

COMPARING CLAIMS FROM CATASTROPHIC EARTHQUAKES

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■ FOREWORD

Between February 2010 and March 2011, the world was hit by four of the five most expensive insured earthquakes in history.

The earthquakes — in Chile, New Zealand, and Japan — took nearly 20,000 lives, left many without homes, and caused billions of dollars in economic losses. As a broker to both local and multinational clients, Marsh was closely involved in helping the affected communities to recover from the deadly earthquakes.

This paper explores three of the earthquakes, drawing on the experiences of Marsh and our clients, to share lessons on insurance claims arising from catastrophic events. In this paper, we compare and contrast earthquakes in:

- ▶ Chile, February 27, 2010.
- ▶ New Zealand, February 22, 2011.
- ▶ Japan, March 11, 2011.

We analyze and compare the facts, coverage elements, policy features, and practical considerations in relation to each event so that those affected by future earthquakes — and the perils that may follow them, such as tsunamis and fires — might be better prepared and better positioned to recover more quickly.

Marsh dedicates this research to the memory of those lost in these tragic earthquakes, including three colleagues in the February 2011 event in New Zealand.

I EVENT FACTS

The three earthquakes discussed in this paper struck in areas known for seismic events, although two of the areas had not experienced severe earthquakes in decades. Longer stretches of time between events may have negatively affected disaster preparedness and response. In general, despite difficulties in accessing affected areas and communicating with claimants, claims for insured losses were reported promptly. Time to settle claims varied by country, but the majority of claims in Chile and Japan were settled within 18 months.

STATISTICAL COMPARISON OF EARTHQUAKES

| | CHILE | NEW ZEALAND | JAPAN |
|---------------------------------|-----------------------|-------------------|------------------|
| DATE | FEBRUARY 27, 2010 | FEBRUARY 22, 2011 | MARCH 11, 2011 |
| SIZE OF EARTHQUAKE | 8.8 Mw | 6.3 Mw | 9.0 Mw |
| LENGTH OF SHAKE | 2 MINUTES, 50 SECONDS | 20 SECONDS | 5 MINUTES |
| DEPTH OF SHAKE | 35 km | 5 km | 30 km |
| DEATHS/MISSING | 562 | 185 | 19,135 |
| NUMBER OF NONCOMMERCIAL CLAIMS | 190,299 | 200,000 (APPROX.) | 896,865 |
| VALUE OF NONCOMMERCIAL CLAIMS | US\$1.7 BILLION | US\$9.7 BILLION | US\$14.1 BILLION |
| NUMBER OF COMMERCIAL CLAIMS | 32,117 | 13,000 (APPROX.) | UNKNOWN |
| VALUE OF COMMERCIAL CLAIMS | US\$6.4 BILLION | US\$5.6 BILLION | US\$12.2 BILLION |
| TOTAL INSURED LOSS (INCL. LIFE) | US\$8.4 BILLION | US\$15.6 BILLION | US\$35.7 BILLION |
| ECONOMIC LOSS | US\$30 BILLION | US\$23 BILLION | US\$210 BILLION |

Source: Marsh internal and publicly available information (estimates).

On February 27, 2010, an 8.8-magnitude earthquake struck off the coast of Chile, about 335 km (210 miles) southwest of Santiago, at 3:34 a.m. local time (6:34 a.m. UTC). It resulted in 562 deaths. The last major earthquake in this more populated area of the country, of magnitude 7.8, occurred in March 1985 and claimed 177 lives.

The February 22, 2011, earthquake that struck 6 km (3 miles) southeast of Christchurch, New Zealand, at 12:51 p.m. local time (23:51 a.m. UTC) caused severe damage in the Central Business District (CBD) and claimed 185 lives. An even more intense 7.1-magnitude earthquake had occurred September 4, 2010, but fortunately caused no fatalities, largely because the tremor struck 45 km (30 miles) away from the CBD and during the early

morning hours. The last severe earthquake in New Zealand had a magnitude of 7.8, occurred in 1931, and claimed 256 lives.

Japan suffered a 9.0-magnitude earthquake on March 11, 2011, off the east coast of Honshu, about 373 km (231 miles) northeast of Tokyo, at 2:47 p.m. local time (5:47 a.m. UTC). A resulting tsunami devastated coastal cities and reportedly traveled as far inland as 10 km (6 miles), also severely damaging several nuclear power plant reactors. More than 19,000 lives were lost. Despite Japan's long history of earthquakes, the last earthquake near the epicenter of the 2011 event was a 7.7-magnitude tremor in 1978.

WORLD'S COSTLIEST INSURED EARTHQUAKES

| DATE | LOCATION | DEATHS/MISSING | INSURED LOSSES | ECONOMIC LOSSES |
|----------------|-----------------|----------------|------------------|------------------|
| MARCH 11, 2011 | JAPAN | 19,135 | US\$35.7 BILLION | US\$210 BILLION |
| JAN. 17, 1994 | US (California) | 61 | US\$15.3 BILLION | US\$44 BILLION |
| FEB. 22, 2011 | NEW ZEALAND | 185 | US\$15.3 BILLION | US\$23 BILLION |
| FEB. 27, 2010 | CHILE | 562 | US\$8.4 BILLION | US\$30 BILLION |
| SEPT. 4, 2010 | NEW ZEALAND | NA | US\$5 BILLION | US\$6.5 BILLION |
| JAN. 17, 1995 | JAPAN | 6,430 | US\$3 BILLION | US\$100 BILLION |
| MAY 29, 2012 | ITALY | 18 | US\$1.6 BILLION | US\$16 BILLION |
| DEC. 26, 2004 | INDONESIA | 220,000 | US\$1 BILLION | US\$11.2 BILLION |
| OCT. 17, 1989 | US (California) | 68 | US\$960 MILLION | US\$10 BILLION |
| JUNE 13, 2011 | NEW ZEALAND | 1 | US\$800 MILLION | US\$2 BILLION |

Sources: Marsh; Munich Re

HOW QUICKLY WERE CLAIMS REPORTED FOR MARSH CLIENTS?

