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FINANCIAL ACCOUNTING CONTROLS FOR LIFE INSURANCE COMPANY ACTUARIAL RESERVES

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MR. JEROME F. SEAMAN: Financial accounting controls are not a subject which is included in the formal training of actuaries. Actuaries have significant involvement in the financial statement items of life insurance companies. The interest in financial accounting controls has increased greatly in the last few years not only for actuaries, but for financial executives and corporation executives in general.

Some of the reasons for this increased interest in financial accounting controls are the result of external factors, some of which are as follows:

- Foreign Corrupt Practices Act which requires that public companies, that may neither be corrupt nor involved in foreign operations, maintain a sufficient system of internal accounting controls.

- The Securities And Exchange Commission which is proposing that commentary on the adequacy of internal accounting controls be included in certain filings with the SEC.

- State Insurance Department Audit Rules which require that independent auditors state whether there are any material internal accounting control weaknesses.

- Certification Of Life Insurance Company Statutory Actuarial Reserves By A Qualified Actuary.

- Responsibility Of Actuaries With Regard To GAAP Financial Statements.

- The Valuation Actuary's Responsibility In Canada To Express An Opinion On The Reserves Of A Life Insurance Company.

The purpose of this panel is to increase the actuary's awareness of the concepts and objectives of financial accounting controls.

Jim Kahan, manager with Peat, Marwick, Mitchell & Company, will now present the major portion of the program on Financial Accounting Controls.

MR. JAMES B. KAHAN: What are financial accounting controls? The accounting profession has defined and redefined "internal controls" several times. Because it is recognized that internal controls extend beyond accounting and financial statements, a distinction is made between accounting controls and administrative controls. As these terms are defined, auditors are primarily concerned with accounting controls but company personnel must be equally concerned with administrative controls.

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Administrative control includes, but is not limited to, the plan of organization and the procedures and records that are concerned with the decision processes leading to management's authorization of transactions. Such authorization is a management function directly associated with the responsibility for achieving the objectives of the organization and is the starting point for establishing accounting control of transactions.

Accounting control includes the plan of organization and the procedures and records that are concerned with the safeguarding of assets and the reliability of finanacial records and consequently are designed to provide reasonable assurance that:

- Transactions are executed in accordance with management's general or specific authorization.
- Transactions are recorded as necessary (1) to permit preparation of financial statements in conformity with generally accepted accounting principles or any other criteria applicable to such statements and (2) to maintain accountability for assets.
- Access to assets is permitted only in accordance with management's authorization.
- The recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

Prudent business judgment is the strongest influence in establishing an effective internal control system. Life insurance company operations are characterized by a high volume of transactions, each of which needs to be recalled individually and collectively. No company could operate without an effective means to authorize various transactions and to record them to permit timely retrieval and adequate summarization.

External Influences

If prudent business judgment is not sufficiently compelling, the external influences of state insurance departments and Congress provide further persuasion. Those states with rules requiring independent audits of insurance companies require that the auditors report on the adequacy of the system of internal accounting controls. Other states frequently request companies to furnish a copy of their auditor's management letter if one exists.

The Foreign Corrupt Practices Act of 1977 contains general prohibitions against using bribes or payments to foreign officials and others to obtain or retain business. While this anti-bribery section applies to all companies, public companies are additionally required under the Act to:

> Make and keep books, records, and accounts which, in reasonable detail, accurately and fairly reflect the transactions and dispositions of their assets.

> Devise and maintain a system of internal accounting controls sufficient to provide reasonable assurance that certain internal accounting control objectives are met.

The specified internal accounting control objectives in the Act are the same as those enumerated above in the definition of accounting control. The Securities and Exchange Commission has proposed that public companies report annually on the adequacy of their systems of internal accounting control, with their auditors also expressing an opinion on management's representations.

Internal Control Responsibilities

The foregoing was intended to clarify terminology and to emphasize the importance of the subject as a prelude to exploring the role of the actuary in a life insurance company's system of internal controls, both administrative and accounting.

