# NZ Insight: Inflationary risks from Cyclone Gabrielle

16 February 2023



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Our thoughts are with those impacted by these events

# **Inflationary risks from Cyclone Gabrielle**

- Cyclone Gabrielle has devastated many parts of the North Island, and our thoughts are with those who have been (and are still being) affected by this event. It comes on top of significant floods in Auckland.
- The economic cost of the cyclone is, as yet, impossible to quantify. But the sheer number of people and the area impacted point to a significant effect on economic activity. First there's the near-term disruption and destruction (eg agricultural production), but in the longer term, there's the repair and rebuild that will happen over 2023 (and beyond).
- The impacts of the cyclone point to clear upside risks to inflation.

  Construction costs, rents, insurance, furniture, and food prices (among others) could all face further upward pressure due to the cyclone.
- There's not much monetary policy can do to help in an event like this –
  the response is best left to fiscal policy, which is faster acting and can be
  targeted where it's needed most. At the margin, although its inflationary,
  this disaster reinforces our expectation that the RBNZ will 'only' hike 50bp
  next week, rather than the 75bp they signalled in November.

#### Introduction

Cyclone Gabrielle has devastated much of the North Island, causing fatalities, serious damage to housing, productive land, businesses and infrastructure, and disruption to a significant proportion of the New Zealand population. Thousands of people have been displaced from their homes, and at one point, around 225,000 homes were reported to be without power.

The cyclone has left a trail of destruction from Northland to the east coast of the North Island. It comes on top of a serious flooding event in Auckland. And at the time of writing, Hawke's Bay is under a thunderstorm warning. Though it's early days, with an RBNZ decision looming next week, it's not too early to start to weigh up the potential economic cost, and how much this will add to an already intense domestic inflation problem.

### Growth likely to take a(nother) hit in the near term

It's far too early to have an accurate sense of the overall dollar cost associated with the Auckland floods and Cyclone Gabrielle. But it's clear that destruction has been widespread, with houses damaged or destroyed, businesses flooded, 15 bridges gone, roads covered or wiped out by slips, crops destroyed, electricity out for weeks in Napier, and logging operations halted. All of these factors will weigh on economic activity in the March quarter, posing downside risk to our current forecast that GDP expanded 0.1% q/q. GDP could easily shrink in Q1 and activity in Q2 is also likely to be affected (Q2 starts in six weeks).

Lower GDP would simply mean we didn't produce as much output in Q1 as we did in Q4. A lot of that lost production is indeed lost, as opposed to deferred (eg destroyed crops). But the much costlier impact of the cyclone is that it has reduced the capital stock (ie the tools we use to generate output/GDP). This ranges from lost and damaged equipment (farm machinery, buildings etc) to damaged roads and bridges, drowned substations and other damaged infrastructure, and even topsoil.

Replacing/repairing homes, businesses, and infrastructure will, from a national accounts perspective, likely boost GDP growth over 2023 and beyond (figure 1). But given that much this activity will simply be to replace/repair what was damaged and get us back to square one, it's hardly 'quality' GDP growth. It will also be massively expensive, and likely inflationary, given many key sectors (including construction) have been struggling to manage significant capacity constraints over the past year or so.

Stronger activity (higher GDP) as repairs and rebuilds get underway

Less activity (lower GDP) in H1 due to cyclone distruption

Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1

— ANZ forecast — Possible cyclone impact

Figure 1. Stylised impact of recent weather events on GDP growth

Source: Stats NZ, Macrobond, ANZ Research

Note: We have purposefully removed the numbers on the y-axis, since at this point there's really no way to accurately calibrate how large the impact of the cyclone may be. The point of the chart is to highlight the possible dynamic profile.

So what are some specific economic impacts we might expect to see? A useful starting point is the impact of the Canterbury earthquakes in 2010 and 2011. The Canterbury earthquakes were clearly a very different type of disaster. However, stepping through some of the key similarities and differences provides a useful way of thinking about the economic implications, both in the near term and over the next few years.

### A larger proportion of the population has been affected

When the Canterbury earthquakes struck, the region made up just over 13% of New Zealand's population. By comparison, combining the Auckland floods and Gabrielle, we've seen significant disruption and damage across the Northland, Auckland, Waikato (which includes the Coromandel), Bay of Plenty, Gisborne and Hawke's Bay regions. In total, these regions represent 58% of the New Zealand resident population (figure 2).

