Vaccinating the Economy Against Covid-19: Ex Post Revenue Insurance for Firms and Households to Sustain Economic Confidence and Aggregate Demand

Richard Meade*
Auckland University of Technology & Cognitus Economic Insight

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Abstract

The Covid-19 pandemic risks causing a major collapse in "economic confidence" – i.e. the beliefs of firms and households that all other firms and households will maintain their economic activity – and hence in aggregate demand. Economic responses like wage subsidies may prove inadequate for sustaining confidence due to their limited scope, and because their high cost makes them unsustainable. An alternative is ex post revenue insurance, enabling firms and households to borrow against their own future incomes to top up current pandemic-related income shortfalls. Making such loans repayable through future tax surcharges (along the lines of existing student loans schemes) is administratively feasible, and likely to be both more effective and affordable – and inter-generationally equitable – than existing support measures. Government pre-committing to making such loans available for as long as they are necessary should maintain economic confidence and aggregate demand, minimising the pandemic's economic harms.

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1 Introduction

The Covid-19 pandemic presents multiple policy challenges. Foremost is protecting vulnerable populations against loss of life, particularly while effective vaccines or treatments are lacking. However, the economic costs of both disease outbreaks and pandemic counter-measures cannot be ignored, and policymakers worldwide face the difficult challenge of minimising harms to economies that could have serious implications for future health and wellbeing.[1]

This policy paper aims to diagnose the key economic challenges presented by Covid-19, and assess the efficacy of existing economic responses – taking the need for public health responses as given. It proposes an alternative approach that seeks to maintain "economic confidence" – during a widely-experienced crisis of unknown course and duration – through the use of ex post revenue insurance for both households and firms. Such insurance could minimise pandemic-induced falls in aggregate demand and long-term economic harms.

The paper focuses on New Zealand's economic challenges and responses, and institutions that might support the proposed alternative response. In many cases, however, these are shared with other developed countries, so the policy prescriptions for New Zealand should have relevance more widely.

2 The Problem with Covid-19

Covid-19, and responses thereto, have obvious supply-side impacts. Global supply chains have been upset due to lockdowns, border closures, and disruptions to logistics (e.g. loss of shared air cargo capacity, as passenger air travel has collapsed). Likewise, people-facing enterprises – e.g. hospitality, tourism, education – have struggled to serve clients who are either subject to lockdowns or border restrictions (e.g. international tourists and students), or who voluntarily self-isolate to minimise infection risk.

Unlike natural disasters, productive capacity is not physically impaired. Rather it is impaired in productivity terms by being forced to operate at reduced capacity, in inefficient ways,[2] or at higher cost.[3] A danger is that

[1]This highlights possibly subtle, but nonetheless significant, inter-temporal trade-offs in excess mortality – i.e. saving lives now by controlling spread of the virus, but possibly losing lives later through compromising the economy (e.g. reducing resources available to future health systems).

[2]For example, due to physical distancing of workers.

[3]For example, due to needing to use personal protective equipment (PPE).

short-term crisis – if not adequately addressed – could lead to longer-term capacity loss due to business closures.

Demand-side impacts, however, are likely to be more generally critical.[4] These include possible collapse in households' demand for the products and services supplied by firms, and also in firms' demand for productive inputs – notably household labour.[5] This highlights the critical inter-dependency between households and firms – neither can flourish if the other is languishing. Firms rely on households for demand, and households depend on firms for employment income enabling purchases from firms.

At the heart of the pandemic's economic impacts is the risk it poses to "economic confidence". I take that to mean the beliefs households and firms form about the likely behaviours of other households and firms in the face of the pandemic. How those beliefs are formed is critically affected by the widespread and far-reaching nature of the Covid-19 shock.

While economic recessions commonly affect all households and businesses, Covid-19 hits the confidence of all household and firm – globally – with a *severe* and *highly correlated* economic shock.[6] It also creates *novel uncertainties*, such as whether or not effective vaccines or treatments will eventuate, how long the disruptions will continue, and how often and how long measures like lockdowns will be required.[7]

When households and firms form beliefs about *other* households' and firms' likely behaviours, the pandemic presents a coordination problem similar to a prisoner's dilemma. If all such agents continue as much as possible to engage in economic exchange (i.e. buying and selling firm outputs and productive inputs), the decline in aggregate demand can be minimised. That way business failures and worker layoffs can be kept in check, and subsequent rounds of cascading failures and layoffs limited.

