

17th General Insurance Seminar

Risk and Reward



Institute of Actuaries of Australia

7 – 10 November 2010 • Sheraton Mirage, Gold Coast

Natural disasters in Australia: Issues of funding and insurance

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So much to cover

1. Trends in cost of disasters over time
2. Current approach to funding in Australia
3. Who should fund?
4. International schemes
5. A scheme for Australia



But before we get started.....

- Natural disasters: large scale natural events such as earthquakes, cyclones, storms, floods, bushfires
- Economic costs can be thought of in two broad groups:
 1. Preventative and risk management costs
 2. Post event costs
- We are only discussing item 2.



Data on past events

- Data on insured losses readily available
- Everything else is more challenging
- Consistency of “total loss” data between sources?

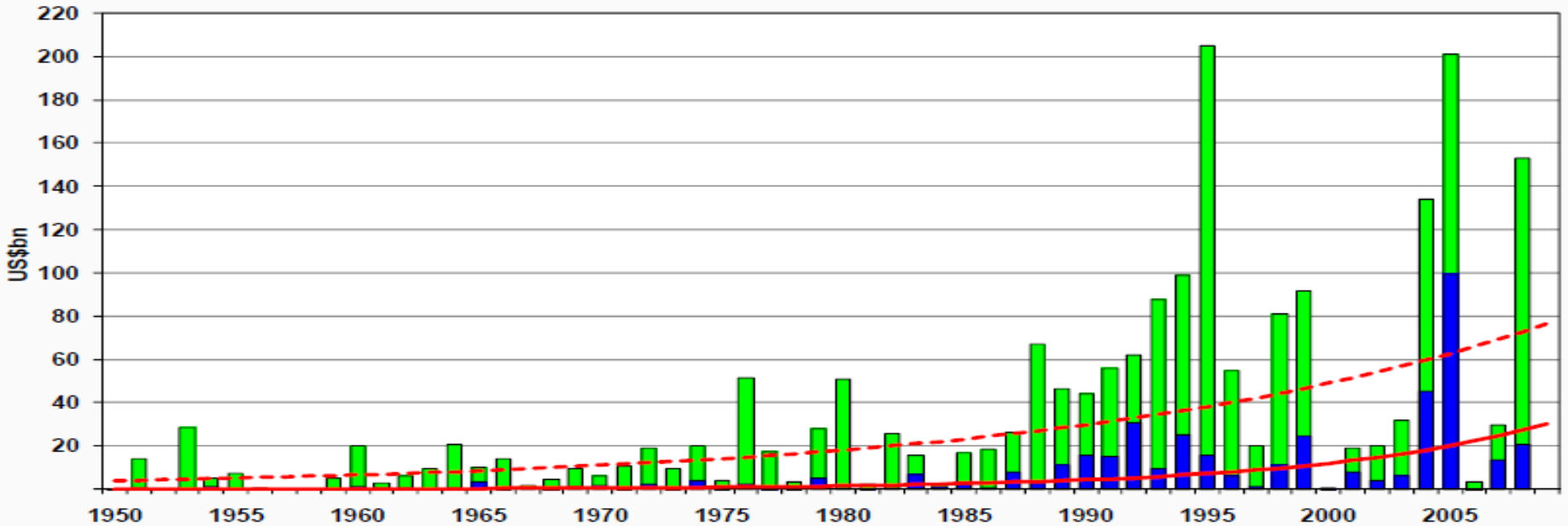


1. Trends in costs over time

NatCatSERVICE

Great natural catastrophes 1950 – 2009

Overall and insured losses with trend



Overall losses (in 2009 values)

Insured losses (in 2009 values)