Traditionally, responsibility for systems of internal accounting control has rested with accountants. When we look at the controllership position in most companies, we see an accountant. As business organizations have grown in size and complexity, many have created internal audit departments to assist in systems design, evaluation and monitoring. As data processing technology advanced, the accounting backgrounds of internal auditors left some unprepared to cope with this new technology. The computer audit specialist emerged as a person who could apply the new data processing skills to the traditional problems of controlling business operations.

The accounting backgrounds of life insurance company internal auditors similarly do not provide sufficient basis to cope with the actuarial aspects of life insurance. Until life insurance companies hire "actuarial audit specialists" who can cope with the industry's technical problems, the actuary must consult with controllers and internal auditors to be sure they recognize the significance of various pieces of information. As professionals, actuaries must look beyond specific methodology to consider the ultimate purpose of their efforts. The company actuary can and must investigate the sources of data coming to him to be reasonably assured that such data is complete and accurate. Regardless of actuarial skills, ultimate reliability vanishes if the in force data is incomplete or inaccurate.

The size and organizational structure of the company determines the actuary's direct involvement in evaluating the system of internal controls. Even though not the designated "actuarial audit specialist," the actuary should find out who in the organization is responsible for evaluating controls. Be certain that he is addressing the control concerns in the areas generating data for actuarial use.

General Controls

Before considering specific controls, we must consider the general, or environmental, controls in the organization. While general controls do not directly affect transactions, they do create an overall "control consciousness." The absence of strong "control consciousness" diminishes the value of the best laid system of specific controls.

An organization with strong "control consciousness" typically scores high in four areas. First, the organization's general structure ensures that decision-making authority rests at appropriate levels of management and that management policies are properly implemented. Second, the administration of the accounting function recognizes that honest human error can occur so supplemental controls should be designed to reduce this possibility. Third, use of and access to assets should be restricted to authorized personnel; this applies both to assets having negotiable value and assets having administrative value such as manual and data processing records and files. Fourth, an active, independent internal audit function works to directly strengthen "control consciousness" and, at the same time, to indirectly influence the attitudes of other employees.

If your company does not score well in these areas, your first efforts should work toward improving "control consciousness" at the top of the organization.

Specific Controls

If your organizations's general controls measure up, what are the specific controls in your areas of responsibility? To answer this question, first identify the company's transactions cycles; then identify the specific objectives within each cycle to achieve three broad control objectives for every transaction - authorization, accounting and safeguarding; finally, identify the control procedures which achieve the specific objectives. In examining each transaction cycle, look at the following:

> Personnel Good internal control is a function of competent and honest people.
>
> Separation of functions. For accounting control purposes, incompatible functions are those that put a person in a position to perpetrate and to conceal errors or irregularities in the normal course of his duties.
>
> Execution of transactions. To reasonably assure that transactions are executed as authorized requires some independent evidence that authorizations have been issued by persons acting within the scope of their authority and that the transactions conform with the terms of the authorization.
>
> Recording of transactions. The initial documentation of transactions should be recorded as necessary to permit report preparation in conformity with clearly defined criteria and to maintain accountability for assets.
>
> Comparison of subsidiary and control records. Subsidiary detailed records should support control balances.

Internal Control Limitations

Before identifying the specific internal control objectives associated with the actuarial transaction cycles of life insurance companies, the inherent limitations on the effectiveness of any system of internal control must be understood. In performing control procedures, the possibility of error arises because of misunderstanding of instructions, judgmental mistakes, personal carelessness, distraction or fatigue. Lack of independence can reduce the effectiveness of procedures which depend on the separation of duties. Procedures intended to assure the execution and recording of transactions in accordance with management's authorization may be ineffective against errors or irregularities perpetrated by management.

