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TSUNAMI

Linking Insurance and Science

Uninsured Losses Project Meeting at Benfield Greig, 55 Bishopsgate
9:00 to 17:30 on Monday, 6 December 1999

Present:	David Crichton	-	Independent Consultant
	Shirin Elahi	-	Surrey University
	Simon Jennings	-	Benfield Greig
	Joanne Linnerooth-Bayer	-	IIASA
	Simon Quijano	-	IIASA
	David Simmons	-	Benfield Greig
Apologies:	Andrew Dlugolecki	-	CGU Group
	Mike Cooper	-	CGU Group
	Ragnar Lofstedt	-	Surrey University

Actions:

1. Industry representatives to comment and provide feed back on the case studies.

2. The researchers to deliver final copies of the case studies in advance of the next project team meeting – see below.

3. David Simmons and Simon Jennings to produce summaries of public body credit ratings for the US and Europe (including Eastern Europe).

4. James Orr to organise the date, agenda and time for the next meeting, to be held at Benfield Greig, in January or February 2000.

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- David Crichton announced that he had been awarded a visiting professorship at Middlesex University, in addition to his status as a Research Fellow at Dundee University. The project team was unanimous in congratulating David on his appointment.

- Shirin Elahi explained that she had received invaluable assistance from Miyuki Ebisaki (an actuary from Royal & SunAlliance) in her work on the Kobe Earthquake case study. Shirin asked whether a copy of the case study could be given to Miyuki and her managers in the Property and Casualty Insurance Rating Organisation. David Simmons and Simon Jennings agreed to this and James Orr agreed to confirm formally to Shirin after the meeting.

KOBE EARTHQUAKE

- This had been a shocking catastrophe for Japan, which had reshaped attitudes and economic conditions in the area.

- Liquifaction of the (predominantly) reclaimed land in the port area had exacerbated the impact of the earthquake. It is also worth noting that reclamation is widespread in Japan as a whole.

- Residential insurance was heavily regulated in Japan, but penetration was only approximately 10%. There was a legal requirement to offer earthquake cover, but this commonly increased premiums by 200% to 300%.

- Claims payments were formulated against “Total”, “Half” and “Partial” destruction of property, and cover was then “averaged” over all insured parties. This further reduced the value of insured losses.

- Life assurance had very low penetration in the Japanese market, particularly amongst the elderly, who were worst hit in commonly living in ground floor accommodation which suffered from the collapse of buildings.

- Although the emergency response, once activated, had been efficient, delays had occurred whilst hierarchical decision-making processes operated, with the effect that many died who could have been saved through swifter action.

- The general consensus amongst earthquake specialists was that the Japanese environment was too chaotic to support meaningful predictions. Following the disaster, significant effort was now being made to monitor earthquakes, with (automatic shut off) links into the protection of utility supplies and transport infrastructure.

- Although public donations for the disaster had been high, at $1.8Bn (compared to $37Bn from government) this had not been openly distributed.

Corruption was suspected in some areas of government and, in general, Japan tended to hold more reliable statistics on non-financial than financial attributes.

- Culturally, there was an emerging sense in Japan that national identity was less critical than job security and liberty. Opportunities for new business development were more likely with increasing freedom in markets, but it would be neither straightforward nor immediate.

- Business interruption had been significant and widespread, affecting elements of the entire Japanese economy. Kobe port, which was now seen as built to grade "B", was not expected to recover its prime role in world trade. The impact of business interruption had been further exacerbated by the efficient management of stock, using "Just in Time" processing.

- It was believed that government relief would be funded through internal provisions. Previously, in 1923, government had instructed the insurance industry that their support during tragedies was expected in providing "stability of public welfare". Such calls for national solidarity were not likely to enjoy wide support in the future.

- Surprisingly, the majority of Japan's infrastructure was privately owned, including the railways.

NORTHRIDGE EARTHQUAKE

- This catastrophe had been the United States' second largest natural catastrophe. Its impact on attitudes and policy had been significant.

- Although the event was unexpected, coming from a "blind thrust plate", the emergency response had been effective. Relative to potential earthquake events, "Northridge" was viewed as "moderate" in its intensity.

- Emerging estimates of the quantum of loss had understated the final damage. EQE, following an invitation from the governor, had estimated $25Bn, but this had subsequently been increased to $44Bn.

- The Federal Emergency Management Agency (FEMA) were looking to manage risk more effectively through mitigation and major structural "softening" to increase resilience to earthquakes.

- FEMA's response generally gave reimbursement of some 75% to 90% of costs. However, it was now to be prevented from any deficit financing and future relief effort would require the transfer of budgets from other federal departments.

