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## Flood, Flood Re and Actuaries

From the IFoA Flood Working Party:

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1 June 2015

## GIRO Flood Working Party

**Aim: To be a source of knowledge and expertise within the Actuarial Profession on matters relating to flood with a particular focus on the UK.**

- To develop the Profession's position on UK flooding.
- To produce reference material for UK actuaries.
- To improve the understanding of flood risk amongst the industry, government and public.
- To gather data and opinions from the industry to inform the above.
- To work with industry bodies to report on market developments following the expected launch of Flood Re in 2015.



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## The Flood Problem

**Created by insurers:**

- Insurance is about pooling the unknown
- Risk models have differentiated most perils more and more over the last 25-30 years but flood, by its nature has a more extreme variation than others

**Exacerbated by external factors:**

- Climate change
- Population growth
- Diminishing resources



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### Problem - Trends in weather patterns

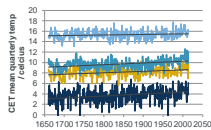
- 2014 was the UK's warmest ever year and eight of the top ten warmest years have occurred since 2002.
- Five of the UK's top six wettest years have occurred since 2000.
- Many models are based on the average of past years. However, there is some evidence that expectations for 2015 should be greater than the average of past years.



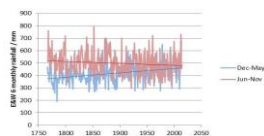
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### Problem - Trends in weather patterns



Trend for a warmer time than recorded in the past – this increase in energy is expected to lead to more storms and greater rainfall as warmer air can carry more moisture.



The impact on rainfall is less clear – winters have been wetter and summers drier over the last 250 years but more recently summers also appear to be wetter again.

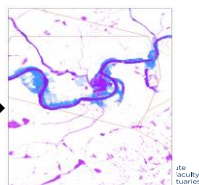
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### Problem - Insurers

- Insurers have got much better at predicting flood risk at a more granular level. This has seen the expected flood cost for the worst properties become more extreme leading to a problem of affordability and availability.

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## Problem – Insurers

### 21<sup>st</sup> May, The Actuary:

- "New model helps Canadian insurers better understand flood risks  
A "fully probabilistic" flood model has been developed to help insurers and reinsurers better underwrite and manage these risks in Canada."

### 22<sup>nd</sup> May, Flood Re weekly briefing:

- "Canadian delegation visit to Flood Re - This week we were delighted to be able to host a visit from colleagues from the Insurance Bureau of Canada who are exploring whether a Flood Re type solution could be applicable in their country. They spent time with our Executive team asking about the strategy and objectives for Flood Re as well as gaining significant insight into the operational programme that is in place."

But not quite as it seems – flood insurance availability



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## Flood Re

a / the solution?

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ponsorship  
Thought Leadership  
Thought Progress  
Community  
Sessional Meetings  
Education  
Working parties  
Volunteering  
Research  
Shaping the future  
Networking  
Professional support  
Enterprise and risk  
Learned society  
Opportunity  
International profile  
Journals  
Support

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## What is Flood Re?

- Designed to enable high flood risk households to obtain affordably priced flood insurance, Flood Re is an agreement between UK insurers and the Government to allow insurers to pass the flood risk element of a home insurance policy into a not-for-profit fund that will pay any subsequent flood claim.
- Aim is to allow a sustainable transition to risk reflective pricing over 25 years.
- Flood Re is designed to provide support to those homeowners who, without it, are most likely to face problems in obtaining affordable flood insurance.
- Exclusions include:
  - Homes built after 1 January 2009
  - Commercial properties, including commercial leasehold properties (although there are some exceptions)



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## How will Flood Re work?



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## How will Flood Re work?

- Insurers can reinsure domestic property insurance flood risks for homes **built prior to 2009** with a not for profit pool for a fixed cost depending on **council tax band** and cover type:

Cover Type	Property Council Tax Band								
	Wales: A/B/C	D	E	F	G	H	I		
Buildings only	£132	£132	£148	£168	£199	£260	£334	£800	
Contents only	£78	£78	£88	£108	£131	£148	£206	£400	
Buildings and Contents combined	£210	£210	£246	£276	£330	£406	£540	£1,200	



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## Who pays?

