

**REMOVING THE ELEMENT OF
SURPRISE FROM ACTUARIAL ESTIMATES**

BY

JOSEPH P. DAILEY AND LOREN F. SELZNICK

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JOSEPH P. DAILEY AND LOREN F. SELZNICK¹

Last year, property and casualty insurers encountered the first of two major changes in the disclosure rules for a critical part of their business--the provision for unpaid claims, called loss reserves. On March 15, 2006, a second major change will occur when actuaries who evaluated the December 31, 2005 reserves will be required to file an Actuarial Opinion Summary with regulators disclosing the difference between the carried reserves and their own estimates of unpaid claims, including the range of reasonable variation in their estimates. The changes to the disclosure rules followed years of erratic reserve activity in the casualty industry. The casualty business has always been cyclical, but in the 1980s, unusually large reserve deficiencies appeared without warning, forcing hundreds of seemingly healthy firms into bankruptcy and catching regulators responsible for monitoring their affairs by surprise.

Much of the surprise was attributable to broadly-worded disclosure statements that acknowledged the variability of actuarial estimates for slow-developing lines of business, but failed to quantify the range of variation. To reduce the element of surprise, two regulatory bodies, the National Association of Insurance Commissioners ("NAIC") and the Securities Exchange Commission ("SEC"), changed their rules to provide greater insight into reserve variability. The changes were the latest in a series of regulatory steps to improve the level of reserve disclosures and remove the mystery from actuarial estimates. The NAIC rules apply to all licensed property and casualty insurers, while the SEC rules apply to publicly-traded companies. The rules have the greatest impact on insurers writing "long-tail" casualty risks, such as general liability, medical malpractice, and environmental policies, that are extremely difficult to estimate and have been responsible for most of the turmoil in the industry.

With another reporting season at hand, this article will review the initial filings under the new rules and preview the additional disclosure requirements that take effect on March 15, 2006. The most comprehensive disclosures last year were made by publicly-traded insurers in their SEC filings. Although none of the companies provided all the data sought by the SEC, most improved their level of disclosures from prior years. The impact of the new NAIC rules is less clear. The initial filings confirmed there is a risk of material adverse deviation in the reserves of most long-tail insurers, but the extent of the risk will not be known until Actuarial Opinion Summaries are filed in March--and then only to regulators. Because of a controversial decision to treat the forthcoming disclosures as confidential, critical information on reserve variability will be withheld from the public, leaving many parties interested in the financial health of insurers, including ceding companies, reinsurers, and rating agencies, in the dark about an important barometer of financial stability.

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I

BACKGROUND

Because of their sensitivity to changes in assumptions, reserve estimates for long-tail casualty risks have been a perennial challenge for actuaries and insurers.² Fast closing lines of business with large numbers of small claims that are reported and settled quickly, such as automobile collision and homeowners property policies, require few assumptions and can be estimated with little difficulty. In contrast, slow-reporting lines with a small number of large, frequently litigated risks, such as asbestos and pollution exposures, require numerous assumptions and consequently are extremely difficult to estimate because a relatively small change in assumptions can produce materially different results. When low-frequency, high-severity risks are included in excess of loss policies or reinsurance treaties, estimates of ultimate loss are so heavily dependent on assumptions that they have been described as "informed guesswork." *Delta Holdings, Inc. v. National Distillers and Chemical Corp.*, 945 F.2d 1226, 1249-50 (2d Cir. 1990).

The highly variable nature of casualty risks has caused hundreds of bankruptcies and resulted in billions of dollars of losses for major insurers, including AIG, Hartford, Cigna, Chubb, St. Paul Travelers, Wausau, Crum & Forster, General Re, and Firemen's Fund.³ The rash of insolvencies in the 1980s led to Congressional hearings on the reserving practices of the industry, resulting in a February 1990 report that blamed the bankruptcies on a lack of actuarial opinions.⁴ In response to the Congressional report and a related study by A.M. Best, the NAIC changed the Annual Statement form in 1990 to require property and casualty insurers to provide a statement of actuarial opinion by a qualified actuary. The NAIC rule required actuaries to certify that the loss reserves met the requirements of the insurance laws of the domiciliary state, were computed in accordance with accepted reserving standards and principles, and made a reasonable provision for unpaid claims.⁵

2 See C.K. Khury, *The Actuarial Method--How Much Art, How Much Science*, The Actuarial Review, Aug. 1985; Casualty Actuarial Society, *Statement Of Principles Regarding Property & Casualty Loss and Loss Adjustment Expense Reserves* (1988) § II.

3 According to the *Economist*, over 200 casualty insurers became insolvent in 1985 alone. See *Best's Insurance Reports Property-Casualty* (1985) at 1133, 575, 522, 1980-81, 2214, 2324, 724, 1026, 2062, and 939. D. McLeod, "ITT To Take Big Charge To Bolster Hartford's Reserves," *Business Ins.*, Oct. 5, 1992, at 1; L. Scism, "Cigna Will Take Pretax Charge Of \$1.2 Billion," *WSJ*, Oct. 3, 1995, at A3; L. Scism, "Insurer Planning To Boost Reserves By Over \$1 Billion," *WSJ*, Dec. 12, 1995, at A4. The problem continues today, with S&P reporting that reserve additions cost the industry \$22 billion in losses in 2002 and \$17 billion in 2003. S&P, *U.S. Commercial-Lines Insurance Midyear Outlook 2004* (June 8, 2004). Among the recent victims was Reliance Group Holdings, which was declared insolvent in 2001. See Form 8-K (Jun. 22, 2001) at 2; Form 12b-25 (Apr. 3, 2001).

4 *Failed Promises: Insurance Company Insolvencies*, Report of Subcommittee on Oversight & Investigations of Energy & Commerce Committee, U.S. House of Reps. (Feb. 1990); A.M. Best, *Insolvency Study: Property/Casualty Insurers 1969-1990* (1991).

5 See NAIC, Annual Statement Instructions, Property & Casualty ¶ 12 (1991).

Insurers began submitting actuarial opinions to regulators in 1991, but the problems continued throughout the 1990s, as another wave of reserve adjustments led to additional losses and insolvencies, this time from asbestos and pollution claims. Once again, regulators were caught by surprise. After years of grappling with erratic reserve behavior, the Casualty Actuarial Task Force of the NAIC formed an Actuarial Opinion Instructions Working Group in 2001 to develop a set of recommended changes to the Annual Statement Instructions dealing with reserve disclosures in actuarial opinions. Meeting with regulators, actuaries, and other interested parties, the Working Group proposed a series of changes to the instructions in 2002, including revisions to the disclosure requirements relating to reserve variability. In 2004, the NAIC adopted the changes recommended by the Working Group and Task Force to minimize "the impact of insurance company failures...."⁶

As the NAIC was changing the Annual Statement instructions, the Actuarial Standards Board began developing a standard of practice for statements of actuarial opinion.⁷ After circulating several exposure drafts, the Board adopted Actuarial Standard Of Practice No. 36 ("Standard No. 36"), effective October 15, 2000.⁸ *Standard No. 36* requires actuaries to state if there is a significant risk of a material adverse deviation in the reserves and, if there is, to include an explanatory paragraph stating the amount of deviation they consider material and the major factors that give rise to the uncertainty. Early drafts of *Standard No. 36* encouraged actuaries to use probability assumptions to measure reserve variability, but the provision was deleted when questions were raised concerning the existence of a generally accepted methodology for quantifying variability.⁹ *Standard No. 36* was incorporated in the new disclosure rules adopted by the NAIC in 2004.

