C-11: Global Property Risk Pricing: What is a Good Reinsurance Submission in Actuariastan

CARe Seminar, June 1-2, 2015

Phila, PA

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Enrico Biffis, Associate Professor, Imperial College of London
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C-11: What is a Good Reinsurance Submission in Actuariastan
Session Description

This session will discuss various issues related to pricing Property Risk contracts and explore "What makes a good reinsurance underwriting submission" in the generic country of Actuariastan. The discussion will include a status update from the newly formed Joint GIRO-CARe International Reinsurance Pricing Working Party. Panelists are drawn from the Working Party, which represents a global cross-section of actuaries, underwriters, and educators.

Moderator / Presenter:
John W. Buchanan, Principal, Excess & Reinsurance, Verisk / ISO
Presenters:
Enrico Biffis, Associate Professor, Imperial College of London
Adam Shrubshall, Vice President Pricing, Tokio Millenium Re Zurich

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C-11: What is a Good Reinsurance Submission in Actuariastan
Agenda – June 1, 2015

- **GIRO-CARe Working Party Formation**
  - Scoping Document
- **Prior Literary Research**
  - Benchmarking Experiences
- **Overview of Survey**
- **Initial Survey Results – CARe**
  - Exposure and Experience
- **Audience Polling**
- **Next Steps**

To the extent there is time, will pause for questions after each of the main sections. Otherwise, will have questions at the end.

GIRO-CARe Working Party Scoping Document

What issue is this research topic trying to address:-	"What makes for a good reinsurance underwriting submission". Will start with Property Risk for 2015 and a generic territory such as "Actuaristan". May investigate various levels of what makes a good submission. For 2016 and beyond, may extend to other property or casualty lines such as e.g. property cat, crop insurance, motor, employers liability, cyber or other emerging issues.
Who will be the audience for this research:- *(We need to understand who we believe this research will be of interest to – to ensure we have an end consumer for the research)*	Reinsurance and primary pricing practitioners, actuaries, underwriters, brokers or reinsurance purchasers in various global settings depending upon scope of lines and territories.
What do we see as being the output/deliverables of this research:-	Potentially a set of suggestions, guidelines or/and framework possibly including advantages for pricing reinsurance submissions by various methods that can be referred to by interested parties. A White Paper on the topic would potentially be produced and available for usage by any interested parties.
What are the time scales of this research:-	Initially producing discussion documents for 2015 as above, with extensions as noted for future years. Depending upon timing, may include 2015 status presentations at the CARe conference in June (Philadelphia), and the GIRO presentation in October (Liverpool).

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Actuariastan
From the Guidebooks

"Actuaristan has the great misfortune of having uneven water supplies, inferior construction materials, fire department labor reductions, high hazard occupancies set next to schools and hospitals, on multiple hurricane paths, on an undiscovered fault line, wildfires, very subject to droughts from ENSO pattern and climate change, rising sea levels, unstable snowdrifts due to avalanche, doctor/nurse shortage, hotbed of cyber piracy, driverless cars and drones all over the place, you name it.

Just a place where risk prone actuaries love to vacation!"

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1. Levels of "Goodness"
   – Acceptable
   – Good
   – Preferred
2. Types of Submissions
   – Individual Exposures - Recommended
   – Banded Limit Profiles
   – Banded Attachment / Limit Profiles (US, some other countries)
3. Amount of Insurance
   – What does it really represent
   – MPL, PML, MFL, average location, top/largest location, key location…
   – Shares of excess policies
   – Ventilated layering
   – Historical profiles
4. Large claim information
   – Above certain thresholds, cat/non-cat indicators
   – FPA's; other sources
5. Link of AOI to claims
   – Necessary for testing / validating size-of-loss scales
   – ECO / XPL claims / PML Bust claims

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6. Occupancy
   – Definitions
   – SIC, NAICS, ATC, Lloyd's, ISO,…
   – Multi-location / policy / country issues
7. Protections and other COPE characteristics
8. Loss ratio information
   – Cat / non-cat / types of cat loss ratios
9. Price monitors
   – Renewal
   – New policies / definition
10. Benefits to primary / ceding companies (may be embedded in the other sections)
    – Reduced risk margin from better information

Sample Survey Questions

5. How would you rank the general quality of submissions from risks in the territories that you are familiar with:

	1=Poor	2=Below Average	3=Average	4=Good	5=Excellent
US / Canada	○	○	○	○	○
Europe	○	○	○	○	○
Middle East / Asia	○	○	○	○	○
Latin / South America	○	○	○	○	○
Other (please specify)	○	○	○	○	○

