

2009 NATURAL CATASTROPHE YEAR IN REVIEW WEBINAR

JANUARY 21, 2010







Welcome/Introduction Terese Rosenthal

U.S. Natural Catastrophe Update Carl Hedde

Global Catastrophe Update Angelika Wirtz

Financing Catastrophic Losses in the Midst of Financial Catastrophe Dr. Robert Hartwig

Questions and Answers



Question and Answer Process

At the conclusion of the presentation, you will have an opportunity to ask questions.

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U.S. Natural Catastrophe Update



Carl Hedde

Head of Risk Accumulation Munich Reinsurance America



MR NatCatSERVICE

One of the world's largest databases on natural catastrophes





The database today:

- From 1980 until today all loss events; for USA and selected countries in Europe all loss events since 1970
- Retrospectively all great disasters since 1950
- In addition, all major historical events starting from 79 AD – eruption of Mt. Vesuvio (3,000 historical data sets)
- Currently more than 27,000 events



- Insured losses in the United States in 2009 totaled \$11.1 billion much lower than the 1999 to 2008 average loss of \$24.5 billion (in 2009 Dollars)
- Near-record insured losses due to thunderstorms
- Two tropical storms, but no hurricanes, made landfall in the U.S.: Claudette and Ida
- Large wildfires in Southern California, but damages were limited
- Winter storm insured losses lowest in eight years
- Spring floods in the Northern Plains break historical river level records



As of January 2010	Fatalities	Estimated Overall Losses (US \$m)	Estimated Insured Losses (US \$m)
Tropical Cyclones	8	Minor	Minor
Severe Thunderstorms	21	13,710	9,625 [†]
Winter Storms	70	1,600	770†
Wildfires	6	280	185
Floods	22	1,600	232

U.S. Natural Catastrophe Update U.S. Significant Natural Catastrophes in 2009



\$1 billion economic loss and/or 50 fatalities

Date	Event	Est. Economic Losses (US \$m)	Estimated Insured Losses (US \$m)
January 26 - 28	Winter Storm	1,100	565 [†]
February 10 - 13	Thunderstorms	2,500	1,350 [†]
March 25 - 26	Thunderstorms	1,500	995 [†]
March – April	Flood	1,000	75
April 9 -11	Thunderstorms	1,700	1,150 [†]
June 10 -18	Thunderstorms	2,000	1,100†
July 20 -21	Thunderstorms	1,000	800†
As of January 2010			

U.S. Natural Catastrophe Update U.S. Significant Natural Catastrophes, 1950 – 2009



Number of Events (\$1 billion economic loss and/or 50 fatalities)





U.S. Natural Catastrophe Update Losses from U.S. Significant Natural Catastrophes 1950 – 2009, (\$1 billion economic loss and/or 50 fatalities)



Overall losses from U.S. significant catastrophes totaled \$10.8 billion; insured losses totaled \$5.9 billion



U.S. Natural Catastrophe Update Insured Losses due to Weather Perils in the U.S. 1980 – 2009 (Tropical Cyclone, Thunderstorm, and Winter Storm only)



Insured losses due to weather perils in the U.S. in 2009 were the highest on record for a year without a hurricane landfall.



U.S. Tropical Cyclones 2009





U.S. Tropical Cyclone Landfalls in 2009





U.S. Tropical Cyclones 2009



Tropical Storm Claudette

- Landfall on Santa Rosa Island, Florida on August 17
- Sustained winds at landfall of 50 mph
- Mostly minor infrastructure damage

Tropical Storm Ida

- Landfall on Gulf Shores, Alabama on November 10
- Sustained winds at landfall of 45 mph
- Minimal damage as a tropical storm in the Gulf, but later became a powerful winter storm that caused over \$200 m in damage along Mid-Atlantic Coast

U.S. Tropical Cyclones 2009 Number of U.S. Landfalling Tropical Cyclones 1900 - 2009



Two tropical cyclones made landfall in the U.S. in 2009, neither at hurricane intensity.



U.S. Tropical Cyclones 2009 Insured U.S. Tropical Cyclone Losses, 1980 - 2009



The current 5-year average (2005-2009) insured tropical cyclone loss is \$23.7 bn.



Sources: Property Claims Service, MR NatCatSERVICE, NFIP © 2010 Munich Re

Other U.S. Natural Catastrophes in 2009





Other U.S. Natural Catastrophes in 2009 Insured U.S. Thunderstorm Losses, 1980 – 2009



Five-year average losses now stand at a record \$7.2 billion a year.