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- 6 NAIC, *Regulatory Guidance On Property and Casualty Statutory Actuarial Opinions* (Oct. 5, 2004) at 2.
- 7 The Actuarial Standards Boards ("ASB") is an independent body established in 1988 by the American Academy of Actuaries, the American Society of Pension Actuaries, the Casualty Actuarial Society, the Conference of Consulting Actuaries, and the Society of Actuaries to promulgate standards of practice for the actuarial profession. The standards "are intended to provide actuaries with a framework for performing professional assignments, and to offer guidance on relevant issues, recommended practices, documentation, and disclosure." Actuarial Standards Board, *Proposed Introduction To The Actuarial Standards Of Practice* (Oct. 2003) at § 3.11.
- 8 See ASB, *Proposed Actuarial Standard Of Practice*, Third Exposure Draft (Sep. 1999), Transmittal Letter To Members, at vii.
- 9 The deleted section provided: "The actuary may make probability assumptions regarding the likelihood of adverse deviations in considering whether there is a significant risk of material adverse deviation....While probability models, scenario testing, or other modeling techniques are tools available to help the actuary consider the implications of uncertainty, the actuary is not required to use such tools to develop an opinion regarding the risk of material adverse deviation." ASB, Third Exposure Draft, *Proposed Actuarial Standard Of Practice* (Sep. 1999), at § 3.76. After *Standard No. 36* was adopted, two former presidents of the Casualty Actuarial Society developed a methodology, called the coefficient of estimation, that calculated the probability of reserve variations based on historical data. See Dailey & Selznick, *New Disclosure Rules For Property and Casualty Insurers*, Mealey's Emerging Securities Litigation Report (Dec. 20, 2004) at 12.

While the NAIC and the Actuarial Standards Board were developing rules for actuarial opinions, the SEC was addressing similar concerns in the context of accounting estimates by publicly-traded companies. In a series of pronouncements, the SEC required companies to disclose the effect of critical accounting estimates on their results of operations and financial condition, including the sensitivity of reported results to changes in estimates and assumptions. The SEC pronouncements apply to all public companies, but the reserves of casualty insurers were cited as a principal example of a critical accounting estimate.¹⁰ The disclosures are to appear in the Management Discussion and Analysis section of Annual Reports on Form 10-K, where companies are required to discuss important business and financial issues "with investors in a clear and straightforward manner."¹¹

Taken together, the new NAIC and SEC rules changed the landscape for reserve disclosures by property and casualty insurers. In place of "cookie cutter" disclosures that generally alert users to the variability of reserve estimates, but fail to quantify the risks, actuaries and insurers are now required to discuss the specific risks and uncertainties that could result in a material adverse deviation and, more importantly, quantify the range of variation in the reserve estimates.

II

THE NAIC DISCLOSURES

The changes adopted by the NAIC in 2004 were implemented in two stages. The first stage applied to actuarial opinions filed on March 1, 2005 for reserve estimates as of December 31, 2004. The most significant change was based on *Standard No. 36* and its explicit recognition of the uncertainty inherent in the reserving process.¹² Actuaries are now required to state in their opinions whether there are significant risks and uncertainties that could result in a material adverse deviation in the reserves and to identify the materiality standard used to make the determination. Although the same information had been required by *Standard No. 36* since 2001, a standard of practice does not carry the force of law, and compliance with the standard had been uneven--in fact, four of the seven insurers that were declared insolvent in 2003 did not warn of a risk of material adverse deviation in 2002.

¹⁰ See *Disclosure in Management's Discussion and Analysis About the Application of Critical Accounting Policies*, 67 Fed. Reg. 35620 (2002) (to be codified at 17 C.F.R. Pts. 211, 231 & 241 (proposed May 10, 2002) at n. 53.

¹¹ *Commission Guidance Regarding Management's Discussion and Analysis Of Financial Condition and Results of Operations*, Fed.Sec.L.Rep. ¶ 87,127 (Dec. 19, 2003) at § I(A).

¹² In a section entitled "Uncertainty," *Standard No. 36* notes that "[a]ctuarial estimates are inherently uncertain because they are dependent on future contingent events. Moreover, loss and loss adjustment expense reserve estimates are generally derived from analyses of historical data, and future events or conditions often differ from the past. Even when appropriate actuarial techniques and assumptions indicate that the stated reserve amount is reasonable, the actual amount necessary to settle the unpaid claims can be significantly different from the stated reserve amount." *Standard No. 36*, § 3.6.

A. *The Initial Filings Last Year.*

To lessen, if not eliminate, the element of surprise in reserve estimates, the NAIC rules for actuarial opinions were amended in 2004 to require actuaries to specifically address the risk of material adverse deviation, as follows:

"6(a). *Risk of Material Adverse Deviation.* The Appointed Actuary must provide specific RELEVANT COMMENT paragraphs to address the risk of material adverse deviation. The actuary must identify the materiality standard and the basis for establishing this standard. The materiality standard must be disclosed in \$US in Exhibit B: Disclosures. The actuary should explicitly state whether or not he or she reasonably believes that there are significant risks and uncertainties that could result in material adverse deviation. If such risk exists, the actuary should include an explanatory paragraph to describe the major factors, combination of factors, or particular conditions underlying the risks and uncertainties that the actuary reasonably believes could result in material adverse deviation. The explanatory paragraph should not include general, broad statements about risks and uncertainties due to economic changes, judicial decisions, regulatory actions, political or social forces, etc., nor is the actuary required to include an exhaustive list of all potential sources of risks and uncertainties." NAIC, *Annual Statement Instructions, Actuarial Opinions*, § 6(a) (2004).

In advance of the filings, the Casualty Actuarial Task Force stressed the importance of the new disclosure rules, telling actuaries it was no longer permissible to "provide disclaimers, exclusions, reliance, and caveats about general uncertainty...."¹³ The Task Force also reminded actuaries that while *Standard No. 36* "only requires the actuary to disclose the amount of adverse deviation judged to be material *if* the actuary reasonably believes that such risk exists, the Instructions require the actuary to disclose such a materiality standard in all cases." *Id.* at 4. The Task Force said it expected to see an explicit discussion of "the factors giving rise to the presence or absence of the risk of material adverse deviation." *Id.* at 5.

While useful, the changes adopted last year only require *qualitative* disclosures of reserve variability--i.e., a discussion or commentary on the reasons for the variation--rather than *quantitative* disclosures, such as stating the range of variation in the reserves. When a risk of material adverse deviation is acknowledged, disclosure of the dollar value of the materiality standard can be viewed as a statement of minimum variability, but the upper range of variability remains a mystery and may be significantly greater than the minimum. Following is a summary of the actuarial disclosures last year for the thirty largest licensed insurers that write predominantly long-tail risks.

¹³ NAIC, *Regulatory Guidance On Property and Casualty Statutory Actuarial Opinions* (Oct. 5, 2004) (the "Regulatory Guidance"), attached as Appendix 9, Property and Casualty Practice Note for Statements of Actuarial Opinion, American Academy of Actuaries (Dec. 2004).

