

# Making Sense of SARS

NELSON KO [BSocSci (Hons) '98] examines the impact of SARS on the world economy. He recently graduated with a Master's degree in economics from the University of Toronto in Canada.

SARS has made thousands of people around the world sick, and has killed hundreds. But are fears of contracting SARS greatly overblown? The alarm that is being raised by health authorities worldwide is not so much because of the present danger posed by the disease, but because the potential threat of SARS could be very high indeed.

As it stands, the risks of contracting the disease outside of the worst hit regions of Guangdong, Beijing and Hong Kong are in fact extremely low. In places like Singapore and Toronto, where most of the cases can be traced to contagion in health care settings, the spread of the disease seems to have peaked and new cases are on the decline. However, at the same time there is a worrying trend of increasing numbers of new cases in regions of China

such as Inner Mongolia, Shanxi, Tianjin, and Taipei in Taiwan.

The problem with SARS is that it is highly communicable, and there is no known treatment. As such, quarantine remains the only way to contain the disease. Tests for the disease are still not reliable enough to definitively identify persons that are infected. There is, therefore, a need to cast a larger quarantine net in order to achieve the same level of effectiveness and to compensate for the probability of leaks in the system.

Based on the experiences of Singapore and Toronto so far, quarantine is effective but can be economically costly. To cite a specific example, it was necessary to quarantine over 2,000 wholesale market workers in Singapore in order to prevent further spread of the disease, when only

less than 20 of the quarantined workers have in fact caught the disease. This translates directly into lost income and productivity of a large number of persons who are not infected. The true economic cost of the disease is therefore not the direct effects of the disease, but the costs involved in coping with it.

When the World Health Organisation (WHO) issued a travel advisory for Toronto on 23 April 2003, it led to widespread cancellations of events such as trade shows, concerts, and other travel related services such as hotel, flight and tour bookings. CommunicAsia, one of the largest trade shows held annually in Singapore, originally scheduled for June, has already been cancelled because of SARS.

Notwithstanding the lifting of the WHO

travel advisory to Toronto on 29 April 2003, the city continues to experience a serious slowdown in business activity. Many countries impose 10-day quarantine requirements for anyone travelling from affected regions, including not just the worst hit regions, but also Singapore and Toronto. This requirement has caused severe inconvenience to businesses which traditionally engage in a great deal of face-to-face communication with customers around the globe.

Moneris Solutions, which is Canada's leading processor of debit and credit card payments, carried out a survey of the changes in spending habits due to SARS. They compared credit and debit card transactions for the period 31 March to 25 April 2003, with transactions made in the preceding 26-day period. It was found that Toronto's transportation and entertainment industry suffered a 14.8% decline in business, the hospitality and retail sector saw a 15% drop in business, service station activity was down 13.7%, and transactions at tourist attractions dropped 10.1%.

The impact on Hong Kong and Asia is worse. The 5 May 2003 issue of *Time* magazine reported that hotel business in Asia has dropped by 25%, personal bankruptcies in Hong Kong are up 74%, retail sales in Hong Kong are down 50%, and North American airline bookings to Hong Kong have dropped by 85%. Visitor arrivals to Singapore dropped 61% in the first two weeks of April.

Interestingly, transactions at grocery stores in Markham, a major suburban region of Toronto were found to have increased a whopping 44% in the period of the Moneris survey. This suggests that there is a definite shift in spending from eat-out and entertainment in public places to home-cooked meals and parties organised at home due to SARS.



Anecdotal evidence in Singapore seems to suggest a similar trend, with sales at normally crowded food courts markedly lower. This suggests that while the macroeconomic impact of SARS is undoubtedly to reduce aggregate demand, some sectors such as groceries and home appliances may actually benefit through changes in consumers' spending patterns, while other sectors such as travel and entertainment will bear the brunt of the overall decline in spending.

Despite the high economic costs of quarantine measures, they are necessary in preventing a wider outbreak that could cause more economic damage. They are also important in maintaining confidence in affected regions. Are quarantine measures here to stay? While quarantine is a concept that dates back centuries, it is by no means archaic. The technology of quarantine, though, improves with the passing of time, even as quarantine itself remains an important instrument of public health.

The use of infra-red scanners at airports to detect persons with fever, and electronic tags or video cameras to monitor people under quarantine at home, are examples of such innovation. The concept of telemedicine, one of the many previously over-hyped applications of broadband technology where doctors can monitor or diagnose patients at home through video and remote medical equipment, may finally be economically viable in the context of quarantine.

