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Round Table: Reserving Practices Globally

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Scope

- Discuss methods commonly used in Asia Pacific GI markets, including similarities/differences observed when compared with globally used methods
 - What are standard practices for developing loss reserves in Asia?
 - How are reserve analyses segmented? (e.g., LOBs, on-shore, off-shore, net/gross)
 - What countries are using risk margins and how are these risk margins being calculated?
 - Is discounting a common practice in Asia?
 - Does the actuary opine on the unearned premium reserves?



Reserving Methods used in Asia

- Mainly standard methods
 - Loss Development (LDM) loss development factors based on historical development triangles
 - Used for more mature years, volatile for initial periods
 - Bornhuetter-Ferguson methods (BF) requires loss development and initial expected loss ratios
 - Often used for less mature years
 - Expected Loss Ratio (ELR) relies on selected target loss ratio regardless of loss experience
 - Used when patterns unknown or development quite irregular
- Some smaller countries still rely on simple ratios
 - IBNR as a % of calendar year paid losses or premiums



Reserving Methods used in Asia

- Advanced methods used less frequently include
 - Projected case estimate
 - Frequency / severity
 - Payments per claim incurred /finalized /active (PPCI / PPCF / PPCA)
 - Used in Australia for bodily injury claims, accident compensation schemes
 - Similar to frequency severity but done by accident year and development period
 - Stochastic reserving
 - uses GLM to predict claims outcome using injury type, severity, litigation status information and use Monte Carlo simulation to predict outcome - very useful for estimating XoL recoveries
 - Used in Australia



Reserve Segmentation

LOB

- Sometimes by coverage (e.g., motor liability vs physical damage)
- Australia For bodily injury classes, generally analyze by payment type, e.g. weekly, common law, redemption, legal, medical, investigation, death
- Onshore vs offshore
 - Sometimes offshore split by country
 - Australia accident compensation by state
- Direct vs assumed
 - Assumed sometimes split by treaty proportional, treaty non-proportional, and facultative



Reserve Segmentation

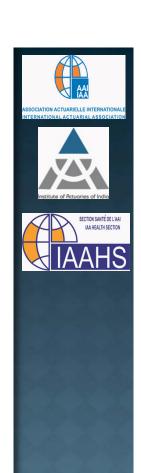
- Net vs Gross
 - Sometimes both
 - Net; gross using gross/net ratios on net IBNR
 - Gross; net using net/gross ratios on gross IBNR
 - Net and/or gross basis
 - calculated independently or
 - net/gross or (gross/net) ratios applied to IBNR
 - Should check reasonableness of ceded IBNR





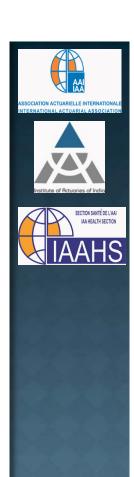
Miscellaneous Reserving Questions

- Risk Margins
 - Yes Singapore, Malaysia, Australia, China (GAAP)
 - Bootstrapping, Mack
 - Australian studies Deloitte, Tillinghast
 - No Japan
 - Mix Hong Kong
- Discounting
 - Yes Singapore, Australia, China (GAAP),
 - Generally risk free, government bonds with similar duration
 - No Japan, Hong Kong, Malaysia



Miscellaneous Reserving Questions

- Unearned Premium Reserves
 - Many countries require actuaries to opine
 - Differences in development of
 - Unearned Premium Reserve (UEPR)
 - Unexpired Risk Reserve (URR)
 - Differences include
 - Treatment of Deferred Acquisition Costs (DAC)
 - Risk margins
 - Individual or total reserve adequacy





Comparisons with International Practices

- Most Asian companies stop short
- More compliance driven
- Less diagnostic analysis
- IELRs selected judgmentally
 - Little explicit tracking of rate changes, inflation, socio/economic, changes in mix of business
- Confidence level unknown
- Data often segmented too fine



Reserving is under-appreciated!

- Foundation of Pricing
- Provides better understanding of key performance indicators
 - Calendar year vs Accident year/Policy year
- Diagnostics help explain impacts of operational changes and changes in mix of business
- Reserving is Economic Capital!