Cost-benefit Judgments

Cost-benefit judgments also impact a company's system of internal controls. Generally, the appropriateness of controls should be evaluated in terms of the control objectives that need to be met, the capability of control procedures to achieve those objectives, and the priority that management assigns to achieving the objectives. Precise measurements of costs and benefits are often impossible, so management must attempt to evaluate relationships using qualitative estimates and judgments. Management must determine the degree of risk it is willing to accept in each case, keeping in mind the inherent limitations discussed above. A life insurance company actuary's greatest attention is on the premium/policy reserve cycle and the policy benefit cycle. For both of these cycles, we will review specific control procedures meeting specific control objectives falling under the broad control objectives of authorization, accounting and safeguarding. In doing this, the actuary's role will be emphasized.

Premium/Policy Reserve Cycle

The premium/policy reserve cycle often requires several separate analyses depending on the different lines of business the company writes and the distinctions in the way those lines are processed. This cycle presents internal control problems different than those encountered by manufacturing or retailing enterprises. Specifically, the proper maintenance of the in force file requires supplementary procedures to ensure accuracy and completeness because the in force is not subject to dual control through the general ledger.

Authorization Objectives

Authorization is the first broad control objective in analyzing the premium cycle. Proper authorizations are required for the following:

. Policy issuance.
. Commission rates and payments.
. Policy benefit reserve and related asset factors.
. Policy loan issuance.
. Reinsurance agreements.
. Ledger and non-ledger adjustments.

While the actuary's specific responsibilities vary from company to company, all companies must achieve these same authorization objectives. The actuarial department must participate in drafting standards for underwriting, retention and premium rating as a basis for proper authorization of policy issuance. Other control procedures relating to policy issuance, such as controlling policy applications and underwriting approvals and reviews, fall outside the normal scope of the actuarial department. Similarly, authorization of commission rates and payments is not usually within the actuarial realm.

Top management clearly looks to the actuaries to provide "correct" factors for the calculation of policy benefit reserves and related assets. Satisfying this desire requires regular and documented reviews and approvals by qualified personnel, considering:

- Compliance with contractual provisions.
- State insurance department regulations or requirements.
- The AICPA industry audit guide, Audits of Stock Life Insurance Companies.
- Evolving company experience and anticipated future experience.
- The continuing verification that modeling techniques will produce substantially the same results as a seriatim valuation.

Policy loans, policyholder dividends and experience rating refunds demand the same authorization standards as other company disbursements, but actuarial involvement may be necessary for certain calculations. Approvals of reinsurance agreements and settlements typically involve several departments, and again, actuarial review is appropriate.

Ledger and non-ledger adjustments arise for various reasons, so appropriate criteria and responsibility must be clearly established.

Accounting Objectives

The broad accounting objective in the premium cycle looks to whether the transactions and activities discussed under authorization are being properly recorded on a timely basis. The two specific control objectives demanding the actuary's attention are proper maintenance of the in force and the proper computation and accounting for policy benefit reserves and related assets. Common actuarial department procedures to ensure proper in force maintenance include:

- Reconciling insurance in force registers periodically to number and amounts of polices in valuation summaries.

- Checking the in force file in detail for accuracy and completeness periodically with specified procedures for timely correction of errors.

- Applying consistent cut-off dates for all changes to the in force file.

- Matching key data used in the valuation process with the in force file, application file or premium record file if the reserve valuation is an extract of the master file.

- Reconciling key data control totals between the GAAP in force extract and the statutory valuation where extracts of the in force file are used for valuation.

- Using input, output and data center controls to ensure correct processing of changes to the in force file.

While the actuarial department's control responsibilities primarily relate to those areas where the department performs calculations, the actuary's professional responsibility requires that he consult with other departments to ensure that related accounting objectives are met. The responsibility extends to all departments and all activities which could affect the proper maintenance of the in force.

Actuarial department procedures to ensure proper computation and recording of policy benefit reserves and related assets include:

- Reviewing to ensure the accuracy and completeness of the valuation factor file.

- Testing the valuation factor file application to the in force.

- Reviewing regularly to determine that all necessary reserves and related assets are established.

- Verifying the accuracy and completeness of work sheet adjustments by supervisory review.

- Determining that reinsurance reserve credits are consistent with each reinsurance agreement and that the assumptions are consistent with the underlying policies.

- Reviewing to determine the appropriate GAAP counterpart of each statutory reserve component.

