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REVISION OF THE STANDARD VALUATION LAW (SVL)

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Recorder: MICHAEL E. MATEJA

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MR. MICHAEL E. MATEJA: The purpose of an Open Forum, as described in the Society's Guide to Meeting Participants, is to encourage broad discussion of a topic. That is precisely our goal -- to get your ideas and reaction to a preliminary report of the NAIC Special Advisory Committee-Valuation Law (SAC-VL) which was widely distributed about two weeks ago.

Our panelists, including myself, are all members of the Special Advisory Committee.

Walter S. Rugland is a consulting actuary with Milliman and Robertson, and his assignment is to put the current effort of the Special Advisory Committee in historical perspective. Walt, as many of you are aware, has been closely associated with the evolution of the valuation actuary concept.

Richard S. Miller is a consulting actuary with Tillinghast. His job is to focus on the major objective of the Special Advisory Committee which is to define the testing responsibilities of the valuation actuary in rendering an opinion about valuation reserves.

James F. Reiskytl is a vice president with Northwestern Mutual Life Insurance Company, and his assignment is to describe some of the Committee's thinking about the Mandatory Security Valuation Reserve (MSVR). In practice, the MSVR is closely related to valuation reserves, and the Special Advisory Committee concluded early in its deliberations that a revision of the MSVR would be necessary to accomplish its goals.

By way of further introduction, let me briefly comment on the history of the Committee and our activities to date. The current Committee is chaired by John Tweedie of the Metropolitan, who incidentally is across the river in Cambridge where he is being indoctrinated with the principles of management as practiced by the Harvard Business School. The Committee was appointed by John Montgomery as a successor to a very large group that was organized in 1987 with a charge to develop a conceptual framework for a new Standard Valuation Law. The 1987 group was co-chaired by Bob Maxon and Carl Ohman, and they were ably assisted by a very large supporting cast with many and diverse points of view. About this time last year, it was recognized that the charge to this original group was truly monumental in scope, and it was clear that there was little consensus. Accordingly, the co-chairmen concluded that they could not respond to their charge within the original time frame, which anticipated submission of their proposal at about this time. The current Advisory Committee has the very narrow charge of defining the testing responsibilities of a valuation actuary in submitting an opinion on valuation reserves. It is envisioned that the present law would be retained and amendments would be made only to the extent necessary to support implementation of the testing responsibility. The group may also consider other housekeeping changes to the valuation law if it proves possible to address such issues by the Spring of 1989 when it is expected that our report will be submitted to the NAIC.

The first meeting of the Advisory Committee took place on February 10th in Washington, and a total of six meetings have been held since. During that time we have defined the broad structure necessary to implement our charge. We have developed a rather simple amendment to the Standard Valuation Law and a regulation that would implement this amendment. The regulation, in turn, relies on standards of practice as promulgated by the Actuarial Standards Board. The recently approved cash flow analysis standard would apply and it is anticipated that another standard would be developed to define alternatives to cash flow analysis techniques. Guidelines for a second standard are discussed in our preliminary report.

There are still many details to be addressed, and this will be the focus of the Committee's work over the next six months. I remind you that this is a preliminary report -- our major purpose here is to expose our current thinking and direction. There are many open issues which will soon be apparent.

MR. WALTER S. RUGLAND: I'm here to talk about actuarial opinions. What is the actuary's opinion with respect to the reserves as stated in the annual statement of a life and health insurance company? First, let's discuss Standard Valuation Law folk history. As I see it, in the old days the Standard Valuation Law dealt with the tradition of ordinary life and industrial life insurance. It defined a methodology for establishing liabilities, and also a methodology for establishing asset values. The liability method included a minimum mortality rate and a maximum interest rate. Essentially it assumed a static economy and expected premium flow for determining an assured solvency expectation based primarily on the notion that the company will never run out of positive cash flow.

At that time, there was no need for an opinion on reserves. The adequacy was built in, and given that all companies were writing ordinary and industrial life insurance at nearly the same rates, everything would be all right.

The first actuarial opinion on reserves appeared in the United States in the mid-1970s. My recollection of that event is that the NAIC decided it would be appropriate to have an actuary's opinion as a part of the annual statement. The instructions to the annual statement blank were amended to include provision for the opinion. The model came from Canada, for the Canadians had recently adopted the valuation actuary concept. The instructions asked the actuary to give five opinions, the most encompassing being that the reserves make good and sufficient provision for future guaranteed benefits.

Soon after, the American Academy of Actuaries (AAA) produced Recommendation 7 as a standard of practice for use by actuaries who were signing the opinions.

I believe that the thrust at that time reflected a feeling, although never documented, of potential erosion in the conservatism underlying the Standard Valuation Law. New product forms were beginning to emerge: Guaranteed Investment Contracts (GICs), term insurance variations such as banding and select and ultimate premiums, etc. Also, group coverage had emerged as a vital factor in life insurance company operations; it was not directly contemplated at the time of the initial structure of the Standard Valuation Law. Then came interest-sensitive products.

The most recent national development with respect to valuation was the 1980 amendment to the Standard Valuation Law. This included the 1980 Mortality Table with a select option. It also included dynamic interest rates segmented by product type and guarantee characteristics. In the report to the NAIC Life, Health and Annuity Task Force, the Technical Advisory Committee, a committee charged with recommending the amendments to the valuation law to the NAIC working groups, said that solvency would not be assured by these new amendments, and the actuary's opinion was critical in the current environment to the validity of the annual statement reserves.

Since 1980, several opinions for actuaries have emerged as part of our repertoire. Indexed interest-sensitive products generated the need for an actuary's opinion established by an actuarial guideline issued by the NAIC, with the Academy following with a standard of practice. Another actuarial guideline established the notion that cash flow testing was appropriate, but it didn't say when and how. It said that regulators could ask for cash flow analysis with respect to certain products, if they chose to do so.

New York State has been the regulatory leader with cash flow analysis in a more detailed approach to valuation with respect to annuities. When the 1980 amendments were adopted in New York, annuity provisions were changed to designate one set of annuity interest rates on a safe harbor basis, but a higher set of interest rates could be used if testing satisfied the Superintendent that those higher interest rates created reserves that were still adequate in view of the company's asset structure. This became formalized in Regulation 126, which applies to annuities; the New York Department is considering similar provisions with respect to other interest-sensitive products.

A California statute has been enacted which gives the Insurance Department authority to ask specifically for an analysis to be done with respect to the reserves in terms of cash flow testing or other ways satisfactory to the Department. If the company chooses to not do the work, the Commissioner is authorized to hire outside professionals to do it at company expense.

In 1980, after the 1980 amendments were adopted, the NAIC and the profession began to think about the valuation law of the future and the role of the actuary in that valuation law. A joint committee was established by the Academy and the Society of Actuaries (SOA) in 1982 to address this issue. It has prepared two reports which focus on the role of the actuary of the future with respect to valuation. The Committee continues to have the responsibility of monitoring activities as well as advising the leadership of the profession on issues involving the actuary with respect to valuation of life insurance companies. The effort has been to define an approach which would satisfy the environment of the life insurance business as it was expected to be in the future. The focus has been to try to define the actuary's role, assuming there is one. Initially, research was emphasized; the C-3 Task Force began to work on identifying the risks involved in interest rate fluctuations, and overall, the profession's understanding of risk was enhanced.

Basic to this research was the realization that in the future the life insurance business would compete not only within itself, but also with other businesses anxious to use policyholder disposable funds. Also, the opinion of the actuary was at the heart of any discussion with respect to future modification of the valuation law.

With that background and with the prior introduction as to how the existing Special Advisory Committee on the Valuation Law came into being, it is appropriate to look at unique features of the Committee's preliminary proposal. The proposal maintains formula-based reserves as a minimum. But, it's not to be assumed that the formula-based minimum reserve is adequate. The proposal requires that an opinion from a qualified actuary accompany the annual statement; that opinion states that the reserves and the assets which support those reserves are adequate. The qualified actuary would need to be a member of the Academy and subject to its rules and discipline, including qualification in terms of the Academy's qualification standards for rendering the opinion.

