

Reinsurance 101: How it Works and the Impact on the Marketplace

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What You Need to Know

- What is reinsurance?
- How big is the marketplace?
- Who buys reinsurance and why?
- Are there different types of reinsurance?
- What is the impact of reinsurance beyond insurance companies?
- What about catastrophes and reinsurance?
- What are the regulatory issues?



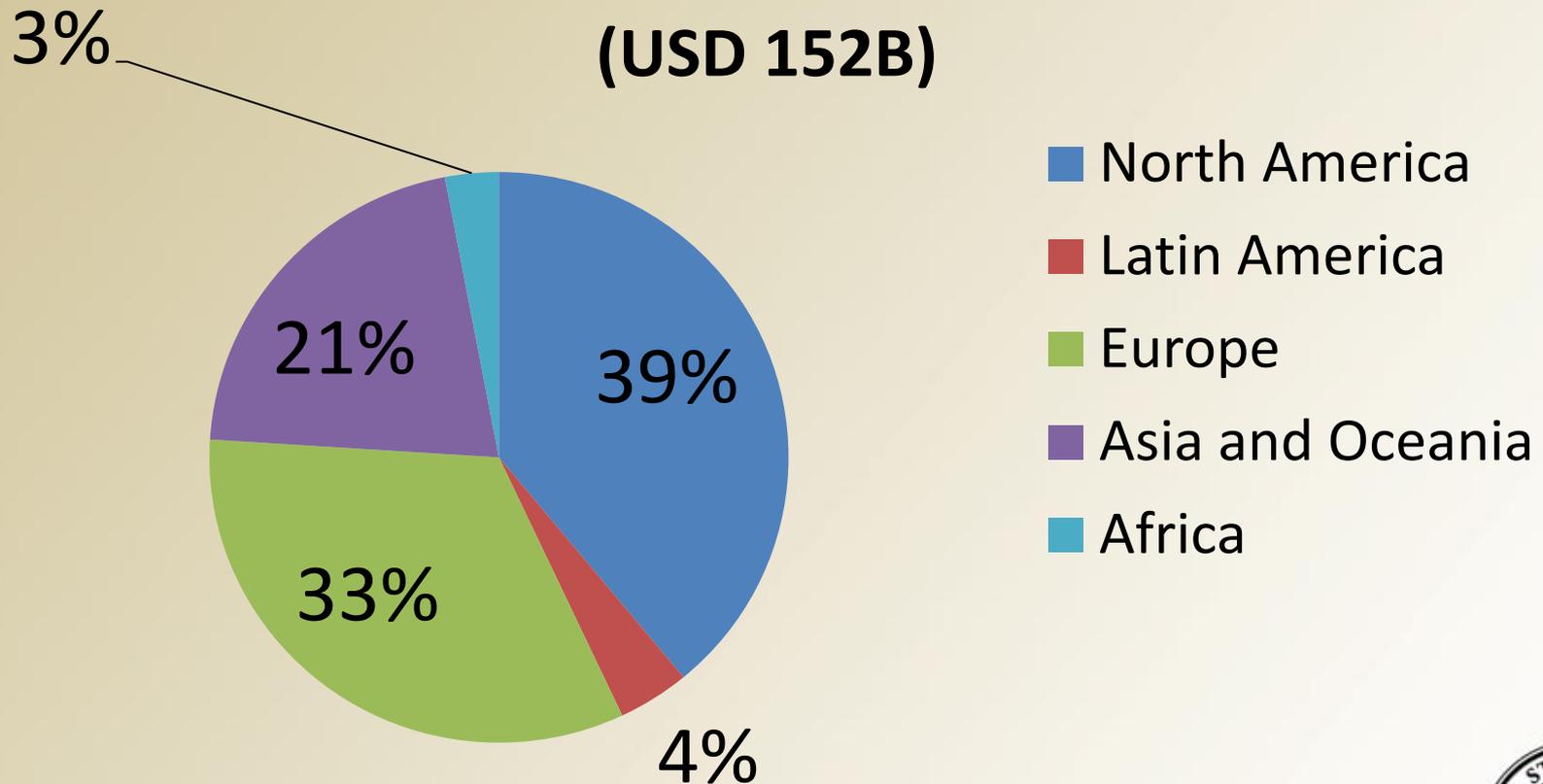
What is Reinsurance?