The post-world-war economy has developed very much without quarantine in mind. Traditional diseases such as malaria, cholera and tuberculosis, have been in decline in the developing world through better medical care and hygiene, and are pretty much eradicated in the developed world. The triumph of science over these and many other diseases has arguably resulted in a false sense of security.

In a sense, SARS is analogous to the September 11 experience in that both are wake-up calls highlighting serious gaps of un-preparedness in the psyche of today's world linked by globalisation. The post-war decades have been a period of unparalleled economic and technological development that culminated in the irrational exuberance of the late 1990s.

The new millennium was entered into in the midst of much euphoria and optimism, when the world's worst fear then was the Y2K bug that proved to be generally benign. However, the events of the new millennium so far have done much to temper such lofty expectations. Just as the post-9/11 economy has begun to implement added security measures as part of daily economic activities, the post-SARS economy will adopt additional health care measures into the routine of life.

Adjusting to the post-SARS economy will involve significant short-term adjustment costs. For example, it used to be not so



long ago that taking more than one day of sick leave for having influenza in Singapore could be scorned upon as being less than hardworking. This attitude has changed with SARS and there is likely to be a long-term change in workplace behaviour and expectations.

The economy will suffer a slowdown simply because overheads would have increased in all sectors of the economy. Firms may have to keep more people on their payroll just in case some of them get sick so as to ensure business continuity. Employees may be willing to work for lower pay in exchange for better health benefits or paid sick leave. The use of broadband communications technologies to work at home will become more widespread. All these lead in the longer term to a healthier, more flexible and hospitable working environment, and are positive changes for the economy.

The healthcare sector is also poised to undergo significant restructuring, since SARS has highlighted many weaknesses in the current system. A more efficient health care system in the longer run may even lead to lower costs, countering any higher health care needs resulting from the disease itself.

In the short term, the goal is to contain SARS while research on the disease continues. Organisations such as the WHO are treating SARS as if it is the 'Big One', the flu pandemic that everyone had been

expecting. Although no one is directly saying that SARS is in fact the Big One, the outbreak has many of the characteristics of what has been feared. The disease is serious enough to kill a substantial proportion of its sufferers, and yet not deadly enough to keep some away from other people. In fact, some sufferers report rather mild symptoms.

The thing is that if a disease is very deadly (for example, Ebola), anyone who gets it is either too sick to travel or dies soon after contracting the disease and as a result, the disease does not spread widely. So in fact, the most damaging disease in an economic sense is one that is less deadly but more communicable.

For the next three months, we will see more cases of SARS in all parts of the world and quarantine measures will continue to be tight. However, it is unlikely that it will get out of hand in most countries as current measures seem to be working sufficiently well. The situation in China is worrying, but hopefully containable. Elimination of the disease in the next three months is almost an impossibility barring any surprise find, for example, an existing drug that works surprisingly well in combating SARS.

In the medium term, between six months and a year, we will find out if people who have contracted SARS will suffer a relapse. It may also be determined if cross-infection between animals and humans is going to be a significant continuing mode of transmission. We will also know if there are non-symptomatic carriers. This information will help determine the longer term impact of SARS. We will also know by then if the virus has mutated into multiple strands which could be less or more deadly than the original.

Assuming a time frame of six months to a year to get a handle on SARS, therefore, the

impact of the disease from an economic point of view is similar to that of the terrorist attacks of September 11. There will be a short-term reduction in aggregate demand, resulting in business failures and setbacks, especially in hard-hit travel-related sectors and worst hit regions. In the medium term, there will be an increase in efforts to cope with the disease. These higher overheads will limit the production capability of the world economy while adjustments are being made to the way business is carried out.

For example, firms will reduce their dependency on travel in their operations, and increase the use of technology where possible to replace travel. Business expansion plans into or out of affected regions will have to be reworked or rescheduled to take into account the new environment.

Assuming that containment efforts remain successful, just as more time passed without any other major terrorist attack post-9/11 led to the return of confidence, the more time that passes without the outbreak getting out of control will lead to a similar return to normality.

As the world economy again achieves equilibrium at a relatively lower level of output reflecting systematic productivity losses, growth in income as well as productivity will resume in an environment renewed with new and much stronger systems and infrastructure to cope with future medical challenges.

Just as the greater war on terrorism is likely to carry on after the elimination of any particular terrorist group, the even broader war on disease will carry on after SARS. But even a defeated SARS will have provided us with a timely reminder that this particular struggle is far from over, or perhaps even impossible to overcome entirely. ■