TABLE 1
ACTUARIAL DISCLOSURES BY LONG-TAIL INSURERS¹⁴
For Net Reserves As Of December 31, 2004
(In Millions Of Dollars)

| <i>Company</i> | <i>Long-Tail Reserves</i> | <i>Adverse Risk</i> | <i>Materiality Standard</i> | <i>Percent</i> | <i>Minimum Deviation</i> | <i>% Of Income</i> |
|---------------------------|---------------------------|---------------------|-----------------------------|----------------|--------------------------|--------------------|
| 1. Continental Casualty | 10,571 | Yes | Surplus | 25% | 1,704 | 214.0% |
| 2. General Re | 8,078 | Yes | Other | 1% | 10 | 2.0% |
| 3. Zurich American | 7,673 | Yes | Surplus | 10% | 490 | 45.9% |
| 4. Liberty Mutual | 6,681 | Yes | Reserves | 10% | 1,060 | 517.0% |
| 5. Federal | 6,408 | Yes | Other | 20% | 1,553 | 114.2% |
| 6. National Union | 6,106 | Yes | Surplus | 20% | 1,711 | 198.5% |
| 7. St. Paul Fire | 5,992 | Yes | Surplus | 10% | 377 | 149.6% |
| 8. American Home | 5,784 | Yes | Surplus | 20% | 863 | 184.4% |
| 9. Employers Re | 4,798 | Yes | Surplus | 10% | 551 | 151.8% |
| 10. Travelers Casualty | 4,740 | Yes | Surplus | 10% | 334 | 32.6% |
| 11. American Re | 4,491 | Yes | Reserves | 10% | 610 | 361.9% |
| 12. Travelers Indemnity | 3,901 | Yes | Surplus | 10% | 464 | 33.2% |
| 13. Hartford Fire | 3,701 | Yes | Surplus | 10% | 457 | 123.3% |
| 14. Everest Re | 3,229 | Yes | Surplus | 15% | 314 | 98.4% |
| 15. Swiss Re America | 2,970 | Yes | Surplus | 10% | 265 | 258.6% |
| 16. Hartford Accident | 2,915 | Yes | Surplus | 10% | 360 | 84.1% |
| 17. SAIF | 2,242 | Yes | Surplus | 10% | 46 | 1,214.6% |
| 18. Berkley | 2,044 | Yes | Reserves | 10% | 231 | 104.1% |
| 19. Cincinnati | 1,713 | No | Surplus | 20% | 0 | 0.0% |
| 20. Employers Wausau | 1,607 | Yes | Surplus | 20% | 193 | 223.0% |
| 21. Commerce & Industry | 1,607 | Yes | Surplus | 20% | 309 | 378.6% |
| 22. Odyssey America Re | 1,576 | No | Reserves | 9% | 0 | 0.0% |
| 23. Pacific Indemnity | 1,493 | Yes | Other | 20% | 230 | 76.7% |
| 24. Great American | 1,423 | No | Surplus | 4% | 0 | 0.0% |
| 25. USF&G | 1,324 | Yes | Surplus | 10% | 128 | 15.6% |
| 26. Converium Re | 1,286 | Yes | Other | 100% | 25 | 8.4% |
| 27. GE Re | 1,221 | Yes | Surplus | 10% | 69 | 43.0% |
| 28. Health Care Indemnity | 1,188 | No | Surplus | 20% | 0 | 0.0% |
| 29. Phoenix | 1,163 | Yes | Surplus | 10% | 100 | 32.0% |
| 30. Standard Fire | 1,127 | Yes | Surplus | 10% | 92 | 36.7% |

Several observations are in order. *First*, there has been a noticeable increase in the percentage of opinions reporting a risk of material adverse deviation in the reserves. In 2002, actuaries for only twelve of the thirty largest long-tail insurers warned of a material adverse deviation--and of the eighteen that did not warn, thirteen were for insurers that had increased prior-year reserves by more than 20% of surplus. Last year, actuaries for twenty-six of the thirty largest long-tail writers warned of a material adverse deviation, suggesting the new rule had the desired effect.

¹⁴ For purposes of this analysis, an insurer is considered to write predominantly long-tail risks if its long-tail reserves are at least 70% of their total reserves. Long-tail casualty risks include Workers Compensation, Commercial Multiple Peril, Products Liability (Occurrence and Claims-Made), Medical Malpractice (Occurrence), Other Liability (Occurrence and Claims-Made), and Reinsurance (Nonproportional Assumed Liability).

Second, there is no agreement on the appropriate standard for measuring materiality. Most of the opinions in Table 1 used a surplus standard, but the materiality percentage ranged from 4% to 25%. The lack of a uniform standard is not surprising. In its *Regulatory Guidance*, the NAIC discussed a "bright line indicator" of materiality that would trigger regulatory interest, but went on to say the bright line test was "not intended to provide a substitute" for the judgment of the individual actuary or "relieve the actuary of the obligation of independently establishing his or her own materiality standard." *Regulatory Guidance* at 4-5. The end result is that actuaries are expected to set their own standard of materiality, which is curious. Actuaries are not financial analysts and while they are qualified to evaluate reserve variability, they should not be asked to set a materiality standard, which is the job of regulators.¹⁵ Actuaries should disclose the variability of the reserves, and regulators should determine its significance against whatever measures they deem appropriate.

Third, the "bright line indicator" of materiality discussed in the *Regulatory Guidance* is a poor measure of reserve variability. Under the test, a variance is material "[i]f 10% of the insurer's net reserves...are greater than the difference between Total Adjusted Capital and Company Action Level Capital." *Id.* at 4. It is unclear why "net reserves" are part of the test since insurers with stable business and a reserve surplus are more likely to report a risk of material adverse deviation than insurers with variable business and a reserve deficiency. Fortunately, most actuaries did not rely on the bright line indicator last year, if they had only six of the top thirty firms would have warned of a material adverse deviation, rather than the twenty-six that actually warned. A more appropriate test would be based on Schedule P, which contains a ten-year loss development history that could be used to construct a series of materiality tests for reserve variability. A Schedule P test is used to trigger additional disclosures in the Actuarial Opinion Summaries due on March 15, 2006.

Fourth, none of the actuarial opinions used an income test of materiality, the accepted measure for evaluating financial results under the securities law. The use of a balance sheet test is consistent with the regulatory goals of the NAIC, which are different than the SEC. The NAIC is concerned with insolvencies, while the SEC is concerned with disclosures, believing that "honest markets require honest publicity." *Basic Inc. v. Levinson*, 485 U.S. 224, 230 (1988). Because its interest extends beyond the balance sheet to the quality and variability of earnings, the SEC has a lower materiality threshold for disclosures than the NAIC, generally 5% of net income.¹⁶ While the SEC threshold may appear overly cautious, an income test would provide an early warning sign for regulators. If an income test were applied to the minimum deviations in Table 1, their materiality to the financial performance of the insurers would be pronounced.

¹⁵ Some regulators favored adopting a uniform standard, but the NAIC decided to leave it up to the actuaries. See Laura Deatrck, *Heated Opinions: Proposed Changes to the Instructions for the P/C Statement of Actuarial Opinion*, NAIC Research Quarterly (Summer 2002) at 39.

