An examination into who paid the costs of the Canterbury earthquakes

James TATE

Abstract

Insured losses in the Canterbury earthquakes have been estimated at over $23bn. The size of these losses pushed the NZ insurance industry and its members to their limits following the quakes, though the losses will ultimately be borne by NZ policy holders in the long term. Insurance industry reform was underway before the quakes but they provided a strong motivator for regulatory change to add further stability. NZ has depleted the EQC earthquake fund and must therefore rely on a strengthened insurance industry to guard against natural disasters in the future.

1 Introduction

When Canterbury experienced a 7.1 magnitude earthquake on September 4th 2010 the New Zealand insurance industry faced the single most expensive event it had ever experienced. Less than six months later this record was surpassed again, with a devastating 6.3 magnitude quake on February 22nd 2011. The economic loss from these quakes, and subsequent aftershocks, has been estimated at $30bn - over 15% of New Zealand's annual GDP.

This essay explores how the earthquakes and subsequent losses have shaped the NZ insurance industry. I explore who is liable for the substantial financial costs of the quake, and how the liable parties have motivated changes within the insurance industry. I unravel the complex interdependencies between some of the industries key players, isolating each of their roles in the aftermath of the quakes.

The essay proceeds as follows: Section 2 looks at the state of the NZ insurance market before the Canterbury earthquakes. Section 3 of the essay details the immediate cost of the quakes. Section 4 examines the role of four groups in paying for the quake losses: NZ insurance companies, EQC, international reinsurers and NZ policy holders. Section 5 looks at the regulatory change in the NZ insurance market coinciding with the earthquakes. Section 6 then explores how the insurance market looks today.

2 The NZ Insurance Industry Preceding the Canterbury Earthquakes

Prior to the Canterbury earthquakes the New Zealand insurance market could be summarised as very competitive, with premiums driven relatively low and firms relying on product differentiation to entice customers. The five largest non-life insurance companies were Insurance Australia Group (IAG), Vero Insurance New Zealand, Lumley General Insurance, AMI Insurance and Tower Insurance (Reactions, 2011). All of these firms, with the exception of AMI, had large parent companies in Australia.

As is standard practice in the insurance industry, retail insurers were reliant on international reinsurance firms to take major risks off NZ books. Essentially this is a contract that provides local insurance firms with protection against large scale events. McKenzie (2011) suggests that, when viewed from a reinsurer's perspective, reinsurance is less of an insurance product and more of an international investment product. As such, when the international firms consider NZ reinsurance products they weigh the risk of disaster against the size of the premiums, just as risk is weighed against expected returns for all financial investment decisions.

Since NZ firms had a relatively low rate of claims compared to international firms, including our close neighbours Australia, NZ reinsurance products were generally considered low risk investments. As a result the premiums charged for the reinsurance cover were relatively low. Given the historically small impact New Zealand accounts had on the books of large Australian companies, many of those firms with parents in Australia reportedly leveraged their reinsurance based off their parent company- paying little attention to the underlying fundamentals of NZ policies (McKenzie, 2011).

New Zealand also has a Government run Earthquake Commission (EQC), which acts as a financial back-up for insured residential New Zealanders in the event of a natural disaster. For any retail insurance policy, a small portion of the premiums are forwarded on to EQC in return for natural disaster insurance cover. This premium was 5 cents for every $100 of insurance cover, up to a maximum of $69 annually (English, October 2011) The maximum cover provided to the policy holder in a disaster is $100,000 for homes and $20,000 for contents, with any shortfall being borne by the retail provider of the insurance policy (EQC, 2011).

The rare nature of natural disasters allowed EQC to build up a substantial "nest-egg" of $6bn in their Natural Disaster Fund as a result of collecting of premiums without facing any large pay-outs. On top of this, their funds are reinsured by international organisations for any event claims above $1.5bn, up to a maximum of $4bn, and they are guaranteed by the NZ Government should they face a situation where their obligations exceed their access to capital.

