



Willis

The Accelerated Growth of Aggregation Risk

... and What You Can Do About It

The Willis Webcast Series

March 30, 2006

Aggregation Risk includes:

- Concentrations of exposures (people and/or physical assets), within a defined geographical area, that may be subject to such Nat Cat perils as flood, wind or earthquake, or to an act of terrorism.
- Accumulation over time of liability arising from specific perils, products or operations.

Growth of exposures will continue to aggregate, far outpacing inflation and the ability of today's insurers to fund for them.

– Willis *Energy Market Review*, October 2004

- Act of Terrorism – the events of 9/11
 - Catastrophic losses across multiple “lines” of insurance
 - Life, Workers’ Compensation, Property and Liability
- Products / ‘Societal’ Liability – sources old and new
 - Pharmaceutical risk – e.g., Cox 2 Inhibitors
 - Asbestos ... and candidates for the “new asbestos” – Mold, Silica, MTBE, ‘Fast Food’ and others
- Nat Cat – Atlantic Hurricane Seasons of 2004 and 2005
 - Frequency and severity ... and shorter return periods?

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If the marketplace today were to sustain a new round of catastrophe losses, would it be able to stabilize?

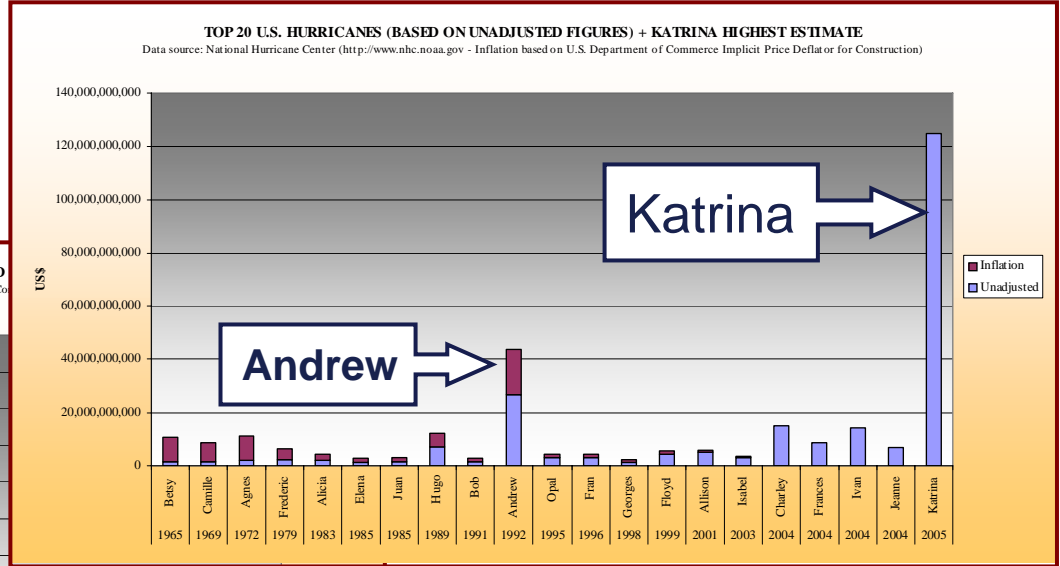
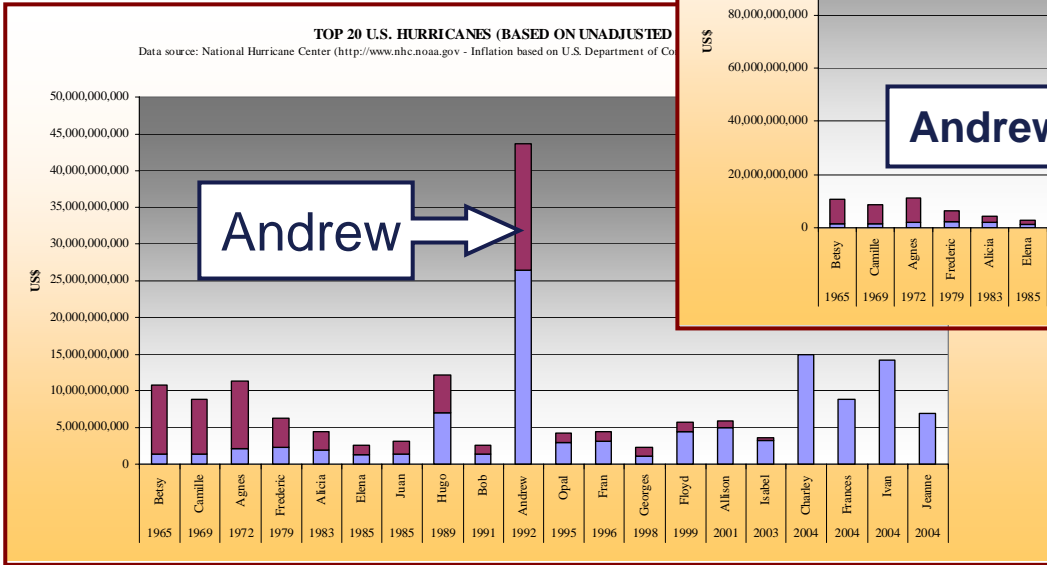
Would it be able to continue to cover aggregation exposures on the basis that it does today?