As can be seen in the chart below, nearly three quarters of claims resulting from the 2010 Chilean earthquake were reported within one week (see **FIGURE 1**). The earthquake occurred on the coast, and most Marsh clients could be contacted in Santiago, which was relatively undamaged. Communications were quickly established except for the area close to the epicenter, and Marsh reached out to clients if they had not already contacted us. The Marsh portfolio is principally commercial which influenced quick reporting.

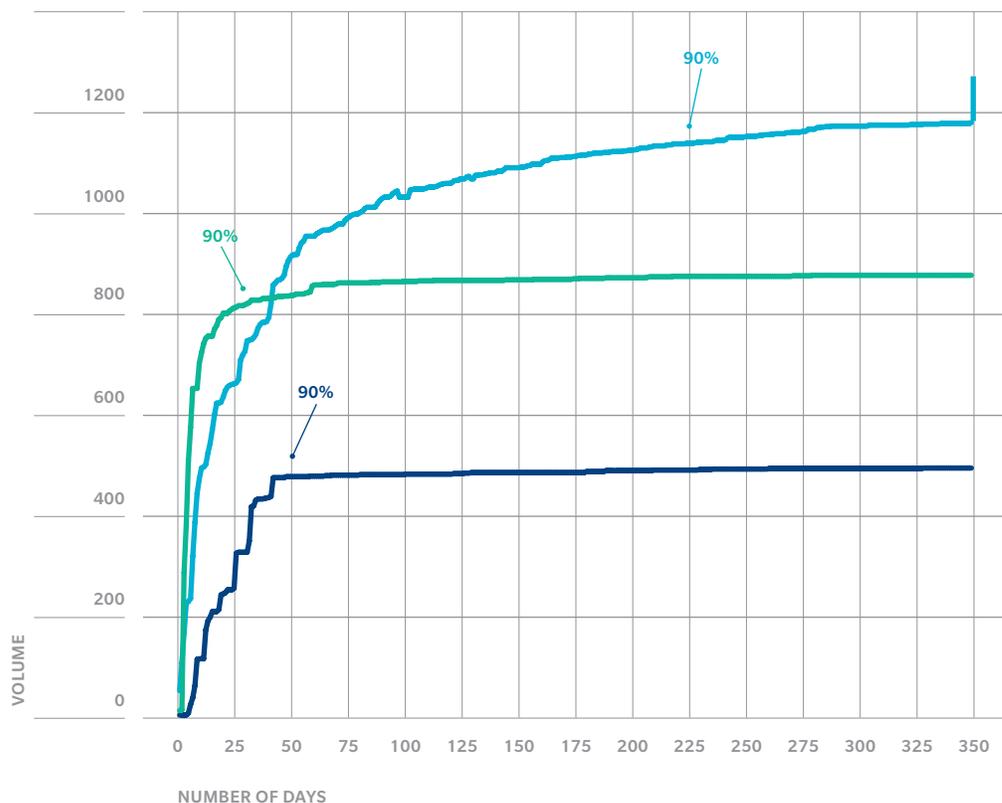
In **Japan**, claims were reported more slowly than in Chile, but 90% were still reported within the first six weeks. Complicating the claims process were restriction zones in areas devastated by the resulting tsunami and fear of radiation near damaged nuclear power plants, which goes some way to explaining the staggered curve on the chart. Loss assessment and adjustment was delayed by up to 30 days in many cases. A lack of English-speaking local adjusters was also a problem and a delaying factor.

In **New Zealand**, claims were reported more slowly than in Japan, but 80% of the claims were still reported within four months. The reporting was generally substantially slower than after the previous September 2010 earthquake.

FIGURE 1 TIME TAKEN FOR CLAIMS TO BE REPORTED

Source: Marsh

■ NZ
■ CHILE
■ JAPAN



HOW LONG DID CLAIMS TAKE TO SETTLE FOR MARSH CLIENTS?

Settlement timelines vary by country, due to differing circumstances, but as displayed in the chart below, the majority of claims generally were closed within 12 months in Chile and 18 months in Japan. New Zealand continues to experience seismic activity, and property damage has been more difficult to assess. The scale of the event was larger than the country's loss adjusting, engineering, and insurance industries were equipped to deal with, delaying the settlement of a significant percentage of claims.

In **Chile**, 99% of non-commercial claims were settled by the end of 2010 (within 10 months); 87% of commercial claims below US\$50,000 were settled by the end of 2010; and 32% of commercial claims above US\$50,000 were settled by the end of 2010. Overall, most claims were settled within 12 months, and the large majority within 10 months (see **FIGURE 2**).

Much was the same case in **Japan**, where 93.8% of commercial claims were settled within a two-year period: 456 out of 486 claims were closed within 545 days (18 months).