The actuary would also be required to prepare a memorandum or report for management in support of the opinion; the report would be confidential within the company, and not submitted with the opinion; it would be available to regulators similar to the regular confidential examination process which can be called into play by the regulators at any time.

The proposed statute would protect the actuary from professional liability from other than the company or the regulators involved, essentially saying the actuary is working for these two bodies and should not have to deal with nuisance legal activity from outside that framework. It establishes that the Actuarial Standards Board will be the source of standards of practice for reserve adequacy analysis.

As a part of the proposal, the Committee has drafted a proposed opinion. The draft indicates that the actuary state among other items:

> I am a member of the American Academy of Actuaries. I was appointed by the corporate appointer. I meet the Academy qualification standards and am familiar with the valuation laws of (the state of domicile). My examination included such review of the actuarial assumptions and actuarial methods, and such tests of the actuarial calculations as I consider necessary. In my opinion, the contract reserves and other actuarial items resulting from the products identified above

are computed in accordance with commonly accepted actuarial standards consistently applied and are fairly stated in accordance with sound actuarial principles, and are based on actuarial assumptions which produce reserves at least as great as those called for in any contract provision as to reserve basis and method and are in accordance with all other contract provisions. The specific assets held by the company in support of such reserves make appropriate provision according to presently accepted actuarial standards of practice for the anticipated cash flows required by the contractual obligations and related expenses of the company. This opinion will be updated and it's only as good as the data that I had at the time I make the opinion.

The proposal also indicates how an opinion would be qualified if the actuary believed it should be.

MR. ROBERT H. DREYER: I am concerned about the confidentiality of the actuarial report that you described. We've seen a lot of legal maneuvering to try and get more and more of the NAIC records into the public domain. Even though this report supposedly stays with the company, are we going to be able to protect it?

MR. RUGLAND: I think that the ability to protect the report is a political issue rather than an actuarial issue, but the Committee firmly believes that the confidentiality of the report must be protected to be effective.

MR. JOHN O. MONTGOMERY: In the event that the report is required by the regulators, it would become part of the examination papers. In California, these papers are confidential. In other states, they may not be confidential. In the event of an insolvency, these papers would become public in all states.

MR. RICHARD S. MILLER: The opinion Mr. Rugland described refers to documentation contained in a report to company management. That report is expected to describe the results of the testing made of the reserve adequacy, describe the type of testing chosen for the significant blocks of reserves and describe the justification of the decision to employ less rigorous tests than multi-scenario cash flow testing where such less rigorous tests were employed.

The Committee has extensively discussed in general terms the considerations that would determine whether the valuation actuary must test reserves before rendering an opinion on asset adequacy. The Committee reached agreement that its near term objective should be to develop the means for determining what kind of testing (if any) applies to various products based on the types of risk involved. The proposed amendment to the Standard Valuation Law, and more particularly the model regulation, should give the Actuarial Standards Board the central role in formulating standards to guide the valuation actuary.

The following are the main ideas which emerged:

- o The form and intensity of testing should be a function of risk. In general, greater risk suggests more comprehensive testing.

- o Although the valuation actuary needs to understand and quantify risk, risk by its very nature is not easy to understand and quantify. Liability risk is often better understood than asset risk, at least by actuaries. It can be quite difficult to understand asset risk since assets may be subject to call under stress in certain economic scenarios. It is particularly difficult to understand and quantify risk at its extremes, which are associated with catastrophe. For this reason, the focus of valuation reserves should be on non-catastrophic levels of risk. Also, new products and new forms of investment can be expected to introduce new and/or unusual risks for the valuation actuary to deal with.

- The nature of needed testing depends on the nature of the risk; in the case of certain risks, even though large, the risk is well understood and the appropriate strength of the reserve can be demonstrated without cash flow testing. AIDS extra mortality may be an example of such a risk.

- Multi-scenario testing becomes particularly important in cases where it is not clear what types of deviations from expected experience are adverse. The interest rate risk frequently falls into this category.

- Materiality is an important factor in considering whether testing for a particular risk is needed and how comprehensive the testing should be.

After further discussion, a consensus appeared to support an approach that would generally presuppose analysis of the underlying asset and product cash flows. However, the valuation actuary should make a judgement based on the risks involved in a particular product or line of business as to what testing basis or technique for determining asset adequacy is appropriate. The actuary should document in a memorandum why the chosen method is appropriate to the situation, especially as compared to multi-scenario cash flow testing.

It was further agreed that the standards should provide guidance as to the circumstances in which normal actuarial practice would require multi-scenario cash flow testing and those in which it would not. As a working hypothesis:

> Multi-scenario cash flow testing is normally needed for business with book value withdrawal rights prior to maturity and for fast-growing blocks of business.

Multi-scenario cash flow testing might ordinarily be required for the following:

- Business with significant reinvestment risk (such as long deferred annuities or structured settlements supported by intermediate duration assets).

- Business backed by an asset strategy that isn't coordinated with liabilities.

- Business where the risk is not well understood.

- Business where the reserve equals the policyholder fund, and the fund is available at book value, i.e., where the reserve provides no safety margin over a demand obligation.

Cash flow testing might be deemed unnecessary for:

- Seasoned blocks of business (a) without policyholder withdrawal options, where there is a history of reasonable earnings or (b) similarly profitable blocks with withdrawal options but SVL reserves much larger than the cash value.

- o C-1 risk, to the extent such risk is provided for through the MSVR.
- o Some C-2 risk (if the actuary can readily make a judgement as to whether and to what degree reserves have to be strengthened). Provision for AIDS may be a case in point.
- o C-4 Risk. This risk is generally beyond the capacity of the profession to quantify or analyze.
- o Reinvestment risk, where it can readily be determined that the reserves held exceed a reserve calculated on the basis of a discount rate starting at a currently reasonable level and declining to a clearly conservative level.
- o Blocks of business which have not changed materially since the reserves were tested in a a previous year, with due regard for the degree of comfort provided by the previous testing.

In some instances, the actuary may be able to make an assumption/methodology review to determine whether the assumptions underlying the current reserves were so conservative that there would be no benefit to cash flow testing.

One major assumption developing within the SAC-VL Committee is that the C-1 risk will be dealt with elsewhere, presumably by a new approach to the MSVR. For the time being, the consensus is that we should assume that we can rely on the MSVR unless there is some reason to suspect that a deficiency exists. Mr. Reiskytl will cover this aspect later.

The Committee is tending toward a materiality standard which leads to the same reserve adequacy conclusion regardless of the company within which the risk resides. Its tentative materiality statement is as follows:

> A risk is material if its presence or absence results in significantly different probabilities of aggregate reserve adequacy. Similarly, an approximation has a material effect if its use may result in a significantly different probability of aggregate adequacy.

Consistent with the attempt to focus on reserve adequacy, the opining actuary should resist any inclinations to judge materiality with reference to the amount of surplus or the proportion of surplus to total assets. At extremes of surplus position the opining actuary may not be able to resist the inclination.

There is a broad category of business where the insurer has assumed risk, but where a demonstration can be made that experience will almost certainly be less severe than provided for in the statement reserve. For example, the typical Accidental Death Benefit (ADB) plan will fall in this category. A demonstration would consist of a comparison of actual and tabular mortality and confirmation that interest earned on the assets will exceed tabular interest with a high degree of probability. It is even possible that products with C-3 risk could fall into this category. An example is traditional participating industrial insurance. Here the analysis would probably show that the probability of a significant increase in lapses due to a rise in interest rates is very low and that the dividend interest margin is sufficient to accommodate any reasonable drop in interest rates.

For short-term products there are techniques which quantify deviations from expected values without the use of scenario testing. Such risks usually involve a small number of large individual claims over a short-term period. These techniques are described in various texts on Risk Theory.

C-2 risks in products such as disability income may appropriately be analyzed using statistical techniques to quantify the risk. However, C-3 risk is normally also present.

The C-3 risk may be present in varying degrees. If assets and liabilities are kept closely matched and the company has not granted options to policyholders (such as cash surrender option on life insurance) or borrowers (such as a bond call option or a mortgage prepayment option), then a satisfactory demonstration of reserve adequacy may be developed without multi-scenario testing by showing the similarity of asset and liability duration together with a schedule showing rough comparability between asset and liability cash flows. Some structured settlements and GICs fall into this category. Products incorporating options may fall in this category to the extent that protective hedges have been secured.

