

Treasury Report: Avian Influenza Pandemic -- Issues

Date:	2 November 2005	Treasury Priority:	Medium
Security Level:	IN-CONFIDENCE	Report No:	T2005/2024

Action Sought

	Action Sought	Deadline
Minister of Finance	Note and discuss with officials.	Prior to POL on 9 November.
Associate Minister of Finance (Hon Phil Goff)	Note	None
Associate Minister of Finance (Hon Trevor Mallard)	Note	None
Associate Minister of Finance (Hon Clayton Cosgrove)	Note	None

Contact for Telephone Discussion (if required)

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Enclosure: Yes

2 November 2005

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Executive Summary

- The World Health Organisation and other health authorities have warned of the threat of an influenza pandemic.
- While there is considerable uncertainty about both the likelihood of a pandemic, and its severity should it occur, it is clear that a serious pandemic would have serious human, social, and economic costs.
- On the face of it, a severe pandemic akin to the 1918 "Spanish flu" outbreak could have economic costs from disruption to production and commerce of the order of 10% to 20% of GDP in the year it occurred, and 15% to 30% of annual GDP in the medium term, over and above the human costs from loss of life.
- The Ministry of Health is leading interdepartmental planning on ways to reduce the risk of a pandemic, and to manage the impact of a pandemic should it occur.
- Treasury is involved in several aspects of this work. We are leading the work looking at measures to mitigate the economic shock from a pandemic and encourage a rapid rebound, and are contributing to a number of working groups looking at more specific issues with significant economic or fiscal implications. We are also playing a key role as a central agency in coordinating the whole-of-government effort, in particular through the Officials Committee for External and Domestic Security Coordination (ODESC) led by DPMC.

Recommended Action

We recommend that you:

- **Note** this report;
- **Discuss** with officials raised prior to POL on 9 November.

Jeremy Corban
for Secretary to the Treasury

Hon Dr Michael Cullen
Minister of Finance

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Purpose of Report

1. This report is to brief you on the potential economic issues raised by the threat of a pandemic, and on Treasury's contribution to cross-Government planning.

Issues

Context

2. The World Health Organisation (WHO) has warned that the risk of an influenza pandemic on the scale of the "Spanish flu" outbreak in 1918 has been raised by the emergence of a highly pathogenic strain of avian influenza in Asia, H5N1.
3. H5N1 has killed 64 people since January 2004 in Vietnam, Thailand and most recently, Indonesia, all of whom were infected by contact with diseased birds. Pandemics occur when a virus to which people have no natural immunity, usually an avian strain, acquires the ability to spread from person to person. So far, no confirmed cases of human-to-human transmission have been recorded. However, the persistence of the outbreak among both domesticated and wild birds in many parts of Asia (where WHO believes it is endemic), and its spread to Europe, raises the risk of the virus developing into a form that is easily spread between humans.
4. This could arise either through an adaptive mutation of the avian virus which improved its human transmissibility (as in the 1918 pandemic) or through gene exchange when avian and human influenza viruses infect the same host and swap genes (as in less-severe influenza pandemics). Under the former scenario, vulnerability to the new virus would be universal as no H5 strain of influenza has ever circulated among the human population.

Likelihood

5. Influenza pandemics occur relatively often. There were three influenza pandemics in the twentieth century: in 1918, 1957 and 1968. Health experts generally regard a future influenza pandemic as inevitable, although when exactly such a pandemic would occur is unclear. Prior to the emergence of the H5N1 threat, the risk of a widespread influenza pandemic in New Zealand was considered to be around 1 to 2% over a one-year period, or around 20% to 30% over a 20-year period¹.
6. The emergence of the H5N1 virus in large parts of Asia in 2004 is likely to have increased the risk of an influenza pandemic. The WHO notes that the spread of this virus has probably moved the world closer to another pandemic than it has been at any time since 1968. As a result, most countries have continued to revise their assessments of likelihood upwards. For example, the Australian Chief Medical Officer now puts the odds of a pandemic occurring sometime in the next few years at 1 in 10.

¹ By way of comparison, this risk is considered to be somewhat greater than the risk of a large earthquake in a metropolitan centre.