Other (specify from above)

9. Which of the following common items do you usually receive in exposure rating:

	Yes	No	Hardly Ever
a. In-force risk profile (banded)	○	○	○
b. Historic risk profiles (banded)	○	○	○
c. Individual risk listing (all cat/non-cat exposures)	○	○	○
d. Individual risk listing (above certain threshold)	○	○	○
e. Historic from ground up loss ratios (cat and non-cat)	○	○	○
f. Written explanation of risk profile (e.g. how is amount of insured defined, what is meant by a risk, usage of fac, etc.)	○	○	○
g. Risk profile detail (occupancy type, protections including sprinkler, shares/syndication layering, coinsurance, etc.)	○	○	○
h. Link of claims to risk profiles	○	○	○

Other (please specify)

10. Order the following items **that you would like to receive** in exposure rating in terms of use in pricing (1=most important, 9=least):

[ ] ▾	a. In-force risk profile (banded)
[ ] ▾	b. Historic risk profiles (banded)
[ ] ▾	c. Individual risk listing (all cat/non-cat exposures)
[ ] ▾	d. Individual risk listing (above certain threshold)
[ ] ▾	e. Historic from ground up loss ratios (cat and non-cat)
[ ] ▾	f. Written explanation of risk profile (e.g. how is amount of insured defined, what is meant by a risk, usage of fac, etc.)
[ ] ▾	g. Risk profile detail (occupancy type, protections including sprinkler, shares/syndication layering, coinsurance, etc.)
[ ] ▾	h. Link of claims to risk profiles
[ ] ▾	Other (specify in Q13)

11. Which of the following common items do you usually receive in **experience** rating:

	Yes	No	Occasionally
a. Large loss listing (no triangle)	○	○	○
b. Historic large loss listing (triangle)	○	○	○
c. Large loss claim description including cat/non-cat indicator	○	○	○
d. Historic premium	○	○	○
e. Historic exposures (# of risks, # of exposures / risk)	○	○	○
f. Projected rate change	○	○	○
g. Historic rate change	○	○	○
h. Rate monitor (renewal policies)	○	○	○

Other (please specify)

[   ]

12. Order the following items that you would like to receive in experience rating in terms of use in pricing (1=most, 9=least):
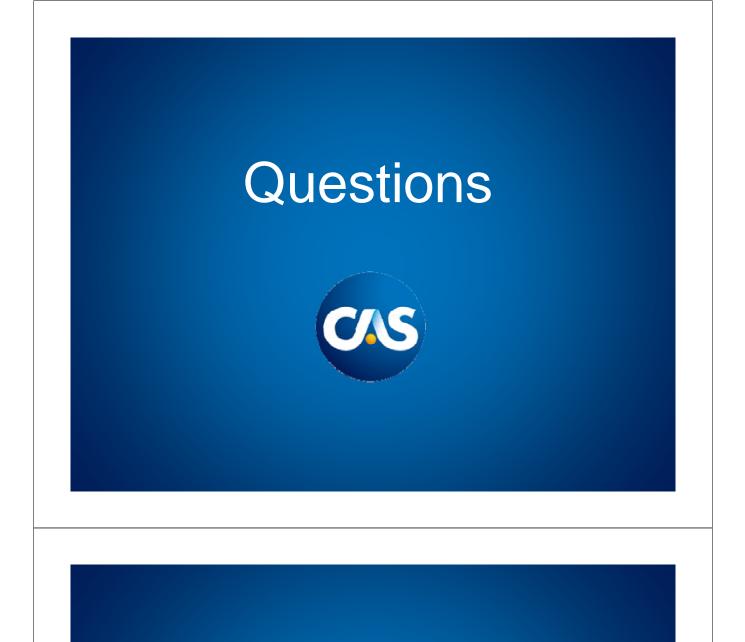
	a. Large loss listing (no triangle)
	b. Historic large loss listing (triangle)
	c. Large loss claim description including cat/non-cat indicator
	d. Historic premium
	e. Historic exposures (# of risks, # of exposures / risk)
	f. Projected rate change
	g. Historic rate change
	h. Rate monitor (renewal policies)
	Other (specify in Q13)

14. What do you do when exposure based pricing information is not provided or insufficient?

○ No rating

○ Pure experience rating

○ Experience + extrapolation

○ Experience + benchmarks

○ Experience + judgement

○ Other (please specify)

Questions

Speaker Bios