- Classic definition:
 - Insurance for insurance companies
- “The transfer of insurance risk from one insurer to another through a contractual agreement under which one insurer (the reinsurer) agrees, in return for a reinsurance premium, to indemnify another insurer (the primary insurer) for some or all of the financial consequences of certain loss exposures covered by the primary insurer’s policies.” – Harrison, 2006



Size of the Reinsurance Market

World Non-Life Reinsurance Market (USD 152B)



Who are the Largest Reinsurers?

**TOP TEN GLOBAL REINSURERS
BY NET REINSURANCE PREMIUMS WRITTEN, 2010¹**
(\$ millions)

Rank	Company	Net reinsurance premiums written	Country
1	Munich Re	\$29,149.9 ²	Germany
2	Swiss Re Group	19,433.0	Switzerland
3	Berkshire Hathaway Reinsurance Group/General Re Corp.	14,669.0	U.S.
4	Hanover Re	14,034.1 ²	Germany
5	Lloyd's of London	9,728.6	U.K.
6	SCOR S.E.	8,146.2	France
7	PartnerRe Ltd.	4,705.1	Bermuda
8	Everest Re Group Ltd.	3,945.6	Bermuda
9	Transatlantic Holdings, Inc.	3,881.7	U.S.
10	Korean Re	2,653.8 ²	South Korea

¹Excludes reinsurers which only underwrite life insurance.

²Business insurance estimate.

³Fiscal year ending March 31.

Source: Business Insurance, September 26, 2011.



Who are the Largest Reinsurers of U.S. Business?

TOP TEN U.S. PROPERTY/CASUALTY REINSURERS OF U.S. BUSINESS BY GROSS PREMIUMS WRITTEN, 2010
(\$000)

Rank	Company	Country of parent company	Gross premiums written
1	Swiss Reinsurance America Corporation	Switzerland	\$4,365,550
2	National Indemnity Company (Berkshire Hathaway) ¹	U.S.	4,352,429
3	Transatlantic/Putnam Reinsurance Company	U.S.	3,675,627
4	Munich Reinsurance America Corp. ²	Germany	3,620,278
5	Everest Reinsurance Company	Bermuda	3,379,194
6	XL Reinsurance America ³	Bermuda	2,696,627
7	QBE Reinsurance Group, New York ⁴	Australia	2,093,449
8	Odyssey America Re./Odyssey Reinsurance Corp. ⁵	Canada	1,988,836
9	Berkley Insurance Company	U.S.	1,455,576
10	General Re Group ⁶	U.S.	1,320,844
	Total, top ten reinsurers		\$28,948,410
	Total, all reinsurers		\$34,507,904

¹Excludes assumptions from affiliated General Re Group. ²Includes Munich Re America, American Alternative Insurance Corporation and The Princeton Excess and Surplus Lines Insurance Co. ³Includes the net pooled share of the combined underwriting results of the XL America Group Pool. ⁴Includes the QBE Reinsurance Corporation, QBE Insurance Corporation and QBE Specialty Insurance Company. ⁵Includes Oyssey America Re, Clearwater Insurance, Clearwater Select, Hudson Insurance and Hudson Specialty Insurance Companies. ⁶North American Property/Casualty underwritten segment of General Re; excludes certain intercompany transactions and cessions to certain affiliates of Berkshire Hathaway.

Source: Reinsurance Association of America.



The Largest Reinsurance Brokers?

TOP TEN GLOBAL REINSURANCE BROKERS BY REINSURANCE GROSS REVENUES, 2010¹
(\$000)

Rank	Company	Reinsurance gross revenues	Country
1	Aon Benfield	\$1,444,000	U.S.
2	Guy Carpenter & Co. L.L.C. ²	975,000	U.S.
3	Willis Re	664,000	U.K.
4	JLT Reinsurance Brokers Ltd.	198,713	U.K.
5	Towers Watson & Co.	172,289	U.S.
6	Cooper Gay Swett & Crawford Ltd.	120,400	U.K.
7	BMS Group	77,569	U.K.
8	Miller Insurance Services Ltd. ³	68,158	U.K.
9	UIB Holdings Ltd.	49,446	U.K.
10	Lockton Cos. International Ltd. ³	35,556	U.K.

¹Includes all reinsurance revenue reported through holding and/or subsidiary companies.

²Includes aviation reinsurance business placed by Marsh Inc.