Where unhedged options have been granted to policyholders or borrowers and the likelihood of antiselection in the exercise of these options is significant, or where assets and liabilities are not closely matched, conventional actuarial wisdom indicates that multi-scenario cash flow testing is needed. Standards for such testing can be found in the Actuarial Standards Board document "Recommendations Concerning Cash Flow Testing for Life Insurance Companies." This category contains business having a combination of C-2 and C-3 risk as well as products with only C-3 risk.

There are important categories of business where quantification of the risks is very difficult and involves a great deal of subjective judgement. New lines of business provide an important example. Additional examples include major medical business and plans where renewal profit margins are highly sensitive to competitive pressures. Here a demonstration of reserve adequacy will rely heavily on a sensitivity analysis.

MR. ARDIAN C. GILL: I'm not sure this applies directly to testing but I think it's related. The Guertin Committee went to great lengths to sever cash values and nonforfeiture benefits from reserves and the Unruh Committee did the same. The success was somewhat indifferent, I think, because reserve strengthening in the 1940s did result in mandated increases in nonforfeiture benefits. It seems to me that with cash flow testing and the valuation actuary concept, we have the opportunity to sever that connection once and for all. For example, if tests show that additional reserves were required or the valuation actuary decides to set up an AIDS catastrophe reserve, that should not affect nonforfeiture benefits. Has the Committee given any thought to this?

MR. MATEJA: I cannot recall any discussions within the Committee on this issue. I personally have assumed that putting up additional reserves for whatever reason would not produce additional cash values.

MR. JAMES F. REISKYTL: I believe the Committee's view of reserve strengthening does not anticipate assigning such strengthening back to individual policies. Instead, the strengthening would be an aggregate lump sum which is added to the minimum reserves that are developed by factors.

Our report does not go into the expected accounting treatment of any additional reserves that might be called for by this analysis, but I believe some form of aggregate accounting is possible.

MR. MONTGOMERY: It's my understanding the linkage between cash values and reserves has been removed for good. There is also a group, chaired by Walter Miller, working on revision of nonforfeiture laws. The report of this group also stresses the need to separate nonforfeiture benefits from valuation reserves.

MR. MATEJA: I am a member of the Miller group, and I can confirm that there is no intent to link valuation reserves and nonforfeiture benefits.

MR. REISKYTL: When you get a chance to read the draft of our Committee's preliminary report that although we have made real progress on reserves, our thinking on the MSVR is still in the conceptual stage -- although, I must hasten to add, it is and always has been an integral part of our new valuation framework! As Mr. Mateja noted earlier, the Committee concluded early in its deliberations that a revision of the MSVR is necessary to accomplish our objectives.

I'd like to briefly review the current MSVR, its purpose, some of its shortcomings, and current company actions to put things into perspective.

The two major purposes of the current MSVR are (1) to provide for default risk for certain classes of investments, and (2) to stabilize surplus by absorbing capital gains and losses on those investments. This eliminates the swing in surplus that would otherwise occur.

It's time to take a fresh look at this reserve considering the many changes that are occurring: equity pricing, managed tax gains and losses, high-yield bonds, etc. Mortgages, real estate and other invested assets, such as limited partnerships and oil and gas investments, are not included although defaults and losses have occurred and today these investments may make up a substantial portion of a company's total investments.

Some analysts believe the current MSVR is a reserve; others believe that it is really allocated surplus; and others believe that it is both.

Now, before you make up your mind if you haven't already done so, let me ask you a question. You are the valuation actuary reviewing the reserves for a block of GIC business supported by 12% publicly traded bonds. Everything is okay. Then half the bonds are sold in an 8% market. The emerging capital gains are needed to support the reserves. Yet under the current rules all of these gains are absorbed by the MSVR. Is the MSVR a reserve or surplus? Clearly, whatever it is, part of the MSVR must be included in reserves to determine their adequacy.

There is no clear-cut line between reserves, contingency reserves and surplus. The Committee on Life Insurance Valuation Principles suggested that minimum statutory reserves should "include presumed margins in interest rates and benefit rates at levels to cover reasonable deviations from expected" -- an excellent concept, but there is little agreement on where to draw that line! Our Committee believes that conceptually the MSVR and reserves must be considered together. Our Committee tentatively concluded that all C-1 risks -- that is all losses due to default on fixed dollar investments -- and market value changes in equity investments should be dealt with in the new MSVR.

So much for background: What's the proposal that's being considered? This proposal at this point is conceptual -- the structure is being presented for discussion purposes only, not as a recommendation -- although ultimately we will be making a recommendation. We encourage comments and reactions!

The new MSVR would continue to use factors or formulas to determine the reserve. All assets would be covered. New factors haven't been determined, and we recognize that much work remains after we agree on the general concept. The new MSVR would consist of two components -- the basic component that would be above the line, and an additional component that would be below the line.

The basic component would consist of a stabilization component and a default component. For all assets supporting liabilities, all capital gains and losses, other than gains or losses on real estate, would be credited or charged to the stabilization component. Real estate is excluded because of the double hit. (Unrealized gains aren't reflected currently so deferring realized gains would be like a double deferral.) Defaults are treated like a capital loss. Real estate gains and losses would continue to go directly to surplus.

If all capital gains/losses are added to the MSVR, companies couldn't manipulate surplus or earnings by timing and selection of sales. That's either advantageous or disadvantageous depending on one's perspective.

The stabilization component would be systematically amortized through the gain from operations. One possibility is at 5% per quarter or 20% per year which would spread all gains and losses over a limited period. Logically, we believe that capital gains should be spread over the original life of the assets. For most bonds and mortgages this is fairly easy to do. It isn't quite as clear if they were purchased as short-term investments (like a commodity) -- but determinable. What about common stock? Some suggest that common stocks should be spread over, say, six years; others suggest that one should take gains or losses immediately! The latter believe that since the gains are realizable daily -- buying and selling -- they should be recognized immediately. Those favoring a longer spreadout argue that this smooths out fluctuations in the market and various cycles. I believe that's the way it's done in Canada. Each viewpoint has merit; more discussion is needed.

There are two major viewpoints within the Committee on defaults, or C-1 risk. Some believe that you should set up the full amount now prospectively for all investments held. Obviously, if you don't have adequate funds on hand to cover the risks within a short period of time, you have a concept but you don't have a buffer to surplus. This probably should work both ways -- when the risk diminishes the funds should be freed up also!

Others are concerned about the impact on surplus if the full MSVR has to be set up immediately. They believe this requirement seems to focus on the volatility of equity values -- not on the actual default risk. They argue that such a requirement would be excessive citing the 1987 C-1 Task Force report that usually defaults don't happen instantly -- Penn Central being the notable exception -- and most are worked out for something considerably less than full amount over the next few years. They believe the target amount should be achieved gradually -- and prefer amortizing this amount over a relatively short period such as three to five years.

High yield or junk bonds could be handled by requiring the company to set aside a portion of the yield each year in the MSVR -- since the higher yield is due in part to the higher C-1 risks. This treatment would permit more companies to make these investments. Furthermore, the immediate full recognition alternative creates just the opposite impact as that achieved by the stabilization component.

Each argument has merit -- full recognition might render a rapidly growing company insolvent. Amortization might allow a thinly capitalized company to assume too much C-1 risk. We are currently considering a compromise that involves earmarked surplus.

The full target amount of the default component will be determined prospectively. All assets including mortgages, real estate, and Schedule BA assets (mentioned earlier) would be included. The basic component of the MSVR would include the actual MSVR held at the statement date. The unamortized remainder would become an additional component held below the line as earmarked surplus. A company with actual surplus less than the additional component would be required to restrict its operations, change investment risk, or come under supervision.

POSSIBLE MSVR STRUCTURE

Stabilization (capital gain/loss amortization)	Default (amortized component)	---	Basic Component (Liability)

Default (unamortized component)	---	Earmarked Surplus

This diagram shows the components of the MSVR based on our latest proposal. The basic component consists of the stabilization component and the amortized portion of the default component. By the way, these two pieces equal the MSVR under one approach we have considered. The unamortized portion of the default risk is the second or additional component of the MSVR. It is earmarked surplus. As amortization occurs, the upper default box becomes larger and the lower one smaller. New investments would increase the lower box. The sum of the two default components reflects the full prospective default reserve.