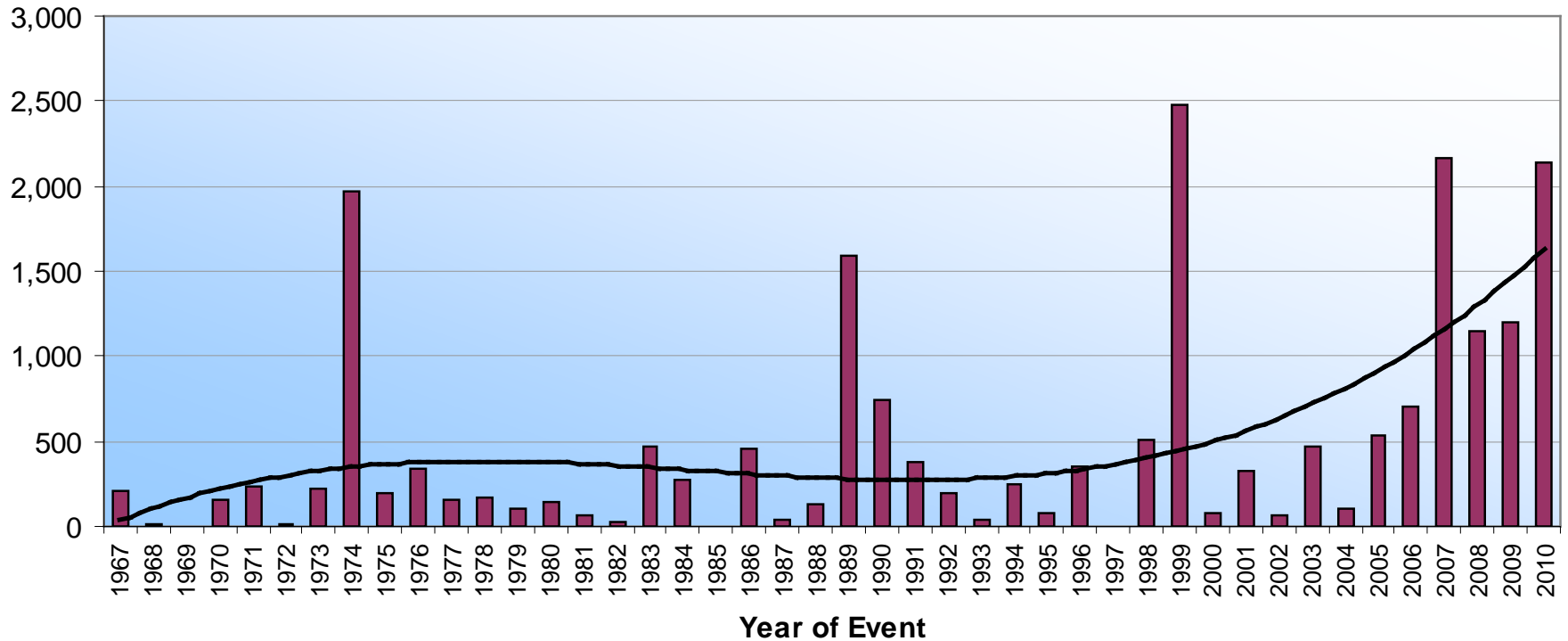
Trend overall losses

Trend insured losses



Australian Insured Losses

ICA: Historical disaster statistics (\$mil, 2010 dollars)





Why these increases?

- Socio-economic developments, such as increasing concentrations of values
- Increasing population
- Settlement and industrialisation of exposed areas
- Climate change and the increase in major weather-related natural disasters



