Strategic reserving Going beyond best estimates

A presentation to Casualty Loss Reserving Seminar by Alessandro Santoni September 17, 2013



Reserving is key to insurance companies and...

- Accurate reserving prevents underpricing and reduces volatility in profits
- Large reserve strengthening can cause reputational damage and deep drop in stock price
- Claim reserves are the largest items on the balance sheet and often greater than equity
- A.M. Best has found that 37% of insurance company insolvencies are triggered by reserve deficiencies



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...strategically important for the perception of investors: substantial value can be gained by improving the reserving process

- No matter what method is used, reserve revisions will continue to happen because of forecasting errors, but reserving practices have space for improvement
- Changes outside the control of insurers such as new legislation and advances in medicine will continue to be a challenge
- There is an investment community tendency to require greater transparency, with a focus on:
 - Adequacy of reserves
 - Reserve releases/strengthening
 - Variability of estimates

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Insight and Intelligence on the London & International Insurance Markets 17 October 2012

BREAKING NEWS ALERT

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Zurich hit by \$440mn German PI reserve strengthening

Zurich Insurance Group surprised markets this morning with a \$550mn pre-tax Q3 charge for increased claims reserves on its German medical malpractice and architects' and engineers' books, as well as a deferred acquisition cost (DAC) for its German life book.

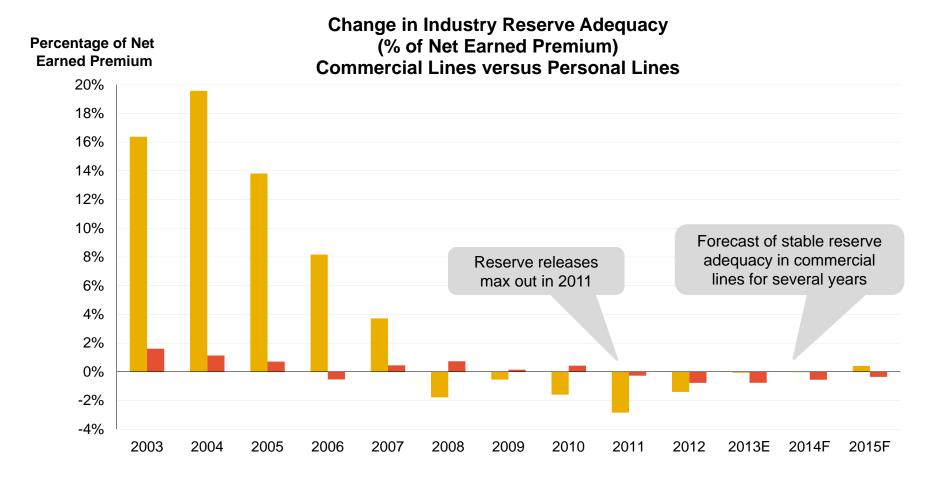
The global insurance giant estimated that this would reduce third quarter net income by \$390mn.

In early trading following the announcement, Zurich's share price fell 3.56 percent to SFr235.6.

Paul Bradley at Citi noted that since 20 percent of the operating profit impact was due to the DAC write-down, the remaining \$440mn represented an approximate 67 percent addition to reserves for the med-mal and architects' and engineers' lines.

The analyst said that Zurich had made reserve adjustments of \$100mn for these lines in Q3 2011 and a further \$120mn in Q4 2011. This led it to stop writing new policies early in 2012 and to undertake a deep review of the books of business, which has culminated in today's announcement.

