



# **Catastrophe reserving** **Catching the cat reserve tiger by the tail**

Casualty Loss Reserve Seminar

6 September 2012

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# Agenda

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- ▶ Techniques for developing an initial estimate
- ▶ Event estimation in the immature quarters
- ▶ Unique issues with catastrophe estimation
- ▶ Lessons learned from 2011 events

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# Techniques for developing an initial estimate

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Every event is unique and should be evaluated in terms of the information you have available at the time.

- ▶ Occurrence date in relation to quarter end
- ▶ Peril
- ▶ Territory
- ▶ Direct versus assumed exposure
- ▶ Property (onshore and offshore) versus marine

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# Techniques for developing an initial estimate

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A first approximation is the market share approach using modeled industry estimates.

- ▶ RMS
- ▶ EQECAT
- ▶ AIR Worldwide

Another initial approach is where you overlay the location of insured properties over the affected areas and make an assumption about the level of limits consumption for each risk.

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# Event estimation in the immature quarters

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- ▶ For direct exposure:
  - ▶ Projection of unreported claims
  - ▶ Ultimate severity of unreported claims
  - ▶ Development on known claims
  - ▶ Separate out large risks and claims with litigation
  - ▶ Don't rule out chain-ladder development
  - ▶ Communication with the claims department is very important

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# Event estimation in the immature quarters

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- ▶ For assumed exposure:
  - ▶ What is the track record of your cedants?
  - ▶ Consider all the intricacies of the contracts:
    - ▶ Occurrence periods
    - ▶ Multiple event triggers
    - ▶ Aggregate covers



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# Unique issues with catastrophe estimation

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- ▶ Determination of occurrence period for limits
- ▶ Reinstatement premiums
- ▶ Aggregate covers – multiple events which erode an aggregate lead to issues as to when to recognize the loss
- ▶ Foreign exchange
- ▶ Long delays in damage assessment
- ▶ Damage Surge
- ▶ How to allocate per occurrence recoveries to individual claims

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# Lessons learned from 2011



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# Lesson #1

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The aggregation of many small independent events can be as large as a major catastrophe.

- ▶ Tuscaloosa tornadoes
- ▶ Joplin, Missouri tornadoes
- ▶ Hurricane Irene
- ▶ Texas wildfires

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## Lesson #2

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Many of the international contracts were affected by multiple events in one year.

- ▶ Issues related to reinstatement premium
- ▶ Multiple currency issues related to hazard in multiple countries related to same contract

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## Lesson #3

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There is a strong tendency to be overconfident when we limit the reserves to a claim by claim or contract by contract allocation. Event specific bulk reserves are needed versus assigned reserves alone.

Strong push for reserves to be attributable to a per claimant or per contract, since there are implications:

- ▶ Profit and loss allocation by business unit
- ▶ Reinstatement premiums
- ▶ Reinsurance (or retro) protection