The stabilization component could be negative (fixed income capital losses) but only up to the amount in the basic default component. In other words, the basic component could not be negative.

Capital gains and losses are amortized directly to gain from operations. Changes in the default component go directly to surplus.

The valuation actuary would assume that the present value of default equals the target default level. If the asset backing reserves and the basic component of the MSVR were inadequate to discharge liability, the additional component could be transferred immediately to the basic component. That's the concept we are currently considering. We recognize that much more needs to be done, but we are generally enthusiastic with the structure.

MR. GILL: I think what you're doing on the MSVR has a lot of promise. You should recognize, however, that amortization of capital gains may not always be the solution. Certain actuaries have been designing products with market value adjustments. The concept is that if interest rates change, then the value of the underlying assets will change and you will have the funds if policyholders request cash. You won't necessarily have the money under the proposal you have outlined, since realized capital gain would be diverted to the MSVR. This peculiarity actually caused a small company in the Midwest to be near insolvency. This may be a problem of product design rather than the MSVR, but I mention it in the event that you can address it in your changes.

MR. MATEJA: I think the ideal amortization process would be to amortize gains and losses over the term of the original investment. In the circumstance that you just described, it is apparent that the company needs all of the gains immediately. It may be possible to develop a procedure so that in circumstances as described there could be an immediate release. The goal of the Committee is to recognize that these gains and losses are not surplus; they are needed to mature obligations and should be available for that purpose. If the obligation is immediate, then it follows that the gains should be released immediately.

MR. MONTGOMERY: The NAIC is very much interested in the Committee's work on the MSVR. Anything you can do to help us to make the MSVR more effective would be greatly appreciated.

I would like to make an additional comment about actuarial opinions and reports becoming public. The only circumstance where such reports need to be public is after a court order in connection with an insolvency. This is exactly what happened with Baldwin United. All of the projections and supporting data were made part of the court records, and thus became public. The actuary's memorandum similarly could become a public document.

The *Insurance Forum* recently had an article about Executive Life. This is an example of the problems we have with examinations and releasing information. The information in this case was all confidential and so far it has not been released.

MR. MATEJA: There has been lot of discussion at this meeting about the future of the actuary and the actuary of the future. Mr. Rugland, do you have any comments or thoughts about how the Committee's proposal meshes with the overall direction of the actuarial profession?

MR. RUGLAND: I think the direction with respect to the role of the actuary is to find ways in which the actuary can assume more professional responsibility that is of value not only to the client but also to the public. In this instance, the client and the public are defined in my mind as the management of the company and the regulator who relies on the opinion. I think the Committee has done a lot of work in trying to meet that objective while at the same time adequately protecting the actuary and allowing the actuary to focus on the job at hand as opposed to dealing with a lot of external details that cloud the issue with regard to the opinion on reserves.

MR. ROBERT J. CALLAHAN: Regarding the *Insurance Forum* article on Executive Life, I have some specific information. There was a transcript taken during the course of an examination with a New York company. At first the material was considered confidential, and a request for the transcript was denied. Upon appeal, it was decided that a certain amount of the material could be released. First, 3200 out of 5200 lines were turned over. There was a further appeal made and 1000 additional lines (4200 in total) were released. All released material was printed in the *Insurance Forum*, and there were indications as to where lines were left out. As a result we incorporated into our proposed revised Regulation 126 a warning that both the actuarial opinion and memorandum could be subject to public inspection. This would be the case even if at the time of submission a request had been made for confidentiality in accordance with the regulation on confidentiality. The new regulation also points out that any subsequent supporting material may become a public record of the Department and the request for confidentiality must be made at the time of submission of such additional material.

As a matter of practice, we have been able to keep confidential those memorandums for which companies have requested confidentiality. So far we have had one request for an appeal of such a decision. That appeal was also denied. If we were forced to make the memorandums public, I think as a matter of actual practice it would be taken up with the company making the submission, and presumably there would be lines deleted.

Mr. Reiskytl, frankly I didn't understand the example where you swapped 12% bonds for 8% bonds. What were you doing with that capital gain?

MR. REISKYTL: The example is exactly what's happening with the current MSVR. If you sell 12% bonds and reinvest the proceeds in an 8% market, the gain would go to the bond component of the current MSVR. Therefore, the gain wouldn't be available to strengthen the underlying reserves unless you recognize the MSVR as a part of the reserve that's supporting the block of business.

MR. CALLAHAN: Our current regulation has been interpreted as requiring a double hit in that situation. The first hit occurs when the capital gain goes into the MSVR (if the MSVR is not at the maximum), and the second hit occurs when the gain is used to strengthen the reserve. I have been an advocate of revising the MSVR rules so as to give the priority first to strengthening the valuation reserves in such circumstances.

Our new proposed Regulation 126 will say that you can provide for the C-1 risk by making a deduction from the earned interest. Alternatively, if a company has a large MSVR, and if the actuary could demonstrate that it is sufficient to cover all future C-1 risks, it would not be necessary to make a deduction from the earned rate of interest.

MR. MATEJA: I think that implicit in the Committee's recommendation is the idea that the amortization component of the MSVR should be available to support any opinion about the adequacy of assets to mature obligations.

MR. GILL: About ten years ago the NAIC commissioned a study of a potential MSVR for casualty companies. The consulting firm that did the study came up with the recommendation that a casualty MSVR not be established. Obviously, casualty companies also have the default risk. Have you reviewed that study? Do you know the rationale for casualty companies treating the default risk differently than life companies? Maybe the idea of the MSVR for life companies ought to be totally re-examined with the possibility of eliminating it.

MR. MATEJA: I think there's a conceptual issue here that I might be able to clarify. If the valuation actuary must consider C-1 risks in forming an opinion about valuation reserves, there are two routes available to reflect C-1 risks. On the one hand, the basic valuation reserve could directly reflect C-1 risk so that the determination of the reserves that we now have in annual statement Exhibits 8, 9, etc., would provide for C-1 risk. Alternatively, annual statement reserves could exclude consideration of C-1 risk, but then the C-1 risk must be reflected in the MSVR. The Committee chose that latter approach largely because of the historical precedent. We also think that there is a regulatory affection for the MSVR that would be hard to overcome.

Conceptually, if the valuation actuary established a C-1 component in the basic valuation reserve, the amount required for the C-1 risk should be the same amount that would be set up in the default component of the MSVR as we're envisioning it. The amortization component would strictly deal with capital gains and losses. In any event, I will see to it that the Committee reviews the casualty reports referenced by Mr. Gill.

MR. MONTGOMERY: I think if we were to revisit the casualty MSVR issue now in light of the problems with reserves for long-tail benefits, we might arrive at a different conclusion.

MR. MATEJA: Mr. Callahan raised the issue of Regulation 126, which at this point is unique to New York. Perhaps it would be worthwhile to consider how the Committee's recommendations relate to Regulation 126.

MR. MILLER: One fundamental difference relates to cash flow testing requirements. Right now, Regulation 126 requires cash flow testing. Our recommendations recognize that there are variable alternatives to cash flow testing.

MR. CALLAHAN: Regulation 126 pertains to annuities and GICs, where the need for cash flow testing was first recognized. However, Regulation 126 also recognized that there are various blocks of annuities for which no cash flow testing need be made. The area that it did not cover, the life insurance area, is an area where it was felt that cash flow testing was not critical at this time. However, there are certain types of life insurance products where cash flow testing would be called for. The regulation now incorporates single premium life, which some people have likened to single premium deferred annuities.

MR. RUGLAND: There are a couple of other important differences between Regulation 126 and the Committee's recommendations. First, consider the report, or the memorandum as it is referred to in Regulation 126. The report would stay in the company as a management memorandum as opposed to it being submitted to the Insurance Department. Second, the standard of practice, essentially the "how do you do this" document, would be developed by the Actuarial Standards Board as opposed to being a bulletin that comes from the Insurance Department. A third would be that it covers all lines. A fourth would be that there is no option to set up a penalty reserve and forget the report. You need to have the actuarial opinion, and the actuarial opinion needs to follow the standard of practice as outlined by the Actuarial Standards Board. I think those are the major differences, but the concept is not dissimilar from the Regulation 126 concept.