One of the questions most asked by the investment community concerns likely future trends — we expect a slowdown in the coming years



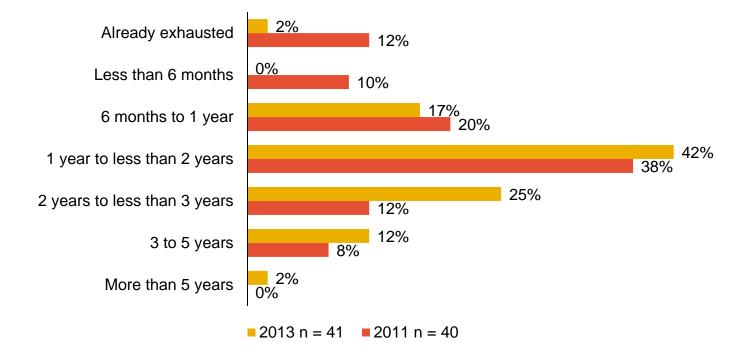
Commercial Lines Composite

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Personal Lines Composite

Results of the CFO survey are contrary to many industry sources, which cite decreasing or exhausted reserve redundancies

When do you expect the P&C (re)insurance industry to exhaust any reserve redundancies that may currently exist?



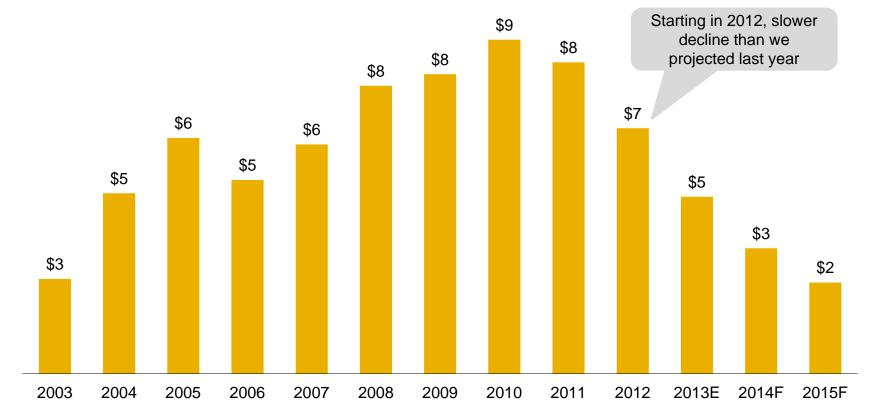
 98% of CFOs believe reserve redundancies still exist; 81% believe they will continue to exist for at least a year — both figures are increases over 2011 results

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Source: TW CFO Survey.
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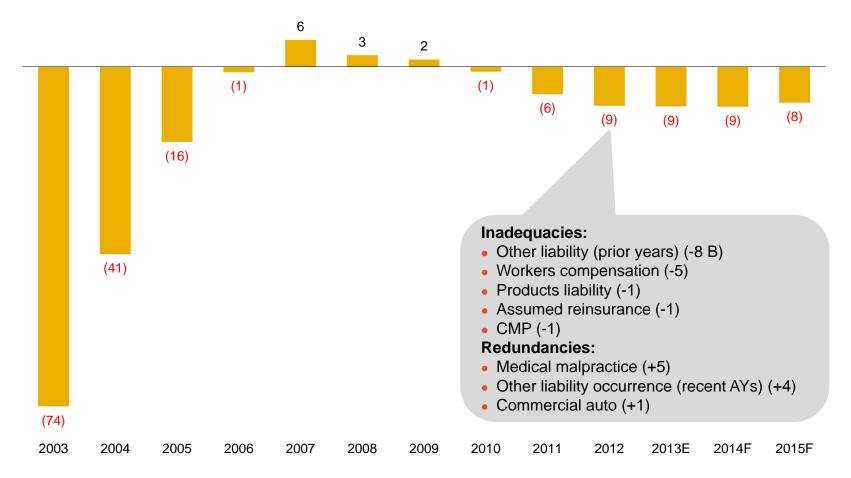
Another frequent question is the level of market adequacy: personal lines reserves are still strong but declining

Industry Reserve Adequacy Personal Lines Composite (\$B)



For commercial lines, we expect industry reserves to remain inadequate for several years

Industry Reserve Adequacy Commercial Lines Composite (\$B)



