

MANAGING EXTREMES

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Retro and Retakaful

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The International Takaful Summit 2009

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Agenda

- Setting the Scene
- Retrocession Market Risk & Catastrophe Losses Update
- Reinsurance and Retakaful Market Capitalisation
- Peak Exposure Solutions
- Recent Natural Catastrophe losses and lessons learned

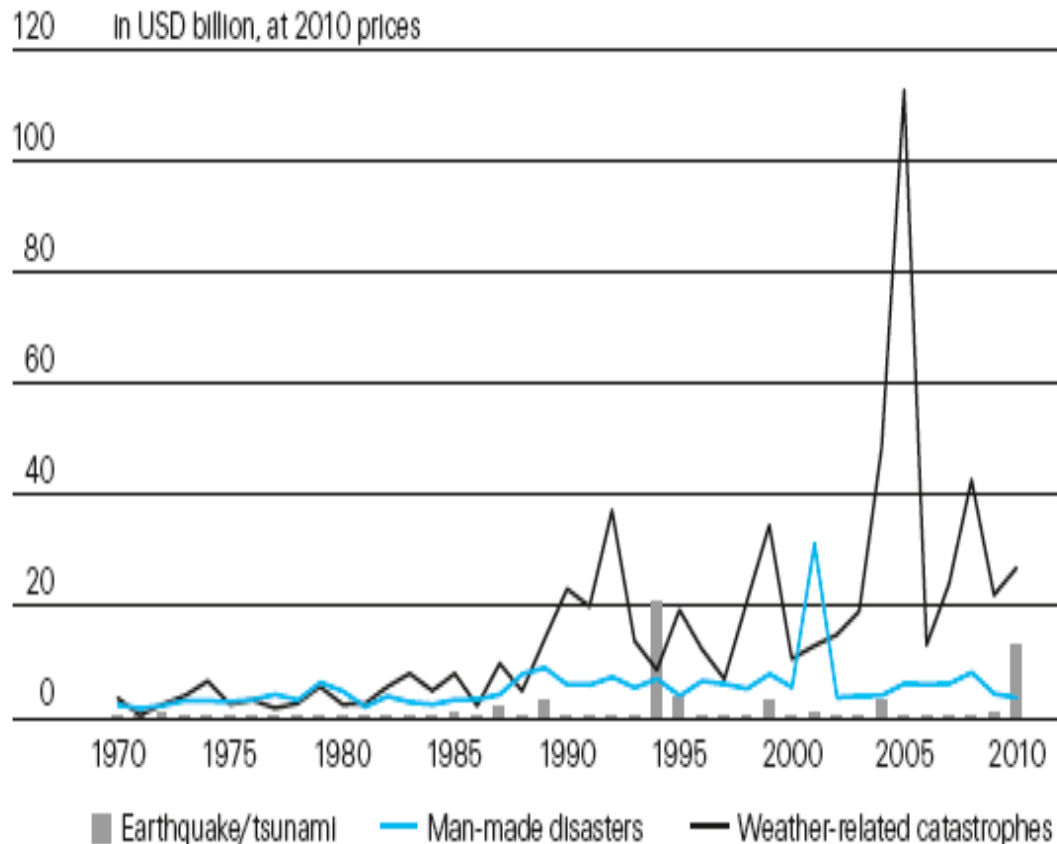
Setting the Scene

- **Retrocession** - the provision of Retakaful to professional Retakaful providers
- Retakaful market is expanding, over **15 International Retakaful operators or 'windows'** throughout Asia, the Middle East and North Africa
- Who provides the **retrocession cover** – Retakaful operators can cover each other or utilise conventional capacity? Darura applies
- **Potential spiral effect?**
- Long-term aim; an **integrated Takaful chain** participant to Takaful operator to Retakaful operator to Retakaful retrocessionaire.
- **All of required standard line Treaty capacity** can be provided by the Retakaful market. The Retakaful Operator must rely on the conventional retrocession market as a matter of necessity

