1993 VALUATION ACTUARY SYMPOSIUM PROCEEDINGS

SESSION 15

Small Company Issues

Larry D. Baber

Timothy F. Harris

W. Harold Phillips

SMALL COMPANY ISSUES

MR. LARRY D. BABER: Tim Harris is a consulting actuary with Milliman & Robertson, Inc. in the St. Louis office. He works extensively with life insurance companies on a variety of corporate matters including company formation, reorganizations, mergers, acquisitions, analysis of investment income, life and health insurance product development, financial and tax planning and corporate business strategy. Tim has been a member of the Life Committee of the Actuarial Standards Board since 1988.

William McCarthy is Vice President and Financial Actuary for London Pacific Life and Annuity Company where he also serves as appointed actuary. Prior to his current employment, he spent six years in the investment division of a large mutual life insurance company as portfolio manager and investment strategist.

Harold Phillips is Senior Life Actuary at the California Department of Insurance. He worked for Monarch Life (Canada) and Aid Association for Lutherans before joining the department in 1988. Harold's responsibilities at the department include policy matters involving valuation, legislation, and regulations. In 1993, he had the monumental task of reviewing the actuarial opinions and supporting Memorandums.

Very important issues affecting small companies, such as actuarial standards of practice, regulatory concerns, and practical experience, will be discussed by the panelists who have been directly involved in these areas.

SMALL COMPANY ISSUES

MR. TIMOTHY F. HARRIS: I'm a senior consultant in the St. Louis office of Milliman & Robertson. I've been a member of the Life Committee of the Actuarial Standards Board since 1988, and I am also the party primarily responsible for the *Life and Health Valuation Law Manual*, which was distributed last year by the Academy of Actuaries to aid actuaries in complying with the new valuation requirements. I have been a consultant to companies of many sizes, and in the past I have rendered opinions for what would be considered small life insurance companies.

In my portion of the presentation, I am going to talk about a number of the issues that the appointed actuary of a small company may have to address, and we are going to analyze these issues both from the standpoint of regulatory requirements, that is the requirements of the valuation law and any regulations, and also from the standpoint of professional requirements, that is actuarial standards of practice or compliance guidelines.

Although it is often said that we shouldn't see these new valuation requirements as a burden that has been imposed upon us and that we should use this as a management tool to better manage our assets and liabilities, this still is a burden for actuaries, especially the actuaries of a small company. The management of the company doesn't always understand the need for this requirement and generally doesn't appreciate any interference in its operations. In addition, the actuary often with a small staff or no staff ends up with an additional burden at the end of the year. Now, however, this burden has already been imposed, and there's little we can do about it. We should turn to the laws, regulations, and standards of practice to help us in meeting our requirements as appointed actuaries.

Let's start with the first issue that you might have to address: must asset adequacy analysis be done?

In order to determine whether or not you have to perform asset adequacy analysis, you need to see whether you're a Section 7 company or a Section 8 company. These should be pretty familiar terms to you by now, and they refer to sections of the model regulation that describe the opinion language that the actuary is to use for each of these different types of opinion. Section 6 of the model regulation is actually where you can find the conditions for exemption from the asset adequacy analysis. These conditions include ratios of annuity liabilities to total liabilities, capital and surplus to cash, plus invested assets and noninvestment-grade investments to capital and surplus. In addition, the actuary should try to determine whether or not the company has been designated a priority company by the NAIC, and also whether or not an asset adequacy analysis has been requested by an insurance commissioner, even though the company may otherwise qualify for an exemption. Section 6 also spells out the company size requirements. The very small companies can be exempted from asset adequacy analysis entirely, the medium-size companies may only have to perform it once in every three years, and the large companies have to do it annually.

Actuarial standard of practice No. 22 indicates that the asset adequacy analysis requirements apply only to actuaries providing Section 8 opinions, and the draft compliance guideline, which should be final by this year-end, also indicates that asset adequacy analysis should only be done for Section 8 opinions. Section 7 opinions are exempt from the asset adequacy analysis requirements, and they do not need to follow standard No. 14 which might indicate that cash-flow testing is required.