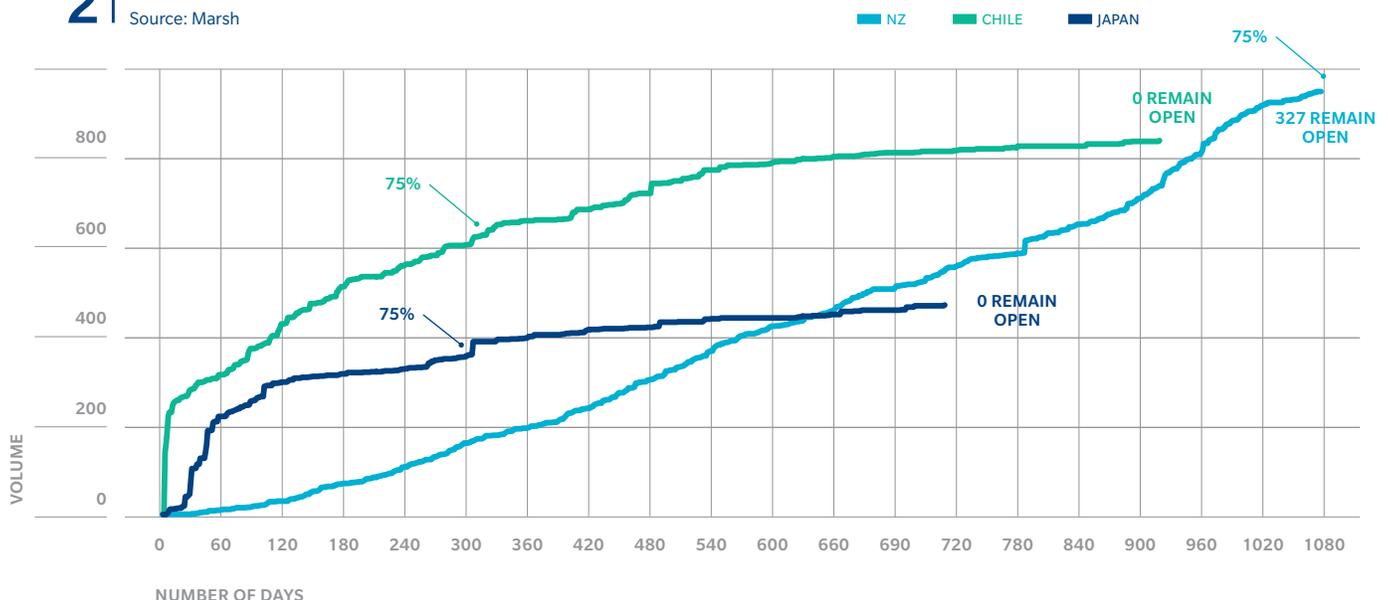
In **New Zealand**, there are still many outstanding claims due to practical issues such as the closure of the CBD, ongoing earthquake-related activity, and practical difficulties in assessing the scope and nature of damage. For larger buildings, earthquakes can cause subtle differential settlement of the soil and damage to reinforcing steel within concrete elements. Sixteen percent of claims were closed after 12 months; 32% of claims were closed after 18 months.

SUMMARY OF FACTUAL ANALYSIS

However we measure these events, they were truly devastating for the communities involved.

Chile appears to have achieved the quickest claim settlement, but Chile did not experience the same urban impact and restriction zones as New Zealand or Japan. Japan is often associated with earthquake risk, but even with its prior experience, the nation was not prepared fully for the multiple impacts of earthquake, tsunami, and radioactive contamination.

FIGURE 2 TIME TAKEN FOR CLAIMS TO BE SETTLED
Source: Marsh



I COVERAGE ELEMENTS

72-HOUR CLAUSE

This clause appears in some policies for specified perils, and it serves to either consolidate “events” happening within a 72-hour period or to segregate “events” occurring over a period longer than 72 hours. The question is: Does the application of the clause benefit insurers or insureds?

In **Chile**, this was not really an issue for Marsh clients. Although there was a 7.2-magnitude aftershock on March 12, 2010 — 13 days after the original event — there was little damage from it, so this was generally not treated as a separate event. Following the earthquake, looting (for example, from a client’s supermarkets) led to a discussion as to whether this was one or multiple events. In the end, the majority of these questions were resolved by negotiation.

Similarly, in **Japan**, the 72-hour clause was not an issue. There were aftershocks, some of them large, but damage from them did not appear to be significant. Also, many adjusters were unable to get onsite for more than a month, and therefore it was often impossible to determine if there had been additional damage or not.

In **New Zealand**, even in the absence of 72-hour clauses, the September 2010 and February 2011 earthquakes would have been considered different events because they involved different fault lines, different epicenters, and occurred more than five months apart. Similarly, the major aftershocks (June 13, 2011, and December 23, 2011) were classed as different events.

Overall, in New Zealand, the 72-hour clause has probably favored insureds because of the spacing of the earthquakes and the automatic reinstatement of limits in many policies. Most deductibles at the time of the February 22, 2011 earthquake were based on a percentage of loss, rather than a monetary figure, so the occurrence of different events did not cause deductible levels to mount.

By the time of the 6.5-magnitude earthquakes in Wellington and Marlborough in July and August 2013, the deductibles had been changed by most insurers to become percentages of site value. In those cases, the deductibles accumulate.

DENIAL OF ACCESS

Denial of access can be seen as an extension to business interruption (BI) and contingent business interruption (CBI) coverage, as it provides cover for the inability to access an insured property as a result of an insured peril. Denial of access can result from physical damage or non-physical damage (depending on the policy language), and it can have particular relevance when an insured event takes place over an extended period of time.

In **New Zealand**, the CBD was initially completely closed and reopened gradually as demolitions proceeded. The final area was reopened on June 30, 2013, nearly two-and-a-half years after the earthquake. Hundreds of buildings have been affected by this closure, many of which are damaged beyond repair.