Retrocession Market Risk & Catastrophe Losses Update



Insured Catastrophe losses 1970 - 2010

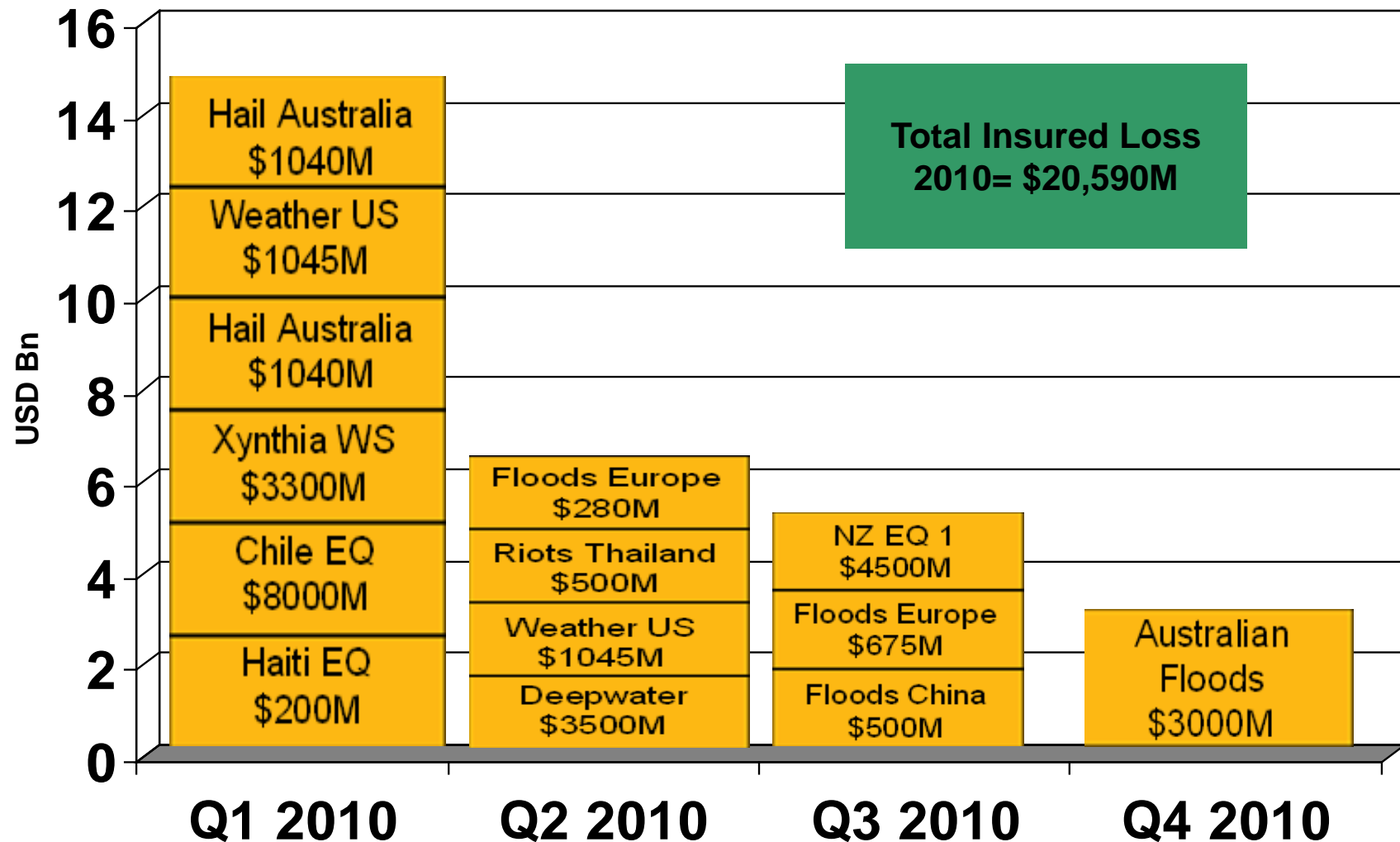


- Total economic loss estimated at approx USD 218bn
- Economic losses highest in Asia where floods caused damages of USD 75bn
- EQ's of Chile and Haiti caused losses of over USD 53bn for Latin America
- Economic losses from man-made disasters more than USD 24bn, most of which can be attributed to Deepwater Horizon.