Since we've now addressed whether or not asset adequacy analysis must be done, let's look at exactly what type of analysis is required for a Section 8 opinion.

The model valuation law describes the lines of business that must be covered and provides the following definition for asset adequacy analysis, which is "the analysis that meets the standards and other requirements referred to in section 5(D)," of the regulation, which then refers you to standards of practice and "that it may take many forms including but not limited to cash-flow testing, sensitivity testing or applications of risk theory." So asset adequacy analysis does not always mean cash-flow testing. It will probably mean cash-flow testing. But, for example, if your company is primarily a health insurance company, it may not mean cash-flow testing, it may mean gross premium valuation.

What do the actuarial standards of practice say on this issue? No. 22 indicates that there are a number of asset adequacy analysis methods available for use by actuaries and that the most widely used method is cash-flow testing. This method is generally appropriate for products and/or investment strategies where future cash flows may differ under different economic or interest rate scenarios. The products referred to would be interest-sensitive products and possibly traditional products or participating products. The standard indicates that there are other acceptable methods, that you can demonstrate that a block is highly risk controlled and thereby possibly not do cash-flow testing. You may feel that gross premium valuations are appropriate, for example, for health insurance as I previously mentioned, and you may want to use loss ratios methods, for example, for claim reserves.

What type of analysis must then be done for a Section 7 opinion?

The sample opinion language provided in Section 7 of the model regulation addresses the reserve calculations and compliance with the valuation laws, but there is no longer any requirement for a good and sufficient opinion.

The draft version of the compliance guideline for Section 7 explains in its Section 3 (background and historical issues) that, for companies subject to section 7, the model regulation requires an actuarial opinion attesting that the reserves and related items have been calculated in accordance with the standard valuation law and supporting regulations. Section 7 does not require an opinion as to reserve adequacy.

You may, however, find that there are different valuation requirements (e.g., the model health valuation laws that do require that the actuary address reserve adequacy). The point here is that much of the calculation for a Section 7 reserve opinion will be mechanical. However, you are still going to have to look at certain reserves, primarily health insurance reserves, to make sure that mechanical calculations have produced appropriate results. You are not, however, going to have to go back to your life insurance and annuity reserves and determine whether or not the reserves are sufficient especially in light of the company's investments.

What liabilities should be covered in the appointed actuary's opinion?

Again the model law describes the lines of businesses that should be covered in Section 3(D)(2) where it says that all business in force including individual and group health insurance should be addressed in the opinion, and Section 5(E) of the model regulation spells out the liabilities that should be covered when it says that the reserves of Exhibits 8, 9, 10, and claim liabilities in Exhibit 11, Part 1 and equivalent items in a separate accounts statements are to be covered. You may also want to take a look at page 3 of the annual statement to see if there are any liabilities there of an actuarial nature, for example, deposit administration contracts, which the actuary also may wish to address in providing an opinion.

What do the actuarial standards of practice say about liabilities that should be covered? For Section 7 opinions the draft compliance guidelines in its Section 5.3.4 list Exhibits 8, 9, 10, and Exhibit 11, Part 1, and also net deferred and uncollected premiums. This isn't intended to be a complete list. For example, it doesn't include due and unpaid A & H premiums. And again the actuary will probably want to take a look at page 3 to see whether or not there are any liabilities of an actuarial nature that should be addressed.

Standard No. 22, which is for Section 8 opinions, states in its Section 5.3.1(C)(4) that, for reserves to be reported as not analyzed, the appointed actuary should judge them to be immaterial. Therefore, this standard indicates that everything of an actuarial nature is included unless the actuary judges it to be immaterial.

Which states' valuation requirements must be complied with? Section 3(A) of the model valuation law requires that reserves "comply with applicable laws of this state." The model regulation in the sample opinion language that is shown in both Section 7 and Section 8 includes in its language the statement that the actuary is familiar with the valuation requirements applicable to life and health insurance companies and also the statement that the reserves meet the requirements of the insurance law and regulation of the state of domicile and are at least as great as the minimum amounts required by the state in which this statement is filed. The actuary must opine under both Section 7 and Section 8 opinions, which are filed with states other than your state of domicile, that the reserves in the aggregate are at least great as those that are required by these other states.

