



Swiss Re's *sigma* on natural catastrophes and man-made disasters in 2011 unveils USD 116 billion in insured losses and record economic losses of USD 370 billion

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- **Last year saw the highest economic losses in history, at USD 370 billion**
- **The insurance industry weathered 2011 soundly despite experiencing the second-largest insured losses ever, at USD 116 billion**
- **2011 also brought the highest insured earthquake losses, at USD 49 billion**
- **Flooding in Thailand resulted in the highest insured losses ever for a single flood event, at USD 12 billion**

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Zurich, 28 March 2012 – Swiss Re's latest *sigma* study reveals unprecedented economic losses of USD 370 billion from natural catastrophes and man-made disasters in 2011. Despite immense insured losses of USD 116 billion (a 142% increase over the previous year) arising from record earthquake and flood losses, the insurance industry weathered the year well and played a key role in risk management and post-disaster recovery financing.

Highest ever recorded economic losses

In 2011, total economic losses to society due to disasters (both insured and uninsured) reached an estimated USD 370 billion, compared to USD 226 billion in 2010. The earthquake in Japan, the largest known in terms of magnitude to have ever hit the country, accounted for 57% of 2011's economic losses. Altogether, natural catastrophe insured losses came to around USD 110 billion, while losses from man-made disasters were around USD 6 billion, making 2011 the second-highest catastrophe loss year ever for the insurance industry.

Kurt Karl, Swiss Re's Chief Economist, says: "Last year saw extraordinary and devastating catastrophic events. The earthquakes in Japan, New Zealand, and Turkey, as well as the floods in Australia and Thailand, were unprecedented and brought not only massive destruction but also the loss of thousands of people's lives. Yet two-thirds of the staggering USD 370 billion in economic damage will be shouldered by corporations, governments, relief organisations, and ultimately individuals, pointing to the still widespread lack of insurance protection worldwide."



Record-breaking earthquake insured claims

Due to the extreme magnitude of the event (Mw 9.0), the 2011 Japan earthquake cost the insurance industry an estimated USD 35 billion, making it the most expensive earthquake on record. "Because Japan's earthquake insurance protection is very low, particularly for commercial properties, the insurance industry will bear only 17% of the total losses. Had Japan been more fully insured, 2011 would certainly have been the most expensive year ever also in terms of insured losses," says Lucia Bevere, Swiss Re Senior Catastrophe Data Analyst and co-author of the study. In New Zealand, where earthquake insurance penetration is high, particularly for residential properties, the February earthquake (Mw 6.3) – the third most expensive in history – triggered further insurance claims of USD 1.2 billion, covering 80% of economic losses.

Unprecedentedly high flood losses

The floods in Australia, the country's worst natural disaster ever in terms of losses, triggered insured claims of over USD 2 billion. However, at USD 1.2 billion, insured claims from the flood in Thailand are the highest ever recorded for a river water flood event. "Flood losses can be just as tremendous as earthquake and storm losses. The flooding in Thailand is a painful reminder that, given the high risk of flooding in many countries, other parts of the globe could be prone to similar or even bigger losses," says Jens Mehlhorn, Head of Flood Perils at Swiss Re and co-author of the study.

Mild hurricane season caps high US insured losses

In addition to earthquakes and floods, an unparalleled tornado season in the US caused insured catastrophe losses of over USD 2.5 billion. "Despite the exceptional tornadoes and Hurricane Irene, a relatively moderate hurricane season kept overall insured losses in the US lower than the record year of 2005, the year in which hurricanes Katrina, Wilma and Rita contributed the lion's share of that year's total global claims of USD 12.3 billion," adds Bevere.

The insurance industry weathered the events well

The insurance industry proved highly effective in weathering the extreme events of 2011. Despite historic losses and a challenging financial environment, the industry played a key role in post-disaster recovery financing, bringing much-needed funds to affected populations, businesses, and governments. The events, however, revealed increasing risk accumulation, particularly in emerging markets. "To support the industry going forward, Swiss Re will enhance its [CatNet®](#) information system by including more detailed river flood hazard zones. The update, to be released in spring 2012, will enable underwriters and risk managers to more accurately assess flood risks on a global level," adds Mehlhorn.

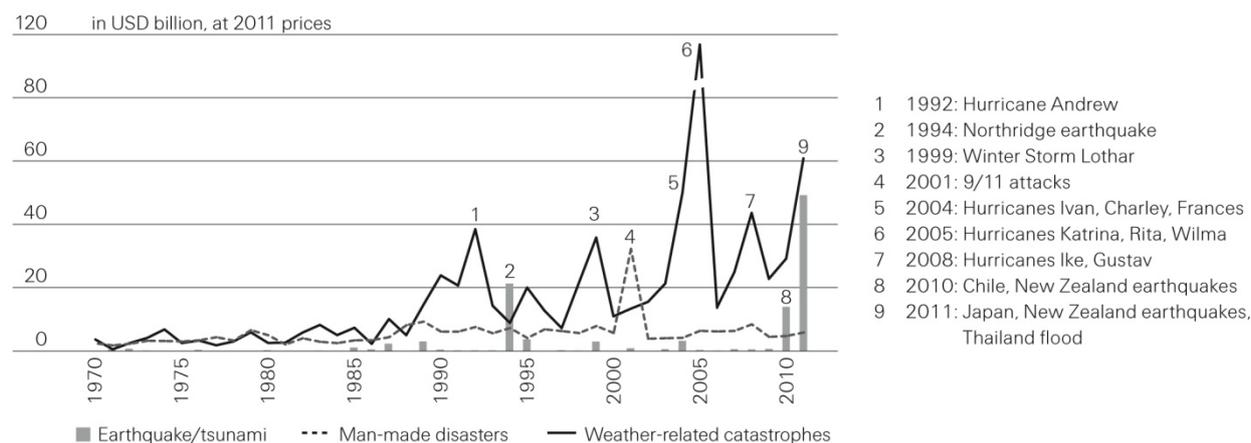
Table 1
The most expensive insured catastrophe losses in 2011