2010 Significant Insured Losses

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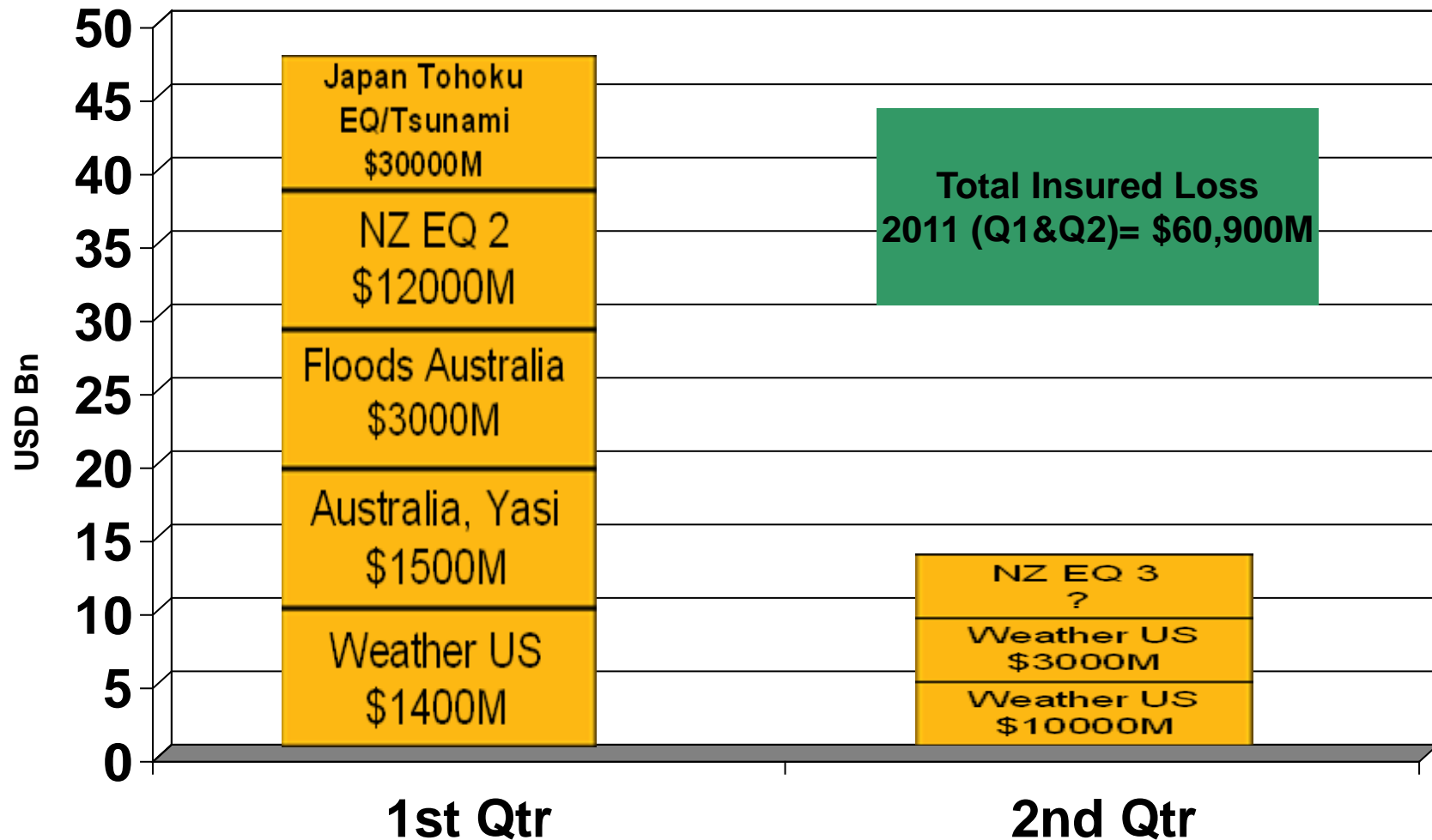
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2011 Significant Insured Losses

