

## WHO warns of imminent swine flu pandemic

### Key points

- This strain of flu has already jumped to human-to-human transmission. The World Health Organisation (WHO) has raised its pandemic alert to 5, signalling extreme risk of a pandemic.
- Studies of previous flu pandemics suggest the total global cost of another bad one could run into millions of lives and trillions of dollars.
- With the world economy already set to shrink this year and achieve only mild growth in 2010, a flu pandemic — or even the threat of one — will be a severe setback to global trade and investment recovery.
- This risk of pandemic is the worst kind of event risk for markets, the economy and the community, and at the worst possible time. In financial markets, the traditional safe havens of gold, US treasury bonds and the US\$ are likely to be the only 'winners'.
- Among Australian industries, travel and tourism will be hit most directly, but discretionary retail, hospitality and entertainment are also likely to suffer as people bunker down at home. Sectors such as telecommunications and pharmaceuticals are expected to benefit.

### What is swine flu?

Swine flu is a highly contagious acute respiratory influenza, usually contracted by pigs, that is caused by several strains of influenza A viruses. These are similar to the H1N1 flu strains that caused the massive Spanish flu pandemic of 1918-19. In humans, swine flu resembles common seasonal flu and can be difficult to detect. People usually get swine flu from direct contact with infected pigs but this new multi-strain swine flu has already mutated into human-to-human transmission, spread via fluids such as those emitted when sneezing. Transmission is not airborne. Rapid human-to-human transmission and the tendency to infect younger people (whereas common seasonal flu tends to mainly infect the elderly) are the reasons this outbreak is escalating so quickly into a potential pandemic (i.e. a global epidemic) and the reasons the WHO is so very concerned.

This outbreak began in Mexico but has quickly spread to other countries. As of 30 April, well over 2,000 people have been infected across the globe. WHO has confirmed 8 deaths in Mexico from the virus, with around 160 others suspected to have died from the disease. One Mexican child has died of the disease in the US. One person in Spain has contracted the disease without having travelled to Mexico, indicating local contagion has begun. Cases have also been confirmed in Peru, Canada, the UK, Germany, Austria, Israel and New Zealand, and suspected in many more.

Flu viruses tend to thrive in cool conditions and struggle in warm weather. The initial cases of this outbreak have emerged at the tail end of the northern hemisphere winter flu season, so it is possible infections will begin to really accelerate once the weather turns cold again in autumn. However, the southern hemisphere is about to enter its winter season, so it is possible that this virus will take hold there first — particularly through South America. Distance may keep Australasia safer for longer.

There are no vaccines specifically designed for the current swine flu viral strains. Samples of swine flu have been found to be sensitive to existing flu treatments such as Tamiflu (generically known as oseltamivir) and Relenza (zanamivir) but resistant to other antiviral drugs such as adamantanes. It would take several months for a vaccine to be developed. Face masks and minimal contact are recommended to reduce its spread.

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### Comparison of modern flu epidemics and pandemics

Event	Estimated human cost	Regions/countries
Russian flu (1889-90) H2N2 strain	1 mn deaths.	Russia, Europe, US, Americas, Asia
Spanish flu (1918-19) H1N1 strain	Up to 1bn people (50% of world pop.) infected. 40-50 mn deaths, mostly young adults. Estimated fatality rate of 2.5%.	Global
Asian flu (1957-58) H2N2 strain from ducks	2 mn – 4 mn deaths, mostly elderly in China.	China, Singapore, Hong Kong, US
Hong Kong flu (1968-69) H3N2 strain	500,000 Hong Kong people infected (15% of pop.), 1 mn deaths globally.	Hong-Kong, China, Singapore, India, Vietnam, US, Australia
SARS (2002-03) (SARS coronavirus, not a flu virus but similar effect)	8,000 infected, 774 confirmed deaths (fatality rate of 10%).	37 countries: Asia, Canada, US, Mongolia, Ireland, Romania, Russia, Spain
Avian flu (2006) H5N1 strains from birds	248 confirmed deaths	12 countries: Asia, Nigeria, Canada, Turkey
<b>Swine flu (2009), multiple H1N1 strains from pigs</b>	<b>infecting mainly young people. Estimated fatality rate of 5%.</b>	<b>Mexico, US, Canada, Europe, South America, New Zealand and ...</b>
Common seasonal flu (ongoing), various H1N1 strains	250,000-500,000 deaths per year, mainly elderly. Fatality rate under 1%.	Global

'Fatality rate' is the proportion of people infected who die as a result of the disease.  
Sources: AskOxford, BBC, ABC, Wikipedia.