Actuarial standard of practice No. 22 and the draft Compliance Guideline for Section 7 opinions both address this multistate requirement in their Section 5.1.2 (state valuation requirements) where they indicate that the appointed actuary should be aware of the valuation requirements of the regulatory authority to whom the opinion is to be expressed and that the actuary should be satisfied that the requirements of duly adopted regulations have been met. Both standards then go on in Section 5.1.3 (NAIC actuarial guidelines) to state that the appointed actuary should also be aware of the actuarial guidelines published in *NAIC Examiners Handbook* and make a reasonable effort to be aware of generally distributed interpretations of each regulatory authority. So you can see that for both Section 7 and Section 8 opinions, the actuary is going to have to be aware of the valuation requirements of any regulatory authority, that is any state, to whom the opinion is expressed. The best source of staying aware of the laws and regulations of other states would be to read a compiled version of the laws and regulations of these states. An alternative is to refer to the summarization that has been done in the *Life and Health Valuation Law Manual* prepared under the auspices of the Academy of Actuaries and the Society of Actuaries. This manual contains a summary of the valuation laws and also contains the actuarial guidelines and those generally distributed interpretations that have been provided to the Academy for inclusion in the manual.

What do you do when you are filing an opinion in another state where the reserve requirements might be greater than what you are carrying in the state of domicile? That is a good question. Some of the alternatives that were discussed this past year-end were to file multiple statement blanks or to file the same statement blank with a different actuarial opinion and describe in that actuarial opinion the changes to reserves and surplus. An unlikely approach is to file a statement that contains the largest reserves required by any state in all states.

Another issue that we are going to talk about is appointment as appointed actuary. Exactly how do you get appointed and how do you respond to that appointment?

Section 3(D)(5) of the model law defines the term *qualified actuary*. A qualified actuary is a member in good standing of the American Academy of Actuaries and meets the requirements set forth in the regulation. And then Section 5(B) of the model regulation further requires that the qualified actuary meet the qualification requirements of the Academy to sign the opinion, that the actuary be familiar with the valuation requirements, and that the actuary hasn't run afoul of the insurance department. The model regulation then defines in Section 5(C) the appointed actuary as a qualified actuary who is appointed by the board or its authority to render the opinion. So, first of all you have to be a qualified actuary, which means that you have to meet the qualification requirements of the Academy including the continuing education requirements of the Academy, and then you have to be appointed by the board of directors of the company or its designee.

What do the actuarial standards of practice say on this topic? No. 22 for Section 8 opinions and the draft Compliance Guideline for Section 7 opinions both address this issue in their Sections 2.1 (Appointed Actuary) where they define the appointed actuary as any individual who is retained in accordance with the requirements set forth in the model actuarial opinion and memorandum regulation of the NAIC. And then in Section 5.2 (Appointment as Appointed Actuary) the standards indicate that the actuary must meet the qualification standards of the Academy and that the appointment and the acceptance of the appointment or any resignation of the appointment all be in writing. There is some confusion over the requirement in the standards that the appointment indicate the law and regulation that apply. The reason for this language is to avoid any confusion with other types of appointments of actuaries that may arise in the future, and it is not necessary to cite the exact section and subsection of the code. You only need to make a general reference to the law and regulation.

How does the actuary interpret the results of the asset adequacy analysis for the Section 8 opinion including any failure of prescribed scenarios or for that matter failure of any deterministic scenarios (the ones that you make up yourself) or stochastic scenarios (randomly generated). Section 3(D)(3) of the model valuation law refers the actuary to the standards of practice or any applicable regulations in the forming of an opinion, and Section 5(D) of the model regulation again refers the actuaries to the standards of practice in providing an opinion, while Section 9(D) requires that the memorandum demonstrate that the analysis has been done in accordance with the standards for asset adequacy analysis referred to in Section 5(D). This section then goes on to describe the detail required to be reported for reserves, for assets, for analysis bases, and the summary results and conclusions. The laws and regulations generally refer you to the standards for guidance in forming an opinion.