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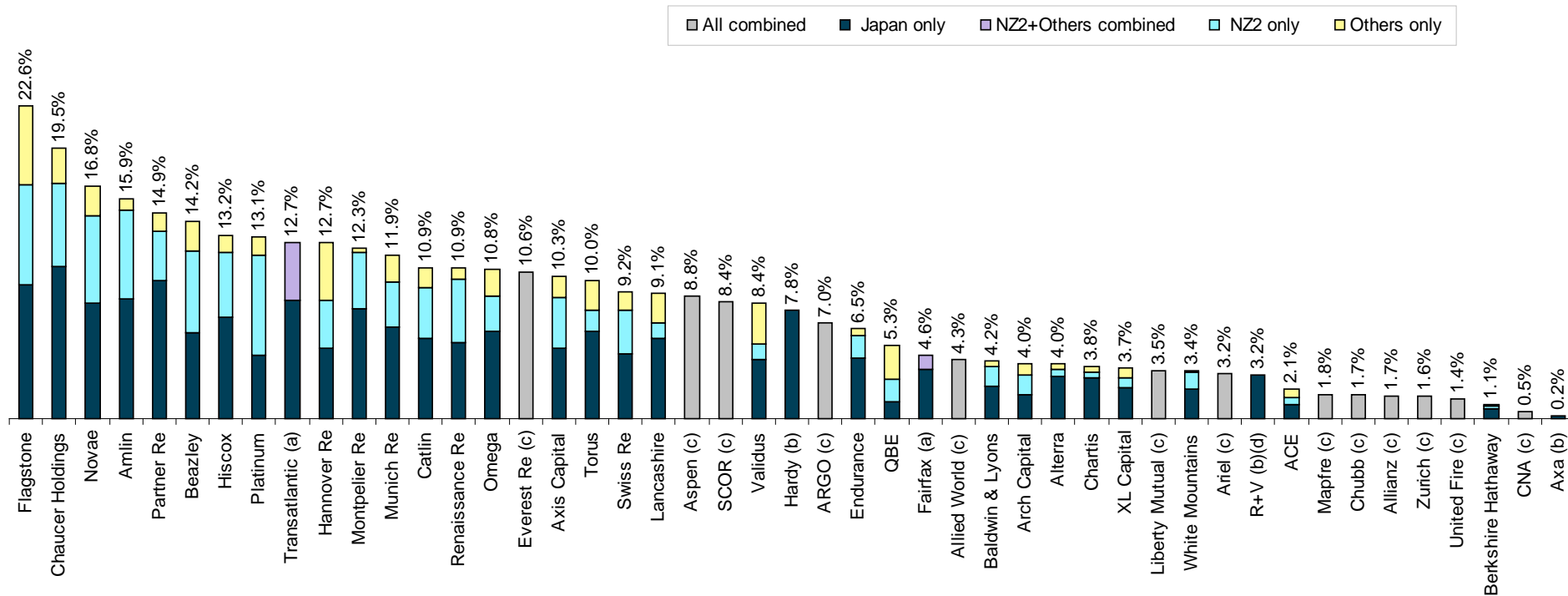


Q1 2011 International Cat losses as a % of Shareholders Funds

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Q1 Cat losses as a % of Dec 31, 2010, Group Consolidated Shareholders Funds



(a): NZ2 and others combined

(b): Japan only

(c): All combined

(d): R+V, Shareholders Funds are as at Dec 31, 2009.