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Regulators implementing different ERM regimes are putting reserving at the very core of the process

- Insurance risks account for approximately 70% of the capital needs; reserving risk is 20% to 40% of it
- It is key to evaluate the impact of reserve variability on capital, improving the ability to implement strategic direction of the company
- Integrating reserving in the overall ERM and regulatory framework improves efficiency and the decisionmaking process

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Territory/ Domicile	Regulatory/ Supervisory Authority	Risk and Solvency Assessment
1.000 A	European Insurance and Occupational Pensions Authority (EIOPA)	Own Risk and Solvency Assessment (ORSA)
	US National Association of Insurance Commissioners (NAIC)	Own Risk and Solvency Assessment (ORSA) for the Solvency Modernization Initiative
	Bermuda Monetary Authority (BMA)	Commercial Insurer's Solvency Self Assessment (CISSA)
	Swiss Financial Market Supervisory Authority (FINMA)	Risk Management/Internal Control System Tool (RM/ICS Tool)
* **	Australian Prudential Regulation Authority (APRA)	Internal Capital Adequacy Assessment Process (ICAAP)
*	Superintendent of Financial Institutions Canada (OSFI)	Dynamic Capital Adequacy Testing (DCAT) Moving towards ORSA

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This requires a different perspective from how reserving has been traditionally conceived, to gain critical insights about multiple facets of the business

Frequency and severity trends affecting the portfolio

Actual claims experience that will have an impact on policy wordings

Pricing changes and the resulting impact on retained and generated portfolios

Administrative changes, both underwriting and claim management

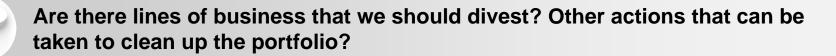
IT systems changes

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Reinsurance programs

Overall management of the corporation and its leadership

Strategic reserving leverages information generated during the reserving process, to help answer:



What impact does the reserve change have on our capital?

Is our reinsurance structure efficient? Should we be buying adverse loss cover?

How does the performance of individual lines compare to our competitors or the market? Are we losing or gaining competitive advantage?

Do we think the underwriting was wrong or just insurance uncertainty?

Has any strategic action we have taken impacted the results — new claims handling procedures, replacement of personnel, outsourcing?

How do our expenses compare to competitors?

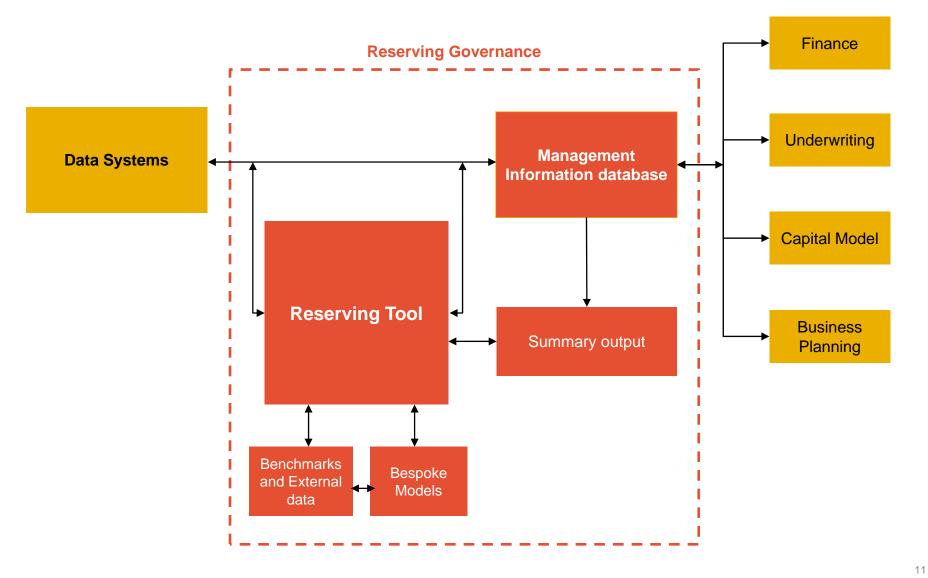
Some examples of what goes beyond traditional reserving

- Hindsight performance testing to improve the whole reserving process
- Review of claims handling procedures
- Improved Communications of Reserve Results and Implications
- Reserve Variability Studies and impact of reserve variability on capital
- Industrialization of the reserving process: embedding reserving processes within a well-governed IT and reporting framework

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Industrialization of the reserving process



Reserve process industrialization

Why do it?