¹⁶ The SEC disavows a strict numerical test, but recognizes that 5% of net income is used as a "rule of thumb" for materiality. See SEC, *Staff Accounting Bulletin No. 99 - Materiality* (Aug. 12, 1999) at 4. The SEC has reminded registrants, however, "that there are numerous circumstances in which [items] below 5% could be material." *Id.*

B. Actuarial Opinion Summaries.

The second series of changes to the NAIC rules will take effect on March 15, 2006, when actuaries will be required to file Actuarial Opinion Summaries with state regulators. The requirement is a product of the Property And Casualty Actuarial Opinion Model Law, which was adopted by the NAIC in 2003.¹⁷ While only three states have enacted the model law, over thirty others require an Actuarial Opinion Summary by rule or regulation.¹⁸

The Actuarial Opinion Summary is a misnomer since it summarizes "information of particular importance to regulators" from the *actuarial report*, not the actuarial opinion, including:¹⁹

- "A. The Appointed Actuary's range of reasonable estimates for loss and loss adjustment expense reserves, net and gross of reinsurance; and/or
- B. The Appointed Actuary's point estimates for loss and loss adjustment expense reserves, net and gross of reinsurance; and
- C. The Company's recorded loss and loss adjustment expense reserves net and gross of reinsurance; and
- D. The difference between the company's carried reserves and the Appointed Actuary's point estimate and/or range of reasonable estimates, net and gross of reinsurance; and
- E. Where there has been one-year adverse development in excess of 5% of surplus, as measured by Schedule P, Part 2 Summary, in at least three of the past five calendar years, include explicit description of the reserve elements or management decisions which were the major contributors." NAIC, *Annual Statement Instructions Property and Casualty, Actuarial Opinion* (2005) ¶ 8.

¹⁷ In addition to the Actuarial Opinion Summary, the model law requires actuaries to prepare and maintain an actuarial report, classifies the Actuarial Opinion Summary and Actuarial Report as confidential, and provides actuaries with limited immunity from suit by third parties. See Dailey & Selznick, *Recent Developments In Actuarial Malpractice Litigation*, Mealey's Litigation Report (Jan. 8, 2004) at 6.

¹⁸ See 28 Texas Ann. Code § 7.9 (2005); Va. Code § 38.2-1315.1 (2004); Neb. Rev. Stat. 44-7902 & 44-7903 (2005). At least thirty-three states require the Actuarial Opinion Summary without the model law, including California, New York, Illinois, Pennsylvania, New Jersey, Delaware, and Wisconsin. Three states, Florida, Kentucky, and Oregon, require a summary only if requested by the Department.

¹⁹ NAIC, *Regulatory Guidance On Property and Casualty Statutory Actuarial Opinions* (Dec. 4, 2005) at 6.

(1) Confidentiality

The Actuarial Opinion Summaries will provide valuable information from the actuarial reports that is "needed to help the regulator determine the health of a company."²⁰ For insurers writing highly variable lines of business, disclosure of a range of estimates will allow regulators to judge the sensitivity of the reported results to reasonable alternative estimates, giving them a better idea of the true financial position of the company. The data would also be of value to ceding companies and reinsurers that make significant contractual commitments to insurers, and to rating agencies that evaluate their financial condition for creditors. Unlike policyholders, who rely on regulators to monitor insurers, these parties have the interest and ability to perform their own analyses, and the Actuarial Opinion Summaries would assist in that process.

Unfortunately for the public, the benefits of the Actuarial Opinion Summaries will only be available to regulators. In a controversial decision, the NAIC decided to treat the summaries as confidential.²¹ The ostensible reason for the decision--the need to protect proprietary data from rivals--is questionable.²² Disclosure of a range of estimates would not reveal underlying assumptions or methodologies, as feared. A reserve analysis for even a small insurer involves a staggering array of possibilities--the numbers are so large they are called googols and googolplexes depending on the number of zeroes--and even the cleverest competitor could not possibly divine the combination that produced the estimate. Hopefully the NAIC will revisit the confidentiality issue in the future as promised.

(2) Range Of Estimates

One of the most "hotly debated" topics among the Working Group that developed the NAIC disclosure rules was whether the Actuarial Opinion Summary should include a point estimate, a range of estimates, or both. The Working Group agreed the greatest concern was the "situation when the carried reserves are at the low end of an actuary's range....In general, the members preferred to see a range disclosed but did not want to preclude a best estimate if that was easier for the actuary. For this reason, the working group agreed to leave the choice to the actuary." *Deatrick* at 39.

²⁰ L. Deatrick, *Heated Opinions: Proposed Changes to the Instructions for the P/C Statement of Actuarial Opinion*, NAIC Research Quarterly (Summer 2002) at 39 ("Deatrick").

²¹ The Working Group that developed the confidentiality policy was "sharply divided" on the issue and recommended continued debate in the future. *Deatrick* at 39. In its *Regulatory Guidance*, the Task Force noted "[t]here was a constituency of regulators favoring more disclosures within the Opinion" but regulators "who favored delay and further study" prevailed. *Regulatory Guidance* at 2.

²² The NAIC instructions claim that both the actuarial report and actuarial opinion summaries contain "significant proprietary information," but do not say what it is. Workpapers and software frequently contain proprietary data, but reports and summaries normally do not. *Cf.*, *Delta Holdings, Inc. v. National Distillers and Chemical Corp.*, 945 F.2d 1226, 1243 (2d Cir. 1991).

The decision to allow disclosure of a point estimate rather than a range of estimates, without regard to the nature of the risks, is inconsistent with sound actuarial principles. Under *Standard No. 36*, the "appropriate type and extent of reserve analysis will vary with the nature of the claims and exposures, the historical pattern of loss development, and the expectation of future conditions as they affect the liabilities associated with unpaid losses and loss adjustment expenses." § 3.5. When there is a high degree of uncertainty in the risks, a range is needed convey the sensitivity of the reported results to reasonable alternative assumptions.²³ The greater the uncertainty, the wider the range of alternative assumptions that may be adopted, and the more important the need to consider the effect of those assumptions on reported results. If a range of estimates is not required by the NAIC, it appears to be called for by *Standard No. 36*, as follows:

"The actuary should consider the sensitivity of the reserve estimates to reasonable, alternative assumptions. When the use of reasonable, alternative assumptions would have a material effect on the results of the actuary's reserve analysis, the actuary should consider the implications regarding the risks and uncertainties associated with such an effect." § 3.55.

A point estimate alone may be appropriate for fast-closing lines of business, but it makes little sense for slow-developing risks that historically have exhibited significant volatility. Providing a point estimate within a range of estimates is fine, but a point estimate alone fails to provide the insight required to evaluate the financial position of a long-tail insurer, and may be materially misleading if it is described as the "best" or "most reasonable" estimate when there is no statistical analysis to support such a description.

(3) Probabilities

As noted, early drafts of *Standard No. 36* included a provision encouraging actuaries to use probability tests to measure reserve variability, but was deleted when questions were raised about the existence of a generally accepted methodology for calculating probabilities. Since that time, a new methodology has been developed for calculating the probability of reserve variations based on historical data. Among other things, the new methodology would allow actuaries to say that a selected estimate is in a certain percentile of the range of all possible outcomes that can be calculated from the historical data.²⁴

²³ "The actuary should consider the implications of uncertainty in loss and loss adjustment expense reserve estimates in determining a range of reasonable reserve estimates and the need for an explanatory paragraph on significant risks and uncertainties in the statement of actuarial opinion." *Standard No. 36*, § 3.6. The Statement Of Principles of the Casualty Actuarial Society also recognizes that the "uncertainty inherent in the estimation of required provisions for unpaid losses...implies that a range of reserves can be actuarially sound." *See Statement Of Principles Regarding Property & Casualty Loss and Loss Adjustment Expense Reserves* (1988), at § II(3).

²⁴ See C.K. Khury & Irene K. Bass, *A Probabilistic Framework for Evaluating Materiality and Variability In Loss Reserve Estimates* (2003).