Many insurers had sublimits for denial-of-access cover, which could have limited recovery for those within the CBD. However, so many buildings were badly damaged that physical damage, rather than denial of access, typically triggered a policy response, and in practice the sublimits have not been a major problem for many policyholders.

In **Japan**, the principal issue for denial of access was the nuclear accident at Fukushima. Due to the restriction zone, access was certainly a problem, but nuclear accidents are generally excluded from coverage. Consequently, considerable effort was made to establish when denial of access resulted from the earthquake and when it resulted from the nuclear event.

Chile saw few issues resulting from denial of access, so there was no real insurance effect here.

WIDE AREA DAMAGE

A landmark 2010 coverage decision by the UK High Court, in *Orient-Express Hotels Ltd v Assicurazioni Generali SpA*, addressed whether broader BI cover would respond to wide area damage, following Hurricane Katrina in 2005. It was decided that even if there had been no damage to New Orleans' Windsor Court Hotel, there would have been a downturn in revenue due to the event itself. People simply did not want to visit the area. Orient-Express Hotels made a successful denial-of-access claim, but this was subject to significantly lower limits.

The inability to make a BI claim in these circumstances has become known as a “windfall loss” scenario. In the case of Chile, the reverse was true, as many insureds did not claim for BI or had reduced claims, due to increased demand following the event, sometimes known as a “windfall gain” scenario.

This was the case with the main toll highway between Santiago and the south, which despite suffering large physical losses, saw an increase in traffic due to the reconstruction efforts, leading to no BI claim.

In **New Zealand**, there was much early discussion as to whether a BI loss would be unrecoverable due to wide area damage, but it did not transpire to the extent initially anticipated. This was possibly because there was so often damage to policyholders' premises that the wide area BI impact became less relevant.

Additionally, policyholders who dealt mostly with the suppliers and customers in the Christchurch region could call on the BI policy extension for loss caused by damage to customers' and suppliers' property (also known as contingent business interruption or “dependency” cover).

The education and tourism industries were most susceptible to attempts by insurers to reduce policy payouts due to wide area damage considerations.

Japan saw very little wide area damage application as a result of the earthquake.

MULTIPLE PERILS

There can be problems in allocating physical damage and BI when there is more than one peril, acting either simultaneously or sequentially.

Japan is the most obvious example of this, with the multiple perils of earthquake, tsunami, and radioactive contamination — plus possible government intervention. Insurers provided different opinions, sometimes in respect of the same wordings. Some of the coverage issues were:

- ▶ Earthquake may have been covered, but the subsequent tsunami may be regarded as flood (depending on the wording), which would likely have a different sub-limit.
- ▶ Fire following earthquake may or may not be covered under the policy. Local fire policies exclude fire following earthquake, unless cover for earthquake is also purchased.
- ▶ The nuclear accident at Fukushima was excluded, but there were discussions about the rolling blackouts and their proximate cause.

In **Chile**, there were some disputes regarding earthquake and tsunami on named perils (as opposed to all risks) policies, but these were resolved by negotiation. Looting was also a disputed topic, with regard to whether it was part of the earthquake event or a separate event, and whether it could be characterized as theft, which was subject to smaller sublimits. Again, most of these issues were settled during claim negotiation.

New Zealand had no real issues of multiple perils. There was no tsunami, no fire following earthquake (as far as we are aware), and very little looting.

AVERAGE/COINSURANCE

The average clause or co-insurance requirement can feature on many claims, but it is highlighted with earthquakes, which are typically high value. An average clause in a property policy provides that a claim payout is reduced in proportion to the underinsurance, if any, of the property insured. For policyholders, the real issue is to accurately report values.

The Chilean Commercial Code requires that average would apply, unless it is otherwise specifically stated in the policy, and so any under-declaration of values resulted in lower policy response. Other problems have involved:

- ▶ Leeway clauses that were not open to interpretation.
- ▶ Whether or not indemnity limits were appropriate.
- ▶ Whether errors and omissions (E&O) clauses could be interpreted to resolve under-declarations.
- ▶ Extra expense versus increased costs of working. Some wordings sublimited extra expense, which could be below the amount of actual losses mitigated.
- ▶ The increased cost of repair and materials due to high demand and restricted supply.

In **New Zealand**, there have historically been no average clauses in commercial policies, although some insurers now wish to introduce them. However, there were still issues of underinsurance, even where recent valuations had been obtained, and even after some policyholders claimed their policies' 110% uplift allowance on declared values on individual buildings.

Underinsurance was sometimes caused or exacerbated by the high costs of demolition. For example, one building in Christchurch cost more than NZ\$10 million to demolish, as the basement and the first two floors had to be filled with concrete to stabilize the structure. Complicating the building's demolition was the fact that many other businesses were initially adjacent to the building, so great care was required to dismantle it.

In **Japan**, many policies placed by Marsh had a clause stating that average does not apply.

CALCULATION OF DEDUCTIBLES

The way in which deductibles are calculated can have a major impact on claim recoveries.

In **Chile**, the deductible was normally calculated as a percentage of the insured amount of the location. However, problems arose when there were "floating locations" (that is, inventories nationwide) and various subsidiaries at the same declared location. Location definitions also sometimes created confusion.

In **New Zealand**, the market norm (at the time of the 2011 earthquake, at least for small- to medium-sized risks) was 2.5% of the property damage loss. Multiple deductible applications were therefore not an issue. Some of the larger risks attracted a percentage deductible of the site value or location (often capped at a dollar figure), and in the absence of a policy definition, the site value was usually deemed by insurers as the declared sum insured, even where there was extensive underinsurance. The deductible was generally taken off the loss, although some insurers initially maintained that it should be taken off the insured limit.