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- It was commented that Oregon was now recognised as being at risk from earthquakes. Efforts to promote mitigation measures and the take up of insurance by residents had been improved through visible retrofitting of protection for public buildings. Generally, any mitigation measure applying to citizens needed to be very simple.

UMBRIA EARTHQUAKE

- This earthquake in Italy had resulted in some $6Bn in losses. There was, generally, a low number of insured losses and state aid had been significant.
- Legislation, which was now stalled, proposed a government reinsurance system to include earthquake and flood cover on residential insurance. The proposal was that insurance would be incentivised through state aid.
- David Crichton explained that the EU's DG Research (formerly DG12) was very interested in insurance and that he had visited Alan Cross, within the directorate, but he (Alan) had not heard of the Committee d'Assurance Europe (CEA).
- The general view was that the private sector (insurers particularly) had been used to distribute state aid, to avoid accusations of misadministration against the government.

RHINE FLOODS

- The 1993 Flood had shown a higher insured percentage of all the case studies. Insight had also been gained through comparisons with the 1995 flooding event, showing improved mitigation measures (moving possessions and heating installations) but a "relaxation" in such measures was perceived in the time to 1999.
- The worst case exposure for flooding in the region was estimated at some $30Bn.
- Flood insurance cover is attached to fire protection as an optional cover. Adverse selection of cover was recognised as an issue and a mandatory requirement for cover was being discussed.
- State aid was estimated at some 10%.
- Indirect costs included clean-up operations, which had been quickly administered in order to reduce ultimate costs (e.g. from setting of displaced sediment.

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- The Polish experience had shown that upstream/downstream issues were potentially critical and studies of cross-national boundary issues were planned. In particular, the RIBAMOD project had shown that a more holistic approach to river basin management was needed.

- It was suspected that the Rhine area was particularly wealthy and that citizens were prepared to bear losses themselves.

MIDWEST FLOODS

- Most losses had been in agricultural areas. The study had relied on the Flood Management Review Committee's report. FEMA had also provided direct aid and had produced flood risk maps.

- Established in 1968, the National Flood Insurance Programme provided the majority of flood protection in the region, with some 20% to 30% private insurance.

- The National Crop Insurance Programme had not been studied in depth for the research.

- There was now discussion of requiring "all perils" cover and the government was looking to pull away from the NFIP, through promoting private insurance. Lloyd's of London was actively competing in this market.

- FEMA was managed at the community level, although individuals could decide whether or not to buy insurance. Acceptance of "freedom of rate and form" remained a critical barrier to opening the market.

- It was explained that a mutuality's individual insurance covers could not be transferred from NFIP in bulk, as this denied the freedom of choice of insurer. However, an insurer could cover a mutuality's infrastructure.

UK EASTER FLOODS

- The Bellwin Scheme under the DETR had paid £350,000 in relief. An error in the original table for the distribution of loss was highlighted, with the Bellwin Scheme providing only 0.07% cover.

- The Easter Floods had been excessive and unexpected, exceeding "100 year" flood lines in many cases. Environment Agency co-ordination had been universally seen as poor. In particular, Banbury had been seen as a "sacrifice" to protect other areas.

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- Conditions for flooding had been worsened by a move by dairy farmers to Rye Grass, which did not survive in wet meadows. For this reason, land that could have acted as a "buffer" had been sold for development.

- The distribution of loss had impacted the mainly uninsured (some 25% to 33%) households amongst "low income", "pensioners" and "mobile homes/caravans". There was no evidence that (promised) state aid had been given to these groups.

- Initial estimates of the loss had been overstated at some £1.2Bn. Heavy cloud cover over the weekend had hampered damage assessment, as well as the "flash" nature of the flooding. However, the total loss was now viewed as some £500m and the insured loss some £137m, despite claimed insurance penetration of 90%. The ABI has now developed a system, with Experian and ISL, to provide loss estimates.

- The government's stated position is that "Flooding is an insurable risk for individuals and businesses…". They have used this to justify refusing state aid, although they have not advertised the fact. Sally Keeble MP's 10 minute bill to raise the plight of Northamptonshire constituents had been "cut".

- With regard to low cost housing, David Crichton explained how General Accident had developed a "Pay with Rent" scheme with AON for insurance cover, using cut-back simplified policies and streamlined administration. One particular problem with this approach had been a geographic accumulation of risk.

FRANCE AND FLOOD PROTECTION

- The French CCR reinsurance pool had been established after World War II to provide protection against war damage. It had subsequently been adapted for natural hazards. To trigger cover, the government had to declare a disaster, in which case large deductibles were applied to insurance covers.

- Private insurers are understood to be using CCR less, as the levy (some 8% of premium) is higher than free market rates.