New Zealand historically maintained one the most unregulated insurance industries of all our trading partners. Following a Government review of the Regulation of Non-Bank Financial Products and Providers in 2005, development of a regulatory structure for the industry began (Dean, 2010). Commentators agreed that a degree of regulation and monitoring would ensure improved stability in an increasingly important market. The Reserve Bank of New Zealand (RBNZ) was the obvious choice as the market 'watch dog' due to their experience in regulating and supervising banking activities.

Though the proposal for insurance market supervision was issued as early as 2005, there is no doubt the global financial crisis encouraged its timely development. When the world witnessed how the potential collapse of insurer AIG threatened to throw the entire US economy into a deep recession, the importance of insurance companies in the global economy became apparent. New Zealand shared the concerns of many nations around the world, in reference to a loosely regulated industry having such significant influence over the national economy. It was in this setting that the Insurance (Prudential Supervision) Act 2010 was drafted, in a bid to add transparency and stability in the insurance market, and hence the NZ economy as a whole.

3 The Cost of the Quakes

In the early hours of the 4th of September 2010, a 7.1 magnitude earthquake hit 40km west of Christchurch. There was widespread damage to infrastructure, as well as residential properties and some historic buildings. Despite two people suffering serious injuries, there were no deaths directly attributed to the earthquake- a fact credited to the early hour at which the quake struck.

Following the quake, the citizens of Christchurch remained very aware of the earthquake risks, and were frequently reminded of these risks by on-going aftershocks. This provided some motivation toward part of the central city, and some particularly unstable buildings, being cordoned off to prevent public access (CCC, 2010). These actions added substantially to the on-going costs of the quake due to the disruption caused to local businesses.

The total financial cost of the quake was substantial for the relatively small economy of New Zealand. Building owners faced expensive rebuilds, businesses lost substantial revenues and the repairs required to infrastructure were extensive. For those who were insured, the costs were passed on to the insurance companies, and the estimated insured loss was approximately $6bn according to major reinsurer Swiss Re (The Nelson Mail, 2012). This made the September Earthquake in Christchurch the world's second largest natural disaster in 2010 in terms of the insured value of the losses (Swiss Re, 2011). The cost of the 2010 Earthquake was dwarfed when the 6.3 magnitude quake hit in February 2011. Despite the magnitude of the quake being significantly smaller then in September, it was centred at a depth of only 5km, leading to substantial damage to Christchurch city and the surrounding areas. Also, the timing of the quake in the middle of the day meant the losses were substantially higher, in terms of both property and human life.

Already crippled infrastructure sustained further damage. Entire suburbs were without water or power, and roads were cracked and covered with liquefaction. Many buildings in central Christchurch were damaged beyond repair and their instability resulted in large parts of the CBD being cordoned off. Business in Christchurch was essentially closed down for months. The quake also had a more significant affect on residential properties than the 2010 quake. An estimated 100,000 homes suffered quake damage, including some 10,000 that required complete demolition (Tait, 2011)

Swiss Re estimates the insured loss of the February quake to be $14.5bn dollars (2011). This represents only 80% of economic losses, which were estimated at $18bn. These figures place the quake as the third most expensive in history in terms of insured losses, due to a combination of the extensive damage and the high level of insurance holdings by New Zealanders.

Aftershocks of varying strengths have continued to plague the city since the major quakes, some creating further damage to the regions crippled infrastructure. Among these aftershocks, a 6.4 magnitude quake on June 13th created further damage to the city. The marginal insured loss was $2.5bn, and the economic loss was $3.5bn. This brings the total insured loss for the Canterbury earthquakes to $23bn, and the economic loss to almost $30bn. The liability for these losses is spread across several parties.

4 Paying the Cost of the Quakes

4.1 Insurance Companies

Given the large number of parties affected by the Canterbury earthquakes, insurance companies were immediately swamped with claims. Beyond the obvious logistical difficulties that arise from such an influx of claims, there were more serious concerns about the ability of insurance companies to meet their financial obligations.