In **Japan**, the deductible was mostly either a fixed deductible per occurrence, or a percentage of the declared value.

SUMMARY OF COVERAGE ISSUES

Coverage issues are not limited to earthquake claims, but the high value of these claims brings them into greater focus.

Both 72-hour and denial-of-access clauses have historically been applied to short-term phenomena. Indeed, a classic textbook, “Riley on Business Interruption,” refers to the closure of a street in Liverpool, England, for 10 days in 1960. Recent catastrophe events, such as the earthquakes in Chile, New Zealand, and Japan, are increasingly phenomena with long-term effects.

Most New Zealand policies now have 14, 21 or 30 day waiting periods before natural disaster denial-of-access claims can be made.

Denial of access can be complicated by having to differentiate between physical and non-physical damage. For third-party damage (CBI claims), the peril must be of a nature not excluded by the responding insurance policy.

The issues of average are mainly risk management issues that require a proper understanding and reporting of values, especially BI and CBI (including supplier and customer dependencies).

Deductible application is really a matter of trying to achieve the clearest policy language possible.

Policies for earthquake and other perils are responding to longer-term phenomena. This can create challenges for traditional policy language and questions regarding standard limits and sublimits of coverage.

I POLICY FEATURES

PAYMENTS ON ACCOUNT

Policies may or may not specify the availability of payments on account, but catastrophes such as earthquakes are exactly the type of situation where insureds look to their insurers for support. A payment on account provides working funds and can also be a means of confirming policy coverage.

Initially in **Chile**, goodwill payments were made following the earthquake. However, after about three months, payments were generally only made with detailed supporting documentation. Insurers' concerns about reinsurance recoveries — which contractually are within a defined scope and exclude ex gratia payments — may have prompted insurers to require additional documentation.

In **New Zealand**, there were delays getting payments on account to policyholders in the early weeks and months, which caused cash flow problems for small and medium sized businesses. In general, payments on account were eventually available to larger clients who wanted to fund increased costs of working or repairs, although not everyone wanted or needed them. The Government implemented a short-term wage subsidy scheme, which many businesses took up, with the subsidies due to be repaid when BI policies paid out.

Like the other countries, **Japanese insurers** require a recommendation from the loss adjuster to make a payment on account. The loss adjusters were wary about making recommendations without reinstatement having first taken place, and as a consequence, payments on account were slow.

BUILDING REPAIR OR REPLACEMENT

Earthquake damage may require specialist repair or upgraded replacement. Improvements and betterments are not usually covered, and earthquakes can highlight potential difficulties in restoration. An emerging issue is the policy requirement to restore property to “substantially the same as but not better or more extensive than when new.”

Circumstances may also dictate the need to establish operations elsewhere, as seen in **New Zealand** due to the closure of the CBD, or due to continuing earthquakes in the region. Although there was competition for the available premises, re-establishing elsewhere was not generally a problem, nor was the provision of cash settlements where no relocation took place at all (subject to negotiation). There were, however, problems caused by the government's acquisition of land and the “repairability” of buildings. The government might buy the land because it is in a liquefaction zone, or a zone required for a centrally planned rebuild. Insurers, however, are refusing to treat damaged buildings as constructive total losses, and they have won a test case in the High Court on this point regarding a residential property.

In **Chile**, increases in the cost of repairs and improvements were seen due to the scarcity of labor and materials. However, many old buildings were necessarily subject to different repair methods, and this was really “incidental improvement.”

Similar to New Zealand, some insureds in **Japan** had to establish operations elsewhere, which was generally accepted by insurers as long as the new facility was largely the same. In some cases, the commercial sector made a business decision to re-establish manufacturing plants outside of Japan where the operation costs are cheaper. Depending on the policy wording, the insured could receive replacement costs for re-establishment outside of Japan.

In other instances, some insureds gave up on re-establishment due to the lack of suitable land to rebuild, for example, chemical plants. In the main, the insured could receive the actual cash value of the property damaged if they did not re-establish the operation, although some policy wordings allowed for replacement cost value settlement without actual repair or replacement.

CODE UPGRADES

Code upgrades are linked to building repair or replacement, but this was not a particular feature in **Chile**. Some policies had specific clauses, but others were often ambiguous on code upgrades. This lends itself to a negotiated outcome.

In **New Zealand**, insurers have said that some of the code upgrades were not covered because:

- ▶ The upgrade was to an undamaged part of the building.
- ▶ There has been a debate and litigation on the degree of seismic strengthening that the City Council is lawfully able to order.
- ▶ The client wanted a higher degree of strengthening than was required by law.

In the test case of Insurance Council of New Zealand v Christchurch City Council and Others (2013), the insurers obtained a judgment that the City Council could not require strengthening beyond the point where it is no longer dangerous, which meant 33% of the new building standard for seismic strength. The judgment was unsuccessfully appealed by the University of Canterbury to the Court of Appeal, which also denied permission to appeal to the Supreme Court. As of mid-February 2014, the University had sought permission to appeal from the New Zealand Supreme Court and was awaiting a decision.

In **Japan**, a number of building codes were updated after the earthquake, and this had implications for older buildings in particular. Newer buildings were subject to a recovery when it was shown that the upgrade construction was actually cheaper than replacement.

DID BUSINESS INTERRUPTION COVER WORK?