Probability tests can also be used to determine the likelihood that future development will fall outside a range of estimates, which is critical when evaluating highly variable lines of business.²⁵ Over the past twenty years, long-tail insurers have reported results that exceeded an actuarial range established only a few years earlier, and sometimes by large margins. While regulators may be generally aware of this phenomenon, probability testing--by line of business or combined lines of business--would quantify the risk of a material adverse deviation in the estimates, providing regulators, and hopefully the public, with a better understanding of the true financial position of the insurer.

III

SEC DISCLOSURES

Publicly-traded insurers, which conduct business through wholly-owned subsidiaries and affiliates, are subject to the concurrent jurisdiction of the SEC and state regulators, which have markedly different disclosure standards. The SEC standards are set forth in three pronouncements on critical accounting estimates: a December 12, 2001 release that provided cautionary advice regarding the sensitivity of financial statements to accounting estimates (the "SEC Guidance");²⁶ a proposed rule that requires qualitative and quantitative disclosures of critical accounting estimates, including sensitivity tests to measure the effect of reasonable alternative assumptions or estimates on reported results (the "Proposed Rule");²⁷ and a December 19, 2003 interpretative release on estimates that may be material because of the levels of subjectivity and judgment necessary to account for highly uncertain matters ("the SEC Interpretation").²⁸

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- 25 Probability testing should be done by line of business, since each type of risk has its own development characteristics. The type of testing is also important. Many probability models require actuaries to make assumptions about the distribution of outcomes, so if the assumptions are flawed, the probabilities are flawed as well. The new methodology introduced in 2003 does not require any assumptions about the shape of the distribution--it is based solely on historical results. If an actuary decides that future reporting patterns will differ from past patterns, and makes his estimate accordingly, the methodology shows the probability of the new estimate using the original patterns, thus quantifying the effect of the decision to depart from historical patterns. While an actuary is able to override historical patterns, the methodology calculates the difference attributable to actuarial judgment, a feature that effectively requires the actuary to demonstrate the soundness of the decision to depart from historical data. See C.K. Khury & Irene K. Bass, *A Probabilistic Framework for Evaluating Materiality and Variability In Loss Reserve Estimates* (2003).
- 26 *Commission Guidance Regarding Management's Discussion and Analysis Of Financial Condition and Results of Operations*, Fed.Sec.L.Rep. ¶ 87,127 (Dec. 19, 2003) at § I(A).
- 27 See SEC Proposed Rule, *Disclosure in Management's Discussion and Analysis About the Application of Critical Accounting Policies*, 67 Fed. Reg. 35620 (2002) (to be codified at 17 C.F.R. Pts. 211, 231 & 241 (proposed May 10, 2002), 2001-02 Fed.Sec.L.Rep. ¶ 86,638.
- 28 See *Commission Guidance Regarding Management's Discussion and Analysis Of Financial Condition and Results of Operations*, Fed.Sec.L.Rep. ¶87,127 (Dec. 19, 2003).

Taken together, the SEC pronouncements require publicly-traded insurers to make both qualitative and quantitative disclosures of reserve variability.²⁹ Qualitative disclosures must include a description of

"the methodology underlying each critical accounting estimate, the assumptions that are about highly uncertain matters and other assumptions that are material. If applicable, a company would have to discuss why it could have chosen in the current period estimates that would have had a materially different impact on the company's financial presentation. Similarly, a company would have to discuss, if applicable, why the accounting estimate is reasonably likely to change in future periods...."³⁰

For casualty insurers, the most significant part of the SEC rules is the requirement for disclosures that quantify the sensitivity to change of assumptions or estimates that have a material effect on the results of operation or financial condition. As the SEC explained in its recent interpretation, because "critical accounting estimates and assumptions are based on matters that are highly uncertain, a company should analyze their specific sensitivity to change, based on other outcomes that are reasonably likely to occur and would have a material effect." *SEC Interpretation* at 75,065. There are two ways of demonstrating sensitivity in the 10-K disclosures:

"First, the company could choose to assume that it changed the most material assumption or assumptions underlying the critical accounting estimate and discuss the results of those changes. Second, the company could choose to assume that the critical accounting estimate itself changes. In addition to providing two choices of methods to demonstrate sensitivity, we allow a company to determine the amount of the change that it assumes for this analysis rather than attempting to standardize those amounts....For purposes of the sensitivity analysis, a company should disclose, if known or available, the likelihood of occurrence of the changes it selects, such as estimated probabilities of occurrence...." *Proposed Rule* at 85,421.

²⁹ While the Proposed Rule remains under consideration, quantitative disclosures may already be required "to the extent material if quantitative information is reasonably available." *SEC Interpretation* at § III(B)(3). The disclosures required in the Proposed Rule are similar in substance to those described in the SEC Interpretation, which was issued eighteen months later. Both the Proposed Rule and SEC Interpretation require a description of the methodologies and assumptions used to develop the estimates, a review of the accuracy of prior estimates, and an analysis of the sensitivity of reserve estimates to reasonable alternative assumptions that would have a material impact on the financial condition or operating performance of the registrant. The SEC Interpretation discusses the disclosures generally, while the Proposed Rule describes them in detail.

³⁰ *See Disclosure in Management's Discussion and Analysis About the Application of Critical Accounting Policies*, 67 Fed. Reg. 35620 (2002) (to be codified at 17 C.F.R. Pts. 211, 231 & 241 (proposed May 10, 2002), 2001-02 Fed.Sec.L.Rep. ¶ 86,638.

Following the cautionary advice in December 2001, publicly-traded insurers began including a section on critical accounting estimates in their annual reports. Initially, most of the disclosures used the same broadly-worded generalities that had previously appeared in other parts of the annual reports, and did not include any of the quantitative data called for by the Proposed Rule or SEC Interpretation. The disclosures improved in 2003, with ten of the top twenty public insurers providing an extensive *qualitative* description of the reserving process. Qualitative disclosures, however, do not measure the sensitivity of financial results to changes in assumptions or estimates, and with limited exceptions, the major insurers did not provide meaningful quantitative disclosures in 2003--in fact, eleven companies did not provide any quantitative analysis in their 10-Ks. Three insurers did a quantitative analysis of reserve variability in 2003, but did not provide all the information called for by the Proposed Rule.³¹

The level of quantitative disclosures by publicly-held insurers improved noticeably last year. Table 2 summarizes the quantitative disclosures of the twenty largest holding companies with operating subsidiaries that write predominantly long-tail risks.

TABLE 2
QUANTITATIVE DISCLOSURES BY
LONG-TAIL PUBLIC COMPANIES IN 2004
(IN MILLIONS OF DOLLARS)

| <i>Company</i> | <i>Long-Tail Reserves</i> | <i>Type Of Sensitivity Test Assumptions Estimates</i> | | <i>Probability Test</i> |
|------------------------|---------------------------|---|-----|-------------------------|
| 1. St. Paul Travelers | 23,536 | No | No | No |
| 2. AIG | 19,412 | Yes | Yes | No |
| 3. Berkshire Hathaway | 13,847 | Yes | No | No |
| 4. CNA | 10,705 | Yes | No | No |
| 5. Hartford | 10,272 | Yes | Yes | No |
| 6. Chubb | 9,226 | No | Yes | No |
| 7. ACE | 4,714 | Yes | No | No |
| 8. White Mountains | 3,359 | Yes | No | No |
| 9. Everest Re | 3,346 | Yes | No | No |
| 10. W.R. Berkley | 3,312 | No | Yes | No |
| 11. Transatlantic | 2,380 | Yes | Yes | No |
| 12. American Financial | 2,305 | Yes | Yes | No |
| 13. Safeco | 2,074 | No | Yes | No |
| 14. Odyssey Re | 2,002 | No | No | No |
| 15. Cincinnati | 1,713 | No | Yes | No |
| 16. Markel | 1,200 | Yes | Yes | No |
| 17. HCA | 1,188 | Yes | No | No |
| 18. Old Republic | 1,146 | No | Yes | No |
| 19. Ohio Casualty | 1,106 | No | Yes | No |
| 20. Argonaut | 966 | Yes | No | No |

³¹ See J. Dailey & L. Selznick, *New Disclosure Rules For Property and Casualty Insurers*, Mealey's Emerging Securities Litigation Report (Dec. 20, 2004) at 28-29.