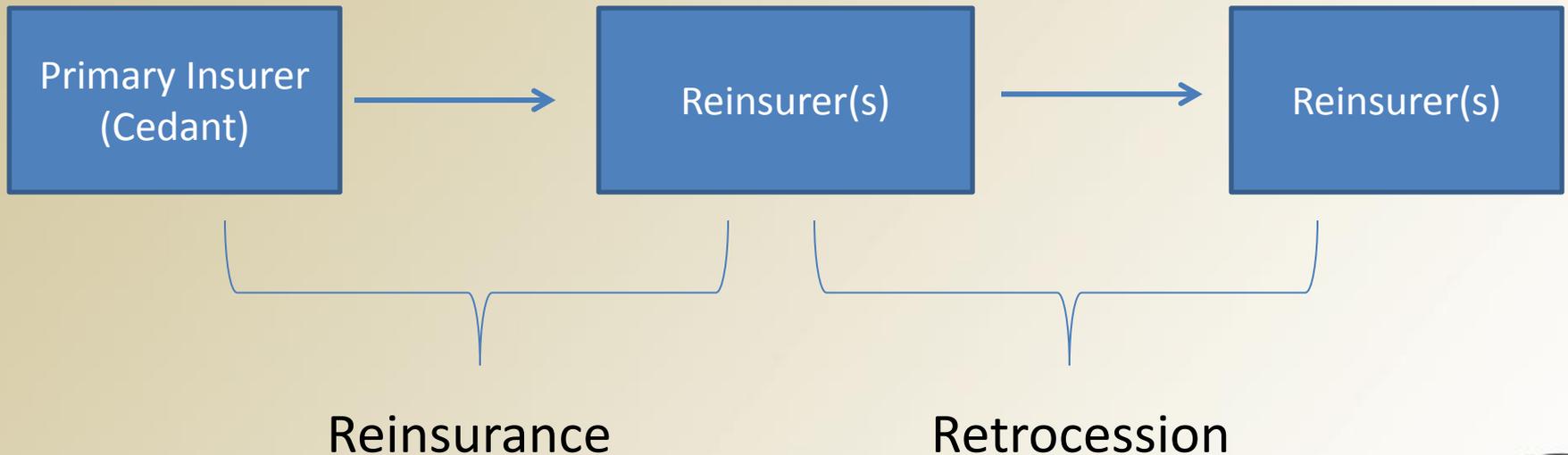
³Fiscal year ending April 30.

Source: Business Insurance, October 24, 2011.



Who Buys Reinsurance?

- Primary insurers
- Other reinsurers (retrocession)



Why Buy Reinsurance?

- Reduce the risk of catastrophe exposure
- Help spread risk
- Stabilize loss experience



Why Buy Reinsurance? (cont.)

- Increase capacity
- Capital / surplus relief



Why Buy Reinsurance? (cont.)