– Willis *Energy Market Review*, October 2004

- Nat Cat – Atlantic Hurricane Seasons of 2004 and 2005
 - Frequency and severity ... and shorter return periods?

A Compelling Visual – Andrew and Katrina

Andrew – the modern
'benchmark' hurricane ...



... until Katrina

Data source: National Hurricane Center

- Uncertainty and Fortuity
- Reinsurance Today
- In the Near-Term
- Long-Term Capacity Drivers
- What Can You Do About It?
- A 'Postcard' from OIL
- The Role of Government
- *Carpe Macadam* – First Steps on the Road Ahead

“The potential for widespread losses due to mega catastrophes is made worse by the combination of more people living in harm’s way and the rising value of homes in disaster-prone areas. More than half of Americans now live in coastal counties, an increase of 33 million people since 1980 ... When you factor in that about half of Americans’ net worth is tied up in their homes, even retirements are at risk.” – **Allstate**

Insured property values in coastal counties from Texas to Maine totaled \$7.2 trillion in 2004 – 16 percent of the total insured value of properties in the US. – **AIR Worldwide**

The Great Miami Hurricane of 1926 would cause \$130 billion in damage today ... \$500 billion by the year 2020. – **Insurance Information Institute**

- Conditions capable of producing frequent and severe Nat Cat losses are no longer regarded as being purely fortuitous

The warm phase of Atlantic Multidecadal Oscillation started in 1995 and is expected to last for another 10 to 30 years. Above average hurricane activity can be expected to continue, entailing more intense hurricanes.

– Swiss Re *sigma*, February 2006

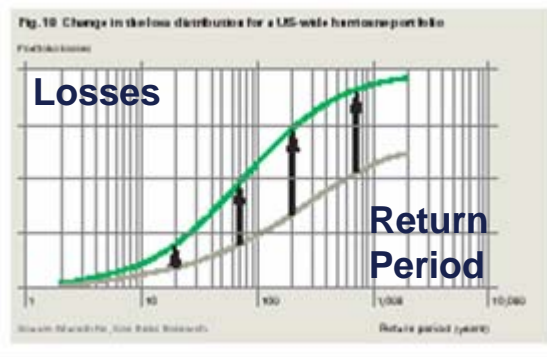
Is New Orleans no longer insurable against flooding?

