

GENERAL INSURANCE PRICING SEMINAR

13 JUNE 2008, LONDON

Agenda

- | | |
|---------------------|---------------------|
| ▪ 9:40 Plenary | ▪ 13:40 Workshops C |
| ▪ 10:15 Workshops A | ▪ 14:40 Workshops D |
| ▪ 11:15 Coffee | ▪ 15:40 Tea |
| ▪ 11:35 Workshops B | ▪ 16:00 Workshops E |
| ▪ 12:35 Lunch | ▪ 17:00 Close |

Workshop Session A

- | | |
|--|------------------------|
| ▪ A1 Integrating ICAs and Pricing
<i>JB Crozet, PricewaterhouseCoopers</i> | <i>Wolfson Theatre</i> |
| ▪ A2 Personal Lines Pricing –
Challenges in International Business
<i>Karl Bedlow, RBS Insurance</i> | <i>Council Chamber</i> |
| ▪ A3 Practical Pricing for Commercial Lines –
An Introduction
<i>Martin Cross</i> | <i>Sloane Room</i> |
| ▪ A4 What do London Market Actuaries Price?
<i>Wendy Russell, Catlin & Ana Mata, MatBlas</i> | <i>Censors Room</i> |

Workshop Session B

- **B1 The Gender Directive: Age discrimination & Free Market Pricing Issues**
Nathan Williams, Royal & SunAlliance *Wolfson Theatre*
- **B2 Demand Modelling in Personal Lines**
James Tanser, Watson Wyatt ~~Censors Room~~ *Sloane Room*
- **B3 Applying GLMs to Pricing London Market and Commercial Lines**
Ryan Warren, Watson Wyatt *Council Chamber*
- **B4 Trends in Pricing, What People are Doing Differently Today**
~~Vincent Branch, Dwo~~ *Sloane Room*

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Workshop Session C

- **C1 Estimating the Predictive Distribution for Risk Premiums Using Bootstrapping**
Derek Bain, Axa *Wolfson Theatre*
- **C2 Principles of Non-Proportional Reinsurance Pricing**
Tom Wright, Deloitte *Council Chamber*
- **C3 Conflicting Objectives – Putting Commercial Lines Pricing in Context**
David O'Connor, Towers Perrin *Censors Room*
- **C4 Pricing Issues for Financial Institutions**
Mark Flower, Aon *Sloane Room*

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Workshop Session D

- **D1 ISO Industry Data – How it Works in the US and What Might be Done in the UK**
Beth Fitzgerald, ISO *Wolfson Theatre*
- **D2 Predictive Modelling for Commercial Lines**
Jim Guszcza, Deloitte *Sloane Room*
- **D3 Developments in Price Optimisation**
Stephen Jones and Tony Lovick, EMB *Council Chamber*
- **D4 London Market Pricing in the Soft Market**
Sanjiv Chandaria, Watson Wyatt *Censors Room*

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Workshop Session E

- **E1 Capital Allocation in Pricing**
Martin Cairns, EMB and Buu Truong, ACE *Wolfson Theatre*
- **E2 Price Optimisation – A European Case Study**
Mark Airey & Francisco Gomez-Alvado, Towers Perrin *Censors Room*
- **E3 Understanding the Customer Value Chain**
Mike Brockman, EMB *Council Chamber*
- **E4 Marine Hull Pricing**
Tom Jowett, Swiss Re *Sloane Room*

Plenary

- **How Do You Solve a Problem Like Flood?**
Simon Black, Norwich Union



965 © NERC

Tewkesbury 2007

How Do You Solve a Problem Like Flood?
Simon Black, Norwich Union



BGS © NERC

Simple.....

- Analyse past experience
- Project into the future
- Allow for market dynamics
- Achieve return on capital!!!

So the past...

UK Property (Commercial & Personal)
Major insured weather events 1980-2005, excl subsidence)

When	Type	Where	Market Loss £M (2007 equiv.)
Dec 81/Jan 82	Freeze/Flood	Nationwide	771
Jan/Feb 84	Storm/Flood	Worst in N and Scotland	486
Jan/Feb 85	Freeze/flood	Worst in the South	387
Mar 86	Storm	Nationwide	139
Jan 87	Flood	London, N	669
Jan 91	Flood	London, N	2467
Feb 91	Flood	London, N	3688
Feb 91	Flood	London, N	365
Dec 94	Flood	London, N	190
Dec 94	Flood	London, N	699
Jan 97	Freeze	London, N	199
Xmas 97	Storm	London, N	365
New Year 98	Storm	London, N	211
April 98	Flood	London, N	154
October 98	Flood	London, N	308
Boxing Day 98	Storm	London, N	1286
Oct/Nov 2000	Flood/storm	London, N	681
Jan 05	Flood/storm	London, N	342
Jun 07	Storm	London, N	1800
Jul 07	Flood	London, N	1200