REVISION OF THE STANDARD VALUATION LAW (SVL)

SPECIAL ADVISORY COMMITTEE
ON THE STANDARD VALUATION LAW
Draft Preliminary Report
October 6, 1988

The current Special Advisory Committee on the Standard Valuation Law (SAC/VL) was appointed by John Montgomery, Chairman of the NAIC Life and Health Actuarial Task Force. A prior special Advisory Committee had been considering the rather broad charge of developing "a conceptual framework for a new Standard Valuation Law." The group developed several useful reports on subtopics of the overall charge but concluded that "given the wide diversity of views represented," it wasn't likely that their charge could be met in a desirable time frame. Mr. Montgomery asked the Chairpersons, Robert Maxon and Carl Ohman to define a narrower near term charge that could be attained within an agreed upon time period. The charge recommended by Messrs. Maxon and Ohman formed the basis for the following charge to the current SAC/VL:

> The committee will develop a draft of a model law and accompanying regulations that would require each company to submit an acceptable opinion by a qualified actuary, supported by an appropriate memorandum describing the basis of such opinion, as to the adequacy of certain specified reserves, and the assets supporting such reserves. This draft will be available for discussion in May 1989.
>
> The committee's assignment involves three classes of issues:
>
> 1. What is the focus of the new requirement? For example, the form of the opinion and memorandum, specific classes of reserves covered, and the tests deemed sufficient to support an opinion as to reserve adequacy.
>
> 2. What administrative framework is needed? For example, how states and NAIC can staff to administer requirements, and how regulators are to be satisfied that opinion and memorandum are acceptable.
>
> 3. What legal framework is needed? For example, what changes in model laws and what model regulations.

The members of the current Committee are:

Robert M. Chmely
Michael E. Mateja
Reed P. Miller
Richard S. Miller
James F. Reiskytl
Walter L. Rugland
Donald R. Sondergeld
John H. Tweedie (Chairman)

In addition, Richard Minck, John Montgomery and Roy Woodall agreed to observe the deliberations of the Committee and act as liaison between the Committee and their respective constituencies. Overall, participants were selected with an eye toward reflecting the views of a broader group of companies, particularly smaller companies.

We recognized the desirability of obtaining input from as wide an audience as possible as well as from persons serving as liaison. It was agreed that as materials were developed they would be made available to persons who served on the former SAC/VL under the chairmanship of Robert Maxon and Carl Ohman. In addition, appropriate committees of the Academy of Actuaries and the Society of Actuaries would be kept informed and ways would be sought to publicize our deliberations in other ways such as through discussions at actuarial meetings.

Six meetings have been held. Copies of the approved Minutes have been widely circulated.

John Tweedie moderated a panel at the Boca Raton meeting of the SOA in June 1988 and, along with Mr. Mateja, as one of the panelists, reported on the activities of the SAC/VL. Mr. Mateja will moderate an Open Forum at the Boston Society Meeting in October 1988 at which he and Messrs. Richard Miller, Reiskytl and Rugland will present a comprehensive overview of the Committee's work to date. It is planned that this report will have been distributed by then and that copies will also be made available at the Session. Richard Miller also gave an oral report at the Valuation Actuary Seminar in September.

MAJOR OBJECTIVES
At an early stage, we agreed that the initial work of the Committee would center on what kinds of analyses should be performed to support a meaningful opinion "as to the adequacy of certain specified reserves and the assets supporting such reserves" as reported in statutory statements in the United States. We also agreed that our work must be limited to the main thrust of the charge which was to develop a framework in law and regulation under which actuaries could provide such an opinion. Other valuation issues such as whether current reserve bases needed revision or whether the current use of Moody's Index should be reconsidered are not a part of this initial focus. They are appropriate for consideration only after essential completion of the main charge is assured. We also recognized that, in accordance with our charge, we should only be concerned with the adequacy of reserves. While recognizing that in some instances it would be difficult to separate this from the closely related consideration of surplus, the Committee agreed that the general consideration of surplus levels was outside the charge.

STANDARD VALUATION LAW AND REGULATIONS
The charge specified the development of a model law and model regulations related to an opinion and memorandum. We agreed that, even if we were inclined to consider the level of reserves currently specified by the Standard Valuation Law (SVL), we could not realistically do so and expect to achieve our basic charge in a reasonable time frame. It was thus agreed that the Committee should initially assume no change in the statutory minimum reserves which are currently specified in the law.

A consensus was also reached that it would be desirable to keep the detail specified in the law to a minimum and that maximum flexibility would be achieved by putting necessary details in insurance department regulations which could be changed more readily if desired.

It was also agreed that it would be desirable to keep the actuary's statement of opinion as concise as possible. Detailed justification for the opinion, including descriptions of analyses performed, would be set forth in a separate supporting memorandum. Since it was likely that the detail in the memorandum might include items which could be considered to be privileged information, the memorandum would not actually be filed but would be a confidential document maintained in the company's files but available for examination by the regulators.

Upon receipt of a valuation actuary's opinion, the regulator would either accept the opinion or ask to review the actuary's report. After reviewing the report, the regulator would have three main options: accept the opinion, require additional analysis or commission a review of the valuation actuary's work. Any such review would be contracted for by the regulator but paid for by the company.

We discussed at length the issue of aggregation of the reserves of several products for purposes of the actuary's opinion. Our conclusion is that aggregation is appropriate to a certain extent so long as the aggregation encompasses somewhat homogenous groupings. Our suggested model regulation specifically permits aggregation within each of life, health and annuity product groups, but requires that aggregation, to the extent utilized, be based on consistent methodology and approach to analysis. We recognize, however, that further consideration will be needed to develop practical procedures.

We also discussed the possibility of expressly limiting the liability of the opining actuary. We believe that the actuary should only be accountable to the management of the company and the regulators and we have worded the suggested model law to reflect this belief.

The Committee felt that it would be important to specify that the standards to be followed by the opining actuary would be those developed by the Actuarial Standards Board (ASB) of the American Academy of Actuaries. We also agreed that it would be preferable to have the law provide that only a member of the American Academy of Actuaries may be an actuary qualified to render the opinion. This was desirable in order to be able to benefit from the Academy's disciplinary process, which would be difficult to attempt to apply to nonmembers.

Drafts of the suggested amendment to the law and a suggested model regulation are attached.

BASIS FOR STANDARDS DEVELOPMENT

The Committee developed the following basic set of distinguishing characteristics as a point of departure for standards.

- The form and intensity of analysis of reserve adequacy should be a function of risk. In general, greater risk suggests more comprehensive testing.

- Although the actuary who is analyzing reserves needs to understand and quantify risk, it is recognized that risk by its very nature is not easy to understand and quantify. It is particularly difficult to understand and quantify risk at its extremes, which are associated with catastrophe. For this reason, the focus of reserves should be on non-catastrophic levels of risk. Surplus is held to deal with the extremes of risk. Also, new products and new forms of investments can be expected to introduce new and/or unusual risks for the actuary to deal with.

- o The need for testing depends on the nature of the risk; in the case of certain risks, even though large, the risk is known and the adequacy of the reserve can be demonstrated without cash flow testing. Testing becomes particularly important in cases where it is not clear what types of deviations from expected experience are adverse. The interest rate risk frequently falls into this category.

- o Materiality is an important factor in considering whether testing for a particular risk is needed and how comprehensive the testing should be.

As to the specific methodology to be used by the actuary, particularly with respect to multi-scenario cash flow testing, the Committee developed the following hypothesis:

1. Multi-scenario cash flow testing might ordinarily be required for the following:

    a. Business with significant reinvestment risk (such as long deferred annuities or structured settlements supported by intermediate duration assets).

    b. Business backed by an asset strategy that is not coordinated with liabilities.

    c. Business where the risk is not well understood.

    d. Business where the reserve equals the policyholder fund, and the fund is available at book value.

    e. Fast growing blocks of business.