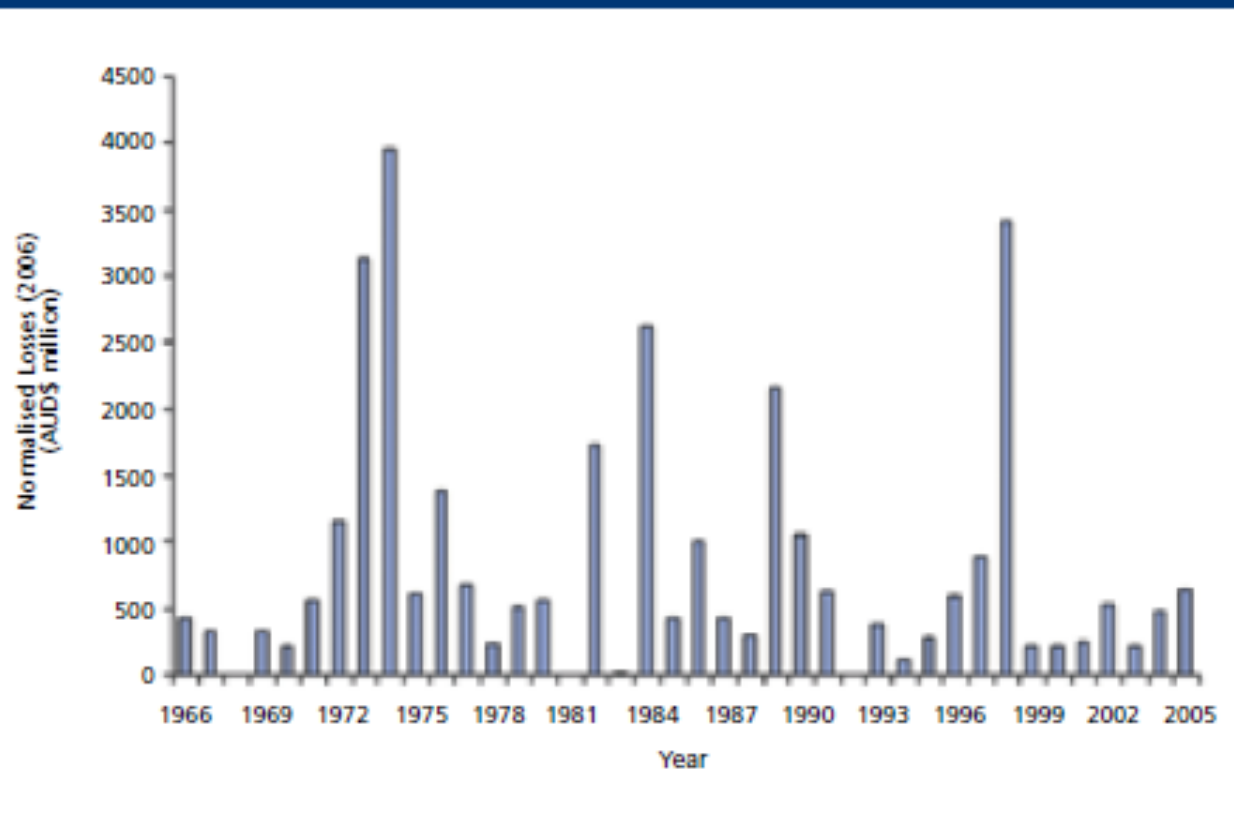
What if we adjust for some of these factors?

- Crompton and McAneney (2008)
- Adjusted for growth in population, wealth and inflation since the time of the original event
- Number of dwellings and average dwelling values used as a proxy



The result – no apparent trend

Figure 1: (b)





The point

- Societal factors have been the major driver of historical long-term increase in disaster losses
- Future disaster losses will increase as a result of societal factors and economic development, independent of climate change



2. Current approach to funding

- The states and territories have largely assumed responsibility for managing natural disasters.
- The states are supported by the Commonwealth Government with respect to funding



