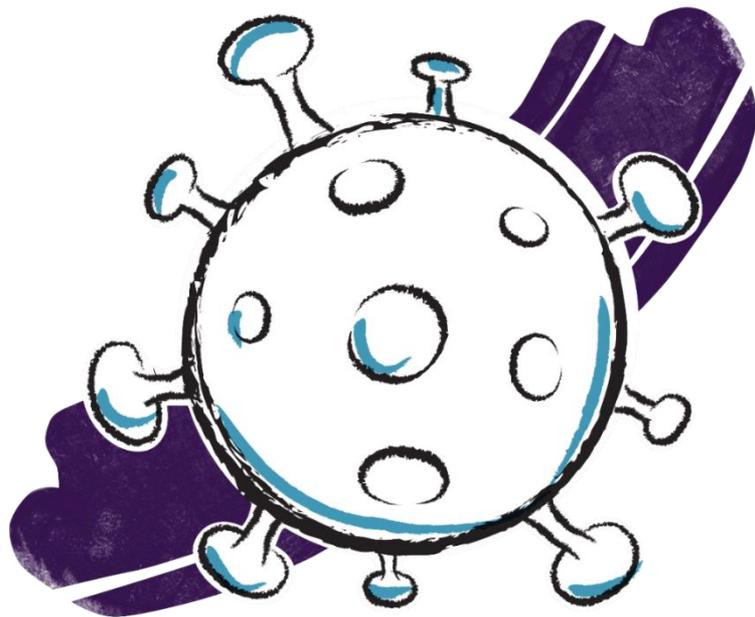


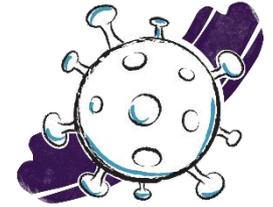
Halfway there? Covid policy trade-offs to inform NZ's approach in 2021



Dave Heatley

Presentation to LEANZ, 17 December 2020

Views expressed are my own



Presentation summary

What do we now know that we didn't know back at the start?

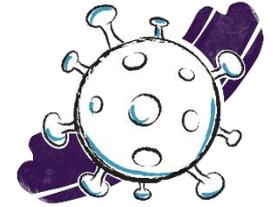
- Covid not well characterised as a simple health vs. the economy trade-off

Policy trade-offs are everywhere

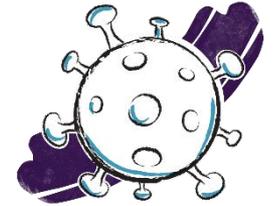
- we can expect further issues requiring difficult trade-offs

Good policy development acknowledges & addresses trade-offs

- and uses the best analytical tools available to inform decision makers



What do we know now that we didn't know back at the start of the pandemic?



It's now clear that

Pandemic will run for years

- most of the world's population yet to be infected

Improved tech & knowledge of policy costs & effectiveness

- lockdowns very costly, but so are uncontrolled outbreaks
- better treatments, contact tracing & isolation