- The insurance industry (ABI) is paying the £10m set up costs to get Flood Re up and running. The Flood Re pool itself has two sources of income:
  - Premiums of flood risks passed by insurers, which will be capped based on Council Tax bands.
  - An additional levy on the industry, equivalent to the existing cross-subsidy that exists in the market. This will be around 2.4% of a policy which equates to a notional average of £10.50 per customer.

Possibility of a further levy (Levy II) if Flood Re cannot meet its funding requirements.



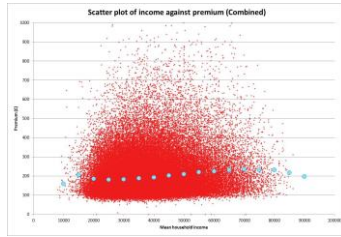
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## Flood Re

### Affordability:

- Flood Re is effectively funded by a percentage load on most home insurance premiums
- Household premiums are greater for those with higher incomes but not that much




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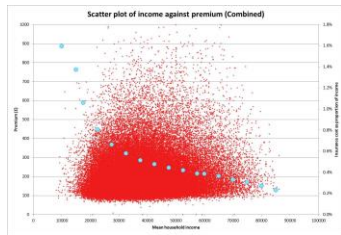
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## Flood Re

### Affordability:

- Looking at the ratio of premiums to income shows how the burden of Flood Re falls hardest on those with lower incomes




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## Flood Re - Strengths

- ✓ Provides coverage for consumers – a market for new business
- ✓ Very likely to improve price/terms for majority of customers who are subject to high flood risk
- ✓ Properties built since 2009 cannot be ceded to Flood Re – this introduces a pressure on planning to fully consider flood risk
- ✓ Intention to return to risk reflective premiums within 25 years encourages investment in defences and improvement of housing stock (by owners)
- ✓ Some scope for resilient repairs

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## Flood Re – Controversies

- ? Who pays and who benefits
- ? Coverage – Band H/I added
- ? Windfall benefit for insurers with historically weaker underwriting
- ? 25 years – and associated uncertainty
- ? Levy I timing <> coverage
- ? Cost, difficulty and delay in inception
- ? 1 in 200 - a disincentive to underwrite



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## The IFoA as a public interest body

A possible view on flood

We are open and honest, acting impartially and with a sense of justice to all. Our role is to contribute to setting standards and policy in the financial sector, and other areas where we have expertise, in all countries. We should also speak out when appropriate, particularly where the public may not understand the associated risks. This also applies to publishing material which will help the understanding of consumers of financial services and the members of pensions schemes.

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## Profession's View?

### Flood Re:

- Be clear on 25 year outcome – stated return to risk reflective pricing but talk from Flood Re of intention to use time to make underlying issue much better
- So what are benefits – originally planned to give time for people to adjust to risk reflective pricing but can resilience be improved?
- And who pays for it – Flood Re can fund some resilience and householders can do more over 25 years, government can build and maintain defences but may be a challenge just to maintain flood costs



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## Profession's View?

### Insurers:

- Covering uncertainty – not what is predictable – should we explain this?  
Address other views of 'pooling' of risk?
- Huge social role of insurance may be forgotten!



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## Profession's View?

### Government:

- Sustainable development – growth-oriented economic model vs finite ecosystem
- Role of defences



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## Profession's View?

### Ultimately - what helps the public

- Build awareness of opportunity to improve housing in 'breather' provided by Flood Re - constructive
- Risk of some customers becoming uninsured as result of the fairly regressive charging of the subsidy (24% of households already uninsured) – but how can this be addressed? A wider issue?
- Be clear about what Flood Re is and isn't and what else government can do to address the underlying issues



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**Questions**

**Comments**

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.



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