Conversely, if agents conclude that others will react cautiously to the pandemic, with firms laying off workers and households limiting expenditures, they face incentives to do likewise (rather than be the only firm or household

[4] Independently of Meade (2020), Milne (2020) argues likewise. He also distinguishes the current crisis from the Global Financial Crisis (GFC), which presented the risk of financial sector crisis being transmitted to the real economy. Here the likely transmission path is in the opposite direction.

[5] To these might be added the impact on firms' demand for the outputs of other firms. Ultimately, however, all firms' demand hinges on there being demand from some "final consumer", which significantly includes households.

[6] For policy purposes, it is also relevant that the pandemic is not of firms' and households' making, and has potentially been exacerbated by public health responses (however necessary). This reduces concerns about culpability, which can shape how policy responses are targeted.

[7] In many ways, this creates uncertainties akin to those of world war.

left trading as normal when others have "run to the hills"). However, if all agents behave this way, economic decline is exacerbated. To minimise the pandemic's economic harms, it is therefore necessary that households and firms believe that other agents will weather the economic storm. That way they each have the confidence to behave in a way that reinforces other agents behaving likewise.

3 The Problem with Existing Covid-19 Economic Response Measures

New Zealand, like many countries, has focused on preserving employment, and cushioning shocks to businesses (especially SMEs).[8]

Wage subsidies have been widely used to preserve jobs. They support employers so that at least some of their wage-related costs can be covered while revenues have plummeted or vanished. In New Zealand,they have been set high enough to cover the wages of lesser-skilled workers, but certainly not all the costs of skilled workers.

Successive subsidy rounds have become shorter, and with stricter qualifying criteria. Government has also signalled that such measures will be decreasing, due to their high fiscal cost. This is despite a renewed outbreak of the virus in New Zealand's largest city, Auckland, resulting in further – and repeatedly extended – lockdowns, reinforcing to firms and households alike that the pandemic's impacts will likely continue but be hard to predict.

The expectation of policymakers appears to have been that employers (i.e. firms' shareholders) will draw on their resources to insure employees' revenues not covered by wage subsidies.[9] This is at a time when those shareholders continue to bear other fixed costs – e.g. rent, rates, insurances, utilities, etc – and face substantial uncertainty about their businesses' viability.[10]

Since many business costs are fixed, only small revenue declines are required before firms become unprofitable. Also, as shareholders' resources decline with successive lockdowns, and firms' viability becomes increasingly doubtful, it is questionable whether (and why) they will continue to insulate their employees against the pandemic, and not just cease trading. Ultimately,

[8]Larger enterprises can be better-placed than SMEs to access capital markets for necessary financial buffers, or to negotiate bespoke support measures with government (e.g. national airlines).

[9]Likewise, there has been a presumption that landlords should at least partially insure tenants against lost revenues by agreeing to rent holidays or reductions.

[10]This is not least because their own viability hinges on how the rest of the economy – indeed, the world economy – will also fare.

the only way to protect jobs is to preserve the viability of the enterprises providing them.

Wage subsidies have been complemented with measures like mortgage holidays,[11] government guarantees of 80% of default risk for bank lending to businesses, and government loans to small businesses. However, leaving banks with even just 20% default risk in the midst of a major global economic crisis is likely sufficient to render such lending unattractive.

Small business loans by government should be more viable, but are capped at low levels (related to number of employees rather than revenue declines), limiting their effectiveness. More fundamentally, any firm contemplating borrowing to weather the Covid-19 storm will struggle to gauge whether they will be able to repay them, given they have fixed repayment dates and the economy's prospects remain highly uncertain.

By contrast, mortgage holidays offer a material financial cushion to borrower households. However, uncertainty as to how long they might be available is a material risk to their ongoing effectiveness.

In short, existing measures such as these are unlikely to be effective for two key reasons. First, signalling that wage subsidies will become less generous as the pandemic lingers provides precisely the opposite signal to that needed by households and firms to believe all other households and firms will continue to benefit from such subsidies. Secondly, due to prohibitive qualifying criteria or inadequate reach, support measures like these more generally will not reassure households and firms that other agents will benefit from them. The prisoner's dilemma remains.

4 An Alternative Modelled on the Student Loans Scheme

To reassure firms and households that their counterparts have access to the economic lifeline needed to support their ongoing financial viability, two ingredients are key. The first is the use of measures capable of avoiding financial distress. The second is a *pre-signalled commitment* to making such measures available for so long as they are needed.[12]

As to the first ingredient, existing measures fail due to their limited scope and scale. In short, instead of measures that insure firms and households

[11] Supported by regulatory accommodation by New Zealand's central bank, the Reserve Bank of New Zealand.