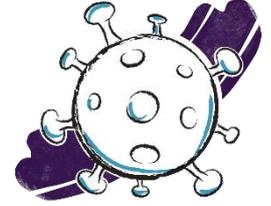
Borders are not impregnable

- “elimination” has turned out to be a temporary state between ongoing outbreaks

NZ is not a global priority for early vaccine deployment

- full vaccination is months to years away

Uneven impacts: Wellington OK, South Island tourist towns not OK



Wellington 23 March



Queenstown 3 December



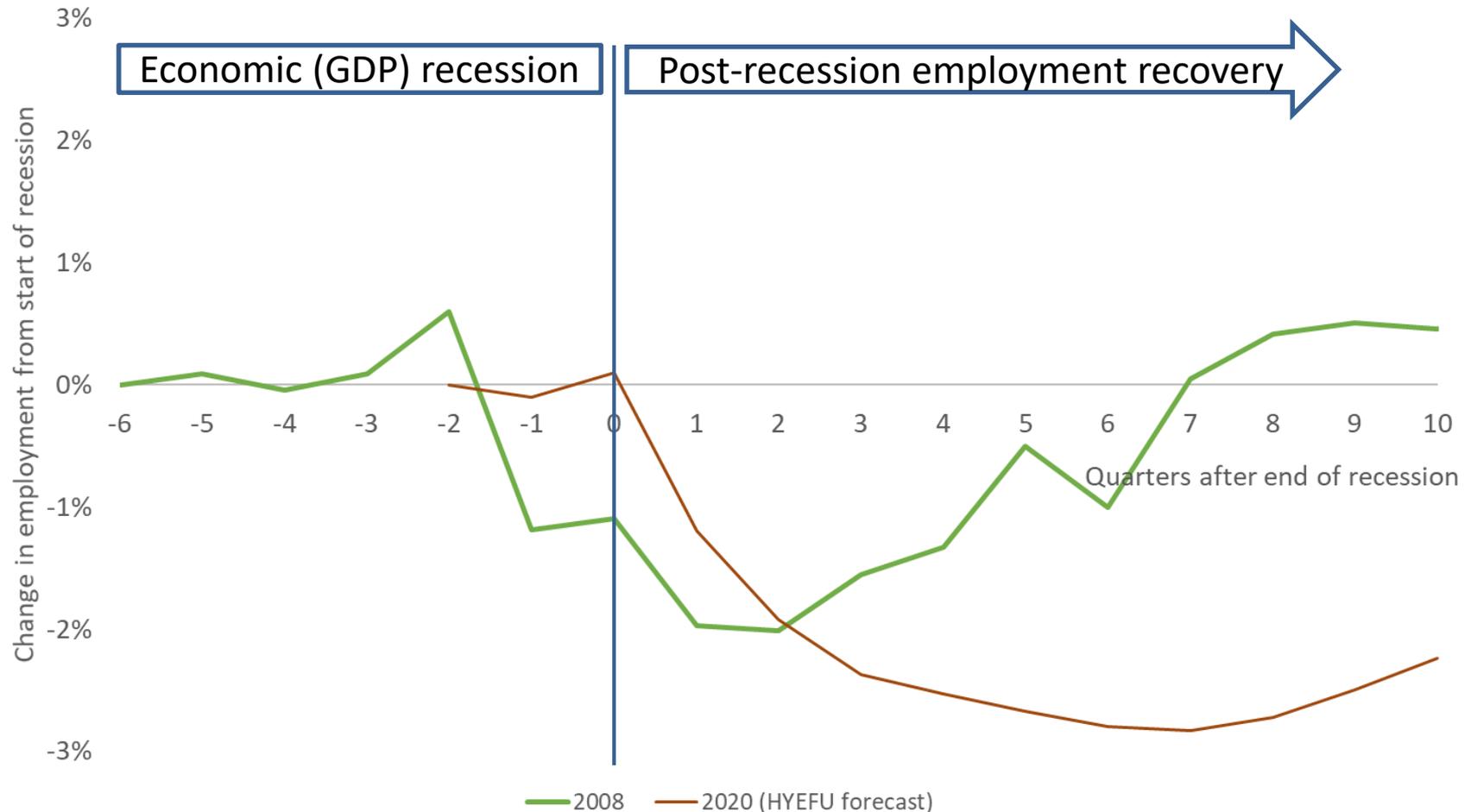
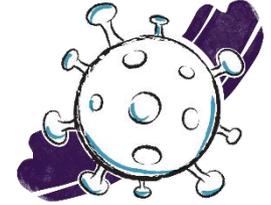
Wellington 15 December