Sydney April 1999 Hail Storm



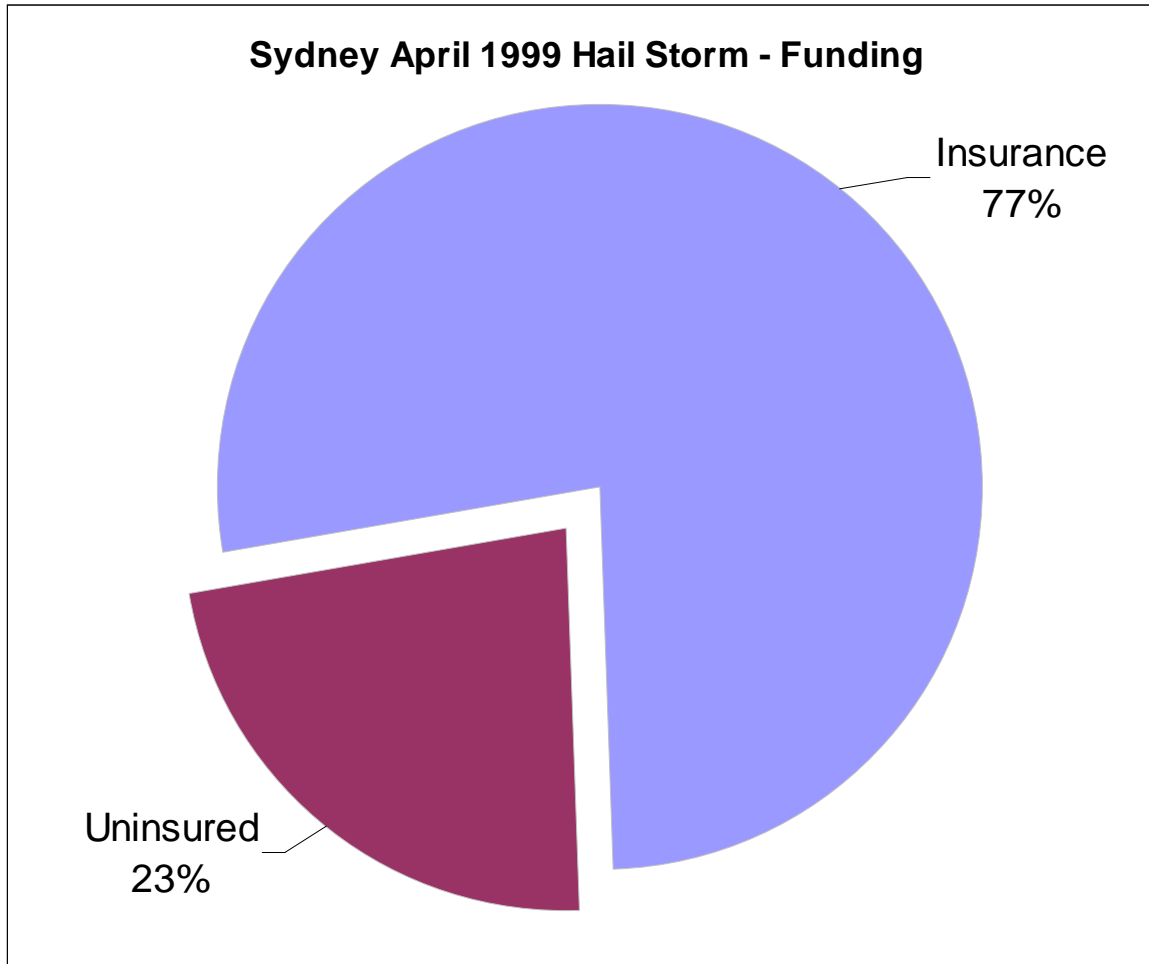
(Source: <http://ozthunder.com/chase/chase13.htm>)



(Source: Australian Science and Technology Heritage Centre)