- Establishing input, output and data center controls to ensure proper computations.

- Verifying that the same insurance in force file is used for GAAP and statutory purposes.

- Following established procedures for deferring acquisition costs to ensure proper matching of premium revenue and related costs.

Work sheet calculations require careful review; significant errors have occured due to poorly labelled or messy work sheets. Accounting control procedures involve both the actuarial and the accounting departments to varying degrees. Successful results are most likely when the two departments work together.

Safeguarding Objectives

In the context of the premium cycle, the broad control objective of safeguarding relates to premium cash receipts, records, operating systems, processing areas and other physical assets. These should be protected from misuse or destruction.

Policy Benefits Cycle

The policy benefits cycle, like the premium cycle, may require separate analysis for each line of business with different systems and procedures. Except possibly for the need to compile specific statistical information, the policy benefit cycle is similiar to the cash disbursement function common to all businesses.

Authorization Objectives

The actuary's direct responsibilities for the broad control objectives of authorization, accounting and safeguarding within the policy benefit cycle are limited. With respect to specific authorization objectives, the actuary is seldom involved with claims settlement or disbursement. Professional responsibility again suggests that the actuary consult with the claims department to ensure adequate technical understanding in unusual situations.

Accounting Objectives

The accounting objectives in the policy benefit cycle include:

- Reported claims should be properly processed.
- Adjustment, settlement and payment of claims should be in accordance with established procedures.
- Policy benefits should be properly recorded.
- Claim reserves and other related reserves should be adequate.
- Reinsurance assumed and ceded should be properly recorded.

As with the authorization objectives, the actuary's direct responsibilities with accounting objectives are limited. With respect to the adequacy of claim reserves on both direct business and reinsurance, the actuary's data needs require that he consult with the claims department and the accounting department to ensure that relevant statistical data is accurately captured. After learning claims department procedures for assigning and controlling claim numbers and adjusting or settling claims (by payment or closure), new attention must be given to every change in operating procedure which might affect the comparability of statistical data.

Safeguarding Objectives

The broad objective of safeguarding in the policy benefit cycle considers whether records and documents such as claim files, checks, drafts, vouchers and check requests are adequately protected from theft, misuse, destruction or misappropriation. The procedures to achieve these objectives are straightforward and require minimal actuarial attention.

"Judgmental" Reserves

To conclude, what additional controls should be applied to "judgmental" reserves? "Judgmental" refers to any reserve calculation not based on a prescribed table. Accident and health claim reserves typify this kind of reserve.

Before exercising judgment, the raw data to which the judgment is applied must first be understood and controlled. Before evaluating the data, the actuary must be aware of the procedures in the claims and accounting departments and their constancy over time in order to try to project future experience from past history and current conditions. Equally important, he must look beyond the company's operating procedures to consider economic and political influences affecting near and long term experience. From period to period, actuarial judgments may change based on factors such as unemployment levels, inflation, interest rates and company investment strategies, regulatory developments and governmentally imposed changes in the marketplace, e.g., National Health Insurance.

After doing everything possible to understand the data to be evaluated, the application of judgment becomes philosophical. Conservatism is the accepted philosophical standard in setting "judgmental" reserves, but conservatism has its limits. In this context, conservatism means realistic with reasonable provision for adverse deviation. From period to period the size of the reasonable provision for adverse deviation should not be varied. Each "judgmental" reserve should be tracked and re-evaluated to provide additional insight for subsequent periods.

Accounting Standard

In considering whether a particular "judgmental" reserve is reasonably conservative, recall the operative accounting standard, Statement of Financial Accounting Standards No. 5, entitled "Accounting for Contingencies." This statement prohibits the use of catastrophe reserves by property and casualty insurance companies because these reserves do not generally meet the criteria for recording an estimated loss. These criteria require both of the following conditions (quoting from Statement of Financial Accounting Standards No.5):

A. Information available prior to issuance of financial statements indicates that it is probable that an asset had been impaired or a liability had been incurred at the date of the financial statements. It is implicit in this condition that it must be probable that one or more future events will occur confirming the fact of the loss.

