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After a Quake: Insurance Coverage in Earthquake Disasters

By the Editors of *FC&S Online*™

On January 12, 2010, a magnitude 7.0 earthquake struck the island of Haiti. The quake has affected almost 3 million people, and aid is arriving from many countries. Estimates put the economic damage in the low-single-digit billions of dollars, and fatalities are expected to be in the tens of thousands.

On May 12, 2008, a 7.9 magnitude earthquake hit the Sichuan Province in Western China, killing 87,587 people and leaving over 18,000 missing.

In December 2004, a magnitude 9.1 earthquake in Indian Ocean generated a tsunami that left more than 227,898 dead and millions homeless.

Aside from the general devastation, these events bring to mind a number of issues: how likely an earthquake will occur at any location, the amount of insurance coverage on property in the area, and what coverage is provided by such insurance.

The recent earthquake is the largest to occur in Haiti in the past 200 years. The quake ruptured only a portion of the fault line, raising the chances of another quake along the eastern section of the fault line. On average, the frequency of a quake of this size is seventeen per year worldwide.

Pictures abound of the destruction, and many buildings are totally flattened. A magnitude 7.0 earthquake expends 32 million tons of energy—the equivalent of the largest thermonuclear weapon available. Comparing the area to a war zone is an understatement. The magnitude 9.1 earthquake responsible for 2004 the tsunami generated the energy equivalent of 23,000 Hiroshima-type atomic bombs.

In contrast, a 6.9 earthquake occurred in California January 10, 2010, with limited damage reported. The lack of destruction is due to the construction requirements and availability of quality materials in the United States.

In the affected areas of these disasters—and many other areas—insurance penetration is incredibly low. While some of the lack of insured loss is due to the economy of the country, even in wealthier areas earthquake coverage is scant. Eighty percent of the population of Haiti lives below the poverty line, so it is understandable that property owners are not adequately insured; however current estimates are that only 13-15 percent of California residents have earthquake coverage even though the area is expected to have a large earthquake.

In Haiti insurance is 0.3 percent of the gross domestic product. Insurance losses in Haiti are expected to be minimal although the actual damage is great.

While earthquakes tend to run along fault lines, the presence or absence of a fault line does not necessarily indicate that an earthquake will occur there. Fault lines are where the fault cuts the earth's surface. Faults are where the rocks have actually broken and rocks on one side of the fault have moved past rocks on the other side of the fault. Many fault lines are small and many small earthquakes go undetected. Larger faults are useful for indicating the possibility of quakes because earthquakes have occurred there before, although there is no definitive way to predict earthquakes.

Since earthquakes can neither be prevented nor predicted, avoidance, loss prevention, and insurance are the best ways to cope with this threat. As earthquakes can occur anywhere, although they are likelier in some areas, avoidance is not exactly an option. Loss prevention by way of building construction codes, building materials, and community preparation are very beneficial at lessening destruction and injuries. Even so, it does not totally mitigate all losses. Insurance then is the way to cover those unavoidable losses.

Homeowners Coverage

In the ISO Homeowners HO 00 03 10 00, earth movement is specifically excluded, and earth movement is defined to include earthquake, landslide, mudflow, sinkhole, earthquakes including land shock waves before, during or after a volcanic eruption, and any other earth movement including shifting, rising, or sinking. It does not matter whether the movement is caused by nature, humans, or animals, all are excluded. However, if the earth movement results in fire or explosion, those losses are covered. Collapse is an additional coverage however the coverage is named perils, and earth movement is not a named peril.

Therefore, an endorsement must be added in order for any coverage to exist. The major endorsement is HO 04 54 10 00, Earthquake. The endorsement provides coverage for direct physical loss to property covered in Section I caused by an earthquake, including tremors before, during, and after a volcano. One or more earthquake shocks within 72 hours are considered to be one event. This provides coverage for multiple aftershocks that are common with a sizeable quake.

The endorsement has a deductible percentage. The insured selects the percentage, and the deductible is calculated by multiplying the greater of the Coverage A or Coverage C limits by the chosen percentage. The total deductible will not be less than $250. The deductible is not applied to Coverage D or the Additional Coverages.