## Official responses

The WHO's global swine flu alert is now at level 5, the second highest level.

Social and economic activity in Mexico City has ground to a halt due to public health measures. Businesses are now being asked to close for the next 5 days.

Global travel screenings and restrictions are increasing.

Many countries have banned pork imports, despite no known link between pork consumption and humans contracting swine flu.

The WHO phase of pandemic alert has been lifted to 5 (on a scale of 1 to 6), signalling that a pandemic is imminent. The highest Phase 6 indicates widespread human infection. Most worryingly for this outbreak, the WHO already considers containment to be unfeasible given the intensity of modern air travel. Nevertheless, many countries, including Canada, Cuba and Argentina, have already suspended all flights to Mexico. The EU is also considering a ban on all direct flights to Mexico. Everywhere, non-essential travel is being discouraged and strict travel screening procedures are being swiftly introduced.

As with the recent financial crisis, the response of many governments to this swine flu crisis is already showing itself to be early, aggressive and co-ordinated. In Mexico, the source of the first known outbreak, social and economic activity in Mexico City has all but stopped, as all public contact is discouraged. The Mexican Government is now calling for all 'non-essential' businesses nationwide to shut down for five days, in an effort to halt the contagion. In the US, President Obama has announced widespread containment measures including school closures and an additional US\$1.5bn for public health measures. In Australia, the government has enacted sweeping new quarantine powers to detain people suspected of being infected. Australia has stockpiles of around 8.7mn doses of the anti-viral drugs Tamiflu and Relenza. Many other countries also have sizeable stockpiles of these flu treatment drugs.

Although this virus cannot be contracted from eating pork or pork products, many countries have moved swiftly to ban imports of pork products from Mexico and in some cases from the US or anywhere elsewhere with confirmed swine flu. Countries already implementing a pork import ban include Bulgaria, Ghana, Venezuela, Russia, Kyrgyzstan, Ukraine, Kazakhstan, China, Philippines, Thailand and the UAE. Given the very low probability of pork products spreading the disease there may be an element of opportunistic trade protection in some of these pork import bans. The scale, nature and effectiveness of these various government responses are important, since they — rather than the medical effects of the disease itself — will largely determine the likely economic fallout from this swine flu crisis.

## Likely impact on the global economy

In contrast to SARS and Avian flu, this episode of potential global flu outbreak has come at a terrible time for the global economy, with activity already very weak (especially tourism) and financial markets very fragile. Heightened uncertainty is already dragging equity markets down and could weigh further on consumer and business spending decisions, just at the time that the former is showing some encouraging signs of stabilisation. Moreover, government resources will now be diverted to the new crisis, just at a time when greater public spending is urgently required to support the broader economy. This risk of pandemic is therefore the worst kind of event risk, for markets, the economy and the community, at the worst possible time. If it escalates, the traditional safe havens of gold, US treasury bonds and the US\$ will be the only 'winners'.

Recent past epidemics and pandemics provide a broad indication of the possible economic effects of this swine flu crisis. Three flu pandemics have occurred over the past century - the Spanish influenza (1918-1919) which killed 40-50 million people, the Asian influenza (1957-58) and Hong Kong influenza (1968-69) where 1-3 million lives were lost (see table on p. 2 above). Studies suggest that the global economic cost of each of these events ran into trillions of dollars. According to a 2006 report on the "Global Macroeconomic Consequences of Pandemic Influenza" by Warwick McKibbin and Alexandra Sidorenko, a "mild" scenario (similar to the Hong Kong flu in 1968-69) could cost 1.4mn lives and lead to a loss to global GDP of approximately US\$330bn, while an "ultra" scenario (worse than the 1918-1919 Spanish flu) could cost more than 140mn lives and around US\$4.4 trillion.

Although it is not a flu, the SARS outbreak in 2002-03 is also comparable. SARS eventually spread to 37 countries, affecting more than 8,000 people, with a fatality rate of around 10%. ADB estimates indicate that the cost in terms of lost GDP (nominal), was about US\$18bn in East and Southeast Asia alone. This does not include the losses flowing to other countries in lost trade and travel.