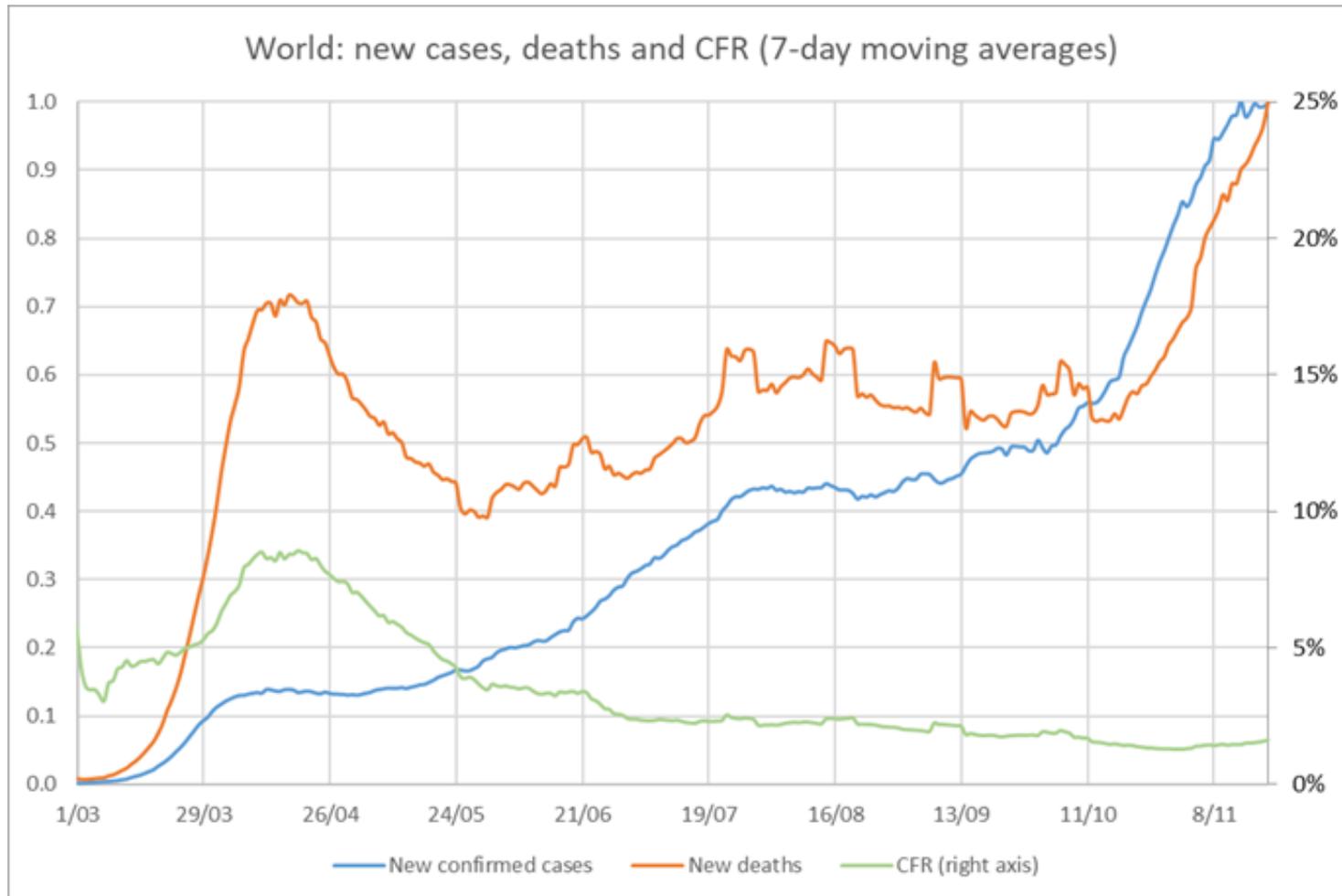
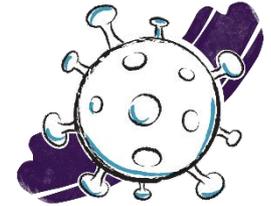
Te Anau 5 December



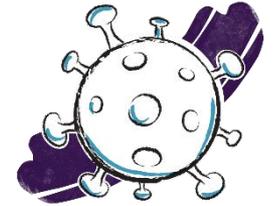
Worst yet to come? Employment bottoms out *after* recessions end