The endorsement contains three specific exclusions. The first is for exterior masonry veneer. The value of the veneer is subtracted before the earthquake deductible is applied. This is because masonry veneer is thin and decorative and does not provide structural support. Stucco is not considered to be masonry veneer.

Flood is the next exclusion. Loss caused directly or indirectly from flood of any nature or tidal wave that results from, is contributed to by, or aggravated by an earthquake is excluded. The purpose of the endorsement is to provide coverage for actual damage caused by the shaking of the earth, and not for subsequent flood damage.

Land to fill in gaps or holes caused by the earthquake is not covered. The form then reiterates that the exclusion for earthquake exclusion does not apply to loss caused by earthquake including shock waves before, during, or after a volcanic eruption.

This endorsement applies to all but a few states. California, Michigan, New York, Oregon, Puerto Rico, and Virginia have their own specific forms.

The California form, HO 23 33 08 01, states that the limit for Coverage D, loss of use, will be no less than $1,500. The deductible is also applied separately to coverages A, B, and C. The deductible is calculated the same as in the basic endorsement, by multiplying the chosen percentage by the limit of liability. Again, the deductible will be no less than $250. The same exclusions apply as well.

The Michigan form, HO 05 54 06 96, makes the exclusion for masonry veneer optional. If the endorsements for Special Personal Property or Unit-Owners Coverage C Special Coverage are attached to the policy, the coverage for such property by earthquake is not covered by this endorsement. Those two endorsements specifically provide coverage for earthquake damage to personal property.

New York's endorsement, HO 23 82 12 95, and Oregon's endorsement, HO 04 54 02 10, are identical to the Michigan endorsement.

Commercial Property Coverage

A standard feature of property insurance forms is the exclusion of loss associated with earth movement. The following, for example, is the earth movement exclusion clause (with the concurrent causation language lead-in) as found in the basic, broad, and special causes of loss forms of the commercial property program of Insurance Services Office: CP 10 10 06 07,CP 10 20 06 07, and CP 10 30 06 07.

> B.1. We will not pay for loss or damage caused directly or indirectly by any of the following. Such loss or damage is excluded regardless of any other cause or event that contributes concurrently or in any sequence to the loss.
>
> b. Earth Movement
>
> (1) Earthquake, including any earth sinking, rising or shifting related to such event;
>
> (2) Landslide, including any earth sinking, rising or shifting related to such event;
>
> (3) Mine subsidence, meaning subsidence of a man-made mine, whether or not mining activity has ceased;
>
> (4) Earth sinking (other than sinkhole collapse), rising or shifting including soil conditions which cause settling, cracking or other disarrangement of foundations or other parts of realty. Soil conditions include contraction, expansion, freezing, thawing, erosion, improperly compacted soil and the action of water under the ground surface.
>
> But if Earth Movement, as described in b.(1) through (4) above, results in fire or explosion, we will pay for the loss or damage caused by that fire or explosion.
>
> (5) Volcanic eruption, explosion or effusion. But, if volcanic eruption, explosion or effusion results in fire or Volcanic Action, we will pay for the loss or damage caused by that fire or Volcanic Action.

As can be seen, an event like the one that took place in Haiti would clearly fall within the scope of this exclusion. While many Haitians did not carry property insurance at all, many property owners in more developed countries do not carry the additional earthquake insurance either, even those who own homes or businesses in areas prone to seismic activity.

Coverage can be added for an additional costs via various property endorsements, such as the CP 10 40 08 99, Earthquake and Volcanic Eruption Endorsement. Earthquake and volcanic eruption are added to the causes of loss, including all aftershocks occurring within 168 hours after the initial quake.

The additional coverage for collapse does not apply to the form as the form covers collapse caused by earthquake. Tidal wave and tsunami damage is not covered, even when they are caused by earthquakes. As with the homeowners endorsement, loss to exterior masonry veneer is not covered.

Deductibles are calculated for each earthquake and separate deductibles apply to each building, to personal property, and to personal property in the open.