Sydney 1999 Hail Storm - Funding





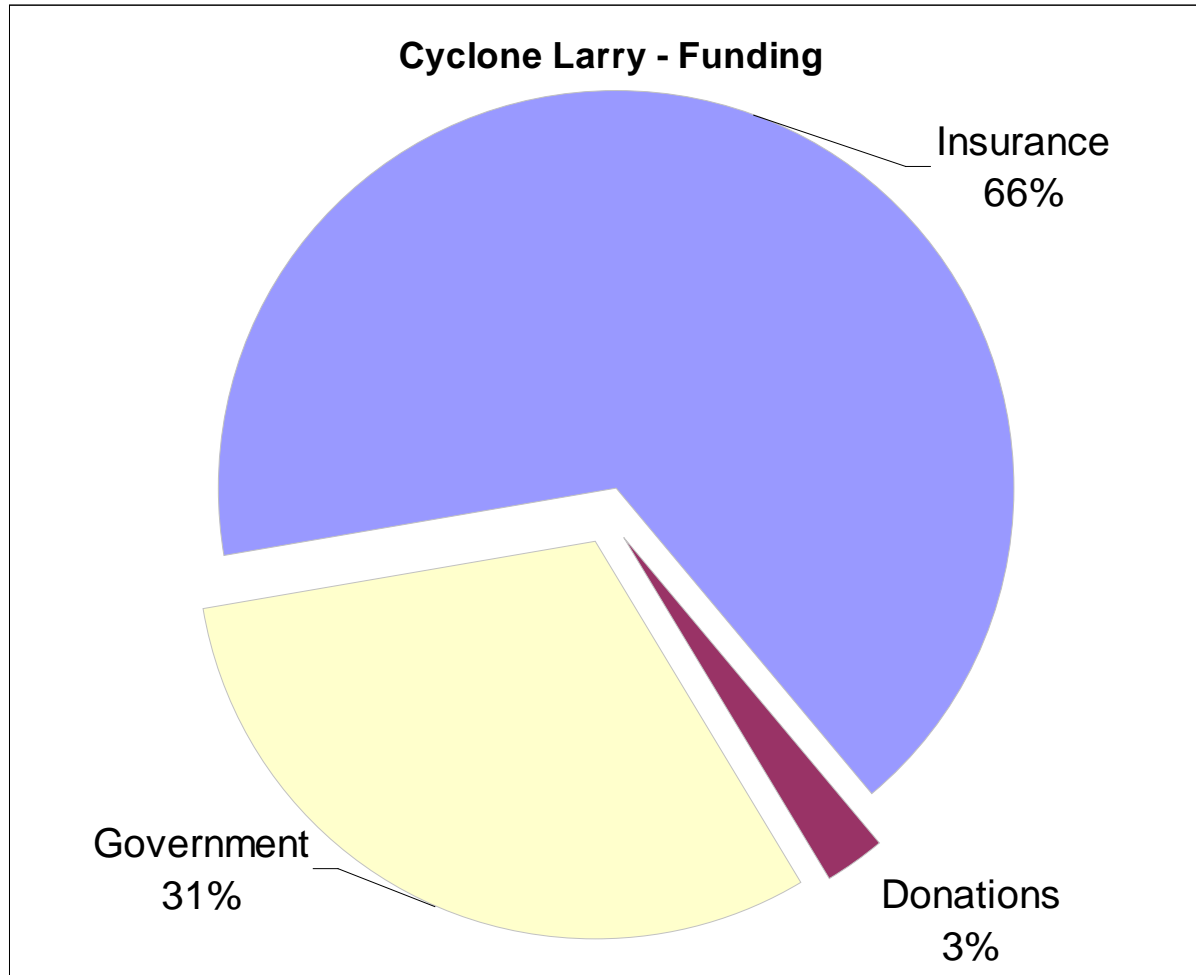
Cyclone Larry



(Source: <http://www.theage.com.au/news/national/cyclones-trail-of-ruin/2006/03/20/1142703289126.html>)