2. Cash flow testing might be deemed unnecessary for:

    a. A mature block of business which, over time, has proven itself to be insensitive to changes in economic conditions.

    b. The default risk (C-1), to the extent such risk is provided for through the MSVR.

    c. Some of the risk of experience deterioration not anticipated in pricing (C-2), other than investment risks (if the actuary can readily make a judgment as to whether and to what degree reserves have to be strengthened).

    d. The risk of management incompetence or fraud or external events outside the control of management (C-4).

    e. Reinvestment risk, where it can readily be determined that the reserves held exceed a reserve calculated on the basis of a conservative declining interest rate scenario and prescribed mortality table.

    f. Blocks of business which have not changed materially since the reserves were tested in a previous year, with due regard for the degree of comfort provided by the previous testing.

3. The composition of assets supporting reserves (e.g., heavy common stock investments) may indicate a need for cash flow testing.

4. In some instances, the actuary may be able to make an assumption/methodology review to determine whether the assumptions underlying the current reserves were so conservative that there would be no benefit to cash flow testing.

5. The actuary should be able to take into account materiality.

   The concept of "materiality" came under considerable discussion in considering the framework to be provided to the Actuarial Standards Board as a basis for developing standards. Should it be expressed in terms of total assets, reserves or surplus? To be consistent with the Committee's decision to restrict current considerations to the adequacy of reserves it was agreed that total reserves would be the appropriate point of departure.

FRAMEWORK FOR STANDARDS DEVELOPMENT

Based on the above characteristics and hypotheses, we developed the following framework to provide the Actuarial Standards Board with a set of distinguishing characteristics which can be used to develop minimum standards for the analysis needed to support the valuation actuary's opinion as to adequacy of reserves.

The actuary's opinion is rendered with respect to the aggregate reserves. The level of aggregation is determined by the actuary subject to whatever constraints are imposed by regulation.

A statement that the reserves are adequate means there's a high probability that cash flow generated by the assets supporting the reserves will be sufficient in the aggregate to mature the underlying contractual obligations and related costs. This doesn't imply that reserves must be sufficient to mature these obligations under catastrophic conditions. Such conditions should be covered by surplus.

There is a wide array of techniques that can be used to support the actuary's statement. These run from simple a prior arguments based on the contractual provisions to full blown multi-scenario cash flow testing.

This framework contains principles and suggestions for selecting those techniques which are most appropriate in a particular situation.

1. The type and depth of the analysis should be related to both the type and severity of the asset and/or reserve risks. The actuary must choose the level of refinement to be used in the analysis. It is only necessary to refine the analysis to the point where, in the judgement of the opining actuary, further refinement would not result in an altered opinion as to reserve adequacy.

2. The actuary's responsibility begins with an identification of the risks to the insurer. In considering the adequacy of reserves, the actuary will generally exclude the more extreme levels of risk. Further, consideration of reserve adequacy is generally limited to those risks referred to in actuarial literature as C-1, C-2 and C-3 risks, where

   C-1 Risk: Losses due to defaults in fixed dollar investments and market value changes in equity investments.

C-2 Risk: Losses due to increase in benefits and expenses, and pricing insufficiencies, other than those from C-1 and C-3 risks.
C-3 Risk: Losses due to changes in the interest rate environment (e.g., disintermediation, reinvestment, intermediation).

Of these three categories of risks, one, the C-1 risk, is assumed to be covered by the MSVR, while the other two, C-2 and C-3, are covered by the basic policy reserves.

3. Consideration will be needed to deal with risks that may not fit into these categories; in general, other risks, as well as the extreme levels of the C-1, C-2 and C-3 risks, are outside the scope of this document, and to the extent possible, should be covered by surplus rather than by reserves.

4. While all of these risks may be present in the same product, there are products where one or more of the risks are not present or exist to only a negligible degree. A satisfactory analysis may consist of documentation demonstrating that the risk is in fact negligible. In some situations, a description of the business should be sufficient, e.g., separate account without any guarantees. However, most insurance business requires some analysis of past or projected experience.

5. There is a broad category of business where the insurer has assumed risk, but where a demonstration can be made that experience will almost certainly be less severe than provided for in the statement reserve. For example, the typical ADB plan will fall in this category. A demonstration would consist of a comparison of actual and tabular mortality and confirmation that interest earned on the assets will exceed tabular interest with a high degree of probability.

   It is even possible that products with C-3 risk could fall in this category. An example is traditional participating industrial insurance. Here the analysis would show that the probability of a significant increase in lapses due to a rise in interest rates is very low and that the dividend interest margin is sufficient to accommodate any reasonable drop in interest rates.

6. For short-term products there are techniques which quantify deviations from expected values without the use of scenario testing. Such risks usually involve a small number of large individual claims over a short-term period. These techniques are described in various texts on Risk Theory.

7. For products such as disability income or medical expense reimbursement, variations in benefit or expense experience (C-2) may arise from uncertain secular trends in experience. These variations may appropriately be analyzed using statistical techniques applied to historical data to quantify the risk.

8. The C-3 risk may be present in varying degrees. If assets and liabilities are kept closely matched and the company has not granted options to policyholders (such as cash surrender option on life insurance) or borrowers (such as a bond call option or a mortgage prepayment option), then a satisfactory demonstration of reserve adequacy may be developed by showing the similarity of asset and liability duration together with a schedule showing comparability of asset and liability cash flows. Some structured settlements and GICs fall into this category.

9. Where options have been granted to policyholders or borrowers, and the likelihood of antiselection in the exercise of these options is significant, or where assets and liabilities are not closely matched, multi-scenario cash flow testing is needed. Standards for such testing can be found in the ASB document "Recommendations Concerning Cash Flow Testing for Life Insurance Companies." This category contains business having a combination of C-2 and C-3 risks as well as products with only C-3 risk.

10. There are important categories of business where quantification of the risks is very difficult and involves a great deal of subjective judgment. New lines of business provide an important example. Additional examples include major medical and plans where profit margins are highly sensitive to competitive pressures. Here a demonstration of reserve adequacy will rely heavily on a sensitivity analysis.

MANDATORY SECURITIES VALUATION RESERVE (MSVR)

The current Mandatory Securities Valuation Reserve (MSVR) serves two major purposes for certain classes of investments. By absorbing capital gains and losses it can be considered as the major provision for default risk on these investments and it stabilizes surplus against the swings which might otherwise result from capital gains and losses on the investments. To the extent that the MSVR provides for default risks, it would be redundant to also include consideration of such risks in analyzing reserves. Capital gains emerging from an exchange of assets are often needed to support reserves. However, under such current rules, they are absorbed by the MSVR.

In the case of defaults, one approach would be for the actuary to assume that the MSVR made sufficient provision for such risks. The actuary may feel that this is an area where he would like to consult with, or rely on, appropriate investment experts to evaluate the appropriateness of such assumption.

In the case of those capital gains which may be taken at times when investment considerations are opportune, the bulk of the gain might be reinvested but usually at a lower interest rate. All or most of the reinvestment may continue to be needed to provide for the liabilities. Since the current MSVR will usually capture such capital gains, it is necessary to permit part of the MSVR to be included with reserves in an adequacy analysis.

A proposal was put forth for a new approach that would respond to these considerations while, at the same time, preserving the ability of the MSVR to function as a stabilization fund by insulating surplus from the impact of capital gains and losses. We have been considering modifications to the proposal in seeking an approach which would be consonant with our general recommendation.

REINSURANCE

The regulators have serious concerns with the impact of the treatment of reserves in reinsurance situations on the adequacy of reserves for companies with significant reinsurance.

A proposed Standard of Practice for Reinsurance Financial Reporting has been developed, which addresses the treatment of reserves in life insurance company financial statements. This standard is being presented to the Actuarial Standards Board before year-end 1988 as an Exposure Draft for approval to expose to the Academy of Actuaries' membership.

We intend to closely monitor developments in this area and to comment on the exposure draft during the exposure period.

CONSIDERATIONS OF INPUT FROM OTHERS

As described at the outset of this Report, we are making what we consider to be every reasonable effort to communicate our progress to others, particularly that part of the actuarial community that has expressed an interest in developments with respect to valuation matters. We encourage circulation of this draft preliminary report to persons who would logically be interested but may so far not have seen it. Additional copies may be obtained from Donald Maier at the Metropolitan.