- Withdraw from a market
- Gain reinsurers expertise

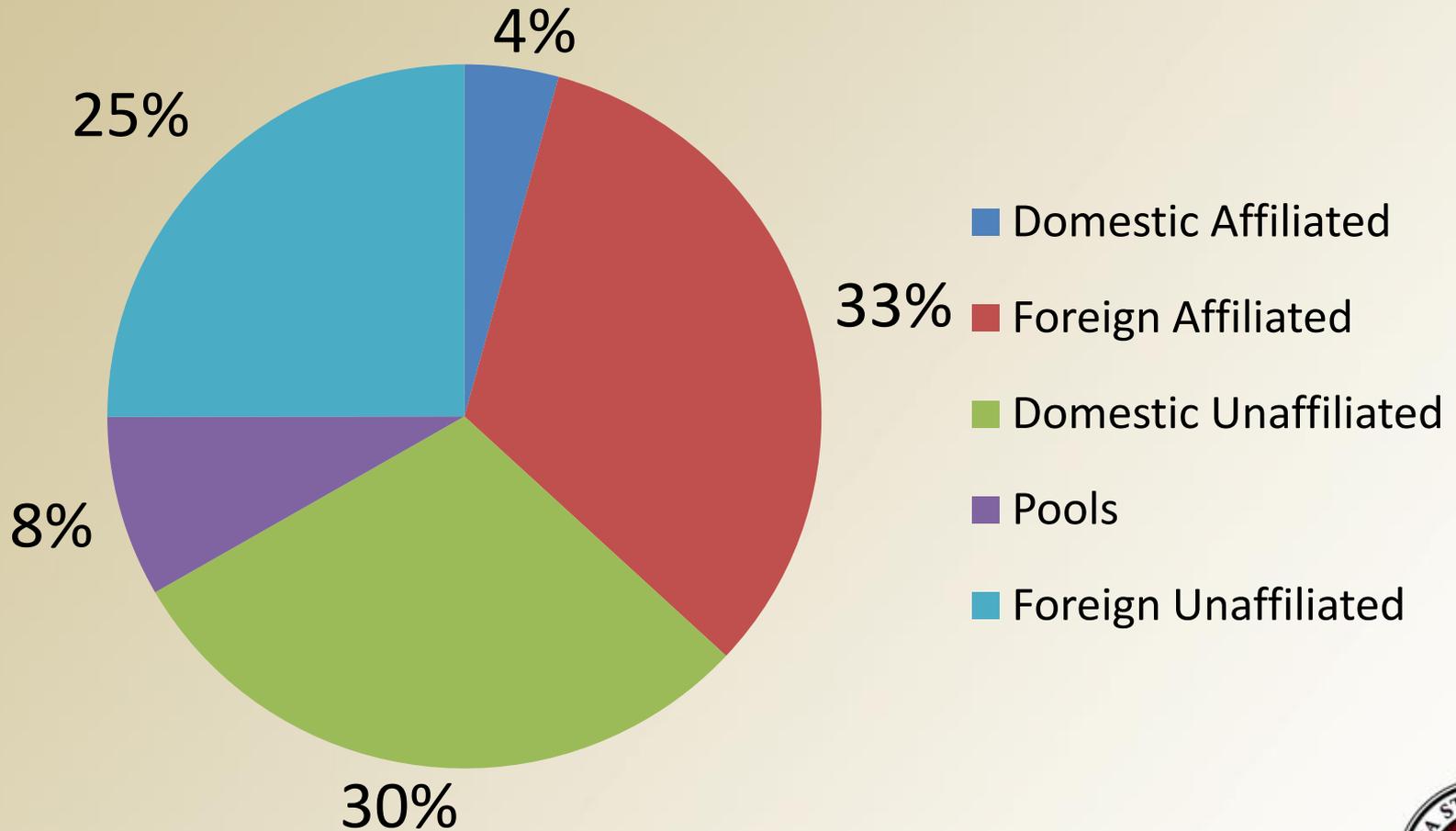


Who Do Insurers Buy Reinsurance From?

- Affiliated Reinsurers
 - Domestic
 - Foreign
- Unaffiliated Reinsurers
 - Domestic
 - Foreign
- Other
 - Pools



Premiums Ceded by US P&C Industry



SNL Financial – 2010 data



Where do US P&C Firms Cede to?

U.S. REINSURANCE PREMIUMS CEDED TO UNAFFILIATED AND AFFILIATED OFFSHORE REINSURERS BY COUNTRY, 2008-2010¹

(\$ millions)

Rank	Country	Unaffiliated offshore reinsurers			Affiliated offshore reinsurers			2010 total
		2008	2009	2010	2008	2009	2010	
1	Bermuda	\$11,420	\$10,013	\$9,821	\$20,813	\$22,612	\$19,506	\$29,327
2	Switzerland	955	1,129	1,178	7,578	8,361	7,430	8,608
3	United Kingdom	4,428	4,706	4,536	823	765	2,109	6,645
4	Germany	2,793	2,490	2,387	1,222	781	875	3,262
5	Cayman Islands	2,003	2,086	2,271	389	398	413	2,684
6	Channel Islands	49	56	853	NA	NA	NA	853
7	Ireland	485	489	505	155	227	258	763
8	Turks and Caicos	518	500	555	NA	NA	NA	555
9	Barbados	553	413	448	NA	NA	NA	448
10	France	NA	NA	NA	296	228	420	420
11	British Virgin Islands	171	149	353	NA	NA	NA	353
12	Singapore	NA	NA	NA	3	3	195	195
13	Sweden	NA	NA	NA	411	433	189	189
14	Japan	NA	NA	NA	191	199	180	180
	Total, countries shown	23,375	22,031	22,907	31,881	34,007	31,575	54,482
	Total	\$25,031	\$23,630	\$24,549	\$33,158	\$34,464	\$32,167	\$56,716

¹Ranked by 2010 total reinsurance premiums. NA—Data not available.