So then what do the standards say about forming an opinion? No. 22 for Section 8 opinions in its Section 5.5 (Forming an Opinion with Respect to Asset Adequacy Analysis) provides some guidance in forming an opinion with respect to the asset adequacy analysis. This section suggests that the actuary consider several things when forming an opinion: limitation of models, assumptions, and data; economic and experience conditions; adequacy of reserves and related items; analysis of prescribed scenario results; aggregation; trends; management action; and subsequent events. This section also refers the actuary to No. 7 (How to Do Cash-Flow Testing), which in it's Section 5.7 (Development of Conclusions) states that the cash-flow test is the combination and analysis of the asset and obligation cash-flow projections. This analysis may involve the discounting or accumulating of cash flows or a year-by-year comparison. Generally, cash-flow projections are performed for a given period of time. The actuary should consider the affect of cash flows beyond such a time in analyzing results. So, how do you interpret all of this? Standard No. 7 indicates that there are several ways to look at cash-flow testing results. You can look at the statutory book value or market value of results after the end of some period of time; you can look at the present value of results after some period of time; or you can look at results on a year-by-year basis in forming your opinion. There are those who feel that the most conservative approach is to look at the market value of the results at the end of some long period of time, and also to address year-by-year results in forming an opinion.

What do you do if you fail any prescribed or other scenarios? First look again at what you did. Do your assumptions make sense? Are your assumptions too conservative? Do the prescribed scenarios really make sense given the business that you are modeling? Are there any management actions, especially in the area of investment philosophies, that can be implemented to correct the problem. You may find that you can render an opinion even if you fail a prescribed scenario. However, you will have to explain how you rendered this opinion, after having failed that scenario.

The next issue we are going to address is reliance on others. This may not be a major issue to the actuary in a small company since he or she is the one that ends up doing most if not all the work. However, the model regulation in Section 7 includes sample opinion language that addresses reliance on others for policy listings or summaries. The actuary is required to attach a statement of the company officer or accounting firm that attests to the data that the actuary is relying on. Section 8 of the model regulation addresses in its sample opinion language reliance on "personnel as cited in the supporting memorandum for certain critical aspects of the analysis." Note that this type of reliance is not going to appear in your opinion or its attachments, but instead it is going to be included in your memorandum, and this is also where you might want to include reliance on other actuaries. Reliance on others for asset and liability records is also covered in the sample language for Section 8 opinions. And, again, a statement of the company officer or accounting firm that is relied upon must be attached to the opinion.

What do the actuarial standards of practice say about reliance? The draft compliance guideline for Section 7 opinions in its section 6.3 (reliance on others for data and supporting analysis) addresses reliance for Section 7 opinions and mirrors the model regulation with the addition of the requirement that the actuary should be satisfied that the data or analysis provided were reasonable. You shouldn't just blindly accept in-force data. You should review it and determine whether or not the in force looks like what you thought was on the books of the company. Section 6.4 (Opinions of Other Actuaries) addresses those situations where more than one actuary contributes to the forming of an opinion. The appointed actuary can review the work of other actuaries but is ultimately the party who is responsible for the opinion and cannot in any opinion claim reliance on other actuaries. The problem that you have with Section 7 opinions is that you may not be preparing a memorandum. With the exception of the state of Texas and possibly other states in the future, the appointed actuary is not required to prepare a memorandum for a Section 7 opinion. If you don't have a memorandum, you should have to set up an internal file where you keep any reliances on other actuaries. Similar language is found in No. 22 for Section 8 opinions in its Sections 6.3 and 6.4, but there, as we have said, any reliance on other actuaries will show up in your memorandum.

Another issue is, what kind of report is actually required? Section 7 of the model regulation does not contain any report or memorandum requirement. Section 7 requires the opinion itself, any reliances, and the justification for the exemption from asset adequacy analysis. Section 8 of the model regulation includes a reserve table, which is to be included with the opinion. This table shows analysis methods used and any additional reserves that are established. Both Section 7 and Section 8 provide sample opinion language to be used by the actuary. Section 3 of the model law refers to a memorandum required by regulation and also in most states addresses the confidentiality of that memorandum while Section 9 of the model regulation describes the memorandum required under a Section 8 asset adequacy analysis opinion.

