

What The Regulators Need

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This is primarily an exposition of areas where research is needed as of October 1986 and is therefore general in nature. These are my personal views and do not necessarily express the views of the California Department of Insurance. These needs apply to the regulation of insurance in the United States.

The Need

The regulators need to be aware of a deteriorating financial condition of an insurer in time to protect its policyholders from the consequences of insolvency. Certainly a large portion of insolvencies are the result of unfortunate management decisions. Eras of great competitive action are followed by eras of retrenchment when margins thinned by competitive forces become inadequate to cope with fluctuations in claims experience, economic conditions, tax rulings and internal operating inefficiencies.

Examples of solvency problems

Examples of fluctuations in claims experience include the 1918 influenza epidemic and currently the increased concern regarding extra mortality and morbidity from AIDS and AIDS related diseases. Also causing fluctuations are earthquakes, hurricanes and other natural disasters. The NAIC is currently reviewing the AIDS crisis to determine whether additional reserves are needed or whether some form of earmarked or contingency surplus is needed. Related to economic conditions it is a well known fact that extensive increases in unemployment result in increased disability and health insurance claims.

Economic conditions include the rapid rise in interest rates peaking during the last decade and now returning to lower levels, but not now as low as had existed just before the meteoric rise. Concepts of matching assets with liabilities have arisen during this period in effort to cope with the problem of fluctuating interest rates and corresponding fluctuations in asset values. Other papers presented at this meeting will cover this aspect in much more detail.

Tax rulings, as much as state insurance regulators would like to ignore them, do have a significant influence on insurance company operations. If certain events occurring at relatively infrequent intervals could be insured with the same tax treatment as whole life insurance, insurance rates for these events could be reduced considerably by spreading level premium payments over a period of time longer than a year and building up reserves to provide for the relatively infrequent claims per individual claimant. Such programs would require the generation of claims experience tables by statistical methods, such as the Monte Carlo Technique, covering such events as natural disasters, certain forms of liability insurance and workers compensation insurance. The current tax treatment does not allow for such an approach. The statistical techniques have not been developed in a practical form since under the current tax structure there is little likelihood of their feasibility. It is a difficult problem to solve because of this impasse. Certainly, research is needed before a proposal can be made to change the the tax laws.

Misconceptions of tax rulings have lead to several large scale regulatory problems. Insurance company managements have set up rather devious and esoteric ways of avoiding taxes only to have the tax authorities knock them

down. A most notorious example in the recent past was the scheme promulgated by the Baldwin-United Corporation which was never completely accepted by the tax authorities and which collapsed from its own complexities. The positive cash flows contemplated through the purported tax mechanism never materialized. This misconception regarding taxes may have led the Baldwin-United companies to the lack of consideration given with respect the matching of asset and liability cash flows.

Mounting internal operating inefficiencies have turned many a well run company into a non profitable organization. Recent experience with the implementation of universal life insurance plans, variable life insurance, single premium deferred annuities and single premium whole life plans shows that most companies are ill prepared either staffwise or computewise, to handle the greatly increased volume of transactions involved. This is further accentuated when a sudden increase in volume of new business is experienced, such as that produced by securities dealers. Even the most well designed computer systems have experienced internal problems on the first run through of a system. Those insurers with prudent managements who convert to a new computer system usually run it parallel with the older system until all of the bugs are ironed out.

Computer systems can also be designed to falsify or distort financial, conditions, transactions, and surveillance ratios as the Equity Funding scandal of thirteen years ago demonstrated. This might require a secondary network of surveillance tests which would have to be confidential in nature. However, there is no way to anticipate all forms of dishonesty.

Because of the complexities of computer systems involving universal life type deposit fund management, regulators are increasingly asking for complete documentation and review of computer systems as part of the insurance examination. In even the largest of companies it is possible for blocks of business involving millions in reserves to be "lost" in the system. For the smallest companies such errors are more easily detected. If such errors have a significant effect on the financial condition of an insurer a restatement of that insurer's financial report is required.

#### The Standard Valuation Law

The advent of universal life and related plans involving a deposit fund approach indicates a need to completely overhaul the present standard valuation laws which are currently in two parts, life insurance versus individual annuities. Premium deposit funds such as group deposit administration funds not currently governed by standard valuation laws excepting for valuation interest requirements for the determination of minimum reserves.