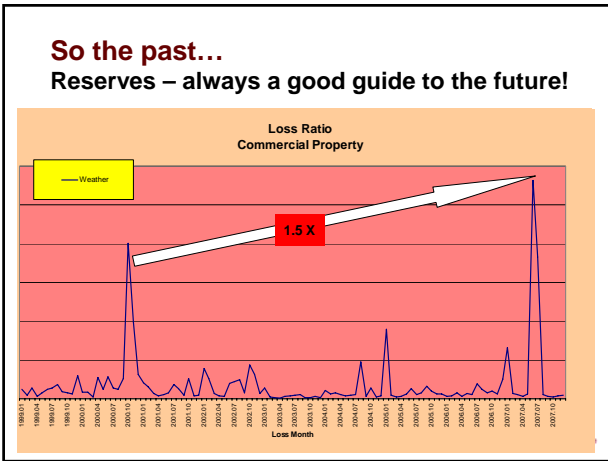
2007...UK 4,500m USD
Mexico 450m USD
Australia 960m USD

Step change in flood losses since 1998??

No significant freeze since 1997!

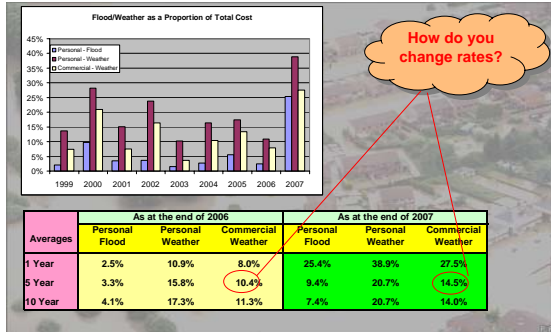
▪ 'Flood' includes 'storm' but only the Jan '05 event included very high winds

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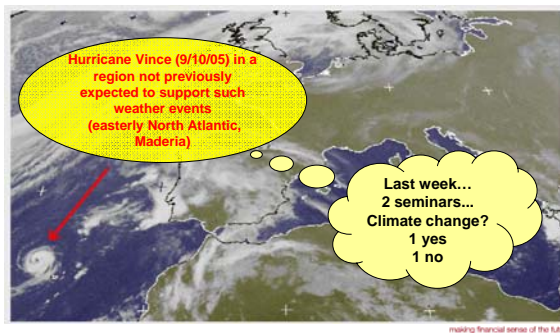
So the past...

Analyse a few year's data and play with GLMs



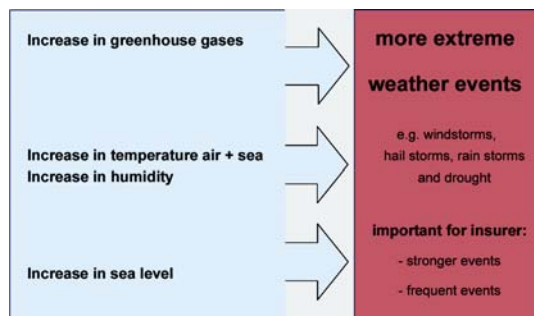
And the future's not much better...

Climate change?

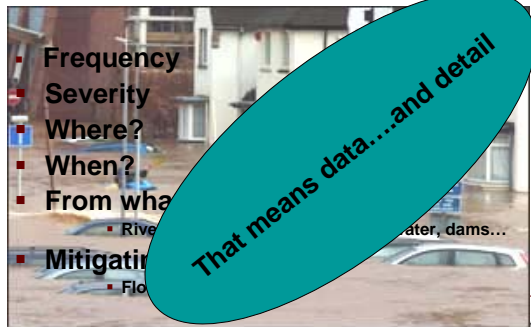


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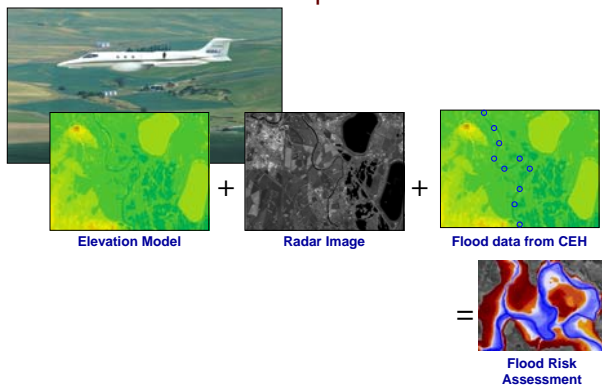
Climate change?



What do we need to assess risk?