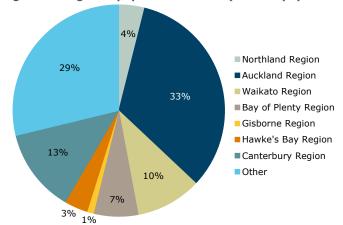


Figure 2. Regional population shares (% total population)

Source: Stats NZ, ANZ Research

While some areas have been seriously impacted by flooding and slips (for example the Coromandel, Napier, and Hawke's Bay), the overall impact of Gabrielle and the Auckland floods for many people has not been nearly as severe as the Canterbury earthquakes. Much of Auckland has no meaningful damage at all. However, the disruption and damage has been spread over a significantly larger proportion of the population. This suggests that even if the average amount of damage inflicted was much less than the earthquakes, the overall cost could still be very significant for New Zealand.

### The construction sector is already overworked

Depending on how many properties have been damaged or destroyed across the upper North Island, we could also be looking at significant extra demand pressure being placed on the construction industry – an industry that has been battling with crippling capacity constraints over the past few years. To be sure, we have seen forward-looking indicators of construction activity soften (construction intentions in our Business Outlook Survey have tanked, and building consents are turning down). But the current level of residential building activity is still elevated relative to previous years (figure 3), and the additional demand created by cyclone impacts could well put further upward pressure on construction costs.

Figure 3. Real quarterly residential investment 4.5



Source: Stats NZ, Macrobond, ANZ Research

Figure 4 shows the impact of the earthquakes is clear; construction cost inflation in the Canterbury region vastly exceeded the rest of New Zealand

in the first half of the 2010s.



Source: Stats NZ, Macrobond, ANZ Research

As a result of the earthquakes, over 7000 homes were red stickered. The difference between New Zealand (dark blue) and New Zealand ex-Canterbury (light blue) highlights that the earthquakes had a significant impact on the national estimate of construction costs in the CPI. The impact was also very persistent, representing a sustained increase in inflationary pressures over several years.

It's also worth noting that the earthquakes happened shortly after the Global Financial Crisis, and the New Zealand construction sector was in a slump. In contrast, we're just at the tail-end of a housing boom. So there's a risk that the inflationary impact of Gabrielle could be larger, given the cyclical position of the construction sector.

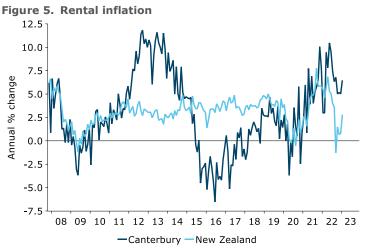
The average amount of damage to property as a result of the Auckland floods and Gabrielle is likely to be far less than what was inflicted on Canterbury by the earthquakes (ie in most cases repair, rather than rebuild), but given how many people live in impacted regions, it could still put significant additional pressure on the building industry. Thousands of people have been displaced by the flooding and land damage, and it's unclear at this point how many homes will not be fit to return to.

Construction costs for housing make up a whopping  $\sim \! 10\%$  of the CPI, and have been one of the biggest contributors to the surge in New Zealand inflation since 2021. Extra demand pressure in the construction industry represents a material upside risk to non-tradables (ie domestic) inflation pressures – and one that could be fairly long lasting.

Then there's the impact on infrastructure, which is far more widespread than the Canterbury earthquakes, given how many regions were affected by the cyclone. Not only does this jam up the transportation of goods (and people) around the North Island, but it will also be costly and resource intensive to fix. Regions with relatively small populations are looking at large repair bills. The experience of Nelson in 2022 shows that damage to local road networks is extremely disruptive, and very expensive to fix. And we need to not only repair, but upgrade for resilience.

### Damaged housing could put upward pressure on rents

Another economic impact of the Canterbury earthquakes was to create a surge in rental inflation, given the destruction of significant amounts of housing stock. Rental inflation rose to double-digit levels in Canterbury over the first half of the 2010s (figure 5). As the rebuild progressed, the region also saw a significant period of outright declines in rent prices.



Source: Stats NZ, Macrobond, ANZ Research

Given that the vast majority of houses in regions impacted by the recent weather events are still habitable, we are unlikely to see the same pressure on rents as was triggered by the Canterbury earthquakes. But at the margin, rental inflation may be higher than otherwise (especially if home owners attempt to claw back repair costs by lifting rents). Again, this is a large CPI component (around 10%) so any upward pressure on rents generated by the impact of the cyclone would represent another upside risk to domestically driven inflation.

### Insurance costs may rise

Not surprisingly, insurance premiums surged after the Canterbury earthquakes, and to a lesser extent after the 2016 Kaikōura earthquake (figure 6). Further increases in insurance premiums in the wake of the cyclone would add to CPI inflation. However, dwelling insurance represents just 0.7% of the CPI basket. And insofar as higher insurance premiums suck spending power out of the economy, the impact on CPI inflation may not be particularly significant. More economically significant is the fact that higher premiums are likely to increase the number of people who are underinsured, a growing problem in a riskier world.