Covid is becoming less deadly: The case fatality rate has fallen 2/3

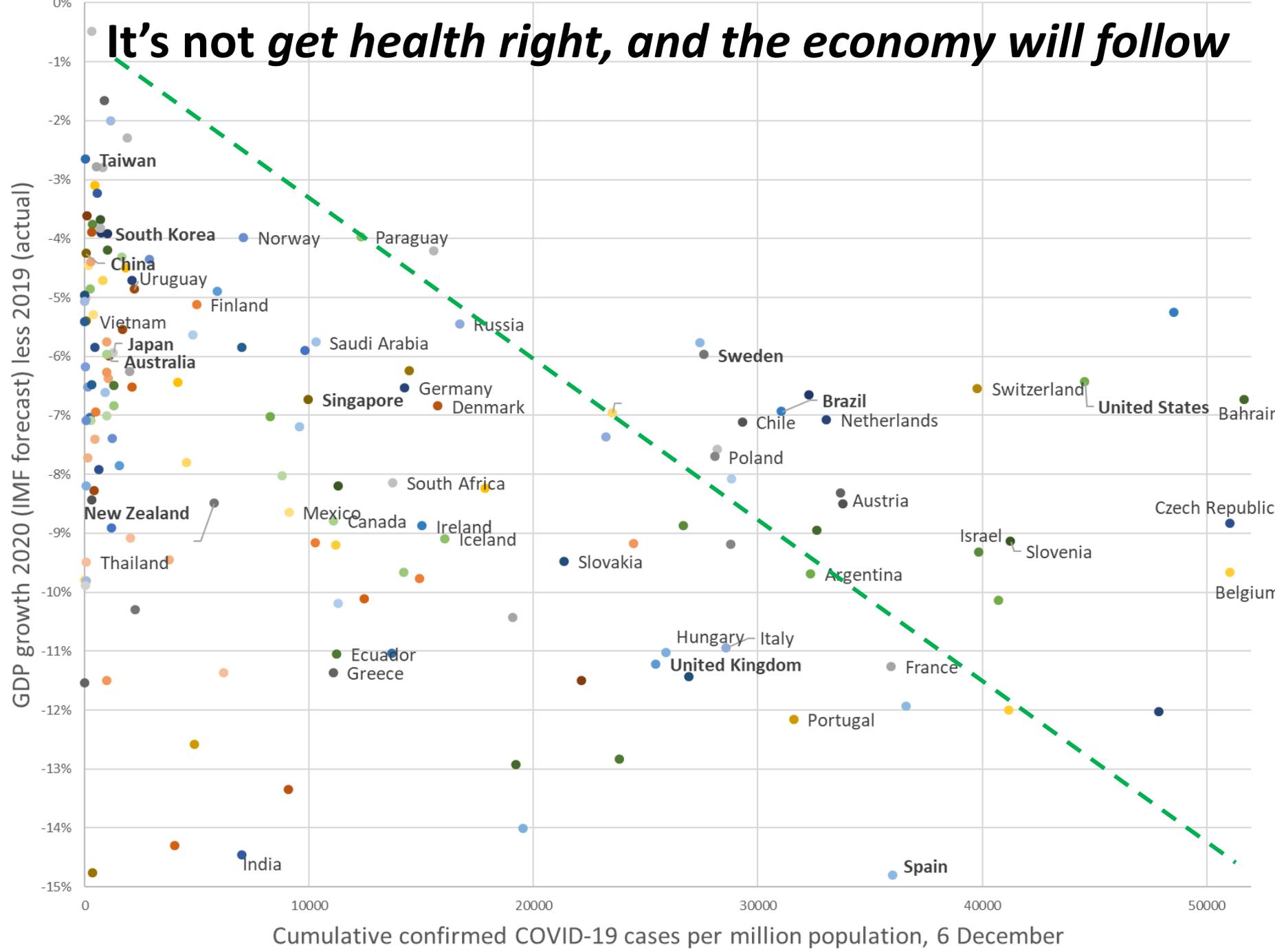


- Likely better treatment, & improved isolation of vulnerable populations

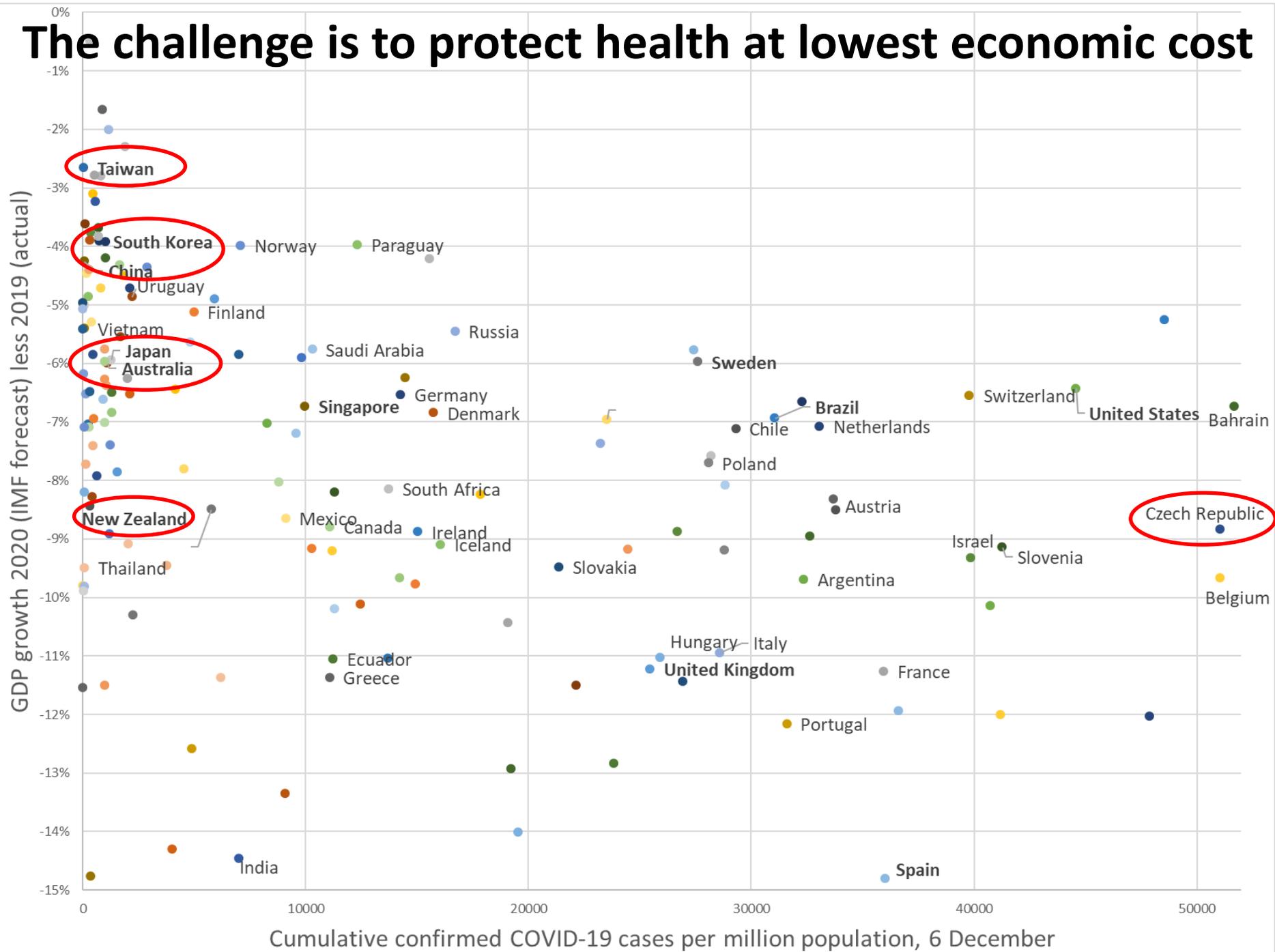


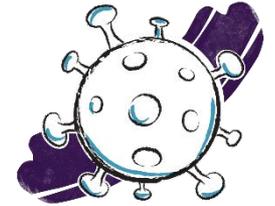
Covid policy is not a simple health vs. the economy trade-off

It's not *get health right*, and the economy will follow



The challenge is to protect health at lowest economic cost

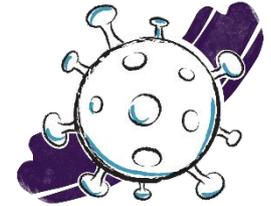




To protect health at lowest economic cost, we need to acknowledge & manage policy trade-offs

We can anticipate many future policy decisions that will require trade-offs

Time trade-offs: health costs now vs. health costs later

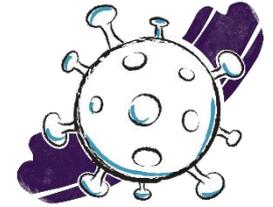


A health cost is an economic cost

An economic cost is a health cost

Lockdowns, border closures and social distancing have indirect health costs

Normal health economics practice is to quantify all such costs using quality-adjusted life years (QALYS)



Border policy trade-offs

A partly closed border helps protect those in NZ

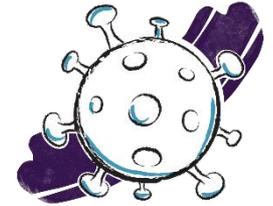
Current policy accepts some risk of Covid transmission, but doesn't eliminate it

- ~11 outbreaks since July from the border into NZ community
- 1 of those outbreaks led to the Auckland lockdown (~\$5bn cost)

Shorter stays in quarantine for those arriving from low-risk countries could lower costs for minimal increased transmission risk

Isolating at home could lower both risk and cost

- quarantine is risky due to cross-infections



Lockdown trade-offs

Future outbreaks are likely & rapid community transmission possible

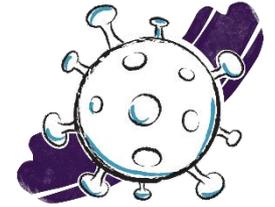
- lockdowns are a costly response, but are effective in reducing virus transmission
- virus-spread uncertainty reduces quickly during a lockdown