Regarding the actuarial standards of practice, the draft Compliance Guideline, in its Section 6.1 (Required Communication) requires that the appointed actuary provide annually to the board or to its representative an opinion. Note that I will use the term *standard* when I am talking about Compliance Guidelines. That is because a Compliance Guideline, although it is not a standard of practice, is an actuarial standard, and this is an issue that the Actuarial Standards Board wants to make perfectly clear. This standard also requires in its Section 6.5 (Additional Documentation) that the actuary disclose any noncompliance with the actuarial guidelines of the *NAIC Examiners Handbook*. Again, since you may not be preparing a memorandum for a Section 7 opinion, you should maintain in your file on your opinion work any documentation of noncompliance with the actuarial guidelines. No. 22 for Section 8 opinions in its Section 6.1 requires that the appointed actuary provide both an opinion and a memorandum to the board or its representative annually. Note that you are not providing an opinion and a memorandum to the regulators; you are providing these to the board of directors of the company. This standard in its Section 6.5 contains a long list of the items that might require disclosure and discussion in your memorandum.

SMALL COMPANY ISSUES
NOTIFICATION OF APPOINTED ACTUARY: PROCEDURE

MR. W. HAROLD PHILLIPS: The model regulation and our California regulation are clear on notification of the appointed actuary. The company's board takes action naming the appointed actuary. The company (usually the company secretary or general counsel, not the actuary) informs us of the appointment and that the actuary meets the requirements. This does not have to be done each year, only initially and when a change occurs.

This notification is separate and distinct from the actuarial opinion attached to the front of the blank since 1976, and the new supporting memorandum.

On November 23, 1992, we sent out the proposed regulation indicating we intended to follow it as required by our statute passed in 1991.

We sent a follow-up to hundreds of companies that had not notified us of their appointed actuaries. This must have gone to a different area of the companies. We got hundreds of calls from the compliance staffs or the legal divisions who could not find the November 23, 1992 communication. They were not aware of the model, appointed actuary, and so on.

To date we have not been notified by 105 companies of their appointed actuaries.

Perhaps this is not unexpected for the first year of a whole new procedure.

Exemption Criteria

A company must file a Section 8 opinion, with the memorandum available on request on the results of asset adequacy analysis cash-flow testing unless exempt; then a Section 7 opinion is required. The actuary must spell out how the company is exempt.

Table 1 reviews exemption criteria.

TABLE 1

Model Actuarial Memorandum Ratio Criteria
Cash-Flow Testing Exemption Criteria

	Admitted Assets	(1)	(2)	(3)	
A	< 20 million	≥ 10	< 30	< 50	(4)
B	20 - 100 million	≥ 7	< 40	< 50	(4)
C	100 - 500 million	≥ 5	< 50	< 50	(4)
D	500 million				

(1) Ratio: C+S/Cash + Invested assets

(2) Ratio: Annuity and deposit reserve/total admitted assets

(3) Ratio: Book value NIGB/C+S

(4) The company was not:

- Priority 1 in either (any) of preceding two years
- or Priority 2 in both (each) of preceding two years

Table 2 shows the number of companies (U.S. only, not Canadian) required to do cash-flow testing by category and reason, ignoring size for categories C and D. Table 2 uses C size criteria for D. In Table 2, 37.7% of C would have had to do cash-flow testing if not required because of first year. Some 53.3% of D would have had to do it without the size requirement.

Table 3 includes the number of companies required to do CFT by category and reason and the actual needed. In Table 3, A and B are the same as in Table 2. Some 170 in categories A and B can be exempted if the commissioner of the state of domicile is persuaded that the reason for the priority is being addressed and is not now a problem, or will be corrected and how, and so on.