45 Canterbury 40 earthquake 35 Kaikoura Annual % change 30 earthquake 25 20 15 10 5 0 -5 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 **−**Dwelling Insurance **−**Contents Insurance **−**Life Insurance

Figure 6. Insurance cost inflation

Source: Stats NZ, Macrobond, ANZ Research

### Food prices an additional pressure point

- Health Insurance - Vehicle Insurance

Something that makes the recent weather disasters different to the Canterbury earthquakes is the impact on the agricultural sector. Pukekohe and Hawke's Bay are key regions for the production of fresh fruit and vegetables, and the reporting out of these regions suggests significant damage to not only many crops but also to productive land, with top soil stripped away or smothered in deep silt due to flooding. While much of the Hawke's Bay's agricultural output is exported, this nonetheless points to a significant risk that food price inflation (which make up a massive 18% of the CPI) could increase further from already elevated levels (figure 7). Early reporting suggests the damage to the topsoil caused by flooding in the Hawke's Bay region could take decades to fully repair, impacting the longer-term productivity of the land.

12.5 10.0 Annual % change 7.5 5.0 2.5 0.0 -2.5 00 02 04 06 80 10 12 14 16 18 20 22 24

Figure 7. Food price inflation in New Zealand

Source: Stats NZ, Macrobond, ANZ Research

### A large and persistent impact

While it's still too early to accurately gauge the overall economic impact of the Auckland floods and cyclone Gabrielle, it's increasingly clear that these events will have a large impact on the economy - and one that could last for some time. Looking first at the implications for inflation, we see potential upside risks to construction costs (10% of CPI), rents (10% of CPI), insurance (0.7% of CPI) and food prices (18% of CPI). Other pressures are also likely, for example the household contents and services group (which is where items like furniture come in).

Impacts obviously go well beyond prices. If the Canterbury earthquakes are anything to go by, we could be feeling the economic reverberations for years. In the wake of the earthquakes, CPI inflation in the region remained higher than the national average until 2015 (figure 8). And as the upper South Island has also found in the wake of the 2022 floods, it can be difficult and time consuming repairing infrastructure in more remote areas of the country. And in the meantime, closed roads and damaged infrastructure hamper the ability of affected regions to go about daily life, constraining economic activity right when it's needed the most.

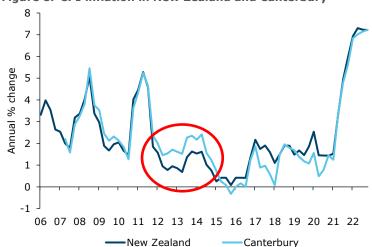


Figure 8. CPI inflation in New Zealand and Canterbury

Source: Stats NZ, ANZ Research

Once we're through the initial negative impacts of the floods and cyclone on activity, the clean-up, repairs, and rebuilding efforts will likely inject further demand into the economy. Higher infrastructure spending, which will be necessary in the wake of this disaster, will add to labour demand and wage inflation in affected regions. On the other hand, longer-term damage to productive land could have lasting impacts on our ability to produce food, and therefore lead to higher prices and reduced exports than otherwise.

And then there's the significant additional spending that will be needed in coming years to make our towns and cities more resilient to these kinds of events. Climate change is only going to make these events more frequent, and we need to be better prepared to face them. But that's all resources that could have been used for something else that takes the country forward, rather than maintaining the status quo. It might boost GDP but it's not a win.

### Monetary policy implications

The impacts of cyclone Gabrielle are clearly going to be inflationary in both the short and medium term. However, in normal times, this would likely be one of those events that the RBNZ would initially choose to look through, given that it is a truly exogenous shock that has nothing to do with the domestic business cycle. And hiking interest rates in response to a natural disaster is pretty counterintuitive, even if it is an inflationary event.

However, given the current high inflation environment, the RBNZ faces a difficult choice. Continuing to aggressively hike rates to counter high inflation will further impact people who are really struggling right now. But if they go easy on inflation and let inflation pressures re-accelerate, then they could end up causing even more interest rate pain later as they struggle to get back on the front foot in the fight against inflation.

In our view, this difficult trade-off points to the RBNZ maintaining their focus on inflation, but 'only' hiking 50bp next week, rather than the 75bp implied by their November MPS forecast. The human and emotional cost of the floods is immense, and the RBNZ will be mindful of that. But the reality is that fiscal policy is far better suited to responding to this crisis, given the ability to deliver immediate (and crucially, targeted) support to those who need it most. Monetary policy is a blunt instrument – the OCR tool can't do anything to meaningfully help those devastated by this disaster. And any deviation from the course now may have deeper ramifications later.

