
The Economics of Avian Flu

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Introduction

- Asia leads the world in both growth and international trade
- China and India are fast becoming global players in both the political and economic spheres

Introduction

- The three global flu pandemics in 20th Century originated from birds; at least two started in Asia
- It appears to be only a matter of time before there is another influenza pandemic

Introduction

- How would a flu pandemic impact Asia and the rest of the world?
 - How was the economic modeling done?
 - What do the results say?
 - What can the public and private sectors do?

Economics of Avian Flu

- Three major risks from current H5N1 avian influenza:
 - Health and economic risk to poultry
 - Health risk to poultry workers
 - Health and economic risk of a human influenza pandemic

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- What would happen without a influenza pandemic (“the counterfactual”)?
- What initial shocks are in the influenza scenario (“exogenous assumptions”)?
- What are the first order and second order impact of these shocks?

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Significant epidemiological uncertainties

- How many people will be infected?
- How widespread will the outbreak be?
- What is the fatality rate?

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Information is limited

- We have limited epidemiological data on influenza pandemics globally
- Historically each influenza pandemic has been quite different

However there is the experience of
SARS

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The Assumptions

- 20% gross attack rate
- 0.5% of case fatality rate
- Duration of one year
- Illness lasts for two weeks
- Large reduction in international services—tourism, offshore financial, consulting, etc.
- Smaller reduction in overall consumption
- Global impact

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Country	Growth 2005	Growth 2006	Growth 2007
China	9.2%	8.8%	8.9%
India	6.9%	6.8%	7.0%
Korea	3.6%	4.6%	4.9%
Malaysia	5.1%	5.3%	5.8%
Thailand	4.0%	5.0%	6.0%
Viet Nam	7.6%	7.6%	7.5%

Source: Asian Development Bank. 2005. Asian Development Outlook. <http://www.adb.org/documents/books/ado/2005/>

Economics of Avian Flu

- Demand side: The psychological impact of avian flu on consumers and investors
- Supply side: The impact from the loss of labor due to illness and death) cause?

Costs of Avian Influenza

Foregone Income

- Lost lifetime income lost: \$267.2 billion (CAN\$ 308.9 billion)
- Lost income due to illness and absence from work: \$14.2 billion (CAN\$ 16.4 billion)

(only for developing Asia)

Costs of Avian Influenza

Macroeconomic Shock, using the Oxford Economic Forecasting global model

- Demand side impact of \$282.7 billion (CAN\$ 328.6 billion), 6.5 percentage points, almost all of Asia's growth for one year
- Supply side impact of \$14.2 billion, 0.3 percentage points

(only for developing Asia)

Source: Bloom, de Wit, and Carangal-San Jose. 2005. Potential Economic Impact of an Avian Flu Pandemic on Asia.
http://www.adb.org/Documents/EDRC/Policy_Briefs/PB042.pdf

Costs of Avian Influenza

Macroeconomic Shock

- Singapore and Hong Kong, China are the hardest hit– entering multi-year “depressions”
- Malaysia and Thailand are hard hit...probably also Lao PDR and Cambodia
- Other countries, such as China, Indonesia, India, and the Philippines, are less affected
- General tendency for economies to recover about three years after the shock

Costs of Avian Influenza

Sector Effects

- The service sector will be hardest hit, particularly tourism and to a lesser extent, restaurants and entertainment
- However other services will be affected as well...particularly services to international clients
- Trade will decline around 14%, bringing Asia back to levels of three years ago
- Investment will also decline across the board

Costs of Avian Influenza

Business Effects

- Business effects may be substantially greater than total losses
- In particular, with the greater interdependence and reliance on trade this could hurt business
- Increased bankruptcies could be a major long run impact of the pandemic

Discussion

- The demand shock is substantially bigger than the supply shock
- This highlights the lessons learned from SARS:
 - The importance of transparency to lessen the panic
 - Early identification is important to facilitate containment
 - There are global implications of health shocks and
 - Cooperation is essential
- Animal health matters and the world health will continue to be at risk

Discussion

Public Sector, prior to pandemic:

- Increase animal surveillance and take appropriate actions
- Prepare stockpiles
- Ensure adequate training for health staff
- Develop targeted risk communication campaigns

Discussion

Public Sector, during pandemic:

- Share timely and accurate information with the public
- Take corrective economic actions
- Cooperate with international community
- Weigh the cost and benefit of disruptive actions

Discussion

Private Sector, prior to pandemic:

- Look at the scenarios, identify bottlenecks, and role play
- Develop continuity plans dealing with management, suppliers, workers, and other key groups
- Work with the Government and health authorities

Discussion

Private Sector, during pandemic:

- Implement continuity plans calmly
- Do best not spread panic
- Develop recovery plans