

ECONOMIC BRIEFING

May 2006

AVIAN FLU

- At present there is no evidence of human-to-human transmission of avian flu. However, were this to become a pandemic the economic threats must be seen as substantial, both to the airline industry and the wider world economy;
- Importantly, the risks may be large even if the actual case numbers are small. The experience of SARS demonstrates that a loss of confidence and uncertainty can lead to a chain reaction in key sectors, such as travel and tourism, which would impose heavy economic damage;

IMPACT OF SARS

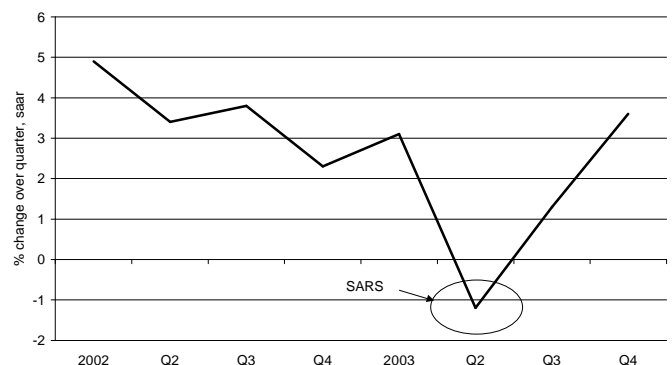
The impact on GDP of SARS

	Cases	Deaths	Impact on 2003 GDP	
			%	US\$ bn
Asia				
China	5327	349	-1.05	-14.8
Hong Kong	1755	299	-2.63	-4.1
Taiwan	346	37	-0.49	-1.4
Singapore	238	33	-0.47	-0.4
Others	109	11		
North America				
Canada	252	44	-0.6	-4.7
US	27	0	-0.07	-7.6
Europe	33	1		
Others	10	1		
World total	8097	775	-0.1	-33

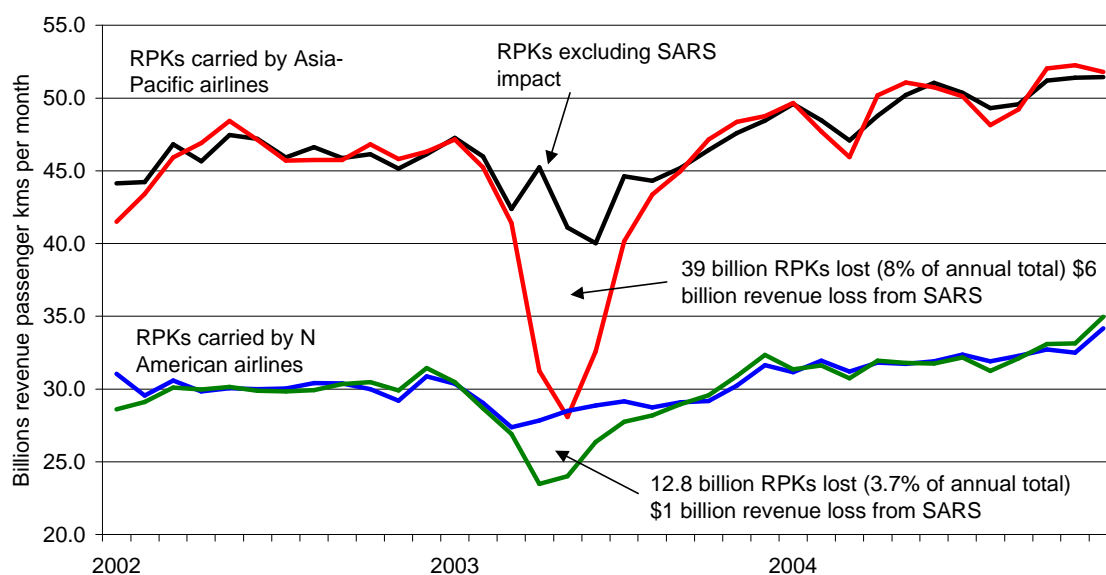
Source: WHO, Brookings Institute, BMO Nesbitt Burns.

- SARS caused relatively few deaths – less than 1000 world-wide – but wrought significant economic damage to a number of economies. The global cost estimated at \$33 billion was just 0.1% of world GDP in 2003, but the damage to the economies of China and Hong Kong was between 1-3%. Total East Asian losses were estimated at \$20 billion and Canada lost around \$5 billion or 0.6% of its GDP. The US economy was impacted in spite of there being no deaths from SARS at a cost of over \$7 billion in GDP losses;

The damage to Canadian GDP from SARS



Impact of SARS on Asia-Pacific and N American airlines international traffic



- ↗ The airline industries in the regions affected suffered a large proportion of the economic loss, around 30%;
- ↗ IATA estimates that Asia-Pacific airlines lost 39 billion revenue passenger kilometers or around 8% of annual traffic. This is estimated to have cost \$6 billion in lost revenues;
- ↗ The loss to N American airlines was also significant with an estimated loss of 12.8 billion RPKs or 3.7% of total international traffic, at an estimated revenue loss of \$1 billion.