The test of BI cover is whether or not it responded effectively. This will in part depend on the accuracy of the BI values submitted, knowledge of the true BI exposures, the duration of interruption, and the timing of repairs or a rebuild. This is not always straightforward, especially when taking into account the impact of the global recession, wide area damage together with delays in ascertaining damage, and understanding exposure to damage to suppliers and customers.

BI cover was generally effective in **New Zealand**, although there were some problems, such as the length of the indemnity period, particularly in the CBD, or for damaged facilities that could not cease operations for repairs. Many of the policies had customer or supplier dependency coverage (albeit with 5% or 10% sublimits), which proved to be very useful in a number of claims.

In **Japan**, BI is thought to have worked well for those clients that bought it, but there were many aspects that were not insured (for example, nuclear accident, rolling blackouts, economic downturn), all of which affected the adjustment of the BI losses.

There were many CBI/interdependency issues, with the automobile and semiconductor industries particularly impacted. Many standalone earthquake policies excluded CBI due to capacity and pricing issues. For some industries it was difficult to track the root cause and link it back to the policy.

In **Chile**, BI cover was generally effective, but there were issues of delays in measurement by forensic accountants, plus underinsurance. There was also considerable discussion on increased costs of working or mitigating expenses that were not effective. CBI was much less of a concern in Chile than it was in Japan.

ADEQUACY OF INDEMNITY PERIODS

Perhaps surprisingly, the adequacy of the indemnity period was not a widespread problem in **New Zealand**, notwithstanding the CBD issues. Most clients had a 12-month limit of indemnity, but many businesses that were affected (such as in the CBD) took temporary premises and their businesses worked through or around problems. Landlords with properties affected in the CBD generally took a negotiated settlement on their property damage and loss of rents claims, and probably invested the money elsewhere. In general, clients appear to have been very resourceful in how they restarted their businesses and the locations from where they worked.

There have been challenges for clients with damaged premises, especially where larger numbers of buildings are involved, and/or there were delays in locating and quantifying the full scope of damage. Even clients with two- or three-year indemnity periods have not always been able to make repairs within that timeframe. In mid to late 2013, engineering assessments and agreed repair methodologies were still incomplete on some major claims.

In **Japan**, the maximum indemnity period was 12 to 18 months (if the insured even took out BI cover), and most businesses seem to have generally recovered within six months.

In **Chile**, most policies had 12 months indemnity, and this was sufficient. Few clients had problems that extended into 2011.

SUMMARY OF POLICY FEATURES

The test of any policy is its suitability to a loss event: All three earthquakes challenged a number of policy features.

For various reasons payments on account were not as forthcoming as we may have anticipated following such major catastrophes. This may have been due to possible portfolio considerations and/or reinsurer sensitivity.

The rebuild/repair provisions seemed to result in a pragmatic approach by clients and insurers, although the code upgrades may require further consideration.

Effective BI and CBI policies need a good understanding and accurate reporting of values. The requirement to name suppliers or to categorize them as first, second tier etc. (direct or indirect) adds an additional burden to policyholders. These issues are not, however, exclusive to earthquake losses.

NEW ZEALAND: CONTINUITY IN THE FACE OF BUSINESS INTERRUPTION

A professional services firm with dozens of fee earners was based in a high-rise building within the CBD cordon. The building was eventually demolished but during the week following the earthquake fluctuated between green (full access) and yellow (restricted access). Employees were allowed access to the cordon, but clients were not.

During the first five-and-a-half weeks after the February earthquake, partners and staff worked out of seven hubs, including homes. This arrangement was extremely inefficient as it was necessary to share computers and work stations. The firm's IT department worked extremely hard to reinstate systems but there was no access to the IT system during the first week and access remained restricted or experienced intermittent outages during the entire three month indemnity period. Except for three very short and restricted entries, the firm was not allowed access to their former building to re cover files until mid-May. Most files were recovered during the last entry.

About six weeks after the earthquake, the firm moved a significant portion of their operations out of the CBD to a new location in the suburbs. Another portion of the operation moved into a client's facility. During the indemnity period, the firm's partners were required to devote time to non-client issues such as locating alternative premises and recovering files from the previous building or other sources.

Fees were down by 70% in the last week of February 2011, and down by 40% in March 2011, but very prompt action to secure new premises and re-start operations saw fee earnings almost fully recover in April.

With assistance from Marsh's Forensic Accounting and Claims Services (FACS) Practice, the client quantified and successfully claimed for its lost fitting-out, additional costs of working, and its lost fees.

I PRACTICAL CONSIDERATIONS

HOW PREPARED WERE THE THREE COUNTRIES?

In Japan, the previous major earthquake was Kobe in 1995, and this undoubtedly helped with disaster planning. Japan has very good early warning systems for earthquakes and tsunamis, as well as having a National Disaster Prevention Day every year, during which citizens are trained to prepare for disaster. However, the size of the tsunami was completely overwhelming and greater than had been prepared for – the maximum height of the tsunami to hit land was 40.5 metres (133 feet), and, in places, it traveled up to 10 km inland.

The disaster at the Fukushima Daiichi nuclear power plant caused many problems early on, not only because of the restriction zone and closure of roads heading north, but also because of concerns over the potential impact on Tokyo.

In **Chile**, the previous major earthquake was in 1985, so some complacency may have crept in. Following the 2010 earthquake there was confusion over the tsunami alert, which meant that additional lives were lost. Communications in Santiago (the main insurance center) were quickly re-established, but contacting clients in the worst hit areas was still problematic.

The loss adjusters were faced with handling a large number of losses and had logistical problems in managing them all. It may be that a lack of contingency planning by adjusters and insurers compounded this issue.