Several conclusions can be drawn from these disclosures. *First*, the number of public companies making quantitative disclosures nearly doubled last year, from nine in 2003 to seventeen in 2004. More importantly, the extent of quantitative disclosures was much greater. In 2003, five of the nine insurers making quantitative disclosures simply observed that a hypothetical increase in reserves would result in a dollar-for-dollar reduction in pretax income. Of the seventeen insurers that made quantitative disclosures in 2004, twelve used one or both of the methods approved by the SEC, three quantified the effect of small changes in reserving assumptions, and five used hypotheticals.³²

Second, qualitative disclosures continued to improve. Instead of broadly-worded disclosures that generally describe the uncertainties in the reserving process, virtually all public companies discussed the specific risks that affect their reserves by line of business. However, the limitations of qualitative disclosures were apparent from the 10-K filings of St. Paul Travelers and Berkshire Hathaway,³³ two of the top-three long-tail insurers in the country, which had detailed qualitative discussions, but no quantitative data. Their disclosures were far less revealing than the Hartford and AIG 10-Ks, which buttressed their qualitative disclosures with a sensitivity analysis using actual assumptions and estimates.³⁴

Third, a number of companies described the methodologies used to estimate reserves in great detail. Berkshire Hathaway provided an elaborate description of the methodologies used by its two largest subsidiaries, while AIG and the Argonaut Group provided detailed descriptions of the methodologies used for particular groups of claims.³⁵ While it would be impossible to describe all the assumptions in an actuarial analysis, AIG and Safeco identified some of the key assumptions, such as loss cost trends and development factors.³⁶

32 W.R. Berkley, Safeco, and Ohio Casualty discussed the dollar effect of a small change in specific reserving assumptions. *See* Annual Reports on Form 10-K of W.R. Berkley Corporation 10-K (Dec. 31, 2004) at 32; Safeco Corporation at 30, 33; Ohio Casualty Corporation at 39-40. Chubb and Old Republic International stated the dollar impact on income of a hypothetical percentage change in loss reserves generally. Chubb Corporation Annual Report (Dec. 31, 2004) at 32; Old Republic International Corporation at 31.

33 St. Paul Travelers Companies, Inc. Annual Report (Dec. 31, 2004) at 98; Berkshire Hathaway Inc. Annual Report (Dec. 31, 2004) at 29-32.

34 Hartford Financial Services Group Inc. Annual Report (Dec. 31, 2004) at 26-27; American International Group, Inc. Annual Report (Dec. 31, 2004) at 65-66.

35 Berkshire Hathaway Inc. Annual Report (Dec. 31, 2004) at 30-32. AIG described its methods of asbestos and environmental reserving. American International Group, Inc. Annual Report (Dec. 31, 2004) at 67-71. Argonaut described its methodology for its run-off lines. Argonaut Group, Inc. Annual Report (Dec. 31, 2004) at 27.

36 AIG provided its assumed loss cost trend for excess casualty and D&O lines. American International Group, Inc. Annual Report (Dec. 31, 2004) at 65. Safeco quantified its medical cost inflation assumption for workers compensation and the rate of decrease in the number of open construction defects claims. Safeco Corporation Annual Report (Dec. 31, 2004) at 33 and 37.

Fourth, the number of insurers providing a range of estimates increased dramatically, from one in 2003 to ten in 2004, although some continued to resist this type of disclosure.³⁷ Everest Re and White Mountains provided tables of high and low range estimates by business segment, while CNA gave estimated volatility percentages by segment.³⁸ Seven other firms provided high and low estimates or variability percentages for total reserves.³⁹

Fifth, only two insurers, AIG and Hartford, performed sensitivity analyses by selecting key assumptions and substituting reasonable alternative judgments.⁴⁰ In both cases, the firms provided a set of reasonable alternative loss cost trends and development factors or patterns, for their most significant lines and quantified the dollar effect of using the alternatives. Since only two firms used the first method approved by the SEC, it appears the second method, using the upper and lower ends of the range, is a more convenient way of demonstrating sensitivity.

Sixth, none of the insurers provided probabilities for the alternative assumptions or estimates in their sensitivity analyses, although two companies, ACE and Old Republic, indicated that the ends of the range were unlikely to occur.⁴¹

37 After stating that multiple estimation methods lead to a range of reserves for particular groups of claims, St. Paul Travelers says, "The exact boundary points of these ranges are more qualitative than quantitative in nature, as no clear line of demarcation exists to determine when the set of underlying assumptions for an estimation method switches from being reasonable to unreasonable. As a result, the Company does not believe that the endpoints of these ranges are or would be comparable across companies." St. Paul Travelers Companies, Inc. Annual Report (Dec. 31, 2004) at 94.

38 See Annual Reports on Form 10-K of Everest Re Group, Ltd. (Dec. 31, 2004) at 61; White Mountains Insurance Group Ltd. at 71 and 75. CNA says its volatility percentages do "not represent an actuarial range..." CNA Financial Corporation Annual Report (Dec. 31, 2004) at 29.

39 Transatlantic Holdings, Cincinnati Financial, Markel (U.S. Operations), HCA, and Argonaut Group provided high and low range estimates. Annual Reports on Form 10-K of Transatlantic Holdings, Inc. (Dec. 31, 2004) at 39; Cincinnati Financial Corporation at 55; Markel Corporation at 78; HCA at 39-40; Argonaut Group, Inc. at 34. ACE and American Financial provided percentages of variability. ACE Ltd. Annual Report (2004) at 33-34; American Financial Group at 30. Berkshire Hathaway indicated that retroactive reserves in one segment had a contractual upper limit. Berkshire Hathaway Inc. Annual Report (2004) at 32. American Financial, Cincinnati, and Transatlantic also discussed the effect of adding a hypothetical 1% to key reserving assumptions and Markel discussed the effect of a hypothetical 5% increase in reserves on income.

40 Annual Reports on Form 10-K of American International Group, Inc. (Dec. 31, 2004) at 65-66; Hartford Financial Services Group Inc. at 26-27. See Proposed Rule at 85,421. Hartford also provided a range for its asbestos and environmental reserves. Hartford Financial Services Group Inc. Annual Report (Dec. 31, 2004) at 29.

41 See ACE Ltd. Annual Report (Dec. 31, 2004) at 33-34. Old Republic used a sensitivity test of 10% of reserves and then said that it had not experienced such an increase in the last ten years. Old Republic International Corporation Annual Report (Dec. 31, 2004) at 31.