Figures (as of May 13, 2011)

Conclusion

- Soft markets likely to be the norm going forward unless there is another financial crisis reducing investment flow from capital markets
- Current levels of overcapitalisation may be reduced by losses or poor investment returns but currently difficult to foresee capital starvation
- Market players have to adjust to the new reality that significant underwriting returns will only be available on localised basis for short durations
- Whilst underwriting excellence remains key more sustainable competitive advantages need to be developed through operational excellence and reduction cost to access risk and own costs

Significant purchase requirements - Peak territory exposures



Significant purchase for peak territories

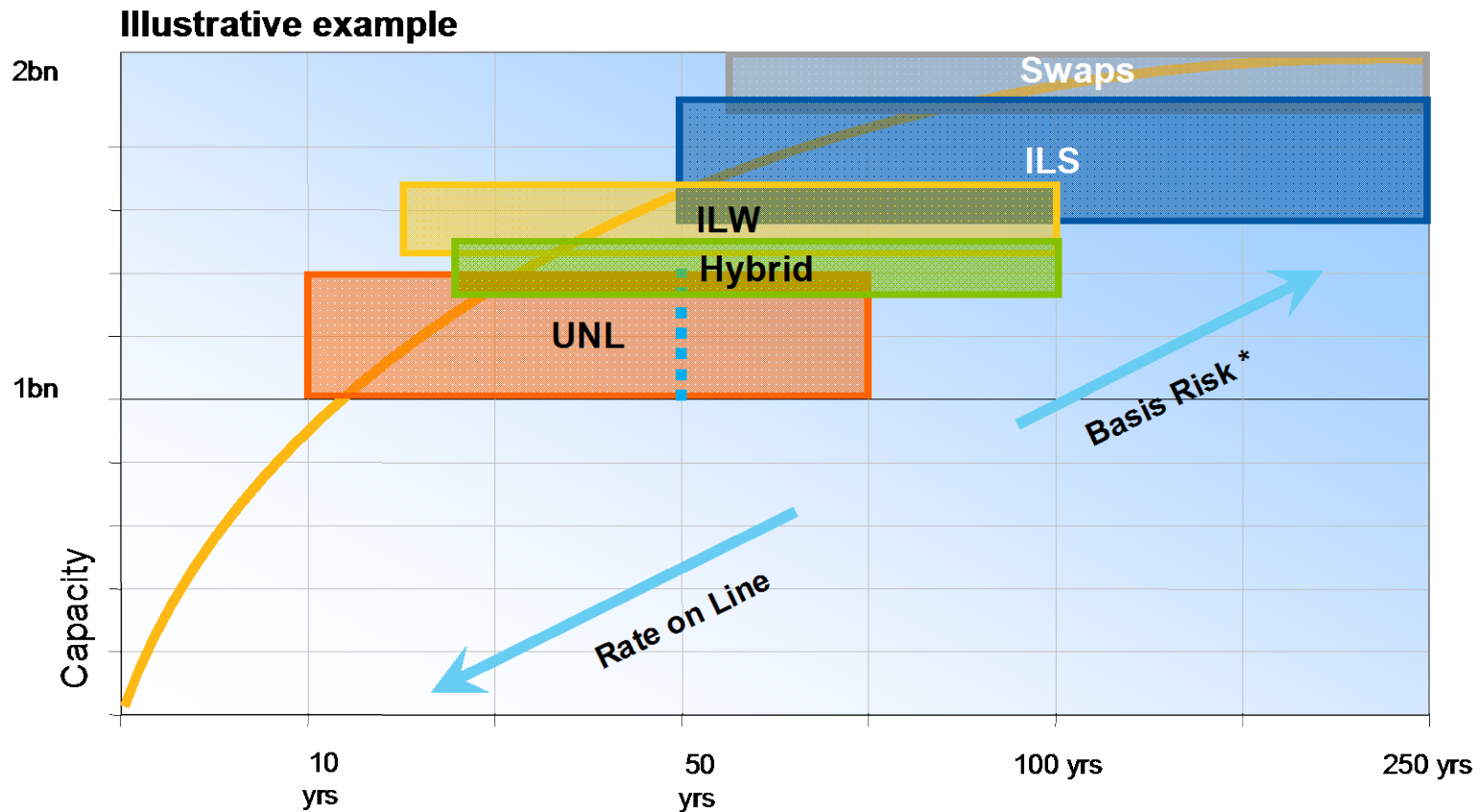
- Ultimate Net Loss Solutions
- Hybrid Solutions
- Industry Loss Warranty Solutions
- Insurance Linked Securities Solutions
- Catastrophe Swaps

How can these be blended to support a buyer with substantial capacity requirements?