ESTIMATES OF IMPACT OF AVIAN FLU PANDEMIC

Scenario 1: 2 quarters of strong demand contraction in Asia only

	Impact on 2006 GDP					
	%			US\$ bn		
	Demand shock	Supply shock	Combined impact	Demand shock	Supply shock	Combined impact
East Asia						
China	-1.3	-0.4	-1.7	-21.4	-6.6	-28
Hong Kong	-9.2	-0.2	-9.4	-18.3	-0.4	-18.7
Korea	-1.5	-0.3	-1.8	-9.1	-1.8	-10.9
South Asia						
India	-1.5	-0.3	-1.8	-9.3	-1.9	-11.2
SE Asia						
Indonesia	-0.5	-0.2	-0.7	-1	-0.4	-1.4
Malaysia	-7.1	-0.2	-7.3	-7.9	-0.2	-8.1
Philippines	-1	-0.3	-1.3	-0.9	-0.3	-1.2
Singapore	-10.4	-0.4	-10.8	-11.1	-0.4	-11.5
Thailand	-6.3	-0.3	-6.6	-9.8	-0.5	-10.3
Asia total	-2.3	-0.3	-2.6	-99.2	-14.2	-113.4
World total			-0.5 - 0.75			-200 to -300

Source: Asian Development Bank, November 2005 and Oxford Economic Forecasting

- ↗ Analysing the risk and impact of a possible avian flu pandemic is fraught with difficulty and the estimates presented here from the Asian Development Bank and Oxford Economic Forecasting should be considered as broad indications;

- Both scenario 1 and 2 assume a relatively mild pandemic, with an attack rate of 20% and a case fatality rate of 0.5%. The flu lasts one year and is relatively well spread out through 2006. This is far less severe than the Spanish flu pandemic of 1918 but is probably more severe than the other two pandemics of the 20th century;
- Scenario 1 assumes the pandemic is in Asia only, the psychological impact of an avian flu pandemic is short-lived and only seriously affects demand for two quarters. This is modelled by a 3% shock to household consumption just in Asia. In addition there is a supply shock caused by the absence of workers affected by flu;
- Under this scenario Asia would face a reduction in spending of \$99 billion. Together with the loss to the workforce this would reduce Asian GDP by \$113 billion or 2.6%. Asia suffers disproportionately because of strong trade links and the high share of trade in GDP. Global GDP would be reduced by 0.5-0.75% or \$200-300 billion;
- During SARS Asian airlines suffered 30% of the economic losses, N. American airlines around 13% which were mostly knock-on confidence effects. Assuming a similar distribution of economic losses under an avian flu pandemic this **suggests losses to Asia-Pacific airlines of \$34 billion or around one-third of revenues. Globally a loss of around \$52 billion would amount to 11% of global airline revenues.**
- Official quarantine, travel and trade restrictions would probably make business losses even worse than these estimates, even if such measures were moderately successful in calming concerns over health risks and the spread of a pandemic.

Scenario 2: 4 quarters of strong demand contraction globally

	Impact on 2006 GDP					
	%			US\$ bn		
	Demand shock	Supply shock	Combined impact	Demand shock	Supply shock	Combined impact
East Asia						
China	-4.9	-0.4	-5.3	-80.6	-6.6	-87.2
Hong Kong	-17.3	-0.2	-17.5	-34.4	-0.4	-34.8
Korea	-6	-0.3	-6.3	-36.3	-1.8	-38.1
South Asia						
India	-5.4	-0.3	-5.7	-33.6	-1.9	-35.5
SE Asia						
Indonesia	-2.6	-0.2	-2.8	-5.4	-0.4	-5.8
Malaysia	-11.1	-0.2	-11.3	-12.4	-0.2	-12.6
Philippines	-2.7	-0.3	-3	-2.5	-0.3	-2.8
Singapore	-22.4	-0.4	-22.8	-23.9	-0.4	-24.3
Thailand	-11.4	-0.3	-11.7	-17.7	-0.5	-18.2
Asia total	-6.5	-0.3	-6.8	-282.7	-14.2	-296.9
World total			-4 to -5			-1500 to -2000

Source: Asian Development Bank, November 2005 and Oxford Economic Forecasting

- Scenario 2 assumes the psychological impact of the pandemic lasts longer, for four quarters, and the outbreak is evenly spread world-wide. As such this might be considered to be a worst-case scenario;
- Asia's loss to GDP is almost \$300 billion and almost 7% of GDP. Global losses under this scenario could reach \$1500-2000 billion or 4-5% of GDP, precipitating a global recession;
- On similar assumptions of the distribution of economic losses among industries, **Asia-Pacific airlines could face revenue losses approaching \$100 billion as air travel except cargo comes to a virtual halt. Globally, airlines could face revenue losses of over \$350 billion.**

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