



SOCIETY OF ACTUARIES

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Actuarial appraisal or ???

by Robert D. Shapiro

Over the past decade, a small group of actuaries have become deeply involved and more visible in insurance company mergers and acquisitions (M&A).

This increased public exposure has encouraged consulting firms in the M&A arena to reexamine their practice standards and quality control procedures. Today's M&A actuarial practitioners, being close to the M&A markets and to related users of actuarial work, are best positioned to evaluate M&A actuarial analyses for the profession.

Since the mid-1970s, actuarial appraisals and/or other actuarial analyses have been prepared as a part of many, if not most, significant insurance company sales. Sellers and potential buyers have used the actuarial reports to help determine company value. Many believe that actuarial appraisal techniques provide the most meaningful value information when considered alongside of "multiples" (of book value or earnings) and current stock prices. Unless actuarial values are determined appropriately, the M&A marketplace will suffer, and the actuary's role in the M&A process could be diminished.

Issues are being addressed at four different levels:

- Professional issues relating to the way in which actuaries and actuarial reports are perceived by others in the M&A arena.
- Report structure issues, including the desired level of documentation and the appropriate form of the communication.
- Technical issues primarily reflecting how to analyze changes in the environment and the way insurers do business, and
- Quality control issues relating to each of the three previously described categories.

Professional issues

The actuarial profession is hard at work defining the appropriate future role of the actuary. A critical facet of this process is underpinning the profession with the appropriate balance of science and business. Unlike other professions, ours has been closely associated with specific

industries, i.e., the insurance and employee benefits "businesses."

The role of actuaries in M&A analysis should mirror the profession's long-term vision and reflect the way in which we want the public to view what we do.

Certainly our insurance expertise should create key roles for actuaries in insurance company M&A situations. How far should this role extend beyond technical analysis to strategic, marketing and organizational issues? Will other financial institutions or even nonfinancial businesses be in the domain of the actuary of the future?

Report structure issues

Many of our M&A-related actuarial report formats have been extrapolated from historic M&A-related work. This process is inadequate for the rapidly changing insurance and M&A environments. Many M&A actuaries are hard at work reconceptualizing M&A actuarial report formats.

In the future, we can expect significant changes in the M&A actuary's role. Actuarial reports must reflect these changes. Consider, for example, an actuarial report containing financial projections and present values of future projected earnings for an insurance company. Such a report should probably be labeled "actuarial appraisal" only if the actuary takes full responsibility for the assumptions and produces a defined range of value. Otherwise, the actuarial report would be more properly labeled "actuarial analysis."

Technical issues

Seven critical assumptions typically underpin the actuary's analysis:

1. Claim costs (mortality or morbidity)
2. Persistency
3. Expenses
4. Net investment earnings rate
5. Federal income taxes
6. Future production expectations
7. Discount rates

In reviewing actuarial analyses developed in the late 1970s and early 1980s, we find that items 1, 2, 3 and 4 generally were established after reviewing the company's experience and pricing assumptions. Pretax projections and present values were historically presented with explana-

tions such as (a) taxes would depend on the character of the final transaction and (b) if a 334(B)(2) tax election were made, taxes would not be paid for a number of years. Future production expectations were taken from company plans. Discount rate ranges generally centered somewhere around 15%.

Our insurance operating environments have dramatically changed in recent years. M&A analyses have been changing to reflect the emerging new environments. For example, consider the following new dimensions in each of the seven critical assumptions listed previously.

1. Claim costs: Impact of AIDS? Impact of special underwriting approaches and guarantees? Impact of potential government programs?
2. Persistency: Approach to evaluating universal types of contracts? Impact of increased use of independent distributors? Impact of interest rates and surrender charges?
3. Expenses: Implications of widespread expense excesses that exist because of competitive factors and/or operating inefficiencies?
4. Net investment earnings rate: Assessing the asset side of the balance sheet? Reflecting variability and risks of interest sensitivity? Employing stochastic analyses?
5. Federal income taxes: Complexities of today's tax environment? Loss of 334(B)(2)? Propriety of displaying only before-tax values?

6. Future production expectations: Appropriate production levels and types of products? Appropriate future profit margins (e.g., consider expense excesses, spread deficiencies, investment risks, etc.).
7. Discount rates: Variability of risk by line of business and management philosophy? Relationship to factors such as required surplus, MSVR requirements, federal income tax premise and future production expectations?

M&A actuarial analyses must evolve to reflect the more complex environment. Increasingly, actuaries are

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changing how they structure and document their analyses. For example, year-by-year projection information now often supplements present value calculations. Also, more and more sensitivity testing is found in M&A-related actuarial reports.