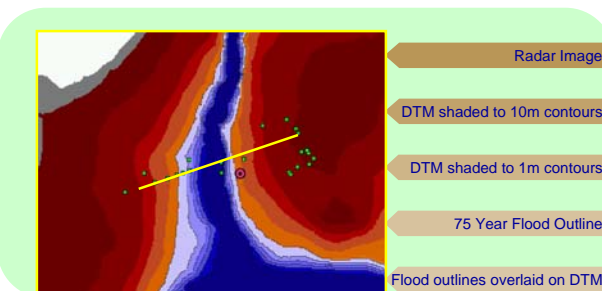


NEXTMap Britain



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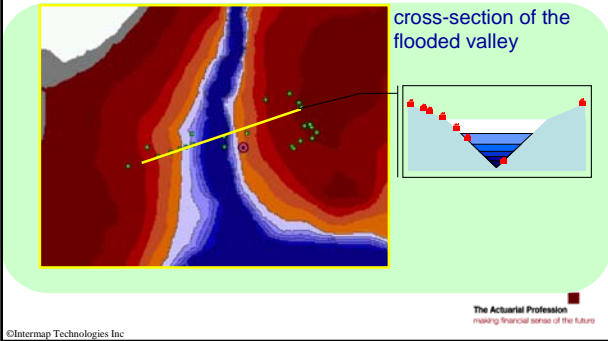
Flood layers



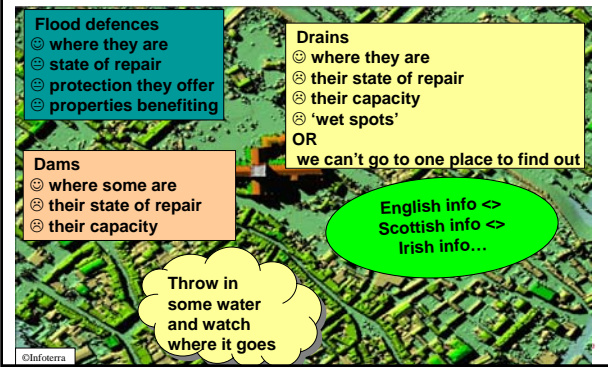
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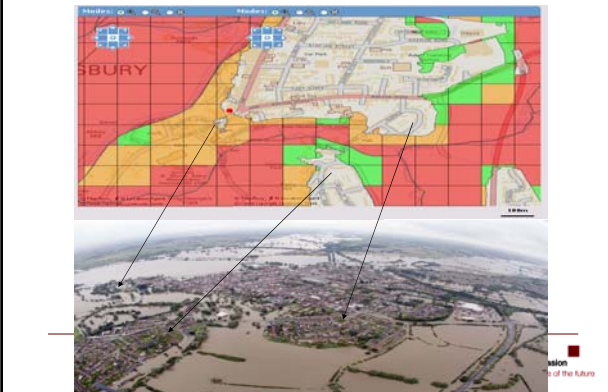
Insurance assessment of flood risk



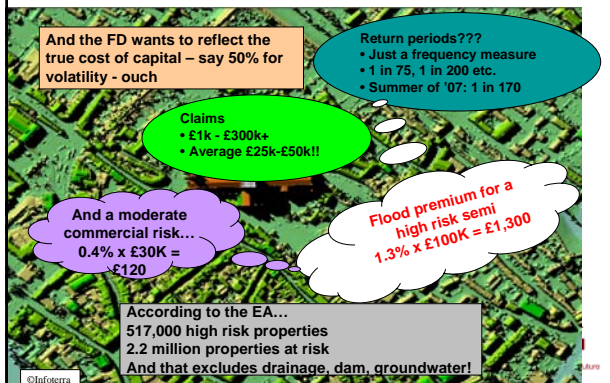
And more detail
Lidar



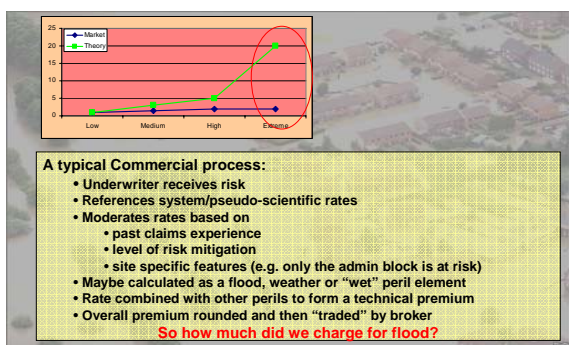
Tewkesbury July 2007 Model View and Actual



So you've done the analysis



In reality



Reinsurance

- Clever models need calibrating
 - Tricky - see top slice which varies by XOL limit
 - Rely on primary insurer's data
 - Consider European, worldwide and UK experience



There's the right answer and then... The Ratner Factor



Never underestimate PR...one comment lost circa £500m

Knowing the 'right' flood premium and charging it are two very different things

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How Do You Solve a Problem Like Flood? *Simon Black, Norwich Union*

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