Optimal policy includes

- fast imposition (for a real possibility of uncontrolled virus spread)
- quick release (once uncontrolled virus spread is unlikely)

The timing of release from lockdown is a trade-off

- a certain cost from an extension vs. the cost of a re-imposition (if needed)

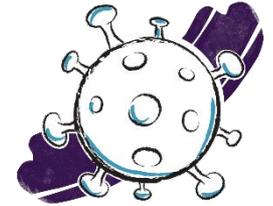


Information trade-offs

Single & consistent messaging encourages public compliance with virus-control measures & builds trust in government & “experts”

- can be valuable in a crisis, but suppresses alternative ideas

Over the medium-to-long term, plurality of analysis & advice refined by contest and cooperation, finds the best solutions to complex problems



Vaccine distribution trade-offs

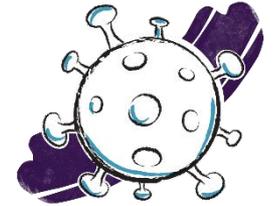
The best strategy for distributing limited quantities depends on the circumstances a country faces

- for most countries, it is health workers then the elderly
- arguably NZ should start by using vaccines to help keep Covid out of the community

This suggests the first vaccines should go to border workers (quarantine staff, air crew, etc.)

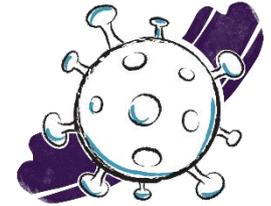
- they have the most contact with infected people
- they are the most likely vector for future outbreaks

After the first round of vaccination, there are still trade-offs to be made



What tools can better inform decisions with trade-offs?

Cost-benefit analysis is the gold standard



Difficult to apply quickly

- but you can start early if you can anticipate needing to make a decision
- CBA should consider real options if uncertainties are high

Can also use it ex post

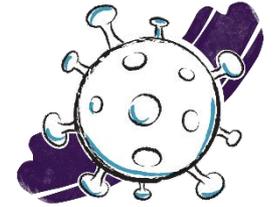
- learnings can inform future decisions

Cost effectiveness analysis also useful

- but relies on the presumption that the goal is socially worthwhile

Multi-criteria analysis deals poorly with trade-offs

- and is not replicable



Summary

Covid is both a health crisis and an economic crisis

- these cannot be separated
- optimal policy should address both

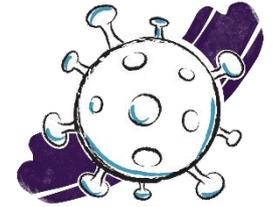
Publicly visible economic analysis of policy decisions has been limited to date

- taken as a whole, they support the observation that NZ has incurred more costs than necessary in achieving its Covid-related health outcomes to date

Trade-offs haven't gone away, we know at least some of those that are coming

We need to bring our best tools to bear on them, including cost-benefit analysis

Economic analyses of NZ Covid policy 1



Tony Blakely, Michael Baker & Nick Wilson (April 2020)

- *considering all differences in costs between attempted eradication versus flattening the curve ... society might be prepared to spend up to \$650 million to \$2.48 billion more to 'give eradication a go' [Note: we've now spent much more than that!]*

Bryce Wilkinson (April 2020)

- *spending 6.1% of annual GDP might be justified if it saved the 33 600 Covid-19 deaths epidemiologists advised the Ministry of Health could result were the pandemic left 'substantially uncontrolled'*

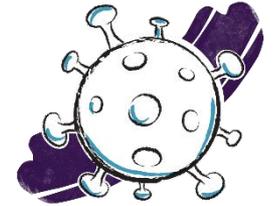
Ian Harrison (April 2020)

- CBA of closing down construction in March-April
- estimated costs of \$3bn for benefits of just \$7.6m

Dave Heatley (May 2020)

- ex ante CBA of decision to extend level 4 by 5 days
- costs outweighed benefits by ~95:1

Economic analyses of NZ Covid policy 2



John Gibson (June 2020)

- observed differences in US counties, implying that NZ suffered large economic costs for little benefit in terms of lives saved

Martin Lally (June-October 2020)

- ex ante and ex post analyses show NZ policy decisions inconsistent with generally used values for a QALY

Davies & Grimes (August 2020)

- largely theoretical exploration of real options analysis

Te Pūnaha Matatini (November 2020)

- ex post cost-effectiveness analysis of the August Auckland level 3 lockdown in achieving a specified likelihood of elimination
- a shorter level 4 had similar (near-term) economic costs