New Zealand was the least prepared of all from an insurance perspective. Although the country was conscious of earthquake risk and had a longstanding insurance scheme run by the Earthquake Commission (EQC), the last major earthquake prior to the September 2010 event was in the 1930s; in addition, previous events had not affected such a large area. Christchurch had not been regarded as a high-risk earthquake zone, and, as a consequence, people were underprepared for the February 2011 earthquake.

The EQC, which insures the first NZ\$100,000 of all insured residences as well as giving some land and contents cover, had to increase its staff from 26 to around 1,600 to handle over 467,000 claims from the earthquakes.

HOW DID LOSS ADJUSTERS COPE?

In **Chile**, the Superintendent of Insurance and Securities has strict regulations regarding the management of claims. Local licensed loss adjusters have to manage every claim, and they are the final arbiters when the policy is issued in Chile, or when a local insurance company is involved. There are strict rules by which reports have to be issued within 90 days of the claim, unless the adjuster does not have all the information, and then they need to obtain an extension from the Superintendent. The adjuster's report is provided to the insured and the insurer, and strict timelines are in place for any objection to those reports.

The Superintendent was heavily involved following the earthquakes, putting considerable pressure on insurers and adjusters to close claims quickly, and this was successful, especially for homeowners.

Due to the heavy workload, support was provided by international adjusters. While this was generally helpful, language was often an issue.

In **Japan**, there are no official regulations covering loss adjusters and, theoretically, anyone can be one. In practice, there is a qualification examination conducted by the General Insurance Association of Japan, and insurers normally employ adjusters who have passed this examination.

However, following the earthquake there was still a shortage of loss adjusters available to manage complex losses. Although international adjusters were involved, as with Chile, there were many language and cultural issues to overcome. Indeed, many local clients refused to work with the international adjusters.

Like Japan, **New Zealand** has no regulations covering loss adjusters. The local firms in New Zealand had reduced staffing over previous years due to the absence of catastrophes and large losses. The major international loss adjusting firms provided considerable resources from abroad, but this caused problems in that the adjusters would stay for a period, and then hand over to somebody else. As a result, some claims had four or more adjusters managing the loss over a period of time, often resulting in a lack of continuity.

HOW QUICKLY WERE LOSSES INVESTIGATED?

Given the devastation and confusion following an earthquake, perhaps it would be expected that the loss investigations for all three earthquakes were problematic.

In fact, **Chile's** experience was that losses were investigated quite quickly. There were delays in the first few days because clients wanted time to establish the facts, but once that was completed inspections were rapid. Access was not a particular issue.

For commercial losses in **Japan**, it often took at least a month for investigations/inspections to begin due to the confusion in the country following the enormous damage caused by the earthquake and tsunami, as well as the nuclear issues. For non-commercial losses, the insurers sent teams to the region for a period of time in order to try and resolve these quickly.

In **New Zealand**, there were delays due to the huge increase in both the value and volume of claims. The shortage of adjusters did not help here, and there was also a shortage of engineers experienced in looking for what can often be subtle and hidden earthquake damage.

WAS THERE EVIDENCE OF PRICE GOUGING?

“Price gouging” describes the practice whereby contractors take advantage of the claim circumstances, and charge above the previous market rates for goods and services.

In Chile and Japan, price gouging occurred and this resulted in clients having to negotiate with insurers and adjusters. Some larger clients tended to have pre-agreements with specific contractors, which negated this practice.

In New Zealand, there was a huge increase in demolition costs during the early days, but these costs then began to reduce. Prices of rebuilding have not yet increased as much as people assumed. However, rebuilding is slowly starting and construction cost escalations seem inevitable at some time, as demand exceeds supply. The

Earthquake Commission and various insurers set up program management offices, which have helped to contain contractors' repairs costs. Intense competition for undamaged buildings saw rents in the suburbs increase markedly and landlords of the available buildings required long leases. Even so, rents were usually cheaper than pre-earthquake in the CBD, raising the interesting issue of whether this saving could be offset by the insurers against a claim for additional increased costs of working (ACOW).

WAS THERE ANY RESERVE CREEP?

“Reserve creep” describes the situation whereby a loss adjuster's reserve increases in increments, sometimes known as “step-laddering.” This is more of an issue for insurers, who like to work within a known reserve for internal reporting purposes, but it could impact clients if the claim is delayed by internal insurer reporting processes.

In Chile, reserves tended to reduce rather than increase, due to a variety of reasons, including:

- ▶ Adjusters being conservative.
- ▶ Slow initial information flow.
- ▶ Underinsurance.
- ▶ The willingness of clients to negotiate a deal.
- ▶ Subsequent increases in turnover leading to reduced BI.

Marsh Japan found no real issues with reserve creep.

The total estimates on Marsh New Zealand's earthquake claims have risen steadily as the full extent of damage and remediation costs become apparent. Buildings that were initially thought to have suffered minor or modest damage have often proved, one to two years later, to be uneconomic to repair.

Estimates quantified in US\$ have also had to increase simply because the NZ\$ strengthened against the US\$. The NZ\$ was worth US\$0.72 in September 2010, but in October 2013 was worth US\$0.84, an increase of over 15%.

WAS GOVERNMENT INTERVENTION AN ISSUE?

A feature of catastrophic events is that government action is often required. This government action can itself result in loss, but is this a covered cause under a policy?