We hope that all those who read the report and have comments to offer will send them to the Committee Chairman:

John H. Tweedie
Senior Vice-President and Chief Actuary
Metropolitan Life Insurance Company
One Madison Avenue
New York, NY 10010

The Committee wishes to assure interested persons that all comments will be given serious consideration as we endeavor to meet the May 1989 target date for our official recommendations.

PROPOSED AMENDMENTS TO THE STANDARD VALUATION LAW

1. Add a new Section 2 to read as follows (and renumber subsequent Sections):

   Every life insurance company doing business in this state shall annually submit the opinion of a qualified actuary that the reserves and other actuarial items held in support of the policies and contracts specified by the commissioner by regulation,[1] when considered in light of the assets held by the company with respect to such reserves and other actuarial items and the considerations anticipated to be received under such policies and contracts, make appropriate provision[2] for the company's obligations under such policies and contracts.[3] Such opinion shall be submitted with the annual statement reflecting the valuation of such reserve liabilities for each year ending on or after December 31, 19___.[4] Such opinion shall be in such form as the commissioner may by regulation prescribe and shall be based on such analyses and standards as the commissioner by regulation deems appropriate to form the basis of such opinion.[5] For the purposes of this Section, "qualified actuary" means a member in good standing of the American Academy of Actuaries who meets the requirements set forth in such regulations. Except in cases of fraud or willful misconduct, the qualified actuary shall not be liable for damages to any person (other than the insurance company and the commissioner) for any act, error, omission, decision or conduct with respect to the actuary's opinion.[6] Any memorandum or other material provided by the company to the commissioner in support of such opinion shall be kept confidential,[7] shall not be subject to subpoena and shall not be made public without the consent of such insurer.[8] If the insurance company fails to provide a supporting memorandum at the request of the commissioner or the commissioner determines that the supporting memorandum provided by the insurance company fails to meet the standards prescribed by such regulations, the commissioner may engage a qualified actuary at the expense of such company to review the opinion and prepare such supporting memorandum as is required by the commissioner.

2. Add the following to the end of Section 5:

or, if greater, the aggregate reserves determined by the qualified actuary to be necessary to meet the standards set forth in regulations promulgated by the commissioner pursuant to Section two.[9]

NOTES TO PROPOSED STANDARD VALUATION LAW AMENDMENTS

1. The reference to specific classes of policies and contracts is intended to make it clear that the regulator may decide to apply the valuation actuary requirements to certain classes of business and not to others (and, by implication, that different requirements may be applicable to different classes).

2. The "appropriate provision" standard proposed in the "Revised Statement" is suggested here in place of the "good and sufficient" standard in the current version of the Actuary's Opinion.

3. A shorthand is suggested as a substitute for the proposed language of the "Revised Opinion," which refers to "the anticipated cash flows required by contractual obligations and the related expenses of the company."

4. Since the SVL has a January 1, 1944 effective date, and state laws will have various effective dates, this date reference will make it clear that the requirement is prospective.

5. This wording would permit the regulation to recognize methods of analysis and standards set by appropriate professional bodies.

6. This language preserves the right of management and regulators to oversee the valuation process and proceed against a valuation actuary for any wrongdoing. The SAC/VL believes that such oversight will adequately regulate the conduct of the valuation actuary. Except in cases of fraud or willful misconduct, failure of the actuary to carry out his or her obligations adequately should not expose the actuary's personal assets to the threat of financial liability, particularly since the testing of asset adequacy is not an exact science.

7. Since the valuation actuary will be required by the proposed model regulation to prepare a supporting memorandum and make it available for examination by the insurance department, it is desirable for confidentiality to be conferred by statute. In the absence of a statutory provision, state freedom of information laws or common law principles may be used to make public any material filed with the insurance department.

8. The purpose of restricting the availability of the memorandum and other supporting materials is to protect the insurance company and the actuary from the possible disclosure of trade secrets and commercially valuable information contained in such materials. The qualified actuary, whether

employed by the insurance company or an independent consulting actuary, should retain a copy of each document supporting the Actuary's Opinion. If sued in connection with the valuation of reserves, the actuary will then be able to supply the documents necessary for his or her defense without the need for a subpoena.

9. The intent of this provision is that if the actuary strengthens reserves in a given year based on testing, the additional reserves may be reduced or eliminated based on testing in a subsequent year (but not lower than the statutory minimum).

REVISION OF THE STANDARD VALUATION LAW (SVL)

STATEMENT OF ACTUARIAL OPINION REGULATION

Table of Contents

ARTICLE I: PURPOSE

The purposes of this Regulation are to prescribe

(a) guidelines for submitting actuarial opinions and preparing memoranda in accordance with Section ____________ of the Insurance Law, and

(b) rules applicable to the appointment of a qualified actuary.

ARTICLE II: AUTHORITY

This regulation is issued pursuant to the authority vested in the Commissioner of Insurance of the State of ____________ under ____________.* This regulation will take effect upon ____________.

* Generally the state's standard valuation law.

ARTICLE III: SCOPE

This regulation shall apply to all life insurance companies doing business in this State and all insurers authorized to reinsure life insurance, annuities or accident and health insurance business in this State. This regulation shall be applicable to all annual statements filed with this Department after the effective date of this regulation.

ARTICLE IV: DEFINITIONS

Section 1. Commissioner

"Commissioner" (Director, Superintendent) means the Insurance Commissioner (Director, Superintendent) of this State.

Section 2. Company

"Company" means a life insurance company or reinsurer subject to the provisions of this regulation.

Section 3. Qualified Actuary

"Qualified actuary" means any individual who is

(a) a member in good standing of the American Academy of Actuaries,

(b) meets the qualification standards of the American Academy of Actuaries, and is familiar with the valuation laws of this State, and

(c) appointed or retained by the company.

Section 4. Annual Statement

"Annual Statement" means that statement required by Section _____ of the Insurance Law to be filed by the company with the office of the Commissioner annually.

Section 5. Asset Adequacy Analysis
"Asset adequacy analysis" means such analyses and standards as the American Academy of Actuaries deems appropriate to form the basis of a statement that the reserve liabilities, when considered in light of the assets held by the company with respect to such reserve liabilities, and the considerations anticipated to be received make appropriate provision for the company's obligations.

ARTICLE V: SUBMISSION OF ACTUARIAL OPINION
There is to be included on or attached to Page 1 of the Annual Statement, the statement of a qualified actuary, entitled "Statement of Actuarial Opinion," setting forth his or her opinion relating to reserves and other actuarial items held in support of policies and contracts in conformance with the requirements of this regulation.

ARTICLE VI: DESCRIPTION OF ACTUARIAL OPINION
Section 1. General Description
The statement of actuarial opinion shall conform to standards set forth in the American Academy of Actuaries Financial Reporting Recommendations and interpretations thereof, and shall consist of:

A. a paragraph identifying the actuary and his or her qualifications (see Section 2.A below);

B. a scope paragraph identifying the subjects on which an opinion is to be expressed and describing the scope of the actuary's work, including a tabulation delineating the reserves and the associated liabilities which have been analyzed for asset adequacy, the degree of analysis, (see section 2.B below) and identifying the reserves and associated liabilities covered by the opinion which have not been so analyzed;

C. a reliance paragraph describing those areas, if any, where the actuary has deferred to other experts in developing data, procedures or assumptions, e.g., investment officers for asset inventories, investment cash flows and/or investment strategies (see Section 2.C below), and

D. an opinion paragraph expressing the actuary's opinion with respect to the adequacy of the supporting assets to mature the liabilities (see section 2.F below).

One or more additional paragraphs may be needed in individual cases if the actuary considers it necessary to state a qualification of his or her opinion.

The actuary may add a paragraph briefly describing the assumptions which form the basis for his or her opinion.

Section 2. Illustrative Examples
The following are examples, for illustrative purposes, of language which in typical circumstances would be included in such a statement of actuarial opinion. The illustrative language should be modified as needed to meet the circumstances of a particular case, and the actuary should in any case use language which clearly expresses his or her professional judgment.