Source: Reinsurance Association of America.



Types of Reinsurance

- Treaty or Obligatory Reinsurance
 - Reinsurer agrees to cover all losses that fall within the treaty
 - An entire portfolio of risks is involved
 - Often the basis of a reinsurance program



Types of Reinsurance (cont.)

- Facultative
 - Specific Exposure
 - Case by case
 - Individual offer and acceptance of risks



Types of Reinsurance (cont.)

- Pro-rata (proportional reinsurance)
 - Insurance, premium, and losses are divided between the primary insurer and reinsurer in agreed proportions
 - Quota share vs. surplus share



Types of Reinsurance (cont.)

- Excess of loss (non-proportional)
 - Reinsurer pays portion of a loss that exceeds the primary insurer's retention up to the reinsurance limit
 - Ex. \$900,000 xs \$100,000 for each and every loss
 - Per risk vs Per occurrence vs Aggregate excess



Sorting out Types of Reinsurance

Type of Reinsurance	Stabilize Loss Experience	Improve Large-Line Capacity	Provide Catastrophe Protection	Provide Surplus Relief	Main Purpose
Pro rata quota share	No	Yes	No	Yes	Surplus relief
Pro rate surplus share	No	Yes	No	Yes	Large-line capacity and some surplus relief
Excess of loss per risk or per policy	Yes	Yes	Yes, but not purchased for this	No	Large-line capacity and stabilize losses
Excess of loss per occurrence	Yes (to an extent)	No	Yes	No	Protect against single event cat losses
Aggregate excess of loss	Yes	Yes, but not purchased for this	Yes	No	To stabilize loss experience



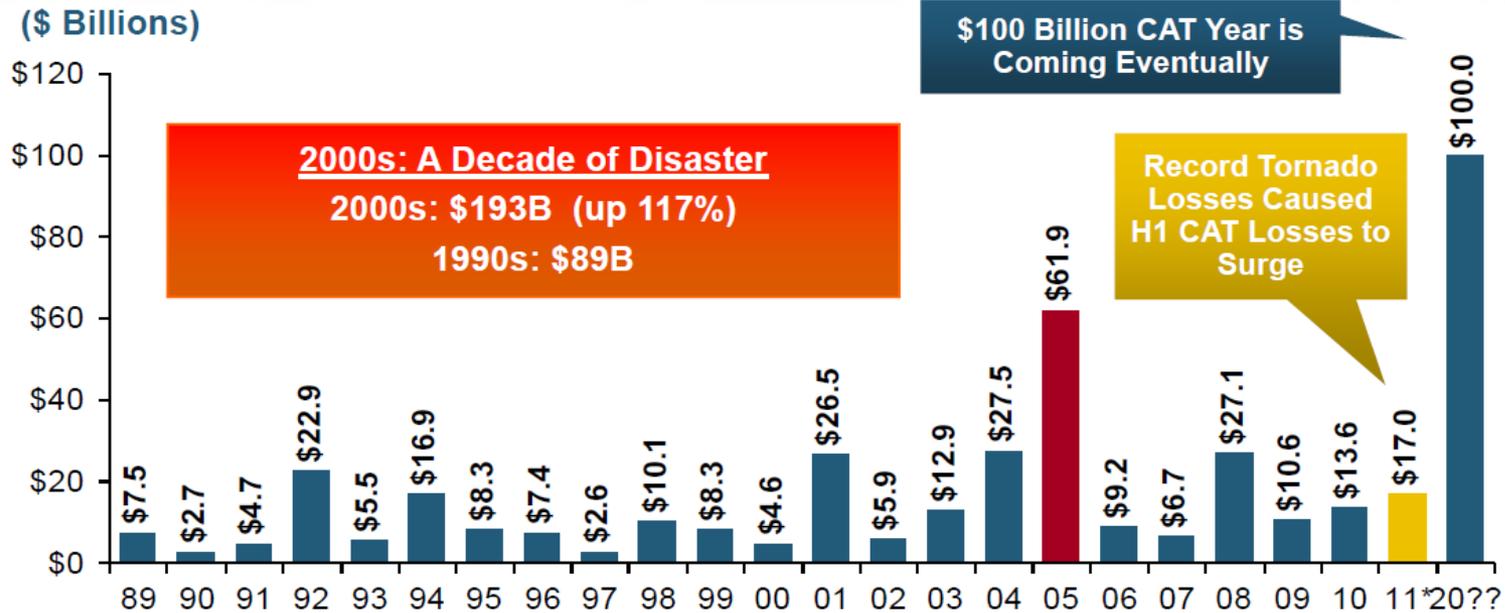
Impact of Reinsurance

- Allows insurance to be offered more broadly
- Provides long-term capital to the economy
- Information



