Understanding the Business Better for Reserving Working Party
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Agenda

- Terms of Reference
- “Effective” Reserving
- Case Studies
- Interactions with the business
- International implications
Terms of Reference

- Working party aims:
  - Document a number of case studies where certain features of the business made actuarial claims reserving considerably more difficult and the reserve estimates more uncertain.
  - Explore the key interactions with business for more effective reserving and practical ideas to take forward
  - Intended to aid nearly and recently qualified actuaries who are beginning to have significant interaction with the wider business
  - Paper to be issued after GIRO
  - Open to other contributions on case studies for documentation

Effective Reserving

- Duel context:
  - The way information (qualitative and quantitative) is considered to improve the actuaries’ understanding of the business and to adapt the reserving assumptions and methodology to the issues in order to obtain a reserve estimate
  - When the business places credibility on the reserves, and they are actively used as a tool to steer and manage risk of the business.

Case Studies
Case Studies: Learning from the Past

- **Background**
- **Issues and implications to Reserving**
- **What happened**
- **Lessons**

**Case Studies:**
1. North American Extended Warranty – Byas Mosley
2. Legal expenses
3. Reinsurance market spiral (LMX)
4. Market wide large losses (WTC & KRW)
5. US Liability
6. Cashback

**Case Study 1: North American Extended Warranty – Byas Mosley**

- Broker extended warranty business line slip
- Issues for reserving:
  - Long exposure period
  - Late emergence of poor experience
  - Not able to apply standard actuarial reserving techniques
- Lessons
  - Protection from moral hazard
  - Importance of monitoring performance of business
  - Value of specialist opinion and market steering committee

**Case Study 4: Market wide large losses (1/4)**

- Events affect market – man-made and natural perils
  - Eg 2001 US terrorist attacks (“WTC”), Enron, Worldcom, Laddering, sub-prime, North Atlantic hurricanes, European windstorm, UK floods, Asia Pacific tropical storms and various earthquakes around the world
- Impact to industry and reserving implications:
  - Unique features of the loss
  - Timing in the insurance cycle – runoff, able to bear losses
  - Financial impact
  - How the actuarial profession sought to quantify the size of the loss for reserving
Case Study 4: Market wide large losses (2/4)

- Hurricane Katrina, Wilma and Rita (KRW)
- Gulf of Mexico hurricanes are common but issues arose from the size and combination of the losses

- "top down" (allocating share of market loss) and "bottom up" (policy exposure and limits)
- Understanding, quantifying and communicating the uncertainty around any loss estimates
- Concern for Lloyd's signing actuaries – fundamental uncertainty

Case Study 4: Market wide large losses (3/4)

- Issues to reserving
  - Standard actuarial reserving techniques not appropriate
  - Understanding the nature of the losses and exposure to the insurer
  - How to ascertain the size of the market loss
  - Selection of estimation approach – "top down" (allocating share of market loss) and "bottom up" (policy exposure and limits)
  - Understanding, quantifying and communicating the uncertainty around any loss estimates
  - Concern for Lloyd's signing actuaries – fundamental uncertainty

Case Study 4: Market wide large losses (4/4)

- Lessons from WTC and KRW
  - Collaborative effort from the profession (wide number of groups involved)
  - Interactions across all areas within business – multidisciplinary internal working parties encouraged quick information flows
  - Healthy debate on treatment of binary event (WTC) – difference between US and UK requirements
  - Often difficult for market wide view of losses to form but there are now more market consistent approaches to estimate other large loss events
  - Discussion at GIRO 2001, resulting in suggested large loss wordings for SAO. This helped signing actuaries in Lloyd's market but also market consistent wording to communicate level of materiality and uncertainty in the reserves
  - Raised awareness of the importance of understanding the catastrophe models used, the effect and need for the model variables and how these vary by software.
Case Study 6: Cashback policies

- Cash back of extended warranty premium as part of a marketing promotion, common in Europe
- Issues for reserving:
  - Pricing and reserving relied on benchmark experience in other countries which had low reclaim rates. UK experience turned out much higher
  - Raised awareness amongst policyholders from wide media coverage encouraged claims
  - Long time delay between setting reserves and paying the cash back
- Lessons
  - Issue hidden due to policies being part of larger portfolios and claim behaviour can differ with other extended warranty claims
  - Mispricing based on benchmark experience (or not used all available)
  - Inappropriate to use standard triangle techniques

Interaction with the Business

- Explored interaction between the actuarial reserving function and the following business areas:
  1. Claims and specialist areas
  2. Underwriting (including Sales and Marketing)
  3. Pricing and Catastrophe Management
  4. Finance and Management
  5. Reinsurance
  6. Other parties – Group, auditors, consultants, regulators
  7. Capital and Risk Management
Interaction themes

Interactions can be broadly summarised into:
- Communication
- Feedback
- Data & Information

Interaction - Communication

- Reserve estimates – what they represent, include/exclude. Different messages may be needed for management and other parties
- Uncertainty associated with the reserve estimates – differentiating between gross and net
- Assumption setting – underwriting, pricing, reinsurance, large losses

Interaction - Feedback

- Emerging issues
- Implications – RI purchase, commutations, capital modelling
- Business planning
- Process and controls, signoff and peer reviews
Interaction – Data & Information

- Input and output of reserving process – assumptions, consistency
- Management information & KPIs
- Understanding of underlying issues – large losses, claim cycle
- Information for reporting – finance, management, regulators, external parties

Practical ideas to take forward

- Formalised processes – communication, roles and responsibilities, consistent definitions and approaches
- Communication – frequency, level, language, coverage
- Questions to ask
- Understanding of why, not just how
- Demonstrate value in integrated reserving process

International implications

- Multiple reserving basis
- Regulations
- Products – same name, different animal
- Role of actuary
- Communication difficulties – language, culture