Sources: Property Claims Service, MR NatCatSERVICE

Other U.S. Natural Catastrophes in 2009 U.S. Tornado Count, 2009 compared to 2004 - 2008





Other U.S. Natural Catastrophes in 2009 Insured U.S. Winter Storm Losses, 1980 - 2009



Winter storm losses in 2008 were the lowest in 8 years, and \$600 million below average.



Other U.S. Natural Catastrophes in 2009 Insured California Wildfire Losses, 1980 - 2009





Sources: Property Claims Service, MR NatCatSERVICE

Other U.S. Natural Catastrophes in 2009 Red River Flood of Spring 2009





- 2 fatalities 200 people injured
- 8,000 properties flooded
- 2,000,000 acres of agricultural land flooded.
 90,000 head of livestock killed
- Estimated economic and insured losses of \$1 billion and \$75 million, respectively
- Affected States: Minnesota, North Dakota, South Dakota
- City of Fargo experienced record water levels and floods beyond the 500 year floodplain

Other U.S. Natural Catastrophes in 2009 U.S. Flood Losses, 1980 – 2009



Insured losses from the major floods of 2009 are estimated to be \$232 million.



Year



GLOBAL NATURAL CATASTROPHE UPDATE

ANGELIKA WIRTZ HEAD OF MUNICH RE NATCAT SERVICE



Global Natural Catastrophe Update Natural catastrophes 2009 Worldmap





2009: 850 natural catastrophes

Significant natural catastrophes (selection)

Great natural catastrophes: 2009 no event met the requirement "Great natural catastrophe"

- Geophysical events (Earthquakes, tsunami, volcanic eruption)
- Meteorological events (Storm)
- Hydrological events (Flood, mass movement)
- Climatological events (Extreme temperature, drought, forest fire)

Global Natural Catastrophe Update Global natural disasters The figures of the year 2009



	The figures of the year 2009	10-year average in the period 1999-2008
Number of events	850	770
Overall losses (US\$m, 2009 values)	50,000	115,000
Insured losses (US\$m, 2009 values)	22,000	36,000
Fatalities	10,500	76,000



Date	Country/Region	Event	Fatalities	Overall Iosses US\$m	Insured Iosses US\$m
23-25.1.2009	Europe	Winter Storm Klaus	26	5,100	3,000
10-13.2.2009	USA	Severe storms, tornadoes	15	2,500	1,350
23-27.7.2009	East and West Europe	Severe storms, hailstorms	11	1,800	1,200
9-11.4.2009	USA	Severe storms, tornadoes	9	1,700	1,150
10-18.6.2009	USA	Severe storms, tornadoes	1	2,000	1,100

Global Natural Catastrophe Update Global natural disasters Percentage distribution worldwide ordered by type of event 2009

Munich RE 퉂

18%

31%

10,500 Fatalities

41%

Insured losses* US\$ 22bn

6%

Hydrological events

(Flood, mass movement)

8%

4%

82%

Climatological events

(Extreme temperature,

drought, forest fire)

*in 2009 values

10%





Global Natural Catastrophe Update Global natural catastrophes 2009 Percentage distribution per continent





Global Natural Catastrophe Update **Global natural catastrophes 1980 – 2009** Overall and insured losses with trend





Source: Geo Risks Research, NatCatSERVICE As at January 2010

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Global Natural Catastrophe Update Natural catastrophes 2009-2010 Worldmap







As insurance penetration is far below 1% in Haiti, insured loss is likely to be small.

However, some facultative risks with high insured values have been hit and could influence the overall market loss significantly.

The Caribbean Catastrophe Risk Insurance facility (CCRIF) will certainly be activated, resulting in a maximum payout of 7.7 mil. USD.

The CCRIF made two payouts in its first year, both as a result of the magnitude 7.4 earthquake which shook the eastern Caribbean on 29th November. The St. Lucian government received US\$418,976 while the Dominican government received US\$528,021. The monies will go towards post-earthquake recovery efforts in both these nations.

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Economic Implications of Catastrophe Losses in 2009: Financing Catastrophic Loss Amid Financial Catastrophe

2009 Natural Catastrophe Review January 21, 2010

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Decade of Disaster: Relative Quiet of 2009 Belies the Truth of the Past Decade

US Insured Catastrophe Losses





2009 CAT Losses Were Less than Half of 2008. 2005 Was by Far the Worst Year Ever for Insured Catastrophe Losses in the Decade of the 2000s Were More than Double the 1990s, But the Worst Has Yet to Come

* 2009 figure is Munich Re estimate.