[12] Akin to the famous "whatever it takes ..." speech given in 2015 by the former European Central Bank chief, Mario Draghi, which helped to turn the tide on the financial crisis engulfing the Eurozone following the GFC and Greek financial crisis.

against being unable to meet just some of selected outgoings (e.g. wage costs for businesses), ex post revenue insurance is required. That insurance should be available up to the level of pre-pandemic revenues, and available to both firms and households that do not already enjoy insured incomes.[13] With such access, all such agents can be confident that all others can sustain their expenditures and meet their financial obligations, and bespoke regimes for individual expenditures (wages, mortgages, rents, etc) are unnecessary.

This insurance could take the form of loans akin to New Zealand's student loans, perhaps interest-free for so long as the pandemic continues.[14] Repayments would be made only once certain income thresholds are reached, by way of a (progressive) tax surcharge for agents taking out loans.

Unlike existing loan measures, these "soft" repayment terms make such loans more tenable to borrowers, since they do not need to assess whether they can meet fixed repayment obligations. Instead, they only repay loans as and when they prove to be able. Importantly, by government pre-committing to such a mechanism, economic confidence is supported, reducing the need to access such loans.[15]

Firms that access such loans might be obliged to insure at least some of their employees' wages, if only to avoid all firms having an incentive to lay off easier-to-replace workers in the expectation of rehiring them post-recovery. Failing to do so could mean such workers needing to disproportionately rely on household borrowings. That could raise equity issues, but could also mean that all firms face reduced demand from such workers if they all lay them off (another possible prisoner's dilemma).

A benefit of using a student-loans like scheme is that New Zealand's tax authority, Inland Revenue Department (IRD), already has records of pre-pandemic revenues, and has infrastructure to administer the scheme. Loans could be made available in tranches (e.g. for up to three months' income at a time) to minimise excessive borrowing, especially by households. Non-repayment of loans would be minimised by making household loans the personal liabilities of borrowers,[16] and business loans the liabilities of shareholders,[17] to avoid voluntary liquidations to avoid repayment. Withholding tax

[13] For example, welfare beneficiaries and superannuitants, and state employees. As above, larger firms should also be excluded, unless they can demonstrate obstacles to securing their own solutions.

[14] Scheme duration could be tied to the ongoing use of pandemic alert levels above a certain threshold.

[15] Contrast this with a "wait and see" or "ambulance at the bottom of the cliff" approach, which could be more costly because it tries to ameliorate, rather than avoid, a fall in confidence.

[16] For example, being repayable from their estate if they die with a balance outstanding.

[17] For example, by deeming business loans to be unpaid shares, not subject to limited

mechanisms – also already administered by IRD – could assist in avoiding non-repayment if borrowers become non-resident.

Such loans enable households to smooth their lifetime consumption in the face of an unexpected and substantial shock, letting them borrow against their own future incomes. This fills a gap in capital markets,[18] is intergenerationally more equitable than deficit-funded dollar-for-dollar wage subsidies, and can be rolled out at much larger scale since borrowers are leveraging any government subsidies against their own future resources.[19] The loans also recruit borrowers to use their private information regarding revenue requirements and spending priorities to determine who should access how much support to access.[20]

By enabling households to make up pandemic-related income shortfalls through such ex post revenue insurance, moral hazards arguably arise. For example, agents may be tempted to take inadequate measures against subsequent pandemics. However, the unprecedented nature of the pandemic should militate against this. In any case, it would likely be more efficient for governments to strengthen pandemic detection, containment and treatment options than for households and firms to self-insure against future pandemics.

5 Conclusions

Just as developing an effective vaccine to Covid-19 requires identification of its particular characteristics, protecting the economy against the virus also requires a tailored solution. In this case priority should be to minimise loss of economic confidence and decline in aggregate demand, with the most effective solution likely to be ex post revenue insurance. Existing measures are too targeted and expensive to achieve this, so an alternative, modelled on the student loans scheme and enabling firms and households to borrow against their own future incomes, has greater prospect of success. Such a measure may become more necessary if the pandemic lingers and existing measures prove unsustainable.

liability.

[18]Due to prohibitions on slavery, making it difficult for lenders to secure loans against future income.

[19]This makes the scheme more affordable to government, and thus sustainable for longer.

[20]Incentive compatibility is enhanced because any borrower is making a choice to personally pay higher taxes if they make use of the loans.

References

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