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The Actuarial Profession making financial sense of the future	
Understanding the Business Better for Reserving Working Party	
Edinburgh, GIRO	
8 October 2009	
Understanding the Business Better for	
Reserving Working Party	
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Agenda	
■ Terms of Reference	
"Effective" Reserving Cons Studies	
Case StudiesInteractions with the business	
 Interactions with the business International implications 	
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Terms of Reference	
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 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 International considerations 	
 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 	
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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. 	
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Case Studies	
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Case Studies: Le	earning from the Past	
 Background 	Case Studies:	
_	1. North American Extended	
 Issues and implications to 	Warranty – Byas Mosley 2. Legal expenses	
Reserving	3. Reinsurance market spiral	
What happened	(LMX) 4. Market wide large losses	
	(WTC & KRW)	
Lessons	5. US Liability6. Cashback	
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Case Study 1: Nor	th American Extended	
Warranty - Byas M		
Broker extended warra	anty business line slip	
Issues for reserving:Long exposure period		
 Late emergence of poo 		
	ard actuarial reserving techniques	
LessonsProtection from moral h	azard	
	g performance of business	
 Value of specialist opini 	ion and market steering committee	
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	ket wide large losses	
(1/4)		
 Events affect market – 	man-made and natural perils	
	tacks ("WTC"), Enron, Worldcom,	
windstorm, UK floods, A	North Atlantic hurricanes, European Asia Pacific tropical storms and various	
earthquakes around the	e world reserving implications:	
 Unique features of the I 	<u> </u>	
 Timing in the insurance cycle – runoff, able to bear losses 		
Financial impactHow the actuarial profe	ssion sought to quantify the size of the	
loss for reserving	·	
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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







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
 - 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)
 - 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.

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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 	
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	
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Interaction with the Business	
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Interaction with the Business	
 Explored interaction between the actuarial reserving function and the following business areas: Claims and specialist areas Underwriting (including Sales and Marketing) Pricing and Catastrophe Management 	
 Finance and Management Reinsurance Other parties – Group, auditors, consultants, regulators Capital and Risk Management 	
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Interaction themes	
Interactions can be broadly summarised into: Communication Feedback Data & Information	
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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 	
 Assumption setting – underwriting, pricing, reinsurance, large losses 	
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Interaction - Feedback	
Emerging issuesImplications – RI purchase, commutations,	
capital modelling Business planning	
 Process and controls, signoff and peer reviews 	
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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 	
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Described ideas to take forward	
Practical ideas to take forward	
 Formalised processes – communication, roles and responsibilities, consistent definitions and approaches Communication – frequency, level, language, coverage 	
Questions to askUnderstanding of why, not just how	
 Demonstrate value in integrated reserving process 	
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International implications	
Multiple reserving basisRegulations	
 Products – same name, different animal 	
 Role of actuary Communication difficulties – language, culture 	
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