In any such disruption, the largest economic costs come from declines in work and business activity, rather than directly from medical treatments or measures. In the current crisis for example, despite few actual deaths, Mexico City's mayor estimates that activity restrictions in the city are already costing local businesses at least US\$88m *per day*. Tourism (8% of Mexican GDP) has all but stopped. The UBS bank in Mexico City estimates the crisis could wipe 0.2% off annual GDP if it subsides in the next two weeks, or 0.8% off GDP if it goes on for two months. This is on top of existing forecasts of a fall of 4.8% in GDP this year. 80% of Mexican exports go to the US, so any trade cuts will affect the US also.

With the IMF already forecasting the world economy to contract by 1.3% this year and only mildly recover in 2010, this new flu poses a severe setback to economic recovery, as global trade and investment flows are further impeded. On the demand side, the swine flu will damage consumer sentiment, consumption and social patterns. Only on-line retailers, pharmacies and the like might be able to benefit. Business confidence will also face another blow, further constraining investment spending and deepening the economic downturn.

On the supply side, the availability of labour could be jeopardised if the outbreak is not contained quickly, given this flu strain's tendency to infect younger people and those who are out and about in public (including those going to work). The threat of contagion may also be enough to keep many people from work, an effect already evident on a large scale in Mexico City.

Developing economies are likely to be more adversely affected by an influenza pandemic than the developed world given its high population density, animal husbandry practices, more labour-intensive industries and in many instances, the lack of financial resources to combat the threat. Overall the degree of preparedness, extent of surveillance monitoring and level of transparency will largely determine the speed of resolution of swine flu. In the case of SARS and Avian flu, containment of transmission was controlled within around 8 months. If this flu event can be contained in the same time frame, then recovery from the crisis should be under way by early 2010.

**Study of past flu pandemics indicate the potential cost of the swine flu ranges from:**

**1.4 mn lives and US\$330bn in a 'mild' pandemic, to**

**140 mn lives and US\$4.4 trn in an 'ultra' pandemic.**

**SARS killed around 800 people and cost about US\$18bn in Asia alone.**

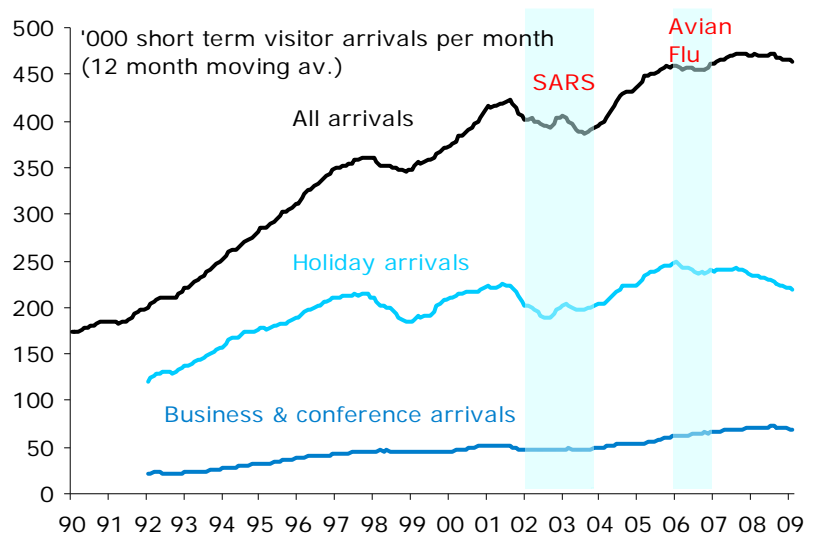
**Local US economies and the entire Mexican economy are already being seriously disrupted by this swine flu.**

## Likely impacts on Australian industries

The main impact on Australia's economy will be through travel and tourism.

The SARS event suggests the early response from authorities and our significant geographic distance from Mexico may limit the direct impact to Australia from the virus itself. The economic impact of SARS and, to a lesser extent, bird flu, was significant for the regions directly affected. But the flow on to Australia was relatively muted and mostly contained to the tourist sector, through decreased inbound tourism arrivals. The biggest impact was from SARS, which saw short-term visitor arrivals drop 5% during the heightened infection period of November 2002 to July 2003 (see graph below). However, this barely caused a ripple to Australia's broader economy, which continued to grow solidly. Avian flu, with its lower human toll and lower level of travel restrictions, had a far weaker effect on Australian inbound tourism. Currently this epidemic is centred on the Americas, but if it spreads to our major trading partners in Asia then the potential economic effects for Australian trade and tourism could be severe.

### Global health scares directly affect Australian inbound travel and tourism



Source: ABS

Pork is a relatively small part of our agricultural production and exports.

