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Actuarial Aspects of SOX 404

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As insurance companies move to implement the requirements of Section 404 of the Sarbanes-Oxley Act (SOX 404), it is clear that examination of actuarial processing is a significant piece of the assessment of the company's internal control over financial reporting (ICFR). This is not surprising when one considers:

- Policy reserves often comprise 70-85 percent of total life insurance liabilities.
- DAC assets may represent as much as 40-70 percent of GAAP surplus.
- Loss reserves often represent a significant percentage of liabilities for companies writing property/casualty, health or disability business.
- Value of business acquired (VOBA) asset for purchases of a company or block of business may be a key driver of earnings.

In this article we present an overview of management's responsibilities under SOX 404 and then consider some aspects of implementation for actuarial functions.

Overview of SOX 404

For most public companies, other than foreign issuers, compliance is required by year-end 2004. Foreign issuers are required to comply with their fiscal year beginning after July 15, 2005. In addition, the NAIC/AICPA Working Group has exposed proposed revisions to the Model Audit Rule incorporating certain SOX 404 provisions as early as 2006, which will bring statutory financial statement preparation under similar requirements for most U.S. insurers. The NAIC is considering an exemption for smaller companies.

Management Responsibilities

The SEC rules implementing Section 404 of the Sarbanes-Oxley Act require management to:

- Accept responsibility for the effectiveness of the company's ICFR.
- Evaluate the effectiveness of the company's ICFR using suitable criteria.
- Support the evaluation with sufficient evidence, including documentation.
- Present a written assessment of the effectiveness of the company's ICFR as of the end of the company's most current year.

Compliance with these requirements must be addressed in management's annual report, which must contain a statement that the independent auditor has issued an attestation report on management's assessment of ICFR.

PCAOB Standard No. 2

The standards that the auditor must use to attest to management's assessment of ICFR are established in PCAOB Standard No. 2. On March 9, 2004, the Public Company Accounting Oversight Board (PCAOB) issued its Auditing Standard No. 2—an audit of internal control over financial reporting performed in conjunction with an audit of financial statements. This standard establishes performance and reporting requirements, when an auditor is engaged, to audit a company's financial statements and management's assessment of the effectiveness of ICFR. The standard describes an extensive process that will clearly include costs. The board notes in its release, however, that the benefits derived from developing and maintaining a system of effective ICFR are numerous.

Under the provisions of Standard No. 2, management's process for assessing the effectiveness of the company's ICFR should include the following:

- Determining which controls to test, including controls over all relevant assertions relating to significant accounts and disclosures in the financial statements.
- Evaluating the likelihood that control failure could result in a financial statement misstatement and the magnitude of such a misstatement.
- Determining the specific business units or locations to include in the evaluation.
- Determining whether any identified deficiencies in ICFR are significant or constitute material weaknesses.
- Communication of its findings.

Management cannot use the auditor's procedures or findings to support its assessment of the effectiveness of ICFR. Likewise, the standard is very specific as to the limited extent to which the external auditor may rely on the work of internal auditors, other company personnel or third parties working under the direction of company management.



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The Control Framework

Part of management's responsibility for evaluating the effectiveness of its ICFR is to identify a suitable control framework in which to evaluate the ICFR. The most common control framework being used in the United States is the Internal Control Integrated Framework published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Sarbanes-Oxley recognizes the COSO framework as an appropriate framework, but does not require it. There are other control frameworks, especially in Europe, which are in use. COSO considers all of the following components:

- *Control Environment* – The control environment sets the tone of an organization, influencing the control consciousness of its people.
- *Risk Assessments* – Every entity faces a variety of risks from external and internal sources that must be assessed both at the entity and the activity level. Section 404 compliance is concerned with the risks associated with misstating the company's financial statements.
- *Control Activities* – These policies and procedures help ensure management directives are carried out.
- *Information and Communication* – Identifying, capturing and communicating information pertinent to the key financial statement processes and controls in a form and time frame that supports all control components.
- *Monitoring* – Monitoring an internal control system—a process that assesses the quality of the system's performance over time.

COSO Control Framework

The COSO framework, as shown in Figure 1 is broader than financial reporting as it spans across the operations, financial reporting and compliance areas of the company. For SOX 404 compliance, the assessment of controls occurs over financial reporting but there is overlap in some areas of operations and compliance. Also, it spans the specific locations or business units included in the evaluation.

The Key Steps in an Effective Evaluation Process

We have identified the following major project steps that will be necessary to implement an effective evaluation process within the control framework:

1. *Plan and scope of the implementation.* It will be necessary to determine the locations/ business units

and the significant controls included. Define the project approach and identify milestones, timeline and resources.