Reinsurance and Catastrophes

US Insured Catastrophe Losses



First Half 2011 US CAT Losses Already Exceed Losses from All of 2010. Even Modest Hurricane Losses Will Make 2011 Among the Most Expensive Ever for CATs

*First half 2011 (est.) based on PCS actual figure of \$16.6 billion through June 15.

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.

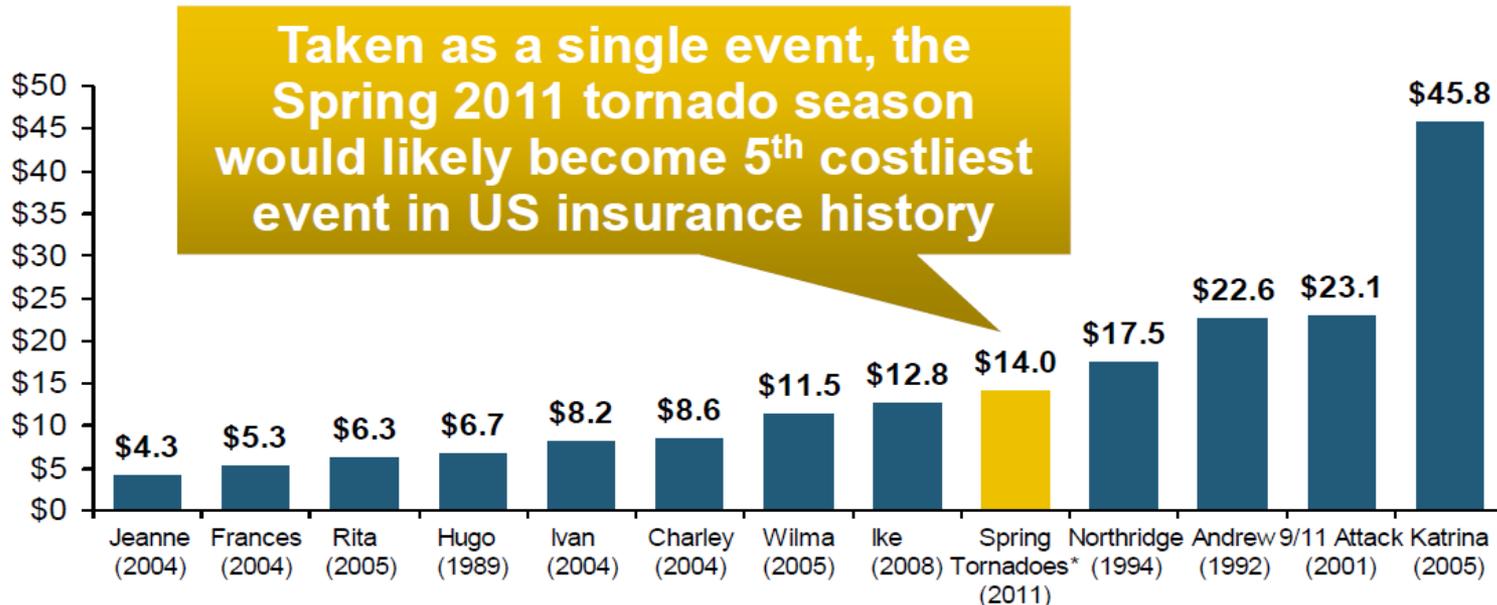


Reinsurance and Catastrophes

Top 12 (13?) Most Costly Disasters in U.S. History



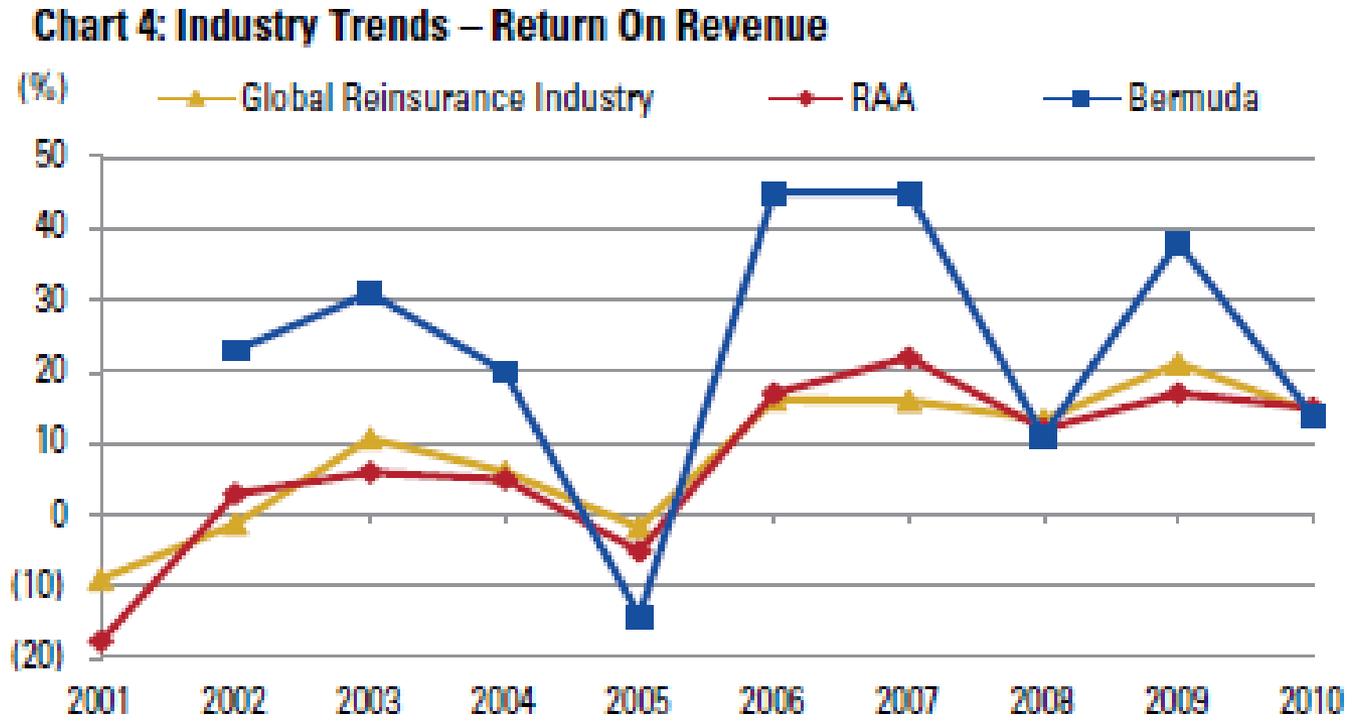
(Insured Losses, 2010 Dollars, \$ Billions)



*Losses will actually be broken down into several "events" as determined by PCS.
Sources: PCS; Insurance Information Institute inflation adjustments.