III

COMPARISON OF NAIC AND SEC DISCLOSURES

Since insurers are required to file simultaneous reports with federal and state regulators, a meaningful assessment can now be made of the effect of the new rules on reserve disclosures. Both the NAIC and SEC agree that loss reserves are critical to the financial condition of insurers and both have recently taken steps to improve the level of *qualitative* disclosures.⁴² The major difference between the regulatory approach of the NAIC and SEC concerns *quantitative* disclosures. The NAIC believes that quantitative disclosures contain "significant proprietary information" that should be withheld from the public,⁴³ while the SEC believes they are essential to an understanding of the business and financial condition of insurers and must be publicly disclosed. The SEC requires more meaningful quantitative data, such as sensitivity tests to measure the financial effect of reasonable alternative assumptions or estimates. The new NAIC rules for Actuarial Opinion Summaries will also provide a potentially valuable insight into reserve variability when actuaries begin disclosing the difference between the carried reserves and their own estimates, but only if they provide a range of estimates, rather than a point estimate. Whatever the benefit of the summaries may be to regulators, they will have little, if any, value to the public because of the confidentiality policy.

The differences between the two regulatory approaches appear in sharp relief when the reserve disclosures of operating companies are compared with those of their corporate parents. Operating companies file with the state insurance departments and their public disclosures appear in actuarial opinions attached to Annual Statements, while insurance holding companies file with the SEC and their disclosures appear in the Management Discussion and Analysis section at the front of the 10-K. Direct comparisons are not exact, since the NAIC disclosures are for a single company, while the SEC disclosures typically involve multiple subsidiaries, though financial data for major operating entities is frequently reported separately. While the numbers are not directly comparable, the differences in the quality and extent of the disclosures is obvious. With this in mind, following is a comparison of reserve disclosures under the SEC and NAIC rules by five major public insurers and one of their operating subsidiaries.

⁴² In a Regulatory Guidance issued on December 4, 2005, the NAIC admonished actuaries for issuing "cookie cutter" opinions for "companies with widely different exposures, claims management, historical reserve adequacy, leverage ratios, and capital positions...." In the future, the NAIC said it expected actuaries to avoid "broad statements about risks and uncertainties" in their opinions, directing them to discuss specific issues relevant to the subject company, such as the selection of tail factors and industry benchmarks for developing ultimate losses, assumptions about future emergence that are inconsistent with historical data, management representations about operational changes that are not supported by objective documentation, and the like. *See* NAIC, *Regulatory Guidance On Property and Casualty Statutory Actuarial Opinions* (Dec. 4, 2005) at 4.

⁴³ *See* NAIC, *Annual Statement Instructions Property and Casualty, Actuarial Opinion* (2005) ¶ 8.

A. *HARTFORD FINANCIAL SERVICES*
Hartford Accident & Indemnity

Hartford Financial Services Group ("Hartford") was the fifth largest publicly-traded casualty insurer as of December 31, 2004, with fourteen subsidiaries writing long-tail business. The second largest operating subsidiary, Hartford Accident & Indemnity ("Hartford Accident"), wrote \$1.5 billion in long-tail premiums and had \$2.9 billion in long-tail reserves in 2004, accounting for 32% of the group totals for each category. Hartford Accident shared its risks with other subsidiaries in an intercompany pooling arrangement.

(a) SEC Disclosure

Hartford made extensive qualitative disclosures for its long-tail business in its 10-K, including a description of the methodologies and assumptions used for each major line of business. For several lines of business, Hartford described the external factors which influenced its selection of assumptions, such as the medical inflation rate for workers compensation risks. In a section entitled "Impact of Changes in Key Assumptions on Reserve Volatility," Hartford made specific quantitative disclosures for reserves, including sensitivity tests for assumptions and estimates. The sensitivity tests reviewed historical data by line of business and selected key assumptions to demonstrate the effect on reserve variability. For workers compensation risks, the sensitivity tests showed that if paid loss development patterns changed by 3%, estimated reserves would change by \$300 million, in either direction; they also showed that if medical inflation costs changed by 1%, reserves would change by \$350 million, again in either direction. For Personal Lines auto, the tests showed that a 2.5% change in the annual loss cost trend would produce a \$60 million change in reserves, positive or negative. For General Liability lines, the sensitivity tests demonstrated that a 7% change in reported loss development patterns would produce a reserve change of \$200 million, in either direction. Similar information was provided for reinsurance. Finally, for its asbestos and environmental risks, Hartford says its \$2.9 billion reserve is within an estimated range of \$2.4 billion to \$3.4 billion, but warns that because of a number of uncertainties, its range could change and, if it did, such a change could have a material adverse effect on its operating results and financial condition. Although the amount of change is not specified, a reader could conclude that a variation of \$500 million was reasonably likely. Hartford also noted it had increased its asbestos and environmental reserves in 2003 by \$2.6 billion.

(b) NAIC Disclosure

The NAIC disclosures by Hartford Accident pale in comparison. Apart from the materiality standard, which was set at \$360 million, no quantitative data is disclosed in the actuarial opinion, including the sensitivity and variability information disclosed in the SEC filing. The actuarial opinion for Hartford Accident provides reasonably detailed qualitative disclosures for major lines of business, but not nearly as extensive as those made to the SEC.

*B. AMERICAN INTERNATIONAL GROUP
American Home Assurance*

The second largest publicly-traded casualty insurer, American International Group ("AIG"), had thirty domestic subsidiaries with long-tail business. The second largest of these, American Home Assurance ("American Home"), had \$4.9 billion in long-tail premium and \$5.8 billion in long-tail reserves in 2004. The domestic AIG insurers wrote a total of \$16.1 billion in long-tail premiums and carried \$19.4 billion in long-tail reserves on its balance sheet, with American Home accounting for approximately 30%.

(a) SEC Disclosure

In its 10-K, AIG provided detailed qualitative and quantitative disclosures on loss reserving practices. It described how it used three key assumptions in its long-tail reserving process--loss trend factors, expected loss ratios, and loss development factors. AIG identified the net loss trend factor for the majority of its long-tail lines as 5% and provided sensitivity analyses of this assumption and its loss development factors by line of business. In both cases, management determined a 5% variation was a reasonable benchmark. A 5% change in the assumed loss cost trend for earlier accident years used to produce expected loss ratios for the more recent years would result in a \$600 million change in reserves (positive or negative) for excess casualty business, a \$500 million change for D&O lines, and a \$150 million change for healthcare liability exposures. A 5% change in development factors would produce a \$450 million change in excess casualty reserves, \$200 million in D&O, \$125 million in healthcare liability, and \$750 million in workers compensation. AIG provided a detailed description of its reserving methodology for asbestos and environment claims which it established with a claim-by-claim approach and tested for reasonableness with a market share method and a frequency-severity or report-year method. The results of the reasonableness testing were provided: for asbestos reserves, the test results ranged from \$140 million below to \$650 million above the established reserves; for environmental liabilities, the range of outcomes was from \$20 million below established reserves to \$200 million above. Based on six factors--calendar year experience, input from claims officers, deterioration in claims experience, survival ratios, industry experience, and reinsurance recoverability--AIG decided to increase the upper end of its range of estimated liabilities. The change resulted in a \$650 increase in asbestos reserves and a \$200 million increase in environmental reserves.

(b) NAIC Disclosure

The statutory opinion for American Home provides none of the quantitative data disclosed in the AIG 10-K. The actuary concluded there was a significant risk of material adverse deviation, defined as 20% of surplus or \$863 million, but did not say what the upper range of deviation could be. The opinion provided disclosures on asbestos and environmental reserves that were more detailed than most, but were limited to describing the reasons for concluding that the issue had been reasonably addressed and the claims did not pose a risk to surplus.