A. The opening paragraph should generally indicate the actuary's relationship to the company and his or her qualifications to sign the opinion. For a company actuary, the opening paragraph of the actuarial opinion should read as follows:

"I, (name), a Member of the American Academy of Actuaries, am (title) of (insurance company name). I was appointed by the (corporate appointer -- e.g., Board of Directors) of said insurer to write this opinion as stated in the letter to (State regulator) dated ________. I meet the Academy qualification standards and am familiar with the valuation laws of the state of (domiciliary state)."

For a consulting actuary, the opening paragraph should contain a sentence such as:

"I, (name), a Member of the American Academy of Actuaries, am associated with the firm of (name of consulting firm) which has been retained by (name of insurance company) to write this opinion as stated in the letter to (State regulator) dated ________. I meet the Academy qualification standards and am familiar with the valuation laws of the state of (domiciliary state)."

B. The scope paragraph should include a sentence such as:

"I have examined the actuarial assumptions and actuarial methods used in determining reserves and related actuarial items listed below, as shown in the annual statement of the company, as prepared for filing with state regulatory officials, as of December 31, 19___. Tabulated below are those reserves and associated liabilities which have been subjected to asset adequacy analysis and those of Exhibit 8, 9 and 10 reserves and net due and deferred assets and claim liabilities in Exhibit 11, Part I which were not so analyzed.

	---------Amount of Reserve----------				
Block of Business	Asset Adequacy Analyzed	Degree	Other	Total	Situs in Statement
Ind. Reserves		(A)			Exh. 8
Ind. D. & U.		(B)			Exh. 13
.					
Ord. Reserves					Exh. 8
.					
Other (specify)					
Total					

where (A) and (B) are degrees or standards which vary by risk as provided by the American Academy of Actuaries."

C. If an actuary relies on other experts to develop certain portions of the analysis, he or she should include a paragraph such as:

"I have relied on ___(name)___, ___(title)___ for ___(e.g., anticipated cash flows from currently owned assets, including variations in cash flows according to economic scenarios)___ and . . ."

or

"I have relied on personnel as cited in the supporting (report) or (memorandum) for certain critical aspects of our analysis."

D. If the actuary has examined the underlying records, the scope paragraph should also include a sentence such as the following:

"My examination included such review of the actuarial assumptions and actuarial methods and of the underlying basic records and such tests of the actuarial calculations as I considered necessary."

E. If the actuary has not examined the underlying records, but has relied upon listings and summaries of policies in force prepared by the company, the scope paragraph should include a sentence such as one of the following:

(i) "I relied upon listings and summaries of policies in force prepared by (name and title of company officer certifying in force records). In other respects my examination included such review of the actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary."

(ii) "I relied upon (name of accounting firm) for the accuracy of the in force records inventory. In other respects my examination included such review of the actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary."

F. The opinion paragraph should include a sentence which covers at least the points listed in the following illustration:

"In my opinion the contract reserves and other actuarial items resulting from the products identified above:

(i) are computed in accordance with commonly accepted actuarial standards consistently applied and are fairly stated, in accordance with sound actuarial principles;

(ii) are based on actuarial assumptions which produce reserves at least as great as those called for in any contract provision as to reserve basis and method, and are in accordance with all other contract provisions."

"The specific assets held by the Company in support of such reserves, make appropriate provision, according to presently accepted actuarial standards of practice, for the anticipated cash flows required by the contractual obligations and related expenses of the Company.

This opinion is updated annually as required by statute. The impact of unanticipated events subsequent to the date of this opinion is beyond the scope of this opinion. The analysis of asset adequacy portion of this opinion should be viewed recognizing that the company's future experience will not exactly follow all the assumptions used in the analysis.

____

Signature of Qualified Actuary"

G. The adoption for new issues of an actuarial assumption which differs from a corresponding assumption used for prior issues is not a change in actuarial assumptions within the meaning of this paragraph.

H. If the actuary is unable to form an opinion, the actuary shall refuse to issue *a statement of actuarial opinion. If the actuary's opinion is adverse* or qualified, the actuary shall issue an adverse or qualified actuarial opinion explicitly stating the reason(s) for such opinion. This statement should follow the scope paragraph and precede the opinion paragraph.

I. If the actuary does not express an opinion as to the accuracy and completeness of the listings and summaries of policies in force, there shall be included on or attached to Page 1 of the statement blank, the statement of a company officer or accounting firm who prepared such underlying data similar to the following:

"I (*name of officer of company*), (*title of officer*), of (*name of* company and address of company), (or accounting firm), hereby affirm that the listings and summaries of policies in force as of December 31, 19___, prepared for and submitted to (name of actuary) were prepared under my direction and, to the best of my knowledge and belief, are accurate and complete.

Signature of officer or accounting firm"

ARTICLE VII: DESCRIPTION OF ACTUARIAL MEMORANDUM
The qualified actuary shall prepare a memorandum describing the analysis done in support of his or her opinion regarding the reserves. Such memorandum shall be made available for examination by the Commissioner upon his or her request but shall be returned to the company after such examination and shall not be considered a record of the insurance department. If the Commissioner requests such a memorandum and no such memorandum exists or if the Commissioner finds that the memorandum fails to meet the Standards established by the American Academy of Actuaries and the state of domicile regarding such a memorandum, the Commissioner may engage an independent consulting actuary to review the opinion and prepare such documenting memorandum as is required for such review. The reasonable and necessary expense of such independent review shall be paid by the company but shall be directed and controlled by the Commissioner. Such reviewing actuary shall have the same status as an examiner for purposes of obtaining data from the company.

ARTICLE VIII: DETAILS TO BE CONSIDERED FOR ACTUARIAL MEMORANDUM
The memorandum shall specify:

A. For Reserves
   (i) Product Descriptions, including a risk profile (i.e., what risks the actuary deems significant)
   (ii) Source of Liability Inforce
   (iii) Valuation Basis
   (iv) Investment Reserves
   (v) Reinsurance Arrangements

B. For the Assets
   (i) Portfolio Descriptions, including a risk profile (i.e., quality, distribution and types of assets)
   (ii) Investment and Disinvestment Assumptions
   (iii) Source of Asset Data
   (iv) Asset Valuation Bases

C. Analysis Basis
   (i) Methodology
   (ii) Rationale for inclusion/exclusion of different blocks of business and how pertinent risks analyzed
   (iii) Rationale for degree of rigor in analyzing different blocks of business
   (iv) Criteria for determining asset adequacy
   (v) Effect of Federal Income Taxes

D. Summary of Results

E. Conclusion(s)

ARTICLE IX: CONSIDERATIONS FOR ANALYSIS

Section 1. Classes of Reserves Subject to Analysis
The classes of reserves subject to analysis for asset adequacy shall include all those where an evaluation of both the assets and the liabilities reveals that there is risk due to the effect of changing economic climates on the projected investment and insurance cash flows.

This may exclude contracts with interest credited based on the yield of the supporting assets without significant interest guarantees and with market value charges at transfer, and separate account contracts without significant principal, interest, mortality and expense guarantees.

Section 2. Type of Analysis
In choosing the type of analysis used for asset adequacy for any given reserve, the actuary shall consider the risk posture of the product, the financial impact of a reserve inadequacy, and the investment policy of the portfolio. Products which will be aggregated to demonstrate asset adequacy should be subject to the same type of analysis.

Section 3. Extent of Analysis
Analyses shall cover as many alternative economic scenarios as the actuary deems necessary to generate an understanding of the dynamics relating the insurance and investment cash flows. The range of scenarios analyzed shall be broad enough to enable the actuary to form an opinion that the investment cash flows make appropriate provision for the contractual obligations under reasonable sets of assumptions.

Section 4. Aggregation
Results of reserve analysis may be separately aggregated for the Life, Health, and Annuity lines of business provided that all reserves analyzed for any aggregation were analyzed with the same degree of rigor and the same economic scenarios.

Section 5. Selection of Assets for Analysis
The actuary shall analyze only those assets held in support of the class of reserves. A particular asset or portion thereof supporting one class of reserves cannot support any other class.

Section 6. Documentation
The actuary shall retain on file sufficient documentation so that it will be possible to determine the procedures followed, the analyses performed, and the results attained.

September 7, 1988