	Insured losses ¹ (in USDbn)	Economic losses (in USDbn)	Date (start)	Event	Country
1	35.0	210.0	11.03.11	Earthquake M _w 9.0, tsunami	Japan
2	12.0	30.0	27.07.11	Flood	Thailand
3	12.0	15.0	22.02.11	Earthquake M _w 6.3	NZ
4	7.3	11.0	22.04.11	Severe storms, tornadoes	US (Alabama et al)
5	7.0	9.0	20.05.11	Severe storms, tornadoes	US (Missouri et al)
6	5.3	8.0	22.08.11	Hurricane Irene	US et al
7	2.3	6.1	09.01.11	Floods	Australia
8	2.0	3.0	13.06.11	Earthquakes	NZ
9	2.0	3.5	03.04.11	Storms	US
10	1.5	2.2	08.04.11	Storms	US

1. Property and business interruption, excluding liability and life insurance losses
US natural catastrophe figures with the permission of Property Claims Services (PCS)

Source: Swiss Re, *sigma* No 2/2012

Figure 1
Insured catastrophe losses, 1970–2011



Source: Swiss Re, *sigma* No 2/2012

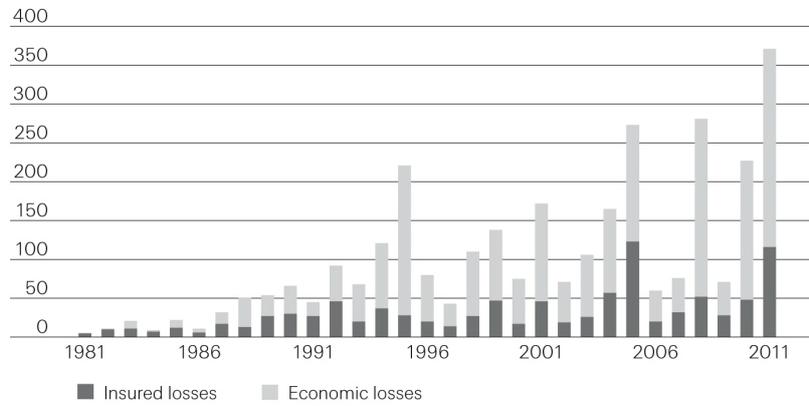
Table 2
The top ten fresh water flood losses in history

	Country	Insured loss, USD m, at 2011 prices	Insured loss as a % of country's property premiums	Insured loss as a % of country's non-life premiums	Insured loss as % of GDP	Total loss as % of GDP	Date
July–Nov 2011	Thailand	12 000	1 846%	203.5%	3.4%	8.6%	
Aug 2002	Germany & Czech Republic	2 886	20%	3.0%	0.1%	0.5%	
Jun 2007	United Kingdom	2 697	12%	2.2%	0.1%	0.1%	
Aug 2005	Switzerland	2 444	76%	11.7%	0.6%	0.9%	
Jan 2011	Australia	2 255	24%	5.9%	0.2%	0.4%	
Jul–Aug 1997	Poland & Czech Republic	2 241	213%	42.3%	0.7%	2.3%	
Jul 2007	United Kingdom	2 158	9%	1.7%	0.1%	0.1%	
Dec 2010	Australia	2 114	27%	5.9%	0.2%	0.4%	
Apr 1973	United States	1 873	5%	0.6%	0.03%	0.1%	
Jun–Aug 1993	United States	1 600	3%	0.3%	0.02%	0.2%	

Notes: 2011 premiums are estimated. Australia's premiums are for 12 months ending in June. Property premiums for Thailand include industrial All-risk premiums.

Sources: Swiss Re Economic Research & Consulting, Oxford Economics

Figure 2
Economic losses versus insured losses, 1981–2011



Sources: Swiss Re Economic Research & Consulting

Notes to editors:

Definitions and selection criteria for <i>sigma</i> catastrophe statistics:	
Natural catastrophes	Loss events triggered by natural forces
Man-made disasters	Loss events associated with human activities
Insured catastrophe losses	Losses caused by the catastrophes covered by property insurance
Total economic losses	Also include the uninsured part of the property losses related to the catastrophes
Minimum selection criteria:	
Total losses	USD 89.2m
Or: Insured property claims	Shipping: USD 18.0m Aviation: USD 35.9m Other: USD 44.6m
Or: Casualties	Dead or missing: 20 Injured: 50 Homeless: 2 000



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