*C. AMERICAN FINANCIAL GROUP
Great American Insurance*

American Financial Group ("American Financial") was the twelfth largest publicly-traded long-tail insurer in the United States as of December 31, 2004, and owned nine operating companies that wrote long-tail business. The largest operating subsidiary, Great American Insurance ("Great American"), had \$468 million in long-tail premium and \$1.4 billion in long-tail reserves, which accounted for 40% of the long-tail premium and 62% of the long tail reserves of the parent.

(a) SEC Disclosure

American Financial provided qualitative disclosures of the methodologies and data used to estimate reserves. It also provided quantitative disclosures for its major lines of business. Noting that its reserves were deficient in seven of the past ten years by as much as 14.3%, and redundant in three of the past ten years by as much as 2%, the company said these amounts were a reasonable measure of future variability. It also provided a sensitivity analysis that disclosed that a 1% increase in cost trends would result in a much larger reduction in net earnings--for Other Liability-Occurrence, \$20 million; for Workers Compensation, \$18 million; for Other Liability-Claims Made, \$12 million; for Commercial Multi-Peril, \$6 million; and toxic tort claims, \$12 million.

(b) NAIC Disclosure

The quantitative disclosures and sensitivity analyses in the American Financial 10-K are absent from the actuarial opinion filed by Great American. Among other things, the opinion does not disclose the upper range of variability in the reserves (14.3%) or that a future increase of that magnitude would result in a \$200 million charge to pretax income. The opinion states there is a risk of material adverse deviation in the reserves arising from asbestos and environmental exposures, as well as general uncertainty, but does not quantify the risk. The opinion uses a materiality standard of 4% of surplus, or \$58 million, but like other opinions does not disclose the upper range of variation.

*D. CNA FINANCIAL
Continental Casualty*

CNA Financial ("CNA") was the fourth largest publicly-traded long-tail insurer as of December 31, 2004. Although it had five subsidiaries in the United States that wrote long-tail business in 2004, one operating company, Continental Casualty, accounted for 98%, or \$4.5 billion, of the long-tail premium written by CNA, and 99%, or \$10.6 billion, of the long-tail reserves. Continental Casualty also accounted for 97% of the domestic property-casualty business of CNA. Because Continental Casualty accounts for virtually all of the long-tail business of CNA, the filings of the parent and subsidiary are directly comparable.

(a) SEC Disclosure

Like other public insurers, CNA provided a thorough qualitative description of reserve variability. CNA began its quantitative disclosures by noting that carried reserves for its three major insurance segments--Standard Lines, Specialty Lines, and Corporate and Other Non-Core Lines--were higher than the point estimates of its actuaries. CNA then provided the estimated percentage of volatility in its gross carried reserves, positive or negative, for each segment. For Standard Lines, it said the \$14.3 billion reserve could vary by 7%; for Specialty Lines, the \$4.9 billion reserve could also vary by 7%; and for Corporate and Other Non-Core lines, the \$8.7 billion reserve could vary by 25%. CNA did not calculate the variation implied by the volatility percentages, but it totals \$2.175 billion. CNA pointed out that the volatility percentages did not represent the range of all possible outcomes, but illustrated the potential effect of reserve changes on future income.

(b) NAIC Disclosure

The actuarial opinion submitted on behalf of Continental Casualty had a detailed qualitative description of reserve variability. However, the only quantitative disclosure was the materiality standard, which the actuary established at 25% of surplus, or \$1.7 billion. Based on that standard, the opinion said there was a risk of material adverse deviation, but did not disclose the upper range of variation, even though it was provided to the SEC by CNA.

E. EVEREST RE GROUP

Everest Reinsurance

Everest Re Group was the ninth largest publicly-traded long-tail insurer in 2004 and had four domestic subsidiaries writing long-tail business. Everest Reinsurance had the lion's share of the domestic long-tail business, accounting for 92%, or \$1.35 billion, of the long-tail premium of the parent, and 96%, or \$3.23 billion, of the long-tail reserves. It also accounted for 97% of all domestic property-casualty reserves on the parent balance sheet.

(a) SEC Disclosure

Everest Re Group provided qualitative and quantitative disclosures in its SEC filings. The qualitative disclosures were general in nature for most lines of business, except for asbestos and environmental risks. A reasonably thorough description of the methodologies used to estimate unpaid claims was provided, but important assumptions were not identified or discussed, nor was the effect of reasonable alternative assumptions on reported financial results. Asbestos and environmental exposures, which accounted for more than half of the total reserves and had been responsible for \$344 million in reserve increases in 2003 and 2004, were discussed in detail. The most noteworthy feature of the Everest Re disclosures was a summary table comparing the carried reserves to the range of estimates provided by the actuaries. The table, which appears below, provides a clear and effective presentation of reserve variability for all lines of business, except asbestos and environmental risks, which are the most variable of all.

Everest Re Group Ranges By Segment
As of December 31, 2004
(In Millions Of Dollars)

| | <i>As Reported</i> | <i>Low Range %</i> | <i>Low Range</i> | <i>High Range %</i> | <i>High Range</i> |
|-------------------------------|--------------------|--------------------|------------------|---------------------|-------------------|
| Gross Reserves By Segment | | | | | |
| U.S. Reinsurance | \$3,529 | -7.4% | \$3,268 | 8.1% | \$3,814 |
| U.S. Insurance | 1,393 | -5.0% | 1,323 | 5.0% | 1,462 |
| Specialty Underwriting | 374 | -8.3% | 343 | 8.3% | 405 |
| International | 781 | -5.5% | 738 | 6.2% | 829 |
| Bermuda | 1,031 | -6.2% | 967 | 6.2% | 1,095 |
| Total Gross Reserves (ex A&E) | 7,108 | -6.6% | 6,639 | 7.0% | 7,605 |
| A&E (All Segments) | 728 | NA | 728 | NA | 728 |
| Total Gross Reserves | \$ 7,836 | NA | \$ 7,367 | NA | \$ 8,333 |

(b) NAIC Disclosure

None of the quantitative data in the 10-K appeared in the actuarial opinions, including data on reserve variability in the above table. Similar data will appear in the Actuarial Opinion Summary due in March, but it will be withheld from the public. The actuarial opinion for Everest Reinsurance said there was a risk of material adverse deviation and that the materiality standard was 15% of surplus, or \$314 million. The upper range of variation was not disclosed, even though it is apparent from the SEC disclosures that it is much greater than \$314 million.

CONCLUSION

Recent changes in the NAIC and SEC disclosure rules provide an additional insight into reserve variability, but much remains to be done. The NAIC rules should be expanded to require more meaningful disclosures in the actuarial opinions, including the range of reasonable variation in the reserves. If the information can be publicly disclosed to the SEC, there is no reason it should not be provided in actuarial opinions. Requiring actuaries to disclose a risk of material adverse deviation is an important first step, but without information on the range of variation, it raises more questions than it answers. The forthcoming Actuarial Opinion Summaries will provide this information to regulators, but not to the public. Hopefully regulators will understand at some point that public disclosure is a cure, not a disease, and the best way to deal with uncertainty is to discuss it openly. Disclosures to the SEC were greatly improved last year, with many public companies providing significant data on reserve variability. Other public insurers, however, were reluctant to share this information with the public. Finally, none of the disclosures will be complete until insurers begin assigning probabilities to their range of estimates, as the SEC desires. Without this additional insight, more surprises may be in store for the casualty industry.