In **Japan**, we saw a number of examples of government intervention, including:

- ▶ The closure of the highway leading from Tokyo to the north of the country. This caused denial-of-access problems.
- ▶ A power-saving plan implemented by the government in response to the expected shortage of power supply (in view of increased demand during summer) did have some effect. Commercial utility customers were asked to reduce consumption by 15% from July to September 2011, compared to the previous year. This had an impact on BI calculations.
- ▶ In the immediate aftermath of the earthquake and tsunami, the government is understood to have redirected power from commercial to residential areas. The deprivation of power was thereby caused by a government directive and not directly by the insured event. This could have coverage implications, depending on the policy wording.

In **New Zealand**, the Canterbury Earthquake Recovery Authority (CERA) was set up by the government and given emergency powers to require structural assessments, to close or demolish buildings, and to acquire land compulsorily or by negotiation. The Department of Building and Housing altered the hazard rating of the region, reducing the seismic strength rating by a substantial percentage overnight and causing buildings to become rated as earthquake prone, when they had not been so before.

The government also influenced the EQC to handle claims itself, even claims greater than the EQC's coverage limits, rather than ask insurance companies to handle them. The EQC insures the first NZ\$100,000 of all insured residences as well as giving some land and contents cover. Instructing its staff to address claims exceeding this threshold resulted in the "double handling" of claims, and sometimes inconsistent coverage decisions and damage assessments. This has greatly frustrated some residential policyholders and, in some cases, delayed claim resolution.

In other cases, Marsh New Zealand has observed that the creation of a CBD cordon, the requirement to obtain seismic assessments, and the closure of individual buildings was the action of a public authority, consequent on damage to the insured's property or property in the vicinity. This supports the argument that the government action triggered BI cover.

In **Chile**, the only real government intervention was the Superintendent of Insurance, which pressured insurers and adjusters to settle and adjust claims as quickly as possible. Although this was particularly focused on non-commercial claims, it provided a sense of urgency post-event. There was also a push for transparency of information. The Superintendent has recently published a booklet outlining lessons learned and actions taken. It has led to a revision of the code regulating loss adjusting in Chile.

SUMMARY OF PRACTICAL CONSIDERATIONS

All three countries experienced relatively prompt loss investigations, but only in the context of a catastrophic event. Immediate priorities might not include claim notification and investigation, and the strain on insurer resources after the event had taken place was evident with all three earthquakes.

This scarcity of resources creates an opportunity for price gouging, though this can in part be mitigated by commercial pressures if the contractor usually performs insurer or client work.

Clients cannot do anything about government intervention, but it can have a real impact on their claims. The intervention may be a response to the event, but does this, in itself, constitute an event under the insurance policy triggering BI coverage? If it does, is this a separate event that attracts a separate deductible? What is the date of loss – the date of the intervention or of the damage that caused the intervention? This is really a matter of individual policy analysis and application.

I SUMMARY OBSERVATIONS

There are reassuring similarities in how insurers applied policy features in each of the events. This may provide some guidance as to policy structure and application in future loss events.

Where there are different approaches, this seems largely due to different circumstances rather than different applications of the same policy language. The unprecedented multiple events in Japan were then compounded by government intervention.

There are slightly concerning messages about the influence that reinsurers might have on the claim process. Of course, a reinsurance policy is usually completely separate from an original policy, but the reality is that all reinsurers will look at their net exposures. It does not help that insurers buy different types of facultative reinsurance, and may prefer horizontal rather than vertical protection. For losses occurring over an extended period of time, horizontal protection might favor a multiple-loss interpretation; whereas vertical protection might favor a single loss interpretation.

Insurers' concern with the strategic portfolio implications for their decision-making on claims is of real interest. They may be careful about setting a precedent on other claims resulting from the same earthquake; or they may be concerned with exposures on completely different earthquakes; or they may want to avoid setting precedents for future "business as usual" claims. The challenge is to get insurers to treat a client as a client, and not as part of their portfolio, although this can be easier said than done.

Clients can mitigate potential coverage problems in several ways, including:

- ▶ Declaring values accurately to insurers. Underinsurance was highlighted in these events, and it can result in significant differences in claimants' recoveries post-loss. It is important for policyholders to understand whether average clauses apply.
- ▶ Examining supply chains and effects on customers. Catastrophes can have consequences outside of the territory of the loss, and for customers and suppliers not directly involved in the event. CBI is an exposure of real significance to many clients, but not all clients appreciate the full extent of these exposures.
- ▶ Understanding how policies apply deductibles and sub-limits. Policyholders should recognize differences in how their policies define deductibles and the circumstances under which coverage is sub-limited.

■ ABOUT THIS REPORT

This report was researched and written with the input of Marsh claims advocacy experts from around the world, including Peter Foley (Chile), Peter Goodall (New Zealand), Svein Tyldum (Japan), and Hiroshi Ito (Japan).

■ ABOUT MARSH

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Our global claims community has over 1,800 colleagues working for our clients in more than 80 countries. We are tenacious advocates for our clients. We deploy our expertise, experience, and market presence to promote their interests before, during, and after a loss. The team is aligned under global leadership by geography and industry practice. This complements our product specialists and allows us to respond appropriately to client need.

Claims are a board issue at Marsh because claims are a board issue for our clients. We work closely with our risk consulting teams, including Forensic Accounting and Claims Services (FACS) for claims preparation and related services, to help minimize the impact of claims. Our depth of resource and expertise is proven in even the most extreme circumstances. We deployed response teams to the affected areas in the immediate aftermath of the catastrophes highlighted in this document to drive claim strategy and resolution for our clients.

We deliver claim solutions globally, adding value to our clients when they need it most. Claims is an integral part of the Marsh value proposition.



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