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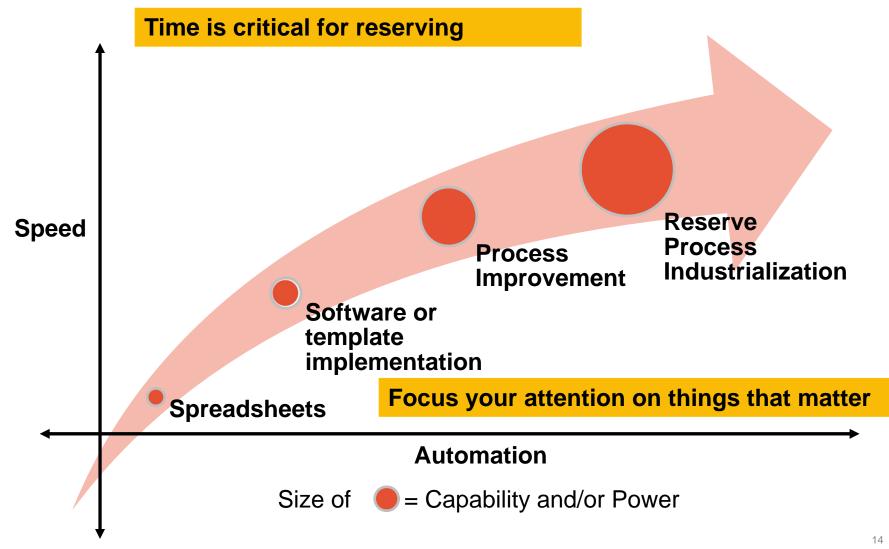
- Common issues facing internal reserving teams:
 - The time taken to do the analysis is too long
 - Expensive resources are used up on menial tasks
 - The level of governance for the process is insufficient
 - Data systems are not well integrated
 - There is a lack of consistent processes and inefficiencies exist
 - A lack of available time to focus on business critical areas
 - Key man dependence

Industrialization: An introduction

- An aim of industrialization would be to encompass all the various roles performed by an actuarial team in a faster, more efficient way
- For the purpose of this presentation, however, we will focus on the reserving aspect
- What every chief reserving actuary wants
 - Quicker data input

- Quick view of actual vs. expected
- Production of initial results
- Quick dashboards of changes and implication
- Shorter time until real analysis begins
- Better management summaries
- Forecast of expected results

Industrialization: The evolution of reserving processes



Industrialization benefits

Efficiency

Streamlined end-to-end processes Automated with fewer manual touch points Timely Allows redeployment of resources

Foresight

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Quick calculation of actual vs. expected Focus on things that matter More time spent on analysis More time for "what-if" analyses Quicker senior management view

Actuarial Industrialization

Security

Auditable Compliance Less chance for human error Increased confidence in results

Confidence

Better understanding of results More stress testing/sensitivities Faster and more confident response to management's questions

Conclusions

- Reserving is evolving at an increasingly faster pace, responding to:
 - Regulatory requirements
 - Need for improved governance
- This requires a different perspective from how reserving has been traditionally conceived
- There is substantial value to be added by:
 - Making the reserving process more efficient
 - Linking the reserving results into the wider business and ERM processes
- Performing analysis such as hindsight testing and structural drivers such as inflation will lead to more robust reserve estimates and improved business decisions