The Treasury

Material Provided to the Public Inquiry into EQC Information Release

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Key to sections of the Act under which information has been withheld:

[23] 9(2)(a) - to protect the privacy of natural persons, including deceased people

[25] 9(2)(b)(ii) - to protect the commercial position of the person who supplied the information or who is the subject of the information

[26] 9(2)(ba)(i) - to protect information which is subject to an obligation of confidence or which any person has been or could be compelled to provide under the authority of any enactment, where the making available of the information would be likely to prejudice the supply of similar information, or information from the same source, and it is in the public interest that such information should continue to be supplied

[31] 9(2)(f)(ii) - to maintain the current constitutional conventions protecting collective and individual ministerial responsibility

[33] 9(2)(f)(iv) - to maintain the current constitutional conventions protecting the confidentiality of advice tendered by ministers and officials

[34] 9(2)(g)(i) - to maintain the effective conduct of public affairs through the free and frank expression of opinions

[35] 9(2)(g)(ii) - to maintain the effective conduct of public affairs through protecting ministers, members of government organisations, officers and employees from improper pressure or harassment;

[36] 9(2)(h) - to maintain legal professional privilege

[37] 9(2)(i) - to enable the Crown to carry out commercial activities without disadvantage or prejudice

[38] 9(2)(j) - to enable the Crown to negotiate without disadvantage or prejudice

[39] 9(2)(k) - to prevent the disclosure of official information for improper gain or improper advantage

Where information has been withheld, a numbered reference to the applicable section of the Act has been made, as listed above. For example, a [23] appearing where information has been withheld in a release document refers to section 9(2)(a).

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Date: 25 February 2011 CM-1-3-15-1

THE TREASURY
Kaitohutohu Kaupapa Rawa

To: Prime Minister
Minister of Finance

AIDE-MEMOIRE: REBUILDING THE NATURAL DISASTER FUND

Executive Summary

This note provides some initial advice on the Earthquake Commission's (EQC's) Natural Disaster Fund (NDF).

The specific question we have been asked is how long it would take to build the NDF back to its previous size (approximately $6.0 billion) with current policy settings (e.g. the current EQC levy).

The answer to this question is approximately 15 years (i.e. by around 2025), but this is heavily dependent on a number of assumptions. For example it assumes no further significant natural disasters over that period.

One of the EQC's sustainability criteria for the NDF is that, following a major natural disaster, it can be rebuilt within 20 years within current policy settings. Our calculation suggest that following the Canterbury earthquakes, this criteria will be met.

We have not been asked for advice on EQC premiums, but hypothetically, if those premiums were doubled, then the NDF would grow to $6.0 billion in approximately 12 years (i.e. by around 2022). This is because EQC premium income is relatively small compared to the size of the NDF.

Therefore, increasing EQC premiums is not an effective way of rapidly increasing the size of the NDF.

Further, EQC premiums should in theory be set at a level where they, over time, match the level of risk being taken on by the Crown in providing disaster insurance via the EQC. In other words, on average and over a long period (given the nature of earthquake risks) EQC premiums plus the income from the NDF investing those premiums should match the EQC's claims payments.

It is not clear that the level of risk the Crown is taking on has increased as a result of the two Canterbury earthquakes (but on the other hand, it is also not clear that the current EQC premiums are set at the correct theoretical level, given there are few sizeable natural disasters).

Finally, it is not clear whether the previous size of the NDF is in fact the right size for the NDF to be in the future. This is a very complex issue. Prior to the September earthquake, Treasury and EQC had been discussing the optimal size of the NDF for some time, without reaching firm conclusions.

Based on the above, and assuming no further major natural disasters, our view is that no immediate action needs to be taken to increase the size of the NDF.

Likely size of the NDF following the September and February earthquakes

Prior to the September 2010 Canterbury earthquake the NDF had assets of around $6 billion, plus $2.5 billion of reinsurance with an excess of $1.5 billion.

At this stage, we don't know the size of claims from the February 2011 earthquake, and we only have an estimate of the size of claims from the September 2010 earthquake. Therefore we don't know what size the NDF will be once all claims from September and February have been paid out.

For simplicity, the rest of this note assumes that the February 2011 earthquake has a cost to EQC (not a total cost) of less than $4.0 billion. If this assumption holds, the NDF will have assets of $3.1 billion available to meet claims from future natural disasters.

The NDF's income and expenses

The NDF receives income from premiums paid by homeowners and income on its investments. Its expenses are EQC's operating costs, claims costs, reinsurance premiums and the Crown underwriting fee. The figures for 2009/10, the last full year, are shown in the table below.

EQC 2009/10	$m
Premium income	86.0
Net investment income	376.8
Total income	462.8

Reinsurance	38.8
Claims costs	45.6
Operating costs	13.2
Crown underwriting fee	10.0
Total expenses	107.6

Net surplus	355.1

As the table shows, EQC had a net surplus of $355.2 million in 2009/10, which was reinvested in the NDF – increasing its size by 6.4%, from $5,571 million at the end of 2008/09 to $5,926 million at the end of 2009/10 (the NDF further grew to around $6 billion by September 2010).