As discussed earlier, EQC provides limited support to residential policy holders in the event of a natural disaster. While the insurance companies received some pay-outs from EQC, the amount they were able to receive was capped at $100,000 for each policy, and an estimated 30,000 houses sustained damage beyond this level (Reactions, August 2011). The shortfall between the claim and EQC pay-out represents the liability of the insurance company.

Reinsurance was essential for the companies to meet their net residential obligations, as well as their commercial obligations which were not covered by EQC. The reinsurance pay-out they received was obviously dependent on the level of cover they had obtained prior to the quakes. Given that no

insurer was fully covered, all of the major insurance companies in NZ incurred significant losses. The companies with a deep pocketed parent company in Australia were at a definite advantage and were able to absorb the substantial losses presented by the earthquakes.
AMI Insurance was the exception, with the combination of their insufficient reinsurance cover and the lack of an international parent leading to their inability to absorb the losses driven by their Canterbury clients. AMI faced an estimated $1.8bn in Christchurch earthquake claims, but only had $1.3bn in reinsurance, leaving a $500m shortfall (Steeman, 2011). The shortfall represented a serious risk to the stability of the New Zealand market, and the 85,000 Cantabrians who held policies with them (English, April 2011). When their precarious financial position became apparent after the February quake, they began to work with the Government toward a solution.
On April 7th, the Government announced they would provide AMI with financial support should it be requested. The deal came in the form of $500m of convertible preference shares which the Crown could purchase at any stage in return for full control of the company. Further, if the losses extended below this point the Crown guaranteed all policies would be honoured (English, April 2011).

The $500m back-up offer was not redeemed by AMI and a year later they finalised the market solution which they had been seeking; with the sale of AMI to Australian insurance company IAG. The $380m sale came with a provision that all Canterbury earthquake related claims were to remain the responsibility of the Crown. Once the proceeds of the sale were used to cover part of the earthquake claim shortfall, the Crown estimates its support of AMI will cost them $100m. (English, April 2012)

4.2 The Earthquake Commission (EQC)

The estimated value of claims to EQC following the September quake was $3bn. Despite their books looking sound after this quake, the subsequent earthquakes have brought their estimated liability for losses to $12bn. As discussed earlier, EQC obtained international reinsurance for events with losses above $1.5bn, up to a maximum of $4bn. In other words, for an event which generates claims above $4bn, approximately $2.5bn was covered by reinsurance. Accounting for this reinsurance cover, EQC's direct liability for the Canterbury earthquake claims is approximately $7bn, which includes the costs of reinsurance excesses in the three largest quakes and the losses beyond $4bn which occurred during the February quake.

At the end of the 2010 financial year, the Natural Disaster Fund had a balance of approximately $6bn. There is an obvious shortfall of over $1bn between this fund and EQC's direct liability. To help meet this shortfall Finance Minister Bill English announced a rise in EQC levies for 2012, tripling the premium to 15 cents for every $100 of insurance cover, up to a maximum of $207 (English, October 2011). The Government is liable for the shortfall, which is expected to halve as a results of these changes to just under $500m.

4.3 Reinsurance Companies

Reinsurance companies were indirectly liable for the majority of the Canterbury earthquakes' $24bn of insured losses. As large international institutions, these companies were facing pressures from a record breaking number of natural disasters in 2011. The Japan earthquake and Thailand floods were alongside the Canterbury earthquakes in contributing toward a total of $140bn insured losses from natural catastrophes and man-made disasters (Swiss Re, 2011). Despite a year of expensive disasters, the reinsurance companies escaped in relatively good shape, presumably due to their well-diversified nature. The average loss as a percentage of annual premiums written, as reported by the Reinsurance Association of America, was just over 5% (2012). Considering the substantial capital reserves the companies are able to build up in more settled periods, this amount is relatively insignificant.