Cyclone Larry – Funding





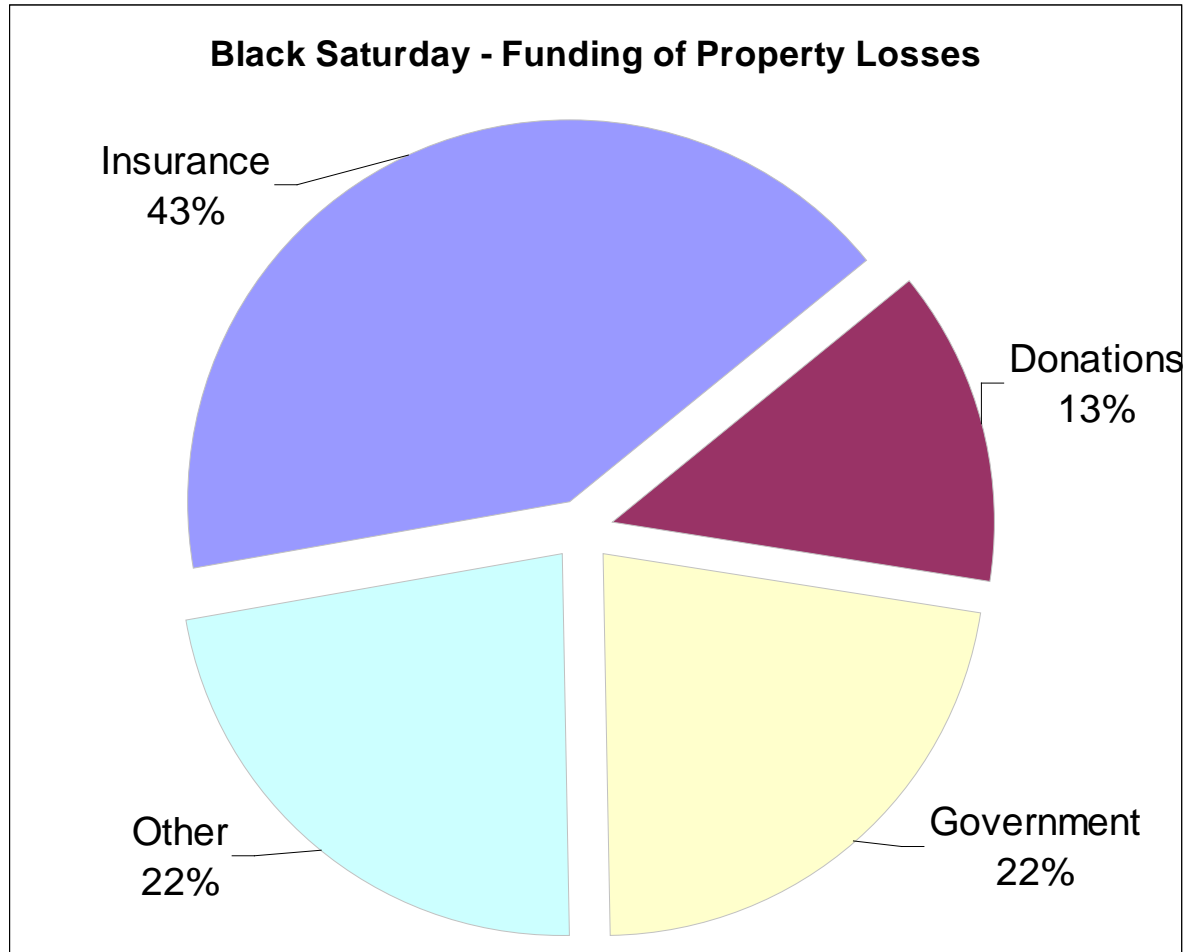
Black Saturday



Source: 2009 Victorian Bushfires Royal Commission – Final Report



Black Saturday – Funding





3. Who should fund

- The options range from
 1. The Government funds all costs from events
to
 2. Everyone should look after themselves
or
 3. Somewhere in between



Government Funding

- Features of such a scheme
 - Can guarantee coverage for all perils
 - Can make sure insurance is affordable to all
 - Can replace property on new for old basis, removing issues of underinsurance
 - Blanket coverage may provide disincentive to reduce risk



Everyone looks after themselves

- Features of this approach
 - Protection provided to those who choose to insure
 - May result in insurance not being available/affordable for some risks
 - Market forces will result in efficient pricing and risk/reward trade-off (in theory at least)



The current funding situation

- Sources of funding vary from one event to the next, in particular
 - Level of donations
 - Government assistance provided
- There is also a high level of losses not covered