The Standard Valuation Law for Life Insurance is based on the premise that the terminal reserve at the end of a particular policy year is equal to the excess of the present value of the future benefits payable over the present value of the future valuation net premiums, such present values being determined on assumptions of interest and mortality only. The Commissioner's Valuation Reserve Method also incorporates a limited assumption for initial expenses and their amortization over the renewal years. Controversy has arisen over what is meant by "present value of future benefits". Some regulators insist that

this is the present value of future guaranteed benefits including nonforfeiture benefits, thus requiring the greatest of the present values of future guaranteed benefits to be used in the above formula. This is analogous to the Commissioner's Annuity Reserve Value Method for specified annuity and endowment contracts which determines the terminal reserve as the greatest of the respective excesses of the present values, at the date of valuation, of the future guaranteed benefits, including guaranteed nonforfeiture benefits provided for by such contracts at the end of each respective contract year, over the present value, at the date of valuation, of any future valuation considerations derived from future gross considerations, required by the terms of such contract, that become payable prior to the end of such respective contract year. The future guaranteed benefits are determined by using the mortality table, if any, and the interest rate or rates, specified in such contracts for determining guaranteed benefits. The valuation considerations are the portions of the respective gross considerations applied under the terms of such contracts to determine nonforfeiture values.

In practice regulators have required mortality and interest assumptions for minimum basic policy reserves to be either those stated in the policy or, if not stated in the policy, those in effect for the calculation of minimum policy reserves at the time the policy form or series was first issued. However, for the purpose of calculating gross premium deficiency reserves or high cash value reserves, minimum reserve assumptions for mortality and interest in effect at the time the policy was actually issued is generally required. Thus a policy might have its basic reserves calculated using 1958

CSO Mortality and 4.5% interest, but reserves calculated for premium deficiency or high cash value purposes might be calculated at 1980 CSO Mortality and 6% interest. Any excess of the total reserve calculated on the latter basis, considering high cash values and/or gross premiums less than the valuation net level premium, over the basic policy reserve calculated at the original basis would be carried as an additional reserve.

The New York Insurance Department in recent years for Guaranteed Interest Contracts (GIC's) has allowed an insurer to value such contracts at a less conservative basis (lower reserves) if it demonstrated satisfactorily that the cash flow from the assets supporting such contract reserves matched reasonably the cash flow required by the payments of benefits anticipated and interest to be credited to such accounts. This is possibly a prelude to the future course of regulation.

The NAIC has assigned its Life & Health Actuarial Task Force the project of revising the Standard Valuation and the Standard Nonforfeiture Laws starting with basic principles and developing a practical approach to the valuation of life insurance policies, annuity contracts and health insurance policies and the determination of the nonforfeiture values on such policies and contracts. These laws will probably undergo a gradual change due to the basic inertia of the regulatory system. What is needed is a Standard Valuation Law which will define basic concepts and distinguish between reasonable and plausible assumptions as to the determination of reserves and the margins in surplus

which should be held for plausible contingencies. In other words the Valuation Law should not only define the bases for policy reserves but also define the bases for determining the minimum surplus a company should hold for the risks assumed. Therefore, it might be more proper to develop a Standard Solvency Law which would include requirements for reserves and minimum surplus. The minimum surplus would vary with the variances in experience (claims, investment, expenses, persistency) for the various risks assumed by an insurance company.

For competitive reasons most insurers are not willing at this time to lay their souls bare to a determination publicly of such a minimum surplus requirement. It is suspected that most prudent managements conduct such analyses privately, even expanding such projections for various scenarios of new business to determine if they can afford a more rapid expansion. This has been a problem in other countries as well, resulting in the solvency surveillance benchmarks used in Britain and in the European Common Market Countries. Canada is also exploring this route.

It is possible that solvency surveillance in the United States could also develop into a benchmark process. However it does not appear that the British, European or Canadian approaches would yield reliable results from what little testing has been done by the NAIC Life & Health IRIS Working Group. Companies operating in the United States are considerably more voluminous and varied. This is an area crying for research and new ideas.

Returning to the discussion of the revision of the Standard Valuation Law it will probably include general rules for determining reserves offering both a net level premium and a deposit fund approach depending on the nature of the plan. Only the more traditional plans of ordinary life insurance, individual

disability income insurance and individual medical indemnity could be valued on this basis. All other lines of life and health insurance would use the deposit fund approach. This would require a redefinition of the lines of business by valuation method as well as by risk structure. For larger insurers segregation of assets by various valuation groups might be required. Segregation of assets is really not practical for all small and many medium sized insurers. The limits of practicality need exploration.