TABLE 2

December 31, 1992 Cash-Flow Testing Required

Number of Companies Required to do Cash-Flow Testing by Category and Reason
Ignoring Size Criteria for C & D
Using C Criteria for D

Reason: Not Meeting Exemption Criteria

	All Companies	(1)	(2)	(3)	(4)	Sum (1)-(4)	%
A	879	18	33	3	129	183	20.8
B	339	9	45	8	41	103	30.4
C	260	2	58	7	31	98	37.7
D	295	7	107	36	7	157	53.2
	1,173	36	243	54	208	541	30.5

TABLE 3
December 31, 1993 Cash-Flow Testing Required

Number of Companies Required to do Cash-Flow Testing by Category and Reason
Actual Needed

Reason: Not Meeting Exemption Criteria

	All Companies	By Size	(1)	(2)	(3)	(4)	Sum	%
A	879	---	18	33	3	129	183	20.8
B	339	---	9	45	8	41	103	30.4
C	260	260	--	--	--	--	260	100.0
D	295	295	--	--	--	--	295	100.0
	1,773	555	27	78	11	170	841	47.4

NOTE: Up to 170 may avoid cash-flow testing by satisfying home state commissioner.

Validity of Experience; Credibility of Data; Actuarial Judgment

On the one hand, consider a large company, with lots of data and credible experience studies in mortality, morbidity, expenses, and persistency. These experience assumptions can be plugged directly into the cash-flow testing assumptions.

On the other hand, for a small company, with no or few studies, even if performed, how credible or applicable are the data to cash-flow testing assumptions? You haven't gotten to expense studies. What assumptions do you use if you are required to do cash-flow testing to support your actuarial opinion?

If you reinsure a lot of business because it exceeds retention limits and the experience on the reinsured business is quite different from that retained, which assumptions do you use?

A starting point might be the assumptions used in pricing, adjusted, most likely, rather than assumptions with margins used for conservatism.

It appears that much more judgment is needed in the second case where there is a lack of credible experience data.

If the actuarial judgment required is much greater, I wondered if this would ever be reflected in the pricing of the actuary's professional liability premiums.

Much more sensitivity testing is needed where there is a lack of credible experience data, for example:

- Lapse -- greater risk of a run on the bank.
- Mortality -- random fluctuation can be greater; more antiselection if the healthier lives tend to withdraw.
- Default -- subject to greater fluctuation if spread of risk cannot be achieved with a small portfolio of assets.

This is indeed a special area of concern for small companies or smaller blocks of business that need to be modeled.

Implications and Influence of Cash-Flow Testing on Investment Strategy

Years ago, there was almost complete independence of investment staff and product development, pricing, and reserving. This is no longer true or possible.

Older investment practices (much less than strategies) will no longer suffice:

- Expertise of your investment managers
- Keen interest of the chief executive officer or Board chairperson
- The need for capital by a friend in the business.

Cash-flow testing is the catalyst that brings together these two important life insurance company functions. Even without the cash-flow testing requirements, prudent management dictates that investment vehicles reflect the needs of the products they are intended to fund.

New investment strategies need to meet the needs of the business (products) rather than the convenience or comfort of the investment staff.

If you can't model the asset or only model it with great difficulty, e.g., certain derivative instruments, is it an appropriate asset to support your modeled liabilities? We have seen a strong tendency to use such assets to cover capital and surplus, not the liabilities that need to be modeled.

Other regulatory items that force a link between assets and liabilities are:

- The mandatory securities valuation reserve (MSVR) and now asset valuation reserve (AVR).
- The interest maintenance reserve (IMR), forcing a new approach to dealing with capital gains.

- Risk-based capital (RBC), forcing a review of the quality of assets and the level of surplus.
- Investment diversification requirements as well as limitations on certain kinds of assets such as common stock and now junk bonds, are related to the special investment needs of a life company.
- Schedule D, Part 1A, Quality and Maturity Distribution of Bonds.

Examples of significant effect on investment policy are:

- The actuarial opinion was given on the assumption that the company would divest itself of 30% of a certain kind of asset. The written promise of the president was attached.
- We received a copy of a Board resolution recognizing the need for additional reserves because of potential mismatch. Board instructs management to take steps to restructure the investment portfolio to improve its ability to respond to potential varying interest rate environments.

These are only two examples of significant changes going on out there.

More appropriate and better investing may be the most significant and beneficial effect of the cash-flow testing process. Our life industry has a new tool that will enable it to be managed much better.

What are the implications and effect? They are profound and lasting for the better.