Is the "Best Estimate" Best?

Issues in Recording a Liability for Unpaid Claims, Unpaid Losses and Loss Adjustment Expenses

Jan A. Lommele

Michael G. McCarter

Jan A. Lommele, FCAS, MAAA, FCA

Principal

Jan A. Lommele is a Principal in the Deloitte & Touche LLP Casualty Actuarial and Risk Management Consulting Practice in Hartford, CT. He is a Fellow of the Casualty Actuarial Society, a Member of the American Academy of Actuaries and a Fellow in the Conference of Consulting Actuaries.

Mr. Lommele has extensive experience in pricing, reserving, financial projections and planning for property/casualty insurance. He presently provides actuarial consulting services to a broad spectrum of clients including large multi-line insurers, reinsurers, specialty insurers, captives, state funds, pools, corporate entities and public entities. He has also provided consulting services regarding insurance regulation, litigation, and mergers and acquisitions.

Mr. Lommele holds a Bachelor of Science Degree in Statistics from Colorado State University and a Master of Science Degree in Statistics from Iowa State University. He is currently Chairperson of the American Academy of Actuaries Committee on Property Liability Financial Reporting, Vice Chairperson of the Academy’s Financial Reporting Council, and a member of the Board of the Academy. He has also served on the Casualty Actuarial Society's Committee on Continuing Education as well as the Valuation and Financial Analysis Committee. He has authored papers in the ***Proceedings of the Casualty Actuarial Society*** and the ***Proceedings of the Conference of Actuaries in Public Practice***.

Michael G. McCarter, FCAS

Michael G. McCarter is Vice President, Industry and Regulatory Affairs for American International Group in New York. He has served on the American Academy of Actuaries Committee on Property and Liability Financial Reporting, most recently as Vice Chair. He currently serves on the Academy's Financial Reporting Council and on its Property and Casualty Risk-Based Capital Task Force. He also serves on the Casualty Actuarial Society's Committee on Valuation and Financial Analysis.

Mr. McCarter holds a BA in Mathematics from Harvard College and an MBA from the Wharton School of the University of Pennsylvania.

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Abstract

The NAIC has recently approved its codification of Statutory Accounting Principles. Statement of Statutory Accounting Principles (SSAP) No. 55, "Unpaid Claims, Losses, and Loss Adjustment Expenses," states that recording a liability for unpaid claims, losses, and loss adjustment expenses shall be based on management's best estimate, with exceptions if no one point in a range is better than another. The authors discuss SSAP No. 55 and compare it to Financial Accounting Standards Board Statement No. 5. They also discuss the different concepts of "best estimate" from an actuarial, accounting, and management standpoint. The authors provide some actuarial "rules of the road" to help ensure that the actuary's responsibility to opine on loss and loss expense reserves can be achieved when different accounting and actuarial standards apply.

Introduction

After several years of development, the National Association of Insurance Commissioners (NAIC) has recently approved its codification of statutory accounting principles. The NAIC proposes that these revised principles be effective for statutory financial reporting beginning January 1, 2001. Although individual states retain the authority to prescribe or permit statutory accounting principles, the NAIC expects that the states will adopt the new NAIC Accounting Practices and Procedures Manual which will contain the Statements of Statutory Accounting Principles (SSAP's) produced by the codification project. At this writing, the NAIC also expects that substantial adoption of the new manual by each state will become an NAIC accreditation standard in 2002.

SSAP No. 55 discusses "Unpaid Claims, Losses, and Loss Adjustment Expenses". It requires that "management's best estimate" of the liability for these items be recorded in the company's statutory financial statements. This paper is intended to describe accounting principles relevant to recording loss reserve estimates and to provide some "rules of the road" which actuaries could use in applying those principles. In particular, we believe the estimates selected by management should make "a reasonable provision" for those liabilities as required by the Annual Statement Instructions for the Statement of Actuarial Opinion.

SSAP No. 55 And The "Best Estimate" Accounting Principle

During the codification project, the American Academy of Actuaries Committee on Property and Liability Financial Reporting (COPLFR) reviewed and commented on a number of SSAPs which affected areas of interest to casualty actuaries. One of the papers COPLFR commented on was SSAP No. 55, "Unpaid Claims, Losses, and Loss Adjustment Expenses." This paper addresses the implications of paragraphs 9 and 10 of SSAP No. 55. The reader should note that this paper distinguishes between COPLFR’s consensus comments and the authors’ own opinions.

