, the appointed actuary effort with respect to other medical lines must begin, and is beginning, with a focus on basic tools and information that are needed to "get our arms around" the issue. These include the following:

- Competitiveness of prices -- Are the products concerned reasonably priced in the current market?
- Experience studies -- Is the company doing a basic job of tracking actual experience, either absolutely or with respect to expected levels?
- Claim reserve follow-up -- This is such a simple but such an important element of managing medical business that I don't believe it can be overemphasized. ASP 5 provides the basic guidance.
- Nature of liabilities -- The actuary needs to understand what factors and contract provisions will effect product cash flows.
- Nature of assets -- Either separately or as part of a general account, assets or a proportion thereof must be allocated to the other medical lines. The actuary needs to know what these assets are and should understand their basic characteristics.
- Projection facility -- The appointed actuary should have a general financial projection facility available for each line of business.

Regarding cash-flow testing, some of you may be aware of the survey that my firm performed in 1992, the results of which were mailed to many companies by us but which were also published in *The Actuary* newsletter. Table 1 attempts to describe activity and plans for approximately 200 companies with excess of $100 million in assets and who responded to the survey.

TABLE 1

Tillinghast 1992
Survey on Cash-Flow Testing
204 Respondents In Excess of
$100 Million in Assets

Line	Major Line for Companies	% Cash-Flow Testing At 12/31/91	12/31/92
Deferred Annuities	151	74%	95%
Traditional Life	155	29	77
Disability Income	75	15	39
Group Medical	61	15	38
Individual Medical	52	12	29

The table shows that, at least as regards cash-flow testing, companies are indeed beginning that effort with interest-sensitive products. The likelihood that cash-flow testing has been performed or will be performed is less for disability income business and even less for group and individual medical. The companies indicated as writing group and individual medical are clearly planning on increasing their level of activity with respect to these lines for cash-flow testing at year-end 1992. However, around two-thirds of these companies still do not intend to do cash-flow testing for the medical at year-end 1992.

Larry has just shared his thoughts concerning formulating an opinion under the standard valuation law. I will now offer my thoughts in the area of documentation of that opinion.

It should go without saying that the actuary's work, in whatever area, should always be sufficiently documented. I do not believe there is any wording in the new Code of Professional Conduct dealing directly with documentation, except Precept 5, Annotation 5-1, which states that "an actuary who makes an actuarial communication assumes responsibility for it, except to the extent the actuary disclaims responsibility by stating reliance on other sources."

I believe that our prior guidelines had wording to the effect that documentation of the actuary's work needed to be sufficient that another actuary reasonably skilled in that area of practice or line of business could understand and follow what was done.

Regarding appointed actuary opinions, the new standard valuation law clearly states in Section 3 that the appointed actuary should prepare an actuarial memorandum supporting the actuary's work. Further, that memorandum may be reviewed by the commissioner or the commissioner's designee but shall not be made public.

This requirement for an actuarial memorandum exists regardless of whether the actuary is preparing a Section 7 or a Section 8 (asset adequacy) opinion.

It bears repeating that the appointed actuary may rely on other persons for sources of information, but the actuary alone is responsible for the opinion and may not rely on the opinion of others.

The actuarial opinion and memorandum regulation that supports the new valuation law gives further detail as to documentation for the appointed actuary. Section 9 of this regulation generally repeats the requirements of the standard valuation law already discussed.

Part B of Section 9 provides further documentation requirements when an asset adequacy opinion is rendered. Those specific requirements are in the areas of reserves, assets, analysis basis, summary of results, and conclusions. This section provides a nice outline for the

appointed actuary to follow, but the actuary is always free to provide additional information as appropriate.

Part E of Section 9 of the regulation further states that the appointed actuary shall retain this documentation on file for a period of at least seven years.

Finally, Section 9 provides that the appointed actuary's memorandum shall include a statement that the actuary's work conforms to the appropriate standards of practice.

For other medical coverage, I believe that the following information should be a natural part of the documentation that the actuary would want to provide:

- Data -- copies of recent experience studies that support assumptions employed and judgments reached.
- Claim reserves -- copies of basic claim data supporting the actuary's analysis; also, a specific mention or showing as to how each of the "checklist" items in ASP 5 have been considered in the actuary's analysis.
- Financial projections -- if these projections such as for a gross premium valuation or cash-flow testing are performed, copies of the projections themselves in detail supporting the assumptions and models should be retained.