

It's Time for Change

Re: Persistent Reserve Deficiencies, Actuarial Methods, Sarbanes-Oxley and HIH Royal Commission Report

Dear Chief Executive Officers, Chief Financial Officers and Regulators,

More and more news articles are discussing concerns about reserving practices. The attached excerpts refer to "persistent reserve deficiencies" and the "lack of mathematical soundness" of "cookbook methods for calculating IBNR reserves" that originated with "slide rules". The HIH Royal Commission report echoes these concerns when it discusses the role of actuarial methodologies in the company's collapse. Legislation such as Sarbanes-Oxley is also putting the pressure on U.S. companies to question the effectiveness of reserving practices.

How can you begin to address these concerns? The first pointer is that "Reserve shortfalls don't just happen overnight". They often occur because of "persistent" inflationary trends in the paid losses that cannot be captured by the "cookbook methods" that are in widespread use today (and indeed were in use 35 years ago!).

This was a key issue in the HIH Royal Commission report (April, 2003). Justice Neville Owen wrote that "Inaccurate estimation and reporting" of "outstanding claims provisions ... played a major role in the failure of HIH." He also formulated Recommendation 16 identifying the need for improved accuracy of claims provisions as a result of actuarial "subjective judgment...inconsistent with the historical experience".

Another key issue is volatility. "Cookbook methods", including link ratios or age-to-age development factors and any of their derivatives (including stochastic derivatives), cannot quantify the volatility in the losses.

Volatility is the raison d'être of insurance.

But volatility in link ratios has nothing to do with volatility in the losses.

Moreover, link ratios often provide a false assessment of the true risks.

Improved accuracy and a true assessment of the risks in the business are also needed to adhere to Sarbanes-Oxley

What can you do about this? There is a product, ICRFS-Plus™, with significant global market penetration, that takes account of the fact that we live in the 21st century, the age of fast and powerful computers. Now, "mathematical soundness" is achievable and actuarial "judgments" can be based on the assessment and quantification of the trends and volatility in "the historical experience" of the losses, not the link ratios.

We invite you to join the growing number of global companies, including seven Bermudan reinsurance powerhouses, that use ICRFS-Plus™ to risk manage their liabilities.

For an obligation free onsite demonstration of how ICRFS-Plus™ can help you better risk manage your business, please contact either Dr. Ben Zehnwrith or Bob Eramo.

Sincerely Yours,

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Recent News Articles Highlight the Need for Change

19th November 2003

[Insurance Actuaries -- A Crisis of Credibility](#)

Steve Dreyer of S&P said, "**Actuaries are signing off on reserves that turn out to be wildly inaccurate. It's an abysmal track record.**" While Sid Ghosh of S&P said, "**reserve shortfalls don't just happen overnight. What happened to all the reserving opinions signed by actuaries in prior periods?**"

www.standardandpoors.com

31st March 2004

[Letter sent to The Actuarial Standards Board \(ASB\) of the American Academy of Actuaries](#)

"It has been known for decades that standard link-ratio methods are extremely poor tools for projecting ultimate liabilities for a given block of business. Nonetheless, many opining actuaries rely exclusively on them."

The letter is co-signed by 18 actuaries <http://users.erols.com/jeremygold/asopintrocommentsanon.pdf>

2nd February 2004

[Agency Fears p/c Reserving Shortfall Set to Reach \\$30bn](#)

By Richard Banks

"Moody's said actuaries do have to take some of the blame for the condition the insurance sector finds itself in, but unlike analyses from other commentators, its report..." Ted Collins, managing director of Moody's P&C and reinsurance group, said: "**Reserve inadequacy is a problem of both 'computational accuracy' and 'cultural inclination'.**"

www.insuranceday.com

January/February 2004

[Gerbil on Espresso A Better Way to Calculate IBNR Reserves With Low Variance](#)

By Robert G. Lynch

"Cookbook methods for calculating IBNR reserves may have worked in the age of 'slide rules' and 'adding machines', but lack of mathematical soundness condemns them in the age of computers".

www.contingencies.org/janfeb04/gerbils.pdf

19th November 2003

[Property/Casualty Insurance Reserves at Year-end 2002 Filling in the Hole Slowly](#)

Fitch believes that, "**In many recent cases, reserving shortfalls are attributable to a failure in the actuarial process, as opposed to purposeful "cheating" on the part of management.**"

"Often despite best efforts, management is simply wrong because current established actuarial processes are unable to assess ultimate loss costs with any reasonable degree of accuracy".

www.fitchratings.com/corporate/reports/report.cfm?rpt_id=190162



HIH Failure and Actuarial Methods

HIH Royal Commission (Australia) Report on Actuarial Methodologies

Actuarial Methodologies

I do not propose to consider the relative merits of the various methodologies of which I have become aware during the course of the Commission. **However, I do wish to make some more general observations. They arise in part at least from the submissions of Dr Ben Zehnwirth, who was critical of the methodologies adopted by a number of actuaries, including those advising HIH.** In essence his criticisms were directed towards the over reliance upon **subjective judgment** (for example, in determining an appropriate allowance for future claims inflation) **at the expense of** reliance upon properly constructed probabilistic models **and analysis of the trends and variability found in historical experience.**

From my consideration of **HIH's** actuarial valuations in Chapter 15 it is clear they involved a significant level of **subjective judgment for example, in selecting rates of superimposed inflation, which were inconsistent with the historical experience,** ... In my view the usefulness of the actuarial advice provided to general insurers would be enhanced by clear disclosure of the existence and impact of such **judgments and departures from historical experience.** **The resulting transparency of the actuarial advice should assist readers (including the board, auditors and APRA) in identifying, testing and assessing the appropriateness of such judgments.**

Recommendation 16

I recommend that the Institute of Actuaries of Australia and the Australian Prudential Regulation Authority introduce a requirement for more detailed disclosure of the exercise, incidence and impact of subjective judgment and departure from historical experience.

Important areas for greater disclosure

Two types of information are particularly important in assessing the financial condition of an insurance company. These relate to the accuracy of an insurer's outstanding claims provisions and its reinsurance arrangements. **Inaccurate estimation and reporting of these matters played a major role in the failure of HIH. Measures to improve their accuracy should therefore be encouraged.**

Extracted from:	The HIH Royal Commission (Australia) The Hon Justice Owen Commissioner 4 April 2003
Chapter 7.3.3	Other Potential reforms Actuarial Methodologies: Pages 190-191
Chapter 8.6	Disclosure of insurers' returns of information: Pages 228-229