Paragraphs 9 and 10 establish as an accounting principle the use of “management’s best estimate” to record unpaid claims, unpaid losses, and unpaid loss/claim adjustment expenses. Note that the terms “claims” and “losses” are both used in similar contexts in SSAP No. 55. This was done so that the statement could apply to health insurers as well as to property and casualty insurers.

COPLFR’s comments and testimony suggested that the “reasonable provision” language of the Statement of Actuarial Opinion would be a better choice than the adopted “best estimate” language. Given the NAIC’s choice of the "best estimate" language, this paper will discuss some of the issues which actuaries and management should consider in complying with Paragraphs 9 and 10.

The language of Paragraphs 9 and 10 is provided below with underlining and lining out to indicate additions and deletions which the NAIC has made since the version on which COPLFR commented.

> 9. For each line of business <u>and for all lines of business in the aggregate</u>, management shall record its best estimate of its liabilities for unpaid claims, unpaid losses, and loss/claim adjustment expenses. Because the ultimate settlement of claims (including IBNR for death claims and accident and health claims) is subject to future events, no single loss or loss/claim adjustment expense reserve can be considered accurate with certainty. Management’s analysis of the reasonableness of loss or loss/claim adjustment expense reserve estimates shall include an analysis of the amount of variability in the estimate. If, for a particular line of business, management develops

its estimate considering a range of loss or loss/claim adjustment expense reserve estimates bounded by a high and a low estimate, management's~~the~~ best estimate of the liability within that range shall be recorded. The high and low ends of the range shall not correspond to an absolute best-and-worst case scenario of ultimate settlements because such estimates may be the result of unlikely assumptions. Management's~~The~~ range shall be realistic and, therefore, shall not include the set of all possible outcomes but only those outcomes that are considered reasonable.

10. In the rare instances when, for a particular line of business, after considering the relative probability of the points within management's estimated~~the estimated~~ range, it is determined that no point within management's estimate of the range is a better estimate than any other point, the midpoint within management's estimate of the range shall be accrued. It is anticipated that using the midpoint in a range will be applicable only when there is a continuous range of possible values, and no amount within that range is any more probable than any other. For purposes of this statement, it is assumed that management can quantify the high end of the range. If management determines that the high end of the range cannot be quantified, then a range does not exist, and management's best estimate shall be accrued. This guidance is not applicable when there are several point estimates which have been determined as equally possible values, but those point estimates doe not constitute a range. If there are several are several point estimates with equal probabilities, management should determine its best estimate of the liability.

With respect to the words "and for all lines of business in the aggregate," COPLFR commented that adding the words was consistent with the NAIC Annual Statement Instructions on the Statement of Actuarial Opinion, and is a key element from a solvency point of view. For a multi-line company, the all-lines estimate benefits from the covariance effect. This means that a range of reasonable estimates obtained by “summing” the line of business ranges is likely to be much wider than the range of reasonable estimates for all lines in the aggregate. COPLFR also noted that the concept of auditing “materiality” makes most sense at the aggregate level.

The NAIC has emphasized that the estimate to which they refer is “management’s estimate”. The authors believe this emphasis, in combination with the “best estimate” standard, tends to increase the separation of the actuary’s responsibility to opine on reasonable reserves from management’s responsibility to record its best estimate.

The NAIC added words in Paragraph 10 that attempt to address situations where the high end of a range cannot be quantified. This might be the case for a line of business with large exposure to a relatively new mass tort. The resulting language has a circularity, as it directs management to form a best estimate in a situation where management’s inability to form a best estimate was what drove consideration of a range in the first place.

The only connection to the “reasonable provision” language of the Statement of Actuarial Opinion is in the last sentence of Paragraph 9, where the NAIC says the range of estimates shall not include the set of all possible outcomes, but “only those outcomes that are considered reasonable.”

Which Standard Do We Rely Upon?

The authors believe the “best estimate” wording introduces new complexities into the financial recording and reporting process. For example, what standard will management rely upon to choose its best estimate of the company’s liability for loss and loss adjustment expense? The authors believe that the linkage between management’s best estimate and an actuarially reasonable provision is not as strong as it could be. The concept of a reasonable provision has been carefully considered for many years by insurance regulators, insurer managements, and the actuarial profession. That is:

- The actuary's regulatory standard is to opine on "a reasonable provision" as articulated in the NAIC Annual Statement Instructions relating to the Statement of Actuarial Opinion.
- "A reasonable provision" is consistent with professional actuarial standards as articulated in the Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves as adopted by the Casualty Actuarial Society and included in the appendix of ASOP No. 9 of the American Academy of Actuaries.
- Note that the Actuarial Standards Board is currently working on a new Actuarial Standard of Practice that would provide authoritative guidance to actuaries considering the "reasonable provision" language of the Statement of Actuarial Opinion.