Note: 2001 figure includes \$20.3B for 9/11 losses reported through 12/31/01. Includes only business and personal property claims, business interruption and auto claims. Non-prop/BI losses = \$12.2B. Sources: Property Claims Service/ISO; Insurance Information Institute.

36

Top 12 Most Costly Disasters in US History



(Insured Losses, 2009, \$ Billions)



8 of the 12 Most Expensive Disasters in US History Have Occurred Since 2004; 8 of the Top 12 Disasters Affected FL

* PCS estimate as of August 1, 2009.

Sources: PCS; Insurance Information Institute inflation adjustments.



Financial Performance

Lower Catastrophe Losses, Easing of Crisis Bolstered Results

P/C Net Income After Taxes 1991–2009:Q3 (\$ Millions)



* ROE figures are GAAP; ¹Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 4.5% ROAS for 2008 and 5.9% for the first 9 months of 2009. 2009:Q3 net income was \$20.5 billion excluding M&FG. Sources: A.M. Best, ISO, Insurance Information Institute

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ROE: P/C vs. All Industries1987–2009:Q3*





* Excludes Mortgage & Financial Guarantee in 2008 and 2009 through Q3. Sources: ISO, *Fortune*; Insurance Information Institute.

Strength of Recent Hard Markets by NWP Growth





Shaded areas denote "hard market" periods Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute

Property/Casualty Insurance Industry Investment Gain: 1994–2009:Q3¹



Investment Gains Fell by 51% In 2008 Due to Lower Yields, Poor Equity Market Conditions. Through Three Quarters in 2009, Write-downs Were Offset by Unrealized Capital Gains

¹ Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

* 2005 figure includes special one-time dividend of \$3.2B.

Sources: ISO; Insurance Information Institute.

(\$ Billions)



Financial Strength & Ratings

Industry Remained Strong in 2009 Despite Crisis

P/C Insurer Impairments, 1969–2009p



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P/C Insurer Impairment Frequency vs. Combined Ratio, 1969-2009p





Impairment Rates Are Highly Correlated With Underwriting Performance and Reached Record Lows in 2007/08

*Combined ratio of 101.7 is through Q3:09; 0.36% 2009 impairment rate is III estimate based on preliminary A.M. Best data. Source: A.M. Best; Insurance Information Institute

Summary of A.M. Best's P/C Insurer Ratings Actions in 2009





P/C Insurance is by Design a Resilient Business. The Dual Threat of Financial Disasters and Catastrophic Losses Are Anticipated in the Industry's Risk Management Strategy

Source: A.M. Best.

Reasons for US P/C Insurer Impairments, 1969–2008



Deficient Loss Reserves and Inadequate Pricing Are the Leading Cause of Insurer Impairments, Underscoring the Importance of Discipline. Investment Catastrophe Losses Play a Much Smaller Role



Source: A.M. Best: 1969-2008 Impairment Review, Special Report, Apr. 6, 2008



Capital/Policyholder Surplus (US)

Improving Financial Markets, Lower CAT Losses are Restoring Capacity

Policyholder Surplus, 2006:Q4–2009:Q3





Ratio of Insured Loss to Surplus for Largest Capital Events Since 1989*



* Ratio is for end-of-quarter surplus immediately prior to event. Date shown is end of quarter prior to event

** Date of maximum capital erosion; As of 9/30/09 (latest available) ratio = 5.9%

Source: PCS; Insurance Information Institute

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Catastrophe Bonds: Risk Capital Issuance



Catastrophe bond risk capital issuance plunged by 62% when credit market turmoil spread in 2008 but was up 26% in 2009 as markets improved



Terrorism

Terrorism Is an Issue that Will Be More in the News in 2010 and in the Minds of Insurance Buyers, Policymakers, Regulators

Terrorism: Insurance Concerns Resurface

Reasons Why Concerns Are Mounting in 2010

- Perception of U.S. vulnerability is rising
- Thwarted Christmas Day attack by "underwear bomber"
- Increased anti-terror efforts, including full-body scans
- Effort by government to appear more vigilant, prepared
- Trials of Guantanamo 9/11 suspects in Manhattan Court
 - > NYC says it will need \$200+ million each year for security
- Rise of groups such al Qaeda in the Arabian Peninsula
- U.S. military surge in Afghanistan operations
- Most buyers, producers have not thought about coverage issues recently
- Many may have questions about nature, adequacy of coverage

Insurance Information Institute Online:

www.iii.org

Thank you for your time and your attention!

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