– Munich Re *Hurricanes*, Knowledge series, 2006

- Implications of the 2004 and 2005 Atlantic Hurricane Seasons
 - Re-examination of underlying assumptions
 - Scrutiny of modeling parameters
 - Imperative for portfolio diversification
- Reinsurers, being aggregate constrained, are becoming far more demanding – inspecting what they expect insurers should be doing on their portfolio risk management
- Allocation of reinsurance capacity being prioritized to those insurers who best manage cat accumulation risk – not simply a case of capacity going to the highest bidder

- For some, a matter of survival – as potential for successive years of frequent / severe losses was demonstrated in 2005
- Investor base expects higher returns for such volatile risk
- Rating agencies have become *de facto* regulators, effectively limiting the amount of risk assumed compared to the past
- New capital is a fraction of lost / reallocated capacity
- Concurrent increase in demand for Nat Cat capacity exacerbates adverse marketplace conditions
- Jan. 1, 2006 Reinsurance renewals were ‘the calm before the storm’
- Mid-year renewals are already hitting turbulence

- Capacity continues to retrench
- Windstorm – sub-limited and/or aggregated by many markets
- Premiums for Nat Cat perils are multiples of what they were
- Underwriting is rigorous
- An early and rough Atlantic Hurricane Season is expected
- The looming question – July 1 Reinsurance treaty terms



- Higher frequency
- Higher intensities
- Storm surge and flood risk
- Loss aggregating factors

Source: Munich Re *Hurricanes*

- How do insurers and other capital providers determine how much capital to put at risk – and where to deploy it?
 - Modeling
 - Experience
 - Exposures
 - Shareholder expectations and demands
 - Rating agencies
 - Regulatory authorities
 - Achievable, sustainable premium levels
 - ‘Opportunity cost’

... manage and fund for Aggregation Risk?

- Larger corporations
 - Pay higher premiums
 - Rely on the strength of their balance sheet and ability to withstand the risk of loss
 - Disperse risk through their own international operations
 - Invest in property risk control and continuity planning
 - Build assets and operations in non-Nat Cat areas
 - Share risk with others – e.g., joint venture operations
 - Share risk via a mutual insurance facility
- What if you're a less-than-large company?

- OIL (Oil Insurance Ltd.) – a Bermuda-based energy industry mutual insurer that commenced operations in 1972
 - Insuring “losses and costs arising from physical damages to property, controlling wild wells and third party pollution liability”
 - \$1 billion multi-insured aggregate limit for each event
- 2005 Atlantic Hurricane Season:
 - Katrina claims = \$1.867 billion \Rightarrow ultimate recovery ~ 50% ?
 - Rita claims = \$1.005 billion \Rightarrow ultimate recovery ~ 80% ?
- Effective June 1, 2006 (commencement of the AHS):
 - Aggregation Limit reduced to \$500 million
 - Seeking to secure reinsurance capacity to offer its members – “this capacity will not be available indefinitely”

- The federal government became the *post-facto* insurer of last resort in the wake of Katrina-Rita-Wilma
 - \$75 billion in aid authorized immediately
 - Ultimate figure may approach \$200 billion
- The NAIC working paper on “Natural Catastrophe Risk”
 - A multi-layer approach: private insurance, state / regional pools, and a federal “Natural Catastrophe Insurance Mechanism”
- What are the macro issues?
 - Insurability of certain risks
 - Actuarial soundness of rates
 - The eternal public v. private sector debate
 - Incentives for risk mitigation
 - Equity for US taxpayers

- While dealing with the near-term, engage the long-term:
 - What are the risk management and funding options that you can control or influence?
 - Can you live with the volatility of retained aggregation risk?
 - Can you build the imputed cost of capital into your pricing model ... and remain competitive?
 - Is mutualization of aggregation risk an option?
 - Should you join the debate regarding creation of a federal “Natural Catastrophe Insurance Mechanism”?
- Client Advocacy in addressing Aggregation Risk

Thank You

- **Sandy Vietor**, Executive Vice President, Willis North America
vietor_s@willis.com 212 837 0741
- **Rod Thaler**, EVP and National Director, Willis Re
thaler_rp@willis.com 212 820 7612
- **Gordon Prager**, Director of Risk Management Consulting, WRS
prager_go@willis.com 212 837 0698

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