Quality control issues

Quality control ultimately is the responsibility of individual actuaries and their companies. To the extent that the actuarial profession establishes clear principles and general standards for practitioners, the quality control process is enhanced.

However, each actuarial practitioner and actuarial firm has a unique way of doing things that cannot be ignored in evaluating the quality control process. For example, some firms have detailed rules on process that are imposed on all appraisal reports, while other firms operate with more general guidelines. Neither approach is inappropriate. What is important is that the professional and structural issues be addressed first to assure that the right job is done before checking that the calculations are right.

The public expects the actuary involved in the M&A arena to provide expert, objective analysis. On the other hand, the M&A arena places many pressures on actuaries and professionals to shape their work in "special ways" because of the commercial aspects of transactions. Two critical questions are:

1. What should be the actuary's role (and responsibilities) in M&A work?
2. What principles and standards for analysis and reporting follow this definition of the actuary's role?

These questions mirror closely related issues facing the actuarial profession. How do/should we weigh scientific and business aspects when we define the foundation for our profession and the resulting standards for our work? In the M&A environment, is our role to be (a) an independent, objective quantifier or (b) an insurance company appraiser?

The continuing effort by actuaries in the M&A field to resolve these issues will help draw from and contribute to the profession's effort to set our future path.

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Grandfather ungrandfathered

by David S. Lee

The (U.S.) Technical and Miscellaneous Revenue Act of 1988 has created a very significant administrative problem for companies having a large block of "grandfathered" universal life business. The problem is that seemingly harmless future changes in benefits are categorized as "material changes," causing a policy to lose its grandfather status and subjecting it to the "modified endowment" rules. Consider the following example:

On January 1, 1986, John Doe purchased a \$100,000 universal life policy from XYZ Company. John is 45, married, with one daughter. His planned annual premium of \$2,000 is well below the guideline level premium limitations. The policy is grandfathered under the 1988 Act, because it was issued prior to June 21, 1988.

On January 1, 1991, John adds a family term rider to his policy. Since it is now after June 21, 1988, and the rider is considered a qualified additional benefit, the addition of the rider constitutes a "material change," and the policy loses its grandfather status and falls under the modified endowment rules. The 7-pay limit, adjusted to include the cash value of \$10,106, is calculated to be \$4,716 per year. This adjusted 7-pay limit is well in excess of John's planned premium, so the policy is not close to being a modified endowment. Therefore, the company implements the rider addition without discussing the "grandfathering" and "ungrandfathering" status with John.

On January 1, 1993, John reduces his \$100,000 universal life policy to \$50,000. The tax law then requires a recalculation of the 7-pay limits. The formula requires going back to the date of the "material change," January 1, 1991, assuming the death benefit from that time forward is the current death benefit of \$50,000 and recalculating the 7-pay premium limitation as of that date. The new 7-pay premium limitation is \$1,535 per year, which is below the premium John has been paying. Therefore, the reduction in death benefit has caused the policy to become a modified endowment.

In 1993, John's daughter begins college. On January 1, 1994, John

makes a partial withdrawal of \$2,000 to help defray tuition costs.

John is taxed "interest first" on his partial withdrawal and also must pay a 10% penalty tax. Had John not added the family term rider in 1991, the same \$2,000 withdrawal would not have resulted in a taxable event because it would have been taxed "basis first."

John is infuriated when he learns that he is taxed "interest first" and has to pay a penalty tax. He has only \$1,300 remaining after tax to pay the bills. "Nobody ever explained any of this tax stuff to me," John exclaims. John is even more infuriated when he learns that had he not added the family term rider, he could have made the same \$2,000 withdrawal, and it would not have resulted in a taxable event because it would have been taxed "basis first." "Why didn't someone tell me of these potential tax consequences when I first added the rider?" he asks.

The end result of this example:

- (1) John surrenders his policy.
- (2) John tells all his friends and acquaintances that XYZ is a terrible company and that anyone who buys insurance from them is crazy.
- (3) John sues XYZ Company and collects a tidy sum.
- (4) The policyowner service rep handling this case has a nervous breakdown from the accumulated stress of this case and the 999 similar cases he handles.

The problem illustrated by this example is that companies need to notify policyholders of the potential tax consequences when they make "material changes" to grandfathered policies, even if those changes don't result in the policies' immediately becoming modified endowments. Since attorneys, actuaries, and other insurance professionals are having difficulty understanding and interpreting this complex law, the type of communication required to allow grandfathered policyholders to understand their situations will be difficult or impossible to design. The price of administering inforce universal life