The Canterbury earthquakes, in conjunction with the earthquake in Japan (which is also situated on the “Pacific Ring of Fire”), have meant that NZ is no longer considered a low risk economy for reinsurers. To encourage reinsurers to invest in the NZ market and to compensate them for the extra (perceived) risk they are required to hold following the Canterbury earthquake, reinsurers are commanding a higher rate of return- driving up reinsurance premiums.
New Zealand Minister Gerry Brownlee flew to London in late 2011 to talk to reinsurers about the Christchurch economy. He assured them the Government was assessing reconstruction zones and building requirements closely in order to ensure the resulting losses from any future quakes will be minimal (Reactions, August 2011). This was a brazen move to decrease the risk perception of New Zealand reinsurance investments, in an attempt to limit price increases.

Access to reinsurance remains available to NZ insurance companies, though, despite Mr Brownlee’s efforts, the reinsurance premiums have more than doubled since the earthquakes and in many cases a higher retention also applies (AM Best Newswire, 2011). The affect is large increases in costs for the insurance companies, which are ultimately passed on to their clients in the form of higher premiums.

4.4 NZ Insurance Policy Holders

It is the NZ insurance policy holders that will be paying for the losses in Christchurch in the long run. The local insurance companies do not have the ability or incentive to absorb the recent hikes in reinsurance costs, meaning

they pass them on to their policy holders. Likewise, the individual policy holders are the ones who end up paying for the rise in the EQC levy, which equates to an increase of up to $169 annually. These drivers are behind the increases in insurance premiums for households, the average of which has been estimated at as high as 30% (Dickinson, 2012). Particularly affected areas are Christchurch and Wellington, where natural disaster premiums have been increased most substantially.
These policy holders, along with the NZ public as a whole, are also paying for the financial contributions made by the Government using tax-payers' money. The anticipated $500m support of EQC, and the $100m cost of handling the claims of AMI's customers are significant transactions in the Government's book. The Government are also victim to the rising insurance costs, which exceeded their budget forecasts by hundreds of millions of dollars in the financial year following the quakes.

Further, the Government have pledged large capital investment for the rebuilding of Christchurch city. In the 2012 Government Budget, they made $5.5bn in provisions for the rebuild effort, including planning, management and implementation of the build (Booker, 2012). Christchurch Mayor Bob Parker has also indicated he expects further contributions for assistance in the development of the City Council's infrastructure and project development. Add to this the accumulating costs of 'minor' aftershocks and the Government's books are firmly in the red with regard to Christchurch. The cost of this lies with the public.

5 Regulatory Change

The Insurance (Prudential Supervision) Act 2010 received assent on the 7th of September 2010, coincidentally three days after the first of the Canterbury earthquakes. The Act requires the Reserve Bank to promote maintenance of a sound and efficient insurance sector, and promote public confidence in the sector (Dean, 2010). RBNZ takes a relatively light-handed approach to the implementation of the Act, balancing their three 'pillars' of Self Discipline,

Market Discipline and Regulatory Discipline. This method emphasises the small weighting RBNZ puts on regulation as a risk management tool; it appears to be a safety net which should have little effect on a firm exercising prudential management.
Further, in November 2011, the Reserve Bank created the Prudential Supervision Department. This department, among other things, is responsible for the "microprudential regulation" and supervision of insurance companies (Fiennes & O'Conner-Close, 2012). This indicates the increasing role of the Reserve Bank in exercising their duty as supervisor, and is a sign they are keeping a close eye on the NZ markets. This move is likely due to the increasing volatility of the markets through the global financial crisis, as well as the added instability caused by the Canterbury earthquakes.

When proposing regulation, it is important to give significant consideration to the risk of moral hazard. The Government's eagerness to protect consumers by guaranteeing their insurance policies, also results in a decreased incentive for insurance companies to act prudently. This risk increased substantially with the Government's underwriting of AMI, which was effectively an admission to the market they would offer a bailout if necessary. In a market with no prudential requirements or supervision, it is dangerous to suggest firms will be given Government protection during a crisis due to the skewed incentives it creates. However, by implementing minimum requirements in the Insurance (Prudential Supervision) Act 2010, RBNZ attempts to minimize the strength of this moral hazard and align insurance companies' incentives with those of their customers.