B. The amount of loss can be reasonably estimated.

While conservatism is encouraged, the accrual of a loss contingency is not permitted unless it is probable that the loss occured. Accrual is not appropriate if the likelihood is only "reasonably possible" or "remote."

This accounting rule attempts to standardize the way different companies apply judgment and conservatism in their accounting for loss contingencies. Realistically, the person setting the reserve must not only consider accounting standards, but he must also consider management's wishes that the reserve never be deficient.

To the extent the accounting standard and management preferences conflict, the optimal judgment becomes less clear. In such cases, the person making the judgment helps himself and his company by fully communicating the basis of his judgment. Involved parties must understand what underlying assumptions have influenced the judgment. While no formula for judgmental numbers can be devised, appropriate review of the underlying assumptions and the methods of calculation can at least eliminate the possibility of significant misinterpretations.

MR. SEAMAN: There are four basic areas which affect the responsibility of actuaries in life insurance companies. These four elements of reasonable accounting control for actuarial reserves are as follows:

1. Reliable masterfile for valuing policies in force.
2. An accurate set of actuarial factors with proper documentation.
3. Continual documentation of the appropriateness of GAAP assumptions.
4. A reliable set of data upon which to base estimates of unpaid claims.

A reliable masterfile is obviously important in determining the actuarial reserves for life insurance policies. In many cases, however, the personnel responsible for maintaining the accuracy of this information may not have an understanding of the importance of certain information to the life insurance reserves. Other users of masterfile information include claims and policyholder service personnel. Where others are involved in using the same data, there will obviously be more pressure from those areas to those responsible for maintaining the accuracy of that data than if the actuary were the only person using such data. In some cases however, these other users may not rely on computer stored information but rely on data in policy and claim files. In valuing life insurance company reseves, in most cases, it is impractical for the actuary to use any other data than that maintained on a computerized masterfile. It is therefore important that someone with an interest in the accuracy of the information needed for actuarial reserves maintain continuous communication with accounting and computer personnel to assure that he controls necessary for maintaining the accuracy of masterfile information are implemented.

Fortunately in my experience, errors in masterfile information have been minimal and in most cases non-existent. Erroneous data has often been very obvious. If controls have been insufficient to maintain a reliable masterfile, it is often so pervasive that management is well aware of it. The danger is that controls will break down before the errors become pervasive and obvious.

The second element is an accurate set of actuarial factors with proper documentation. Frankly, errors in factor calculation are rare in my experience. The most common form of error occurs when the wrong set of factors is used in determining actuarial liabilities. For example, a client company used actuarial factors for term to age 65 coverage for a policy which was life paid up at 65.

The area where I feel there has been a great lack of control is in the continuing documentation and appropriateness of GAAP assumptions. This documentation is not an integral part of the preparation of GAAP financial statements. It is, to be sure, part of the process in determining an appropriate set of assumptions for GAAP actuarial factors. However, once the factors have been established the presumed need and the motivation to document the continued appropriateness of such assumptions is not very great. Job and time pressures affect relative priorities. Since documenting assumptions does not affect work flow in producing actuarial valuations, such documentation receives a low priority.

In the past, for statutory accounting, mortality and interest assumptions have generally been conservative, and were intended to be conservative. Deviations from those assumptions were often quite obvious so the need to document appropriateness of assumptions was not even necessary. Also, pressures within the company to produce frequent financial statements, often on a monthly basis, and to explain financial results may have the effect of taking an actuary's attention away from the task of documenting the appropriateness of these assumptions. Periodically, at least annually, studies should be prepared showing current experience on lapses and mortality, especially lapses.