2. *Document the controls.* Document the design of significant controls for all significant locations and business units.
3. *Evaluate the controls.* Evaluate the design and operating effectiveness of internal control over financial reporting and document the results of the evaluation.
4. *Identify and correct deficiencies.* Communicate the findings and correct any deficiencies where the evaluation step indicates deficiencies in the design and operating effectiveness of controls.
5. *Report on internal control.* Prepare management's written assertion about the effectiveness of ICFR.
6. *Independent audit of internal control.* Prepare information for the independent auditor to conduct the internal control audit.

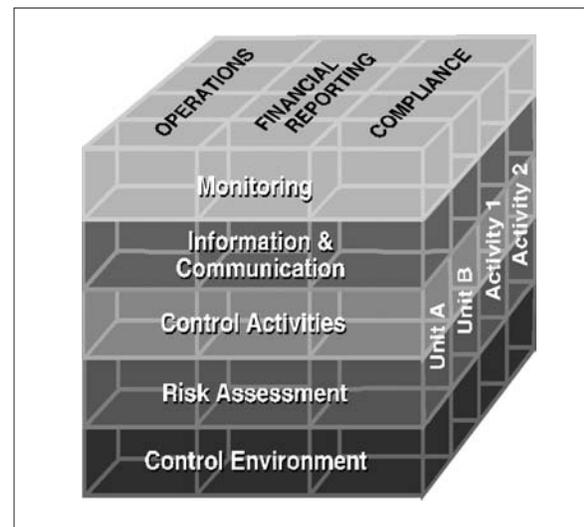
Implementation of SOX 404 in the Actuarial Context

We will now consider, within the structure of a control framework, some of the key issues and areas of concern that companies are encountering as they implement SOX 404 within the actuarial domain. These center around planning and scoping, risk identification, control assessment, testing controls and preparing the level of documentation.

Planning and Scoping. Though it is a time-consuming process, well-thought-out planning really pays off. We have seen in companies that are well into the process that management of the SOX effort is most frequently through a steering committee that includes officers from key business areas, including actuarial. A detailed plan is usually developed that identifies timing, tasks and responsibilities. Where outside resources are used, it is usually for project management and/or documentation assistance.

Generally, companies go through a detailed scoping phase, and then refine it as the project comes to life and develops. In order to identify the locations—or processes—included in the actuarial control evaluation, it is necessary to identify the actuarial processes and sub-processes that feed and support the financial

Figure 1 | COSO Control Framework



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Figure 2 | Management Review Process



statements. How is this done? Usually, this is done based on discussions with actuarial and non-actuarial personnel. Clearly identify the process owners and the sub-process owners and determine the objectives of the processes and sub-processes.

A key point is that the importance of the scoping phase is not underestimated. Indeed, there is some controversy around what is included in the scope of the actuarial evaluation. Nearly everyone

agrees that processes that directly support GAAP reserves, DAC and VOBA is included. But there are a number of more controversial areas upon which financial statement figures are more indirectly dependent. These include the pricing process and dependence upon pricing assumptions, the modeling process used in developing models for actuarial calculations, the performance of experience studies and the underwriting process. Moreover, sometimes GAAP reserves and tax reserves are dependent on statutory reserving processes.

In determining what areas are included in the scope, most companies use qualitative criteria to decide what processes are material to the financial reports—whether there are business or industry risks associated with the processes and whether the processes are connected with the direct production of financial results. Some have also developed quantitative criteria involving the estimated potential impact of misstatement on income from operations, revenues and assets.

Risk Identification. It is important that the types of risks involved in the actuarial processes and sub-processes are identified, for only when the risks are identified can one focus on the controls around those risks. We can characterize the “risk profile” of actuarial processing by noting that the processes of determining policy reserves, loss reserves, DAC balances and other actuarially determined amounts in the financial statements are summarized as consisting of four key risk areas:

- *Data* – The process of gathering and interpreting data. This might include policy inventories, paid claims data, mortality and persistency studies, etc.

- *Actuarial valuation systems* – The programs, spreadsheets and other processes used to calculate reserves, DAC, etc.
- *Compilation process* – The process of compiling calculated reserves and other pieces of financial statement balances for input to the statement assembly process.
- *Management review process* – The ways in which management evaluates the processes involved in data gathering and interpreting actuarial valuations and the compiling the results.

Let’s consider the kinds of business risks involved in actuarial processes and subprocesses. These may or may not apply to specific companies, but are illustrative of the types of risks that may be encountered.

- Incomplete data is used in the reserve calculations. For example, excluding claims data on certain manually handled products from a claim lag analysis and the loss reserves are misstated. Failing to update an extract program to include new plans results in policy reserves that are understated.
- The balances recorded on the balance sheet are not adequate because they do not accurately reflect contract obligations, or they are calculated using inappropriate methodologies and assumptions for the underlying contracts.
- Inaccurate approximations are used for interim valuations. It is not uncommon to use different techniques for interim versus annual valuations; this is a consideration.
- Performing untimely calculations. If calculations are not timely, this tends to strain the financial reporting process and the likelihood of misstatement may increase.
- Incorrectly coding system modifications may result in errors in calculations and a misstatement of output.