How fast will the NDF grow in the future?

To know how fast the NDF will grow in the future requires assumptions around future investment income and claims costs. In preparing this note we have assumed that:

- EQC premium income and operating costs remain at their 2009/10 levels (i.e. for simplicity, we have not allowed for any inflationary growth – in any case this would make little difference to our results);

- investment income is based on an assumed average rate of return for the NDF of around 6.5%[1] and an NDF which holds around $3.1 billion of assets, which as noted above is its assumed size following the impact of the Canterbury earthquakes;
- claims costs are $60 million, towards the top end of the range experienced over the last 5 years (excluding the Canterbury earthquake) – i.e. we are assuming no further major natural disasters (or even any medium-sized disasters);
- reinsurance costs are $50 million, around 25% higher than the current level;
- there are no further major natural disasters; and
- the Crown underwriting fee is removed (since it does not appear to serve any purpose).

Given these assumptions, the NDF would grow by around $250 million in 2012/13, and by more than that in future years, as the larger NDF would earn more investment income.

We do not have any information on what the cost of reinsurance might be in the future, although in the near term it seems likely to go up. However, EQC has the ability to reduce its reinsurance costs by either purchasing less reinsurance or purchasing a larger excess. For the purposes of this note we have assumed EQC's reinsurance spending increases by around 25%.

How long would it take the NDF to grow to $6.0 billion?

Using the assumptions above, the NDF would reach $6.0 billion in around 15 years, i.e. by around 2025. This is critically dependent on:

- no significant natural disasters over that period which further deplete the NDF; and
- the NDF's investment income over that 15 year period being an average of 6.5% a year.

This is consistent with one of the EQC's sustainability criteria for the NDF, which is that following a major natural disaster, the NDF can be rebuilt within 20 years within current policy settings.

What if EQC premiums increased?

The current EQC premium is 5 cents (+ GST) for every $100 insured. Since the maximum EQC cover is $100,000 for houses and $20,000 for contents, the maximum premium is $60 plus GST per year.

As noted above, this premium currently raises around $86 million for the EQC.

If, hypothetically, EQC premiums were to double, and using the other assumptions above, the NDF would reach $6.0 billion in around 12 years, i.e. by around 2023. This is because EQC premiums are small relative to the size of the NDF, so doubling them makes little difference to the NDF's growth rate.

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[1] According to EQC's 2009/10 Annual Report, the actual investment return in 2009/10 was 6.8%, and in the 5 years to 2009/10 the actual return was 5.2%, versus the target of 7.8%

How big should the NDF be?

This is a very difficult question to answer.

As you know, the EQC has a Crown guarantee. If the assets in the NDF were ever to be fully used up, the Crown would directly meet the costs of any claims against the EQC. This means that the NDF is effectively a risk management tool for the Crown. The larger the assets and reinsurance NDF, the lower the risk that the Crown will have to fund future EQC claims directly. But offsetting this risk, holding assets in the EQC has an opportunity cost (and purchasing reinsurance has a direct cost).

Before the September earthquake, Treasury and EQC had been exploring the appropriate Crown risk preference for the NDF. We had suggested a risk preference of a 1 in 500 chance in any one year of the EQC having to call on the Crown guarantee (note that the two Canterbury earthquakes will almost certainly not result in a call on the Crown guarantee). We estimated that this would require the EQC to have around $6.4 billion available to meet future natural disasters (through some combination of assets and reinsurance). EQC suggested a 1 in 1,000 Crown risk preference, which required the EQC to continue growing its assets for a number of years.

Both Treasury and EQC would want to re-assess their positions (at the appropriate time) on the risk preference for the NDF, in light of the two Canterbury earthquakes.

A further complication in deciding the appropriate size of the assets in the NDF is reinsurance. Purchasing reinsurance is a substitute for holding assets in the NDF, but:

- reinsurance premiums (plus EQC's other expenses) cannot exceed the income available to the NDF, otherwise the NDF would shrink;
- for a given Crown risk preference and therefore desired size of the NDF, purchasing more reinsurance means less assets need to be held, which therefore means the NDF's income is lower. Both these factors mean there is a limit to how much reinsurance the EQC can purchase;
- the NDF needs to hold at least enough marketable assets to cover the excess on its reinsurance, plus a small margin, otherwise in the event of a major natural disaster, the Crown would need to provide cash to the NDF before the NDF's reinsurance started to pay out; and

This means that not only is it difficult to decide what the appropriate Crown risk preference for the NDF should be, it is also difficult to decide what the appropriate balance between holding assets and purchasing reinsurance is, given that risk preference.

Conclusion

Based on the above, and assuming no further major natural disasters, our view is that no immediate action needs to be taken to increase the size of the NDF.

Juston Anderson, Senior Analyst, Sector Monitoring, [39]
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