The guidance to management in Paragraphs 9 and 10 leads to virtual certainty that another party will have a different "best estimate," but no conclusion as to the relative merits of the two "best estimates" can be drawn, other than possibly that they are both reasonable. The NAIC chose a "best estimate" standard for recording loss and loss expense reserves because the NAIC thought management would book a higher reserve under that standard than they would under a "reasonable provision" standard. Many regulators feel that companies too often select the lowest point of any range provided to them by an actuary. In addition, "best estimate" is used in other SSAPs as a standard for the recording of other liabilities.

Whose Concept of "Best Estimate" Do We Use?

Another complexity introduced is that the use of the words "best estimate" will vary depending upon who uses them and the audience who receives them. The actuary's concept of a best estimate will probably be different from management's.

- From a non-actuarial perspective, "best estimate" is likely to be synonymous with "most preferred," and so is not amenable to independent third party review.
- To an actuary, the concept of "best estimate" used in mathematical statistics refers not to an individual estimate but to the selection of the best estimation process to use in estimating a selected characteristic of a population, based on a sample from that population. In this statistical sense, "best estimate" may be relevant to certain steps in the reserve analysis process, but because additional information is usually considered which cannot be quantified in the best estimation process, the best estimate is partially, but not totally relevant to the final selection of the reserve provision.

The actuary may choose to use a "best estimate" in analyzing the historical characteristics of the loss process under consideration. "Maximum likelihood estimates" often yield "best estimates" of population characteristics in terms of being unbiased and possessing minimum variance from the (unknown) actual population characteristic. However, no actuary could meet professional obligations by claiming to have applied such methodologies and then turning the crank to produce reserve estimates. The actuary recognizes that in the statistical problem relevant to reserve analysis, the population characteristics have varied over the time period from which the samples were taken and can be expected to continue to vary over the time period in the future for which projections are desired, especially considering that human beings are essential to every step in the claims process. The actuary may well adjust historical data for changes that are expected to continue into the future or to eliminate factors in the past that no longer apply. Therefore, statistical “best estimates” based on raw historical data could serve only as the starting point and never as the ending point of the actuarial loss and loss expense reserve analysis.

More Complexity: Generally Accepted Accounting Principles (GAAP)

Companies which prepare GAAP and statutory accounting financial statements have to consider the difference between their respective principles. For example the relevant language in Paragraphs 1 and 8 of FAS 5 is as follows:

> "1. For the purpose of this Statement, a contingency is defined as an existing condition, situation, or set of circumstances involving uncertainty as to possible gain (hereinafter a "gain contingency") or loss[1] (hereinafter a "loss contingency") to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur. Resolution of the uncertainty may confirm the acquisition of an asset or the reduction of a liability or the loss or impairment of an asset or the incurrence of a liability.
>
> **Accrual of Loss Contingencies**
>
> 8. An estimated loss from a loss contingency (as defined in paragraph 1) shall be accrued by a charge to income[3] if *both* the following conditions are met:
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> a. Information available prior to issuance of the 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.[4] It is implicit in this condition that it

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[1]The term *loss* is used for convenience to include many charges against income that are commonly referred to as an *expense* and others that are commonly referred to as *losses*.
[3]Paragraphs 23 - 24 of *APB Opinion No. 9* "Reporting the Results of Operations," [as amended by FASB Statement 16, Prior Period Adjustments] describe the "rare" circumstances in which a prior period adjustment is appropriate. Those paragraphs are not amended by this statement.
[4]Date of the financial statements means the end of the most recent accounting period for which financial statements are being presented.

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."

Also relevant is FIN 14, which provides an interpretation of FAS No.5:

"3. When condition (a) in paragraph 8 is met with respect to a particular loss contingency and the reasonable estimate of the loss is a range, condition (b) in paragraph 8 is met and an amount shall be accrued for the loss. When some amount within the range appears at the time to be a better estimate than any other amount within the range, that amount shall be accrued. When no amount within the range is a better estimate than any other amount, however, the minimum amount in the range shall be accrued.[1] In addition, paragraph 9 of the Statement may require disclosure of the nature and, in some circumstances, the amount accrued, and paragraph 10 requires disclosure of the nature of the contingency and the additional exposure to loss if there is at least a reasonable possibility of loss in excess of the amount accrued."