That being said, we certainly can't rule out that the RBNZ will feel compelled to do something more significant (eg only hiking 25bp, or even postponing the next rate hike until the April meeting). The Monetary Policy Committee did, after all, delay the start of the current hiking cycle back in August 2021, when Auckland went into COVID lockdown the day before the MPS. However, they regretted that. And there's something to be said for the RBNZ minimising volatility during these trying times, and hiking 50bp (which is widely expected by analysts and markets) would create the smallest ripples.

Pausing or hiking by only 25bp following November's 75bp hike risks sending all the wrong sorts of messages to markets in the face of a natural disaster that poses clear upside inflation risks. The global inflation vibe is also changing, and with markets now attentive to the risk that inflation may prove to be stickier than first thought, they are starting to price out the prospect of a turn in the monetary policy cycle and cuts later in the year. Pausing or hiking by 25bp risks unwinding all that 'good' work that markets have done in aligning their expectation with central bank rhetoric.

### What other policy levers could the RBNZ (or Treasury) pull?

One obvious lever the RBNZ might elect to pull could be to reduce the pace of, or even suspend, quantitative tightening (or QT, the sale of bonds the RBNZ acquired via the Large Scale Asset-purchase Programme, or LSAP for short).

These sales have been off-market (to the Treasury) and haven't directly affected the bond market (in that the bonds the RBNZ sells aren't then simply on-sold by the Treasury). Given that QT sales are off-market, and it's a multi-year process, altering the pace of QT wouldn't have a huge (or immediate) impact on overall monetary conditions. But it would relieve markets of the \$5bn funding burden that QT places on New Zealand Debt Management (NZDM), who manage the Crown's debt portfolio. If this disaster results in the Treasury having to issue a lot more bonds, it may be advantageous to not have to fund QT at the same time.

We say that because at the moment, NZDM is forecast to issue \$28bn of bonds this fiscal year and \$30bn in fiscal 2023/24 and 2024/25. Net of RBNZ LSAP purchases (which take pressure *off* bond markets), that's a record amount of bonds that the market needs to absorb (figure 9).

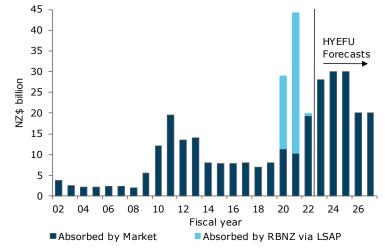


Figure 9. Absorption of New Zealand Government Bond (NZGB) issuance

Source: Stats NZ, ANZ Research

So far there haven't been any major problems, but we have seen two failed tenders since December (where NZDM hasn't been able to get its full volume of bonds away at its weekly tenders). That hasn't happened in a decade, and while it's all very technical, it's potentially a sign that the market is running at the limit of how many bonds it's willing to absorb each week.

To be clear, what we're saying is that we see this as a possibility, rather than a lever we expect the RBNZ and the Treasury to pull immediately. With the magnitude of the damage still unclear, it's likely too soon to expect a tweak to QT at next week's MPS, but it could be something that's considered down the track once the additional funding burden is better understood.

We are also mindful that it isn't something the RBNZ would want to do lightly. It's not ideal for the RBNZ's balance sheet to be so large for such an extended period of time, and they have expressed an intention to manage it down slowly. In addition, the Memorandum of Understanding (MOU) between NZDM and the RBNZ that was signed to manage the QT process states that "If it considers necessary in light of market conditions, the Reserve Bank may alter, halt or cease Sales at any time". However, the

MOU goes on to say that "the parties do not foresee any such changes to be common, and intend that any halt of sales would only occur for a maximum of one calendar month". But of note, the wording specifically mentions the halting of sales, not any variation of sales.

There is also a bit of wiggle room elsewhere, with the MOU also stating that "The Reserve Bank and NZDM will continue to collaborate closely in relation to all matters to which this Memorandum of Understanding refers, and more broadly to ensure the efficient functioning of the New Zealand Government Bond market." If NZDM determine that the bond market will struggle to absorb more than \$28bn of bonds per year, but that is looking likely to be required, that might reasonably be seen as constituting a risk to the efficient functioning of the market, which in turn, might constitute reasonable grounds to revise the QT timetable (and the MOU). Given the unprecedented nature of the Gabrielle disaster, we suspect the Government (working in collaboration with the RBNZ) will be keen to keep all options on the table.



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