Also of importance is the Reserve Bank's implementation of Basel III, which is currently scheduled for January 2015 (Vaughan, 2012). The regulation requires banks to hold more liquid assets and more closely match their lending and funding terms. Although the scope of the regulation does not directly include insurance companies, it may restrict their access to bank capital for financing risky investment. More careful lending by banks requires a more thorough risk assessment of the insurance companies, placing a further check on their liquidity and encouraging prudent lending in the market as a whole.

6 The Current NZ Insurance Industry

It is not possible to say the NZ insurance industry has fully recovered from the Canterbury earthquakes, only that the market has stabilised. Thousands of claims are still being processed by both private insurance companies and EQC, and the overall cost of the quakes is still unconfirmed.

EQC have received over 450,000 claims to date, and have paid out over $3bn (EQC, 2012). The increases in levies is expected to help breach the shortfall in cash once all claims are processed and the Government anticipates they will need to contribute about $500m. The existence of EQC has certainly cushioned the financial impact of the earthquakes on the Government's books, and on the New Zealand economy as a whole. An immediate concern is the depletion of the Natural Disaster Fund, which leaves the nation exposed to substantial losses in the event of subsequent earthquakes or other natural disasters.

Since their purchase of AMI, IAG now control approximately 60% of New Zealand's home and contents, and car insurance markets. The sale was approved by the Overseas Investment Office, the Commerce Commission and the Reserve Bank, though there was public outcry surrounding the loss of competition in the market (Tarrant, 2012). It is difficult to suggest decreased competition has driven any part of the recent premium increases, though the inherent risks in the NZ insurance industry mean it will certainly be a market under close scrutiny moving into the future.

Such scrutiny will be encouraged by the Insurance (Prudential Supervision) Act, which gives governing bodies greater transparency into the insurance industry as a whole. Despite the NZ insurance industry remaining one of the most gently regulated internationally, this Act carefully balances the stability of the market as a whole with the freedom of individual firms. This should help the NZ market maintain a level of stability in the future, and make anticipation of market turbulence a lot easier.

Insurance holders around the country are faced with conflicting effects of the earthquake. The visible destruction of so many homes provides individuals with a constant reminder of the need for insurance, though the increasing costs act as a deterrent. It is not difficult to imagine insurance companies releasing a greater variety of policies for natural disasters. These may include capped or conditional payoffs in order to make at least some degree of coverage affordable to struggling households.

7 Conclusion

The Canterbury earthquake has challenged the entire insurance sector in New Zealand. The scale of the loss was unprecedented, and strained our existing industry. Some insurance companies, like AMI, learnt harsh lessons about covering their risk and maintaining a diversified portfolio. Meanwhile, EQC proved to be a vital resource for the country, and it has certainly solidified its place in the future of the NZ market. In practically every avenue, New Zealand policy holders are the ones who will be paying for the losses in the long term.

The industry has been refined. Virtually all of the major insurance providers in NZ now have Australian parent companies, providing a strong link between our markets, the significance of which should not be underestimated. RBNZ's role in exercising prudential supervision is a step forward in encouraging stability in the markets, and offers a level of transparency valuable for the planning of future events.

It is difficult to say whether New Zealand's insurance industry is better prepared for a natural disaster now compared to two years ago. The depletion of capital stocks from the natural disaster fund and local insurance firms' balance sheets represents a serious concern. However, the natural disaster reinsurance cover by local insurance companies is no doubt strengthened, and the linking of the firms to their Australian parents adds further robustness. The RBNZ can also play a more significant role in ensuring these firms are acting prudently. As for policy holders, the increases in premiums are already stretching budgets and any further increases may simply be unaffordable.

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