Blended Purchase to achieve \$1bn of Capacity Incorporating Peak Exposures

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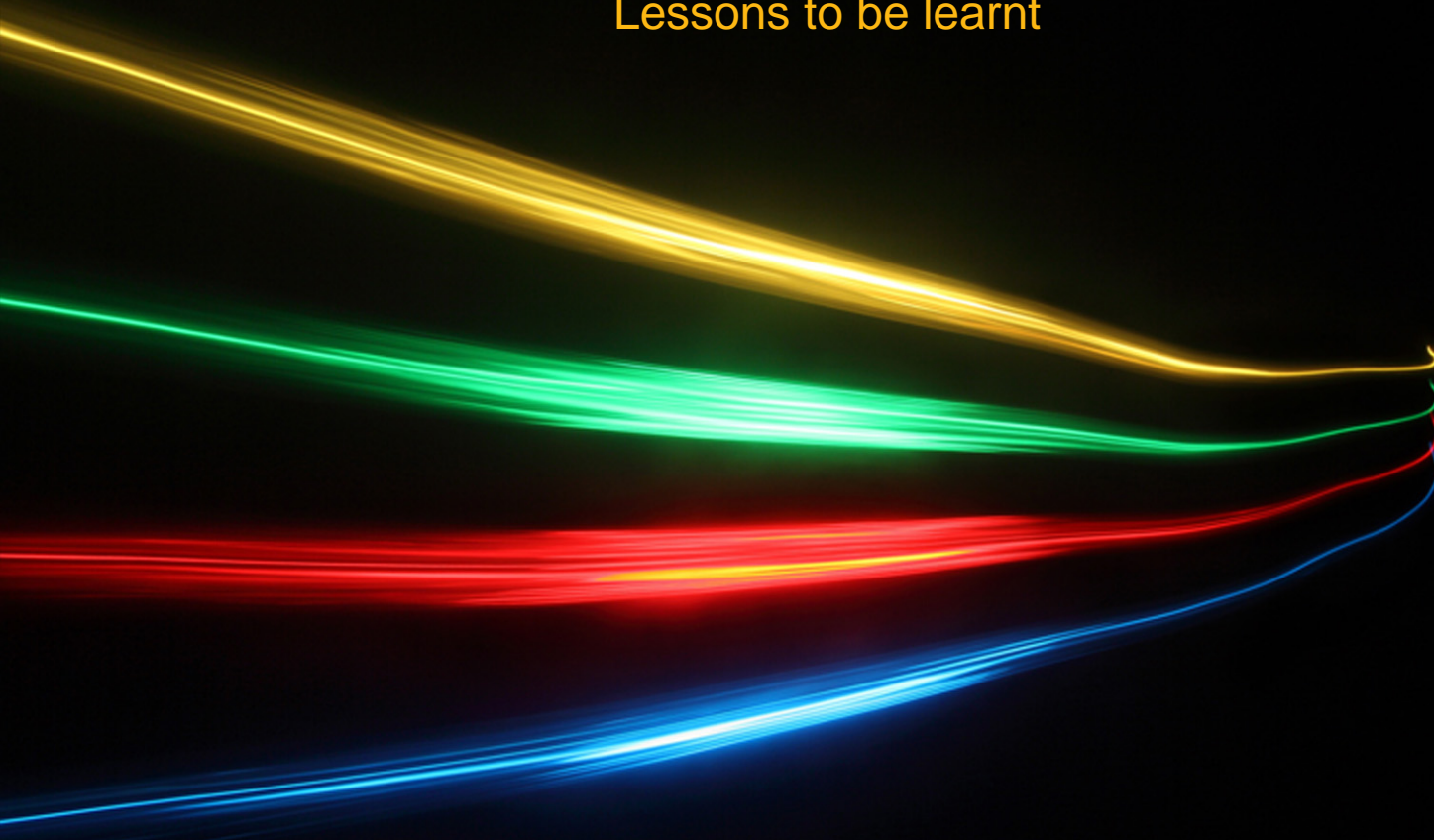
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* With the exception of Swaps

