

WESTPAC ECONOMIC BULLETIN

A primer on foot-and-mouth disease.

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Very low risk, but potentially very big and very bad.

- A foot-and-mouth outbreak in Indonesia has raised concerns of an outbreak in Australia and by close proximity here in New Zealand too.
- The risk of an outbreak in New Zealand remains very low – New Zealand has long taken a strict approach to the threat of this specific disease.
- But the consequences of the virus getting established on our shores and farms would be large.
- The potential costs could reach into the tens of billions of dollars, and a major outbreak would tip the economy into a deep recession.
- That said, New Zealand is well prepared to deal with any incursion and has been tightening its biosecurity appropriately in response to the higher threat.

What is foot-and-mouth disease?

Foot-and-mouth disease (FMD) is a serious and highly contagious animal disease that affects all cloven-hoofed animals including cattle, sheep, goats, camelids, deer and pigs. Cloven-hoofed animals are those with divided hooves, so it does not affect horses or zebras.

FMD is an animal health disease and is not considered a risk to human health nor does it a food safety risk. Infection in humans is extremely rare with only minor symptoms documented.

FMD virus is carried by live animals and in meat and dairy products, as well as in soil, bones, untreated hides, vehicles and equipment used with these animals. It can also be carried on people's clothing and footwear and survive in frozen, chilled and freeze-dried foods.

What's happening?

FMD is present in Asia (including Indonesia), the Middle East, Africa, and parts of South America. In May 2022, an outbreak of FMD was reported in cattle in Indonesia and has since spread to Bali. For Australia, this is particularly relevant as over a million Australians travel to Bali each year.

Viral fragments of foot-and-mouth disease have been found in beef brought in by a traveller at an Australian airport and in pork products at a Melbourne retailer.

How could it get here?

FMD virus is most likely to be introduced via the border through contaminated, illegally imported animal products or through objects (e.g. footwear) contaminated with the virus, that come in contact with susceptible animals.

How likely is an incursion?

An incursion is unlikely. New Zealand has never had FMD. According to Biosecurity New Zealand, “although the risk of the recent outbreak in Indonesia to New Zealand remains low, we remain on high alert.” Moreover, “New Zealand’s biosecurity system has the most stringent requirements in the world aimed at preventing FMD, but it was important to keep reassessing protections.”

What are the economic implications?

New Zealand has a large livestock sector, and together meat and dairy represent New Zealand’s largest and second-largest export categories. In the June 2022 year, meat and dairy exports totalled \$27.9bn or 41% of total goods exports.

With this in mind, an outbreak on our shores and farms would have severe economic and animal health consequences. The Ministry for Primary Industries (MPI), in modelling from 2013, noted that the key impacts and containment measures included the following, based on “small” scale and “large” scale FMD incursions:

- **Livestock destruction** of between 10 million and 23 million. For comparison New Zealand had around 42 million sheep, cattle and deer in June 2011. However, the majority of the livestock destroyed would be lambs (i.e. not included in the June livestock population count);
- **A trade ban** by importers on New Zealand meat and dairy lasting approximately between four and 12 months, with return to normal trade levels within another 6-12 months or so. The impact on the meat export trade would be more severe (and longer lasting) than the impact on dairy export trade.
- **Stock movement restrictions** around the location outbreak and surrounding regions to limit the spread of FMD.
- **A vaccination programme** to limit the FMD spread and speed up resumption of export trade.
- **An early end to the milking season** (depending on the timing of the outbreak) and subsequent loss of milk production. Milk processors would also double-pasteurise milk as an added precaution.

In turn, MPI estimated that these impacts and measures would lead to:

- **Lost export earnings** from an outbreak could range from \$4.7bn to \$14.7bn. Simply accounting for CPI inflation (and not accounting for other movements like the change in the value of meat and dairy exports since then) puts the potential costs at \$5.7bn and \$17.9bn in current dollars.

NZIER also estimated (in the same study) that:

- **Real GDP would fall by 7.8% in the first year** of the “large” scale event scenario relative to the case of no outbreak;
- **Employment would fall by 5%;** and
- **The real exchange would fall by over 20%.**

Unsurprisingly, most of the impact would fall on the primary sector and agricultural processors.

The NZIER modelling did not specify a monetary or fiscal policy response, but we expect that both would look to provide stimulus. While the initial impact would likely be higher inflation, due to the fall in the exchange rate, the correct response for policymakers would be to look through this to the impact on employment and incomes over the medium term.

Preparedness – is New Zealand ready?

Given the potential damage to the New Zealand economy, New Zealand is appropriately well-prepared for FMD (also see above the Biosecurity New Zealand statements). It is worthy to note that New Zealand has never had an outbreak, helped by its strict biosecurity controls. Its relative isolation may also be another factor that has aided controls.

New Zealand has already had a dry run. In 2005, a letter to the Prime Minister led authorities to issue “a controlled area notice” which restricted the movement of livestock and risk material on and from Waiheke Island (a 95km² island 40km from the Auckland CBD). While the letter turned out to be a hoax, the New Zealand authorities have at least had a chance to test their incursion response procedures in the event of an actual outbreak.

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