Each segment or group of plans valued might require a separate actuarial report supported by certain statutorily required documentations. Supporting regulations would define specific requirements for such documentation including interest, mortality, morbidity, persistency and expense limitations. However, the actuary would be permitted to depart from such limitations if supported by actual experience demonstrations acceptable to the regulator. This is somewhat analogous to the procedure now allowed by the New York Department for the Guaranteed Interest Contracts.

#### The Need For Specific Guidelines Or Instructions

Some actuaries have often expressed the view that actuaries should have little or no restrictions on their activities so as to take advantage of all of the most current practices and expand them into new areas of activity. To some extent actuaries in Britain, because of their close communication with the Government Actuary and because of the limited number of companies operating in Britain as compared with the United States, have had that freedom. In Canada, with some two hundred or so companies, again there has been a much closer relationship between the company actuaries and the regulators than in the United States with its 1600 life companies and an equal number of casualty companies. Thus in Canada actuaries are also given more freedom of choice than in the United States.



Less than a third of the U.S. companies even have a company actuary, and the others must rely on the advice of consulting actuaries if such advice is required. When a U.S. insurer has not operated with actuarial advice, this fact is revealed at the time of a state insurance examination. If the insurance examiners believe that actuarial analysis is required, it is done at that time, usually by a consulting actuary and the expense is charged to the company examined. For consistency of regulation in the United States it is therefore mandatory that a body of specific instructions be prepared which is in a form readily understood by persons with little or no actuarial training. Actuaries would be required for analyses where the guidelines need further interpretation, where a situation arises which is not contemplated by the guidelines, or where the nature of the valuation requires documentation in the form of cash flow projections using various scenarios or using some form of direct probabilistic approach.

I realize that many actuaries feel that an abundance of regulatory limitations is an insult to their professionalism. However, regulatory experience with actuarial work reveals problems with a small number of actuaries (perhaps less than 5%). With the large numbers of companies to monitor in the United States and the large number of actuaries representing insurance companies it is simply not practical to regulate the activities of actuaries without specific rules. Most departments do not have the resources to document cases of actuarial incompetence, malfeasance or other misbehavior. This is an area where better liaison with the American Academy of Actuaries is needed. Until the regulators feel confident in all actuarial work examined, limitations will continue.

Such limitations also give those actuaries reporting for insurers with vigorously competitive managements grounds for reporting the condition of those insurers on a less distorted basis. Whether any regulatory limitations will release the pressure on actuaries from liability suits remains to be seen. Some lawyers argue that the more voluminous the regulatory rules the more chance reasons can be found for liability by the actuary.

With respect to a federal system of insurance regulation in the United States such a system would make it much easier for lobbyists to concentrate their efforts in one arena rather than in fifty. This has already been observed in the operations of a number of federal agencies. Many are unable to operate with the same degree of freedom as most state agencies. It does behoove the state regulatory authorities, however, to act with as much consistency as possible.

#### Summary

In summary what do the regulators need?

1. Practical procedures for projecting the development of reserves and the effect of such development on the production of surplus.
2. Practical procedures for probabilistic multivariate analyses of the various factors contributing to the development of surplus and verifying the adequacy of reserves.
3. Readily verifiable systems for testing the credibility of projections.

4. If procedures for projecting surplus generation are not practically attainable for political reasons, a system of credible surplus benchmark criteria is needed.
5. A financial reporting system that more clearly shows the financial progress of an insurance company, but retains sufficient information to validate the proper accounting of insurance transactions and to verify projections made with respect to the adequacy of reserves and surplus margins for plausible deviations from the assumptions used in determining the reserves.
6. Revision of financial accounting procedures in conflict with the concepts of analysis developed for the projection of cash flows and surplus generation.

You will note that nearly all of these needs are expressed in plural form. There probably never will be universal solution to all the problems involving the development of surplus. Each insurer must be treated individually unless it is an exact image of another insurer. That event has not yet occurred.

Because of the large volume of companies to be reviewed surveillance procedures are needed to distinguish those insurers requiring detailed individual company analysis from those requiring only a perfunctory monitoring.