Potential Impact

7. While there is considerable uncertainty about the likelihood of a pandemic, and its severity should it occur, it is clear that a serious pandemic would have major human, social and economic costs.
8. The Ministry of Health has developed and promulgated planning scenarios based on a global influenza pandemic similar in nature to that which occurred in 1918, including the scenario that efforts to prevent the entry of the virus into New Zealand, or to contain local outbreaks within New Zealand, are unsuccessful. Under this scenario, one or more waves of influenza lasting eight weeks or so could be expected, during which up to 40% of the population could contract influenza, with 2% of those infected dying of the disease. This could result in up to 33,000 deaths.
9. The economic impacts of a pandemic of this nature would be substantial. Border controls imposed either in New Zealand or in other countries would result in disruptions to imports and exports, with severe impacts on the travel and tourism industries, a possible shortage of raw materials such as oil, and a major disruption to global supply chains. Schools, universities, crèches, libraries, bars, cinemas, and other places of gathering may close, either as a public health measure to prevent the spread of disease, or through a downturn in customer numbers. Many people would be absent from work because of sickness, caring responsibilities, fear of infection, or because they had been requested to stay home by their employer. A large number of households may come under financial stress. The supply of, and demand for, non-essential goods and services would be likely to fall, and some firms would close up for the duration, or go out of business.
10. It is difficult to assess how the economy would respond, since a pandemic shock is of a different nature to the other types of shocks to hit New Zealand and there is little by way of any reliable past experience to draw upon. Our preliminary assessment is that, in the event of a severe pandemic along the lines outlined above, lost output could be of the order of 10% to 20% of GDP in the year that the pandemic occurred. The economy would take several years to recover from a shock of this scale, and losses could amount to 15% to 30% of annual GDP over the medium term. In dollar terms, this amounts to lost output totalling \$15-\$30 billion in the first year, and \$25-\$40 billion over four years.
11. This assessment is based on the Ministry of Health scenario of a severe pandemic, and includes lost production from staff absences due to illness, caring for those who become ill, and childcare; and from closure of workplaces in those sectors likely to be particularly affected by a pandemic, such as retail trade and the hospitality sector. The assessment assumes that there is no disruption to utilities, to essential distribution (eg of food), or to the financial system, and that normal social relationships remain intact. Human and economic costs will be greater or smaller than these estimates depending on the severity of any outbreak, whether there will be more than one wave of the disease, and the degree to which public and private sector plans are able to mitigate some of the impacts of a pandemic.

Pandemic planning

12. Overall, this reinforces the view that a severe influenza pandemic is an event with a low probability, but potentially a very high impact should it occur. Preparedness, including economic preparedness, is therefore important, and should continue to be progressed as a matter of priority.

13. The Ministry of Health is leading the interdepartmental process of planning and preparedness. One product of this process has been the draft New Zealand Influenza Pandemic Action Plan, which is attached for your reference. In short, the plan is based around a sequential five-stage strategy:

- Planning: to plan to reduce the health, social and economic impact of a pandemic on New Zealand.
- Border Management: to keep pandemic influenza out of New Zealand.
- Cluster Control: to control and/or eliminate any clusters that may be found in New Zealand.
- Pandemic Management: to reduce the impact of pandemic influenza on New Zealand's population.
- Recovery: to expedite the recovery of population health where impacted by the pandemic, pandemic management measures, or disruption to normal services.

Moving between these stages is a decision for Cabinet

14. More detailed sector-level planning is also being undertaken by a number of government agencies. This planning involves determining what measures could be put in place now either to reduce the risk of a pandemic, or to prepare for that contingency, and also what to do in the event a global pandemic does occur. ODESC would play a key role in coordinating the implementation of plans in the event of a pandemic.
15. We understand that the Minister of Health will be updating Cabinet POL Committee next week on progress with pandemic planning, and on potential gaps in the legislative framework around pandemic responses that the work so far has highlighted.
16. Further reports to POL are likely in a month's time, including a state-of-play of the overall plan, and remaining areas to be addressed; and a summary of the key policy and operational decisions that will be required from Ministers.

Treasury's role

17. The Treasury is contributing to this interdepartmental work in a number of ways. In particular, the Treasury is leading work on measures to mitigate the economic shock from a pandemic should it occur, and to encourage a rapid rebound. This work is focusing on five main areas:
- *The Government financial system.* This involves contingency planning to ensure that government payments would keep running in the event of a pandemic. Treasury, Inland Revenue, MSD and others are updating and reviewing their business continuity plans.
 - *Financial stability.* The Reserve Bank is updating its own business continuity plans, and is meeting with banks to ensure their own preparedness and business continuity plans. The RBNZ is also investigating other issues affecting the resilience of the payments system (including the ability to access physical currency), and the potential impact of a pandemic on financial stability. MED is leading work to consider the potential impact on the insurance sector.

- *Macroeconomic policy.* The Reserve Bank and Treasury are examining the robustness of monetary and fiscal policy frameworks to a shock of this nature and scale.
 - *Firms' preparedness.* This includes work to assist firms with their own preparedness to cope with disruptions to their supply chains and markets. MED has already developed an on-line guide to help firms prepare for a possible pandemic, and this has led to a significant raising of awareness in the business community. In addition, banks' decisions on maintaining credit to distressed firms, for example, and IRD's treatment of tax liabilities, may have an important bearing on firms' resilience.
 - *Financial support to firms and households.* Issues of financial support or compensation are also being considered, including who should pay if businesses have to furlough their workers (either as a health and safety measure for their staff, or as a result of a public health intervention), and the possibility of support for industries heavily affected by a pandemic.
18. We will brief you on these areas of work as they are completed.
 19. The Treasury is also contributing to a number of other working groups whose brief has significant economic implications – in particular to groups looking at border management issues, welfare issues, critical manufacturing and strategic supply (eg of vaccines and antivirals), and logistics (eg ensuring distribution of food and other essentials in an emergency).
 20. In addition, we are working with departments on the potential fiscal implications of their pandemic preparedness plans. We will provide you with further advice on this issue shortly.
 21. Finally, the Treasury, DPMC, SSC and the Ministry of Health will take a role in coordination and liaison between working groups to ensure consistency of sector plans, and coherent advice to Ministers on whole-of-government issues.