Recent Natural Catastrophe Losses

Lessons to be learnt



Summary of key recent events

Chile - 2010

- Chile Earthquake

Description	Lessons Learnt
<ul style="list-style-type: none">● Earthquake of MW 8.8 resulted in insured loss of approximately USD8 billion● Buildings contributed vast majority of claims with only a minority of policies covering contents● Insurers bought adequate reinsurance (estimated minimum 90% of loss) so there have been no insolvencies or coverage issues	<ul style="list-style-type: none">● So called ‘ Cold Spot’ territories can produce substantial claims● Availability of qualified loss adjusters in a post loss environment crucial● Reinsurers demanded payback – risk adjusted rates up by 40% - 70%

Summary of recent events - New Zealand 2010 and 2011

- Earthquake 2010

Description

- Strong (Mw 7.0) earthquake from an unknown fault followed by more than 90 after shocks of Mw 5 or more
- Significant losses from unmodelled elements e.g. roofs
- Some reinsurers temporarily ceased writing NZ quake
- Loss to EQC is estimated to be less than NZ\$3.5 billion, within reinsurance limit

Lessons Learnt

- Very large losses from unmodelled elements including landslide and liquifaction. The mainly timber-framed residential buildings stood up well to the ground shaking
- Post loss price shock

Summary of recent events -New Zealand 2011

- Earthquake 2011

Description

- Weaker (Mw6.1) but shallower and closer to Christchurch centre
- Reinsurers demanded significant rate rises at renewal. However, impact is staggered due to rolling 3 year tranches of cover
- Some of EQC's fund is invested in government bonds, so if assets are liquidated the NZ government will have to find the money
- Talk of imposing a temporary levy to re-fill the RQC

Lessons Learnt

- Clarity of Event definition being challenged
- Historic masonry buildings performed badly whereas modern residential buildings less damaged
- Extent of unmodelled losses such as liquefaction unanticipated
- Modelling unable to capture unmodelled fault location data accurately

Summary of recent events - Japan Earthquake 2011

- Tohoku Earthquake and Tsunami

Description

- Largest recorded earthquake (Mw 9.0) struck northern Japan epicentre 130 km offshore east of Sendai
- Generated a Tsunami which propagated across most of Pacific basin
- Damage from earthquake and tsunami extensive and severe. 4,500 buildings destroyed and 46,000 buildings damaged (FDMA)

Lessons Learnt

- Extent of losses from unmodelled tsunami
- Licensed vendor models unable to provide modelled assessment for magnitude 9.0 loss
- Impact on infrastructure unexpected and has prevented speedy claims settlement

Summary of recent events - Australian Floods and Cyclone 2010 and 2011

- Queensland, New South Wales and Victoria

Description

- Reinsurers seeking payback as Australia has been hit by a number of events including bushfire, hailstorm and floods in recent years
- Losses forecast to take a long time to finalise
- Levy introduced by Australian government on those earning more than AUD 50 k per annum and not affected by the flood. Anticipated to raise AUD 1.8 billion

Lessons Learnt

- Raised queries regarding event definition
 - was Yasi a part of same event as flooding?
 - difficulty in defining flood events. Distribution of claims across different events with different high water levels
- Flood insurance not standard across domestic policies
- QLD public infrastructure uninsured

Capital Raised to date Post Tohoku Earthquake – Mar 2011

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<u>Sidecars</u>	<u>Capital raised</u>	<u>Company Contribution</u>
Alterra	200	100
Lancashire	250	50
Validus	180	50
<u>New Capital</u>		
Montpelier	150	
Endurance	230	
DaVinci	100	
Partner Re	325	
<u>Total</u>	<u>1,435</u>	<u>200</u>
<u>Total Net</u>	<u>1,235</u>	

All figures in USD millions

Summary of recent events

Conclusion

- Market capitalisation is adequate to cope with the frequency of large claims recently encountered
- The reinsurance market is likely to remain comparatively soft as a consequence
- There is adequate capacity for foreseeable requirements – UNL, Hybrid, Industry Loss Warranty, Insurance Linked Securities, Cat
- Anticipate the unexpected!