Note that footnote 1 of Paragraph 3 above says that it is "not likely that the ultimate loss will be less than the minimum amount" of estimated ultimate loss in the range. The expectation of FASB staff was that FIN 14 would apply only in the rare situations where management had a range of estimates that was truly uniform; that is, no one point was more probable than another. Some would say that recording at

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[1]Even though the minimum amount in the range is not necessarily the amount of loss that will be ultimately determined, it is not likely that the ultimate loss will be less than the minimum amount.

the low end of the range has provided an easy way out when management was faced with tough decisions. However, the footnote was not intended to provide an opportunity to record a provision with a low probability of covering the subsequent emergence of losses.

We note that “best estimate” is not defined in the accounting literature. According to FASB staff, the term has, over time, been understood by many in the practicing profession to equate to “most likely”. However, a “most likely” concept may be problematic in insurance contexts. Suppose one believes that a liability has two possible ultimate values: 0 with probability 0.8 and 100 with probability 0.2. Then 0 would have been booked as “most likely”, while 20 is the expected value.

The primary differences between FAS No. 5 and SSAP No. 55 are:

- FAS No. 5 states that “an estimated loss ... shall be accrued”, while SSAP No. 55 states that “management’s best estimate ... shall be recorded”
- If no amount with the range is a better estimate than any other amount, the minimum is accrued under FAS 5/FIN 14 and the midpoint is accrued under SSAP No. 55.
- The footnote for FIN 14 states that it is not likely that the ultimate loss will be less than the minimum amount; “not likely” is not defined. SSAP No. 55 is silent on the likelihood that the ultimate loss will be less than the minimum amount in management’s estimate of the range.
- The concept of “best estimate” appears to be understood differently in the accounting and actuarial professions, and management’s concept of best estimate may be different from the actuary’s or the accountant’s.

The accounting profession is now considering the concept of expected value in financial recording. They have issued an Exposure Draft entitled “Using Cash Flow Information in

Accounting Measurements", which as a Concept Statement does not require entities to change accounting; nor does it commit the FASB to revise existing standards. The Draft incorporates the concept of expected value in financial items based on cash flow information, such as loss reserves.

How to Reconcile Different Sets of Principles and Different Concepts of Best Estimate

Management's responsibility is to comply with SSAP No. 55 by recording their best estimate of the liability, or the midpoint of a range in rare instances when no point is better than another.

The actuary's responsibility is to provide professional advice to management and to render opinions on loss and loss expense reserves considering:

- Actuarial professional standards and principles
- Statutory and GAAP financial reporting principles
- Differing concepts of "best estimate"

We suggest the following rules of the road to deal with the different financial recording and reporting principles that apply to management and actuaries:

Communicate early and often regarding the new SSAPs. Let management know that it will have to record <u>its</u> best estimate.

Tell management you can't provide an objective "best estimate", at least not in the sense that another actuary could be expected to arrive at the same estimate.

Tell management you can develop point estimates, which they can use as the basis for adopting their best estimate.

Help management develop a rationale for their best estimate by referring to the operational and other issues which actuaries understand impact upon loss and loss expense reserves; for example, claim initiatives, geographical mix, new laws and trends, etc.

According to Paragraph 10 of SSAP No. 55, advise management that you expect rare instances of when no point within their range of estimates is better than any other point. Accordingly, it would be rare that management would accrue the midpoint of the range according to SSAP No. 55, or the minimum amount under FIN 14.

When the high end of the range cannot be quantified, such as possibly for new mass torts, advise management regarding an actuarial point estimate that they can adopt as their best estimate.

Emphasize to management that their "best estimate" should fall within your reasonable range of estimates. This is a key criteria in your rendering the Statement of Actuarial Opinion.

In the final analysis, the actuary has the responsibility of determining if management's best estimate falls within a reasonable range of estimates. For that matter, to determine that a reserve makes a reasonable provision for unpaid claims, unpaid losses, and loss adjustment expenses, the "best estimate" should be selected to fall within the reasonable range of estimates. This seems to be the most "reasonable" approach to determining a "best estimate" when no one estimate is "best".

Conclusion

The authors believe that SSAP No. 55 presents new challenges and complexity to recording loss and loss expense reserves. We believe that actuaries must carefully manage the process and be aware of the issues involved in the various principles and standards which apply. Finally, if “best estimate” is here to stay, we suggest that the linkage of “best estimate” to “reasonable provision” be clarified and strengthened. SSAP No. 55 should specifically reference that a best estimate shall be a reasonable provision in accordance with the Annual Statement Instructions for the Statement of Actuarial Opinion.