Underinsurance & non-insurance

- Underinsurance - where the sum insured is below the rebuilding/replacement cost of the property
- Non-insurance - where people do not have insurance



Underinsurance & non-insurance

- VBFRC stated that “Non-insurance and under-insurance have impeded the rebuilding process”
- Charity Hazard
 - E.g. Assistance of up to \$90,000 for rebuilding homes following Black Saturday



Non-insurance rates

- Industry non-insurance rates for buildings are relatively low (below 5%)
- Higher rates for contents (around 25%)
- VBFRC “About 13 per cent of destroyed residential properties might have been without insurance cover”
- Northbridge Earthquake-only 17% insured
- Kobe Earthquake-only 3% insured



Why do people not insure?

- “Hierarchy of denial”
 - It won’t happen at all
 - It won’t happen to me
 - If it does happen to me, it won’t be too bad
 - If it is bad, I can’t do anything about
- Insurance is limited: excesses, policy limits
- Insurance is expensive



Underinsurance

- ASIC report: between 27% and 81% of consumers were underinsured by 10% or more against current rebuilding costs



Underinsurance

- Why are people underinsured?
 - Consumer is the one who estimates rebuilding costs - an intrinsically difficult task
 - Variability in results from sum insured estimation tools provided by insurers
 - Rebuilding costs typically increase following disasters
 - Other reasons



4. International schemes

- **New Zealand Earthquake Authority**
 - Started in 1945
 - Covers more than earthquakes
 - Covers only those who insure (90% of households)
 - Premiums collected via insurers (NZ\$90m per annum)
 - Limits to cover-but pays 95% of all claims
 - Effects international reinsurance
 - Current funds of NZ\$6billion



International schemes (contd)

- USA. National Flood Insurance Program
- Japan. Earthquake insurance, reinsured to govt .
- Spain. Compulsory government monopoly
- France. Insurers must offer insurance, but can reinsure back to government
- Switzerland. 73% of cantons compulsory cover from govt
- CCRIF. Covers 16 Caribbean nations



5. A scheme for Australia

- Does Australia need a scheme?
- The discussion post Tracy
- What might a scheme look like?



Does Australia need a scheme?

- Current arrangements create uncertainty in times of stress
- Potential for anomalies and inequities
- Government already large funder of costs
- A formal scheme would recognise the reality, remove the uncertainty, enable better funding



The discussion post Tracy

- Government in-principle decision to establish an NDIS (1976)
- Underlying principles:
 - Cover available to all at reasonable premiums
 - Encourage people to protect themselves
 - Seek equity through risk rating
 - Facilitate mitigation policies
 - Minimise call on Government funds



The discussion post Tracy

The scheme:

- Pool of insurers
- Government and industry to encourage maximum participation
- Those who opt-out not to receive benefits
- To cover household property and small businesses, not commercial property
- Special arrangements to those who could not afford insurance



The discussion post Tracy-what happened?

- Benign experience after Tracy
- Industry recovered financially
- Enthusiasm waned
- It was John Howard's fault



What might a scheme look like?

- The 1976 proposals seem a good starting point
- Would respective roles of private insurers and Government change?
- The pool mechanism?
- The question of compulsion?



Government & Private Insurers

- Private insurance is only a partial solution=>Govt involvement needed
- Private sector has the insurance expertise and experience
- Joint involvement makes sense
- Govt has experience as the reinsurer



The pool mechanism

- Pool run on insurance principles
- Pool would offer standard disaster cover
- Premiums set by advisory committee, risk rating by region
- Requires solidarity amongst participating insurers



Compulsion

- Some insurance is already compulsory
- Compulsion would increase viability of the scheme
- Could facilitate funding (e.g. levies on Council rates)
- Need for uninsured pool
- Why not?



In closing....

- Incidence of disasters will increase
- Existing arrangements will not cope well
- We need to prepare for an NDIS
- Recognise the reality, remove the uncertainty, enable better funding



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