Outside of tourism, the obvious place to look for potential effects from swine flu are in the pork and pork products industries. Pork production is however, a relatively small player in Australian agriculture. 4.4mn pigs slaughtered in 2008-09 (worth \$1.2bn gross value), compared with 8.7mn cattle and 32mn sheep and lambs (worth \$7.5bn and \$2.1bn in gross value respectively). Just 40kt of Australian pork meat is exported annually, about the same volume as for poultry, but dwarfed by our beef (930kt) and sheepmeat (140kt) exports. If anything, the perceived (but apparently unfounded) risk from eating pork is likely to give a boost to demand, locally and globally, for our large red meat producers and possibly to poultry, as people substitute out of pork, just in case. A similar pattern is likely to unfold across the Tasman, since sheep production heavily dominates New Zealand agriculture and exports.

Any local swine flu cases will see consumer sentiment and spending plunge, as people find yet another reason to bunker down at home.

Other than these obvious impact points (travel, tourism and pork producers), we expect the effects of this crisis to fall largely on the demand side rather than the supply side of the local economy. Services-related industries and discretionary retailers are likely to be the hardest hit as people find yet another reason to stay home and save money. Some sectors will however benefit directly from the flu, including pharmacies, pharmaceuticals, telecommunications and possibly internet shopping providers. Any resulting reduction in retail, hospitality and recreational spending will have knock-on effects to wholesalers, transporters and manufacturers of the goods and services being forgone.

These effects on Australian industries assume that mitigation efforts (airport checks, quarantine measures, travel restrictions, school closures etc), achieve some success in retarding the spread of the virus such that businesses are not forced to shut down due to a spike in absenteeism and/or public activity

restrictions. If public warnings need to be issued regarding public gatherings and social contact however (as they have already in Mexico), then restaurants, hotels, bars and other public venues will be hit hard.

We assume that the post-pandemic recovery period will begin within 8-12 months. As noted above, flu viruses tend to be most virulent through winter, so if an epidemic is to break out in Australia, the most likely timing is immediate.

#### Likely impacts on Australian industries

Severely Negative	Negative	Positive
Aviation industry travel agencies	Local public transport, taxis	Chemists/pharmacies  Some Pharmaceutical manufacturers – flu vaccine and selected anti-flu drugi firms
Tourist accommodation and tour operators	Manufacture and sale of discretionary products (eg. furniture, appliances, clothing & footwear)	Non-discretionary retail such as food because fewer people will eat out and food stockpiling might occur
Local hospitality, recreation and tourist-related facilities as people avoid crowded areas (eg. sporting and entertainment venues, restaurants)		Communications services such as the internet, tele-conferencing, video-conferencing, as face-to-face contact is avoided  On-line retailing
Sale and consumption of pork, even though one cannot contract the virus through pork consumption		Agricultural businesses offering other types of meat
		Television, radio broadcasting and home entertainment

#### Likely impacts on financial markets

As noted above, the early response from authorities globally and our significant geographic distance from Mexico may limit the direct impact to Australia from the virus itself. But we are far from immune from any deeper ramifications across financial markets (in particular the A\$ could weaken sharply) or from another bout of weakness in the global, and particularly the US economy.

To date, direct financial market responses to this flu crisis have been muted, partly due to the sheer enormity of the other crises that are still weighing in right now, and partly due to the reassurance provided by rapid and widespread official public health measures. But even so, for local policy-makers, this flu crisis is exactly the type of new shock that could see the RBA cut rates to 2.0% earlier than our year-end forecast. And any further heightening in risk aversity will see bonds outperform, particularly 'safe haven' flows into US treasuries.

**Currencies:** Safe-haven buying is likely to support further strength in the yen, Swiss franc and US dollar. The Australian and New Zealand dollars are likely to come under pressure as investors exit risky assets. In the first two days, Latin American currencies were already under pressure with the Mexican peso down 5% against the US dollar since news broke and the Brazilian real, Chilean and Colombian pesos off by around 1.5%-2%. Emerging market currencies across Asia will also begin to feel the pressure once the virus hits the region as SARS remains a vivid memory.

**Commodities:** Safe-haven purchases could increase demand for gold. However, prospects of a further downturn in economic activity will depress demand for commodities such as oil, base metals, coal and iron-ore. This could also exacerbate already-high supply conditions for some commodities (eg. aluminium, zinc) and keep a lid on prices.

This new crisis will increase risk aversity in financial markets again, sparking renewed interest in 'safe haven' bonds and currencies.

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