Finally, reasonable accounting controls would require a reliable set of data upon which to base estimates of unpaid claims. For large group writers and for companies writing a significant volume of accident and health insurance business, the importance of claim reserves and the need to develop reliable data in order to make a reasonable estimate of future liabilities is well understood. However, in many instances the accident and health line of business is a minor, but not necessarily insignificant, line of business compared to the life insurance line. As a result, methods of establishing claim reserves may be based upon rules of thumb, such as 20% of earned premium in the last 12 months, which may not be supported by experience. Often such experience is not even collected and analyzed. The methods used in analyzing and estimating reserves for unpaid claims involve many judgment elements and therefore require different skills than those used for analyzing and calculating reserves for life insurance policies. In addition information on paid claims, open claims, and closed claims is not often in the form that can easily be used in establishing or verifying a claim reserve method. Also, where accident and health insurance is a minor line of business the total liabilities for unpaid claims may be very small when compared to the size of the reserves for life insurnce policies. Despite the relative size of accident and health unpaid claim reserves, an improper estimate of accident and health claim reserves can distort the annual operating profit not only for accident and health insurance but also for the whole company.

Operating profits for life insurance business have been quite favorable for most life insurance companies. Accident and health insurance experience, particularly individual health, has not been nearly as satisfactory and in some cases has been very unsatisfactory. When operating results are good, there is often a tendency to make each operating line look good. Therefore the effort required to identify potential problems in estimating reserves for accident and health insurance policies sometimes is overlooked. Even when analyses are performed, there may be a tendency to be optimistic concerning current estimates of unpaid claims and to discount the experience of the past or the reliability of data.

Where accident and health insurance is a minor line of business, the responsibility for establishing and implementing changes in claim reserve procedures is often not well defined. Sometimes the accident and health claims function or the controllership function of a company will have the responsibility for establishing claim reserves. Usually this responsibility is in the form of implementing a common and consistently used method of estimating, such as case-estimated reserves, determining an average amount of unpaid claim per open claim, or some very broad estimate such as 20% of earned premium. Even when the actuary performs a final review, he may not have sufficient information to determine the reasonableness of any estimate.

Finally, it is important that accounting or data processing systems which implement a claim reserves method are working properly. It is probably best to illustrate the potential control weaknesses which might exist by an illustration. A former client of mine implemented many procedures to analyze weaknesses in their claim reserve process. After extensive analysis, the actuary implemented a claim reserve technique which included the timely evaluation of long term disability claims on a tabular reserve basis. All claims that should have had tabular reserves were identified and these reserves were calculated. However the reserves calculated did not all get recorded on the books of the company. Apparently for a couple of months prior to the end of the year, the system to carry these reserves forward to the computer data base did not include all of the calculated reserves as the actuary had expected.

By these illustrations, I hope I have pointed out the need for an interest by actuaries in the world of financial accounting controls.

MR. LESLIE J. LOHMANN: You mentioned the critical nature of the in force file; the fact that it is not part of the General Ledger and not subject to traditional double entry accounting controls. What effort is Peat, Marwick, or any other accounting firm that you may be aware of, making to encourage their clients to apply double entry accounting methods to the in force file?

MR. KAHAN: Public accounting firms generally would not recommend that an audit client undertake major systems revisions unless there is a significant weakness inherent in the old system. Although the absence of general ledger control over the in force is a potential weakness, this weakness can be largely mitigated by the control procedures I described earlier.

As clients are attempting to mechanize financial statement preparations and a major systems project is planned, we often would suggest that reserves and other in force related accounts be included at some point in the system.

MS. J. CLUNAS MCKIBBON: Under the recently enacted revision of the Canadian and British Insurance Companies Act, the Valuation Actuary must certify to the appropriateness of the assumptions which underlie the reserves. Further, in a rather extensive report required by the Federal Superintendent he must outline his methods of testing their appropriateness. The Canadian Institute of Actuaries has issued a series of guidelines to give direction to the Valuation Actuary.

The Valuation Actuary must be appointed by the Board of Directors and report to them as well as the Superintendent. The same reserves must be shown in all statements to policyholders, shareholders and public, and must be certified by the Valuation Actuary. Specific methods of testing are still in the process of evolving but include among others matching of cash flow of assets and benefits.

MR. KAHAN: The status of due professional care in this country would probably have to be determined by the courts if a question arose. Perhaps one or more states might follow the Canadian influence and force the actuary to assume at least some joint responsibility for the correctness and accuracy of the in force.