- Turkey is known to be looking at the (similar) New Zealand and French models to provide earthquake insurance.

POLAND FLOODS

- This report considered the only emerging/transition economy in the case studies. The floods had caused some $3Bn of damage, corresponding to some 3% of GDP. Insured losses had matched some 10% to 15% of this, despite a penetration of some 25%. The state's response had been significant, providing some 40% to 50% cover. Industrial and commercial losses had been insured for some 50% of losses, suggesting that overseas ownership had brought in such practices.

- Flood is seen as Poland's greatest natural catastrophic risk, with Warsaw the area of greatest exposure.

- Allianz, which took over a large number of existing covers from privatisation of the insurance market had been hard hit and now excluded flood protection.

- Infrastructure losses made up some 45% of the total loss. In trying to grow its economy, Poland is looking to the private sector to join in funding infrastructure projects. World Bank reports (for Poland and Hungary) have opened discussions on how risk can be taken from government.

- More positively, both Poland and Hungary may be "data rich" due to the substantial state bureaucracies committed to compiling statistics.

CONCLUSIONS

- Rather than "risk" or "demand", marketability may be the key determinant in the success of a new product. Evidence suggested that high risk/high (but fair) premiums prevented successful marketing of products.

- Industry representatives were asked to comment on the "Factors favourable to insurance industry in offering insurance".

PRODUCT DEVELOPMENT

- David Crichton suggested that the incremental development of basic products could ensure the most profitable marketing of products, exploiting price distortions between market segments.

- In developing new products, three main potential allies existed:

  - Government;

  - Existing Insurance Infrastructure;

  - Non Governmental Organisations.

- Examples of alliances existed, with General Accidence + Friends of the Earth and Royal & SunAlliance + The Red Cross.

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- Three potential areas of development were highlighted:
  - Uninsured Perils;
  - Uninsured Agents;
  - Unbought Insurance.

Protection for Infrastructure

- A top-up to FEMA and NFIP was suggested, to allow government to reduce its commitment to provide federal aid. However, the ability of some countries' public bodies to quickly raise debt bonds was seen as too good an alternative option for this to be universally applicable.
- Post-disaster finance using country credit rating agencies was seen as a possibility and it was suggested that Benfield Greig might provide summaries of credit ratings from Moody's and S&P.
- Poland was seen as a good example, as the government would be looking to control expenditure, to qualify for membership of the EU.

Bundled Risk Management

- The impact on economic health was a prime consideration and it was suggested that infrastructure could be made more robust and insured, through a full risk management service.
- The partial privatisation of the UK underground may rely on the proper control of risk and insurance would have a role to play in presenting governments with certainty in cost.
- Working examples already existed in industry, with the Factory Mutuals & "IRI" and the Hartford (spelling?) Steam Boiler surveys, which provided lower premium cover for compulsory engineering surveys of industrial risks.
- More generally, such services could include disaster relief and promise to make the whole process of mitigation and recover less painful.
- Schools were seen as essential to proper disaster management, providing communications hubs and safety for citizens.

Business Interruption

- This was seen as a critical component of uninsured losses, often impacting on the survival of commercial entities and the health of economic areas.

- CYRIA (meaning and spelling?) had produced a booklet on the Control of Risk, which used a "risk iceberg" to illustrate the unexpected dangers to commercial operations.

FUTURE RESEARCH

- It was agreed that the EU offered a number of opportunities, with equity issues between countries and the challenge of helping under-developed countries to grow. The collection and release of risk data was seen as an essential element in any such developments.

- David Crichton commented that DG Research was interested in the convergence of product standards, data collection and earth observation. He also suggested that the UN Strategic Disaster Reduction initiative could also provide a useful contact for research activities.

- It was also suggested that a clearer view of the EU's position on "external relations", "finance" and "research" should be sought, which would help inform the development of the Uninsured Losses Project.

- Joanne Linnerooth-Bayer asked for comments on IIASA's recent report on Hungary and explained how she had used a "world views" cultural approach to the analysis of issues.

- A final tidying up of the case studies, within their current scope was supported, with delivery in late January 2000. Again, comments from the industry representatives were invited.

- David Crichton asked whether any project team members would like to attend a Foresight Initiative Conference on 18 January 2000.

DATE OF NEXT MEETING

- Simon Jennings asked that the agenda for the next meeting should be focused on pulling the strands of the research towards the ultimate goal of creating a new business opportunity.

- Benfield Greig offered to host the next meeting in the week of 24th to 28th January 2000. David Crichton mentioned that his travel arrangement favoured 11th February 2000.

- James Orr is to arrange the date for the next meeting.