

Agenda	Münchener Rück Munich Re Group
11:00	Introduction
	Bob Kinsella, Spokesperson, Munich Re Group
11:05	U.S. Catastrophe Update
	Carl Hedde, Head of Risk Accumulation, Munich Re America
11:15	Global Catastrophe Update
	Ernst Rauch, Head of Corporate Climate Center, Munich Re
11:25	Economic Implications
	Dr. Robert Hartwig, President, Insurance Information Institute
11:35	Q+As
	2

Speakers (1)



Carl Hedde Head of Risk Accumulation Munich Re America

Responsibilities include oversight of corporate accumulation issues at Munich Re America; including the use of catastrophe risk models, client cat risk consulting services, and portfolio management and optimization. Additionally, he manages a group of scientists that provide seismological and meteorological expertise and research capabilities to Munich Re America and its' clients.

Mr. Hedde received a Bachelor of Science Degree from the State University of New York – Albany, and holds the CPCU Designation. He has 25 years experience at Munich Re America, holding various positions within the company.



3

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Speakers (3)



Robert P. Hartwig President Insurance Information Institute

Since joining the I.I.I. in 1998 as an economist and becoming chief economist in 2000, Dr. Hartwig has focused his work on improving understanding of key insurance issues across all industry stakeholders including media, consumers, insurers, producers, regulators, legislators and investors. Dr. Hartwig previously served as director of economic research and senior economist with the National Council on Compensation Insurance (NCCI) in Boca Raton, Florida. He has also worked as senior economist for the Swiss Reinsurance Group in New York and as senior statistician for the United States Consumer Product Safety Commission in Washington, D.C. He is a member of the American Economic Association, the American Risk and Insurance Association, the National Association of Business Economics and the CPCU Society and serves on the board of directors of the Independent Insurance Agents and Brokers Association of New York. In 2005 and 2006 Dr. Hartwig served on the state of Florida's Task Force for Long-Term Homeowners Insurance Solutions.

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5

Dr. Hartwig received his Ph.D. and Master of Science degrees in economics from the University of Illinois at Urbana-Champaign. He also received a Bachelor of Arts degree in economics cum laude from the University of Massachusetts at Amherst. He has served as an instructor at the University of Illinois and at Florida Atlantic University. Dr. Hartwig also holds the Chartered Property Casualty Underwriter (CPCU) credential.

Dr. Hartwig has authored and co-authored papers that have appeared in numerous publications, including the Journal of Health Economics, the Proceedings of the Casualty Actuarial Society, the John Liner Review (where he also serves on the editorial board), Dossiers et Etudes (Geneva Association), the Journal of Workers' Compensation, Global Reinsurance, Risk & Insurance, Insurance Day, Compensation and Benefits Review. He is also a regular contributor to National Underwriter and many other industry trade publications.







Ν	Natural Catastrophe Losses in the U.S. 2008				erica up
	As of January 2009 Records in red	Fatalities	Estimated Overall Losses (US \$m)	Estimated Insured Losses (US \$m)	
	Tropical Cyclones	148	38,000	19,350	
	Severe Thunderstorms	125	14,580	10,590	
	Winter Storms	27	1,600	1,020†	
	Wildfires	0	2,000	630	
	Floods	42	11,000	500	
	© 2009 Munich Re Group Sources: (unma	rked) - MR NatCat <i>SERVICE, †</i> · Prop	perty Claims Services (PCS)		9







5. Significant N billion economic los	Munich Re A Munich Re C		
Date	Event	Est. Economic Losses (US \$m)	Estimated Insured Losses (US \$m)
January 4 - 9	Winter Storm	1,000	745 [†]
-ebruary 5 - 6	Thunderstorms	1,300	955 [†]
April 9 – 11	Thunderstorms	1,100	800 [†]
May 22 – 26	Thunderstorms	1,600	1,200†
May 29 – June 1	Thunderstorms	1,500	1,100 ⁺
June	Flood	10,000	500
June 5 – 8	Thunderstorms	1,000	725 [†]
Aug. 31 – Sep. 3	Hurricane Gustav	7,000	3,500
September 12 – 14	Hurricane Ike	30,000	15,000 [†]
November 14 – 19	Wildfires	2,000	600











Hurricane Ike 2008: Unique Aspects

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19

Extremely large wind field

Diameter of hurricane and tropical force winds were 240 miles and 550 miles, respectively. The corresponding values for Katrina'05 were 175 and 440 miles

Extreme storm surge

Due to its large size and slow movement lke produced a storm surge corresponding to a Cat 4 hurricane affecting a 300 miles wide area of the Gulf coast from Louisiana to Texas. In addition large swell and extreme waves were generated in the Gulf of Mexico

> Storms and Flooding in the Midwest



After landfall lke merged into an existing cold front, which strengthened due to lke's warm and moist air. The resulting system caused storms and flooding in the Midwest

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Deadliest / Co	stliest Natural Cata	strophes 2008	Münch	ener Rück
Deadliest catastrop	nes			
Date	Event	Area		Deaths
Мау	Cyclone Nargis	Myanmar		84,500
May	Earthquake	China		70,000
January	Cold wave	Afghanistan, Kyrgyzstan, Tajikistan		1,000
August/September	Floods	India, Nepal, Bangladesh		635
Costliest catastroph	es (overall losses)			US\$m
Мау	Earthquake	China		85,000
September	Hurricane Ike	Caribbean, USA		30,000
January/February	Winter damage	China		21,100
August/September	Hurricane Gustav	Caribbean, USA		10,000
Costliest catastroph	es (insured losses)			US\$m
September	Hurricane Ike	Caribbean, USA		15,000
August/September	Hurricane Gustav	Caribbean, USA		5,000
January/February	Winter damage	China		1,600
March	Winter storm Emma	Europe		1,500
009 Münchener Rückversicherungs-0	Gesellschaft, Geo Risk Research, NatCatSERVI	CE	As of January 2009	3





Na 10	Natural Catastrophes Worldwide 2008				lück roup
	Comparison	2008	10-year-ave 1998 - 2007	erage	
	Events	750	765		
	Overall losses* in US\$ bn	200	106		
	Insured losses* in US\$ bn	45	33		
	* In 2008 values				
2009 N	2009 Münchener Rückversicherungs-Gesellschaft, Geo Risk Research, NatCatSERVICE As of January 2009			s of January 2009	36





2008 Catastrophe Review Financing Catastrophic Losses in the Midst of Financial Catastrophe

Natural Catastrophe Webinar

January 15, 2009

Robert P. Hartwig, Ph.D., CPCU, President Insurance Information Institute ♦ 110 William Street ♦ New York, NY 10038 Tel: (212) 346-5520 ♦ Fax: (212) 732-1916 ♦ bobh@iii.org ♦ www.iii.org







































Outlook for 2009 Hurricane Season: 35% Worse Than Average

	Average*	2005	2009F
Named Storms	9.6	28	14
Named Storm Days	49.1	115.5	70
Hurricanes	5.9	14	7
Hurricane Days	24.5	47.5	30
Intense Hurricanes	2.3	7	3
Intense Hurricane Days	5	7	7
Accumulated Cyclone Energy	96.1	NA	125
Net Tropical Cyclone Activity	100%	275%	135%

Landfall Probabilities for 2009 Hurricane Season: Above Average

	Average*	2009F
Entire US East & Gulf Coasts	52%	63%
US East Coast Including Florida Peninsula	31%	39%
Gulf Coast from Florida Panhandle to Brownsville	30%	38%
Caribbean	NA	Above Average

ource: Philip Klotzbach and Dr. William Gray, Colorado State University, December 10, 2008