The compilation process is too complex and leads to a misstatement of results, which may include manually inputting a large number of separate calculations into a compilation spreadsheet, a poorly designed compilation spreadsheet or program, or a number of other conditions.

There is excessive reliance on a key individual for a specific subprocess. Actuarial resources are thinly spread across the organization, with little cross-training.

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Assessment of Control. The control evaluation process will involve identifying appropriate types of controls, determining whether appropriate controls exist and assessing whether the existing controls are effective. It is also important to consider the control environment in the entity, because, whatever controls are in place, there are many situations that could contribute to a controls being ineffective: human errors, collusion circumventing the separation of duties, management override of the structure to commit fraud, changing conditions which may weaken a system that was adequate at one time and situations in which an employee is performing conflicting job duties.

For each risk that is significant for a process or sub-process, it is necessary to place adequate controls, and document them. We have seen in many companies that good, effective controls are in place, but that there is not adequate documentation of those controls. There are several things that the control documentation should include. First, the purpose of the control needs documentation—what risks are being controlled? Second, responsibility for the control needs identification. Third, the control needs explanation. For example, a control is as simple as an actuary's tick marks on a worksheet indicating it has been reviewed—these tick marks need explanation. Finally, a procedure for providing evidence that the control was performed needs documentation. Examples of the types of controls we are seeing in the actuarial areas include:

- Reconciliation of control totals for input and output files of a computer process.
- Formal review processes to assess that the calculations, methodologies and assumptions used in reserve determination are accurate and appropriate.
- Reconciliation of the general ledger and calculated balances.
- Formal peer review of key areas of judgment in determining actuarial balances as well as critical manual calculations or adjustments.
- Overall review of the results by the chief actuary.
- Regular review by management of changes in actuarial assumptions and methodologies.
- Periodic sample testing of calculations.
- Trending and other analytical analysis of actuarially determined balances.
- Password protection of key spreadsheets and other programs.

- Cross-training of personnel to eliminate over-reliance on a single person.

The process owner should assess the controls and develop tests for the controls. The process owner identifies and documents these tests for the specific controls to determine the effectiveness of the control design and its current operation. Are the risks being managed? The process owner is responsible for documenting the test results and providing these results to management. Many companies are preparing documentation of controls and assessment results using a control assessment tool designed to facilitate the process.

Testing of Controls. While most companies have many controls in place, few have gone through a formal testing process of these controls before SOX 404. What does the process owner need to do in order to test an identified control? The key steps to this process should include:

- Determining what actions are necessary to define the effectiveness of the control.
- Adding and/or changing the test steps for each control as changes are needed.
- Executing the test activities.
- Documenting the test results, noting that all results must be available for both internal and external audit.
- Determining and documenting if compensating controls exist that would be effective if the specific control doesn't exist or is not effective.
- Preparing a remediation plan for the control if it is determined to not be effective and ensuring that it is executed.

Note that if a needed control is determined ineffective, remediation will generally require putting changes and controls in place that can demonstrate effectiveness over the year in real-time. In other words, an effective control requires placement prior to the date of attestation.

We have seen several techniques for testing controls in the actuarial area. One is a high-level review using inquiry and observation of control activities. This will usually involve interviewing individuals responsible for performing key process activities. Another is to perform a detailed walk-through of processes in selected assessments, inspecting control evidence maintained by the individuals responsible

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for performing the key process activities. A third approach is selecting a sample for which work is reperformed to ensure proper processing and recording.

Other considerations in assessing a control should include the length of time the control has been in operation and whether the control is operating as designed on a consistent and timely basis from period to period. Indicate in the assessment whether the control was overridden by management. Finally, identify any mitigating controls to follow should this control fail.

Documentation. In preparing documentation of the SOX 404 self-assessment process, companies should always keep in mind that both internal and external auditors review the documentation. We have identified the following “best practice” documentation that companies are using:

- Formal identification of processes and sub-processes in the actuarial area which impact the financial statement.
- Identification of the risks involved with these processes and subprocesses.
- Narrative descriptions of the processes and subprocesses.
- Process flow charts.

- A control matrix, which includes for each key control the control objective, the specific control activity, a description of the type of testing, the financial statement accounts involved and other relevant information.
- Documentation of testing the controls, as described above.

Conclusions

When one considers the number of processes and subprocesses, along with all of the potential business risks involved at various intervention points it is apparent that identifying and assessing all of the necessary controls in a company is a major project that will have significant cost. But what is the impact on the company if a control fails? Any of the following can occur:

- Misstated, inaccurate, or misleading reports
- Risk is not appropriately mitigated
- Fraud
- A cost of taking corrective action

As the PCOAB stated, “the primary benefit of an effective internal control structure... is to provide the company its management, its board and audit committee, and its owners and other stakeholders with a reasonable basis on which to rely on the company’s financial statements.” This is the goal that companies should keep in mind. §

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