Reinsurance and Catastrophes

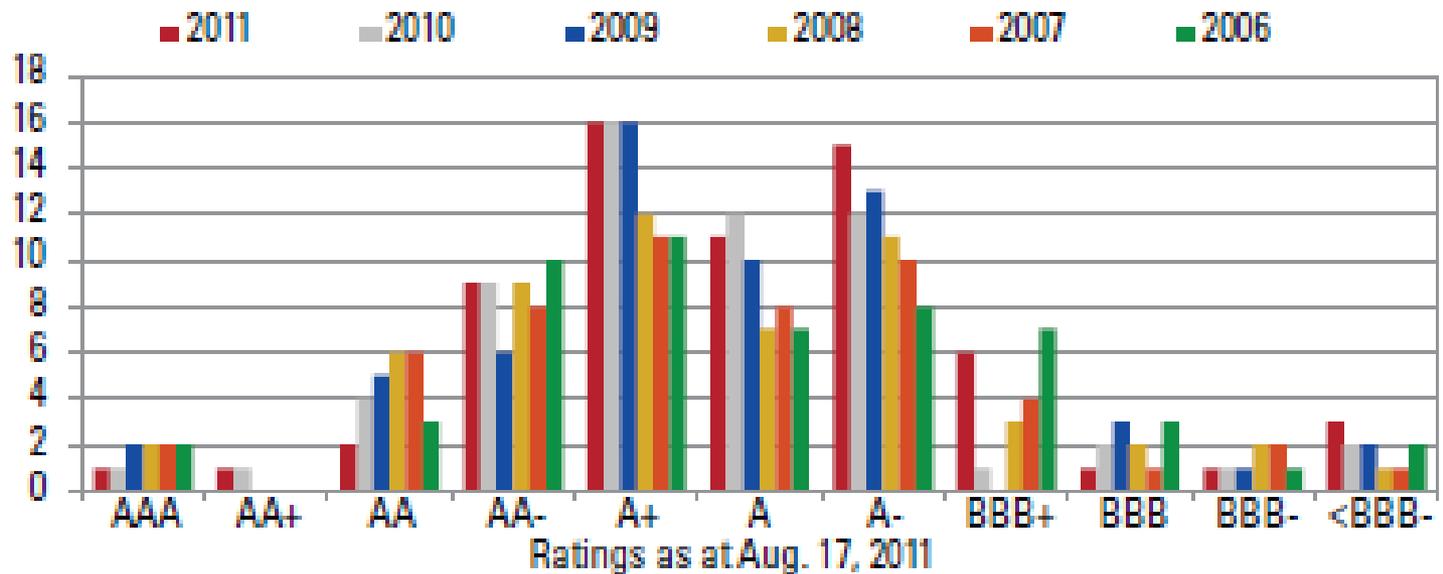


Source: Company filings and surveys. RAA (Reinsurance Association of America)
© Standard & Poor's 2011.



Reinsures and Catastrophes

Chart 1: Reinsurer Ratings For The Past Five Years



© Standard & Poor's 2011.



Key Regulatory Issues

- Collateralization of Foreign Reinsurance
 - Credit for Reinsurance Model Law
 - What is it?
 - Model Law that allows state regulators flexibility regarding collateral requirements for foreign reinsurers
 - Prior requirements were 100% collateralization
 - Arguments for and against?



Key Regulatory Issues (cont.)

- Collateralization of Foreign Reinsurance (cont.)
 - What are the key changes?
 - State authority to certify reinsurers or recognize certification
 - States ability to assign rating and vary collateralization requirements
 - Now 0 to 100% based on security rating
 - Requires Insurer notify state commissioners when the amount they expect to recover hits certain thresholds
 - Continued evaluation and support from NAIC



Key Regulatory Issues (cont.)

- National Flood Insurance Program (NFIP)
 - Recent extension of NFIP
 - Increased use of private reinsurance
- Implications of Dodd-Frank Act
 - Non-admitted and Reinsurance Reform Act (NRRA)
 - NRRA preempts the extraterritorial application of state credit for reinsurance laws



Key Regulatory Issues (cont.)

- International Regulatory and Accounting Standards
- Securitization
 - Cat Bonds, Sidecars, and more



Key Regulatory Issues (cont.)

TOP TEN CATASTROPHE BOND TRANSACTIONS, 2010

(\$ millions)

Rank	Special purpose vehicle	Sponsor	Risk amount	Peril	Risk location
1	Lodestone Re Ltd. 2010-2	National Union (Chartis)	\$450.0	Multiple	U.S.
2	Lodestone Re Ltd.	National Union (Chartis)	425.0	Multiple	U.S.
3	Residential Re 2010	USAA	405.0	Multiple	U.S.
4	Calypso Capital Limited	AXA Global P&C	€275.0	Windstorm	Europe
5	Merna Re II Ltd.	State Farm	350.0	U.S. earthquake	U.S.
6	Johnston Re Ltd. Series 2010-1	NC JUA/IUA ¹	305.0	Hurricane	U.S.
7	Residential Re 2010-II	USAA	300.0	Multiple	U.S.
8	Montana Re Ltd. 2010-1	Flagstone Re	210.0	Multiple	Multiple
9	Caelus Re II Limited	Nationwide	185.0	Multiple	U.S.
10	Foundation Re III Ltd.	Hartford Fire Insurance Co.	180.0	Hurricane	U.S.

¹Sponsored through Munich Re.

Source: GC Securities and Guy Carpenter & Company, LLC.



Key Regulatory Issues (cont.)

- Catastrophe Pools /Other (Quasi-) Government mechanisms



Thank You

