

Japan Earthquake Could Be One of the Costliest In World History

March 11, 2011

IN THIS PRESS RELEASE

SIGNIFICANT EARTHQUAKES/TSUNAMIS WORLDWIDE: 1980 – FEBRUARY 2011; 10 COSTLIEST EVENTS ORDERED BY INSURED LOSSES

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INSURANCE INFORMATION INSTITUTE

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NEW YORK, March 11, 2011 — Insurers and reinsurers worldwide have the financial strength to pay the claims that will emerge after today’s 9.0 magnitude earthquake and the resulting tsunami in Japan but these events, coupled with the severe quakes that recently struck New Zealand and Chile, have placed extraordinary demands on the industry, according to the [Insurance Information Institute \(I.I.I.\)](#)

“The insurance industry will fulfill its traditional role as an economic first-responder, helping Japan recover from today’s devastating quake, just as it has done in New Zealand and Chile,” said [Dr. Robert Hartwig](#), an economist and president of the I.I.I. “What makes today’s natural

disaster so extraordinary is that four of the five costliest earthquakes and tsunamis in the past 30 years have occurred within the past 13 months, once you include what happened on March 11 in Japan.” Prior to today’s earthquake, insured earthquake losses worldwide dating back to February 2010, totaled an estimated \$23 billion.

“The Japanese nonlife insurance industry is very large—third only to the United States and Germany—with \$107 billion in premiums written in 2009,” said Dr. Hartwig. “The implication is that a larger share of losses are likely to be retained by domestic Japanese insurers and reinsurers than was the case with recent earthquakes in Chile and New Zealand.” Hartwig also noted that some Japanese seismic risk has been securitized through the catastrophe bond market, though it is too soon to tell if payouts under any of those bonds will be triggered. The earthquake that struck Northridge, California, in January 1994 remains at the top of the list, which goes back to 1980, having caused \$15.3 billion in insured losses at the time, or \$22.5 billion in 2010 dollars. The February 2011 quake in New Zealand (up to \$10 billion in insured losses), the February 2010 earthquake and tsunami in Chile (\$8 billion), and the September 2010 quake in New Zealand (\$5 billion), rank second, third, and fourth, respectively, on the list of costliest earthquakes, according to loss estimates compiled by Munich Re and released earlier today. The fifth-costliest earthquake worldwide since 1980 also occurred in Japan, in January 1995, causing \$3 billion in insured losses at the time (\$4.3 billion in 2010 dollars).

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Period	Event	Affected Area	Overall losses	Insured losses	Fatalities
			US\$ m, original values		
17.1.1994	Earthquake	United States: Northridge	44,000	15,300	6
22.2.2011	Earthquake	New Zealand: Christchurch	20,000*	10,000*	>150
27.2.2010	Earthquake, tsunami	Chile: Maule	30,000	8,000	520
3.9.2010	Earthquake	New Zealand: Canterbury, Christchurch	6,500	5,000	
17.1.1995	Earthquake	Japan: Kobe	100,000	3,000	6,430
26.12.2004	Earthquake, tsunamis	SOUTHERN ASIA: Sri Lanka, Indonesia, Thailand, India, Bangladesh, Myanmar, Maldives, Malaysia	10,000	1,000	220,000
17.10.1989	Earthquake	United States: Loma Prieta	10,000	960	60
23.10.2004	Earthquake	Japan: Niigata	28,000	760	40
21.9.1999	Earthquake	Taiwan: Nantou	14,000	750	2,360
28.12.1989	Earthquake	Australia: Newcastle	1,200	670	10

*loss estimation still in progress

Source: © Munich Re, Geo Risks Research, NatCatSERVICE – As at 11 March 2011.

According to the U.S. Geological Survey, today's 9.0 magnitude quake was centered approximately 230 miles northeast of Tokyo at a depth of approximately 17 miles. The quake is being reported as one of the largest in a century, with the broadcaster NHK describing it as the worst ever recorded in Japan. In Northern Japan the tsunami that followed the earthquake washed away houses and cars and pushed ships aground. The Pacific Tsunami Warning Center issued a tsunami warning for most of the region, saying that the tsunami could reach the coastal areas of Russia, Taiwan, Hawaii, Indonesian, the Marshall Islands, Papua New Guinea and Australia. The center also extended the tsunami alert to the U.S. West Coast, Mexico, Central America and South America. The tsunami warning was later expanded to include much of Alaska, and all of California coast north from Santa Barbara and into Oregon.

“The U.S. has expanded significantly its ability to detect, and respond, to tsunamis since December 2004, when a devastating earthquake caused a tsunami in Indonesia, which killed more than a quarter million people, causing \$10 billion in damage—\$1 billion of that insured,” Dr. Hartwig stated. “The National Oceanic and Atmospheric Administration (NOAA) and the National Weather Service have in the past six-plus years made great strides in protecting and preparing Americans for the possibility of tsunamis striking the U.S.”

NOAA, for instance, increased to 39 from six the number of tsunami detection stations NOAA has installed as part of its worldwide [Tsunami Warning System](#). Moreover, the number of U.S. communities NOAA recognizes through the National Weather Service's [Tsunami Ready](#)

program has grown to include 83 communities in 10 states as well as U.S. territories.

Additional I.I.I. resources include:

- [Japan Earthquake and Pacific Tsunamis](#) – I.I.I. Resource Page
- [Japanese Earthquake Risk: Insurance and Reinsurance Markets in the Aftermath of the March 11, 2011 Earthquake](#)
- [Earthquakes and Tsunamis: Facts and Statistics](#)
- [Earthquakes: Risks and Insurance Issues](#)

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