

# The Hong Kong banking sector's preparedness for a possible influenza pandemic

by the Banking Supervision Department

Recent reported cases of avian influenza in Asia and other regions have raised concerns about a new influenza pandemic. The increased threat of a global outbreak has prompted financial institutions to review the adequacy of their existing business continuity plans. It is clear the traditional scope of business continuity planning for inaccessibility of single office buildings or operational disruption to the computer data centre for short periods is not adequate for a pandemic. This article describes the initiatives being taken by the HKMA to ensure the preparedness of the Hong Kong banking sector and the possible supervisory response and regulatory forbearance to be considered by the HKMA when the Serious Response Level or Emergency Response Level<sup>1</sup> is declared in Hong Kong.

## Background

The first human H5N1 infection occurred in May 1997. By the end of that year, 18 cases had been reported in Hong Kong resulting in six deaths. A decision was made on 28 December 1997 to slaughter all poultry on farms and in markets. Following the completion of the culling, no further local H5N1 infection was found. However, in late 2003 outbreaks of the H5N1 virus among poultry were reported in many Asian countries and by 2 February 2005, 55 human infection cases had been reported from Vietnam, Thailand and Cambodia<sup>2</sup>. The infection in birds also spread to many countries in Europe in early 2006, and by 8 May there had been 207 confirmed human cases of H5N1-based influenza with 115 fatalities<sup>3</sup>. This raised world-wide alarm and the need for a heightened emergency response to prepare for a possible pandemic that

could have devastating consequences for people and the global economy.

The World Health Organization has estimated that between two and seven million people could die in the next influenza pandemic, while other estimates are more pessimistic (with a possible global death toll of up to 50 million)<sup>4</sup>. The Asian Development Bank has also estimated that an influenza pandemic may cause a loss to Asia alone ranging from US\$99 billion (a mild pandemic) to US\$283 billion (a severe outbreak)<sup>5</sup>. Obviously, the impact on the economy is likely to be significant, and could have adverse implications for financial markets. Financial institutions should not therefore assume their existing business continuity plans (BCPs) are adequate, simply because their plans have been developed and tested for other disaster scenarios.

<sup>1</sup> Source: The Government of the Hong Kong Special Administrative Region developed the *Framework of Government's Preparedness Plan for Influenza Pandemic* that includes a three-level response system (Alert Response Level, Serious Response Level and Emergency Response Level), see [http://www.chp.gov.hk/files/pdf/flu\\_plan\\_framework\\_en\\_20050222.pdf](http://www.chp.gov.hk/files/pdf/flu_plan_framework_en_20050222.pdf).

<sup>2</sup> Source: *Plague, SARS and the Story of Medicine in Hong Kong*, Hong Kong Museum of Medical Society.

<sup>3</sup> Cumulative number of avian influenza cases reported since 2004. Source: WHO ([www.who.int/csr/disease/avian\\_influenza/country/cases\\_table\\_2006\\_05\\_08/en/index.html](http://www.who.int/csr/disease/avian_influenza/country/cases_table_2006_05_08/en/index.html)).

<sup>4</sup> Source: WHO ([www.who.int/csr/disease/influenza/preparedness2004\\_12\\_08/en](http://www.who.int/csr/disease/influenza/preparedness2004_12_08/en)).

<sup>5</sup> Source: Asian Development Bank ([www.adb.org/Media/Articles/2005/8716\\_Asia\\_avian\\_flu/default.asp](http://www.adb.org/Media/Articles/2005/8716_Asia_avian_flu/default.asp)).

## Challenges faced by the banking sector

From our experience with SARS in 2003, an outbreak of infectious disease differs substantially from other disasters considered by financial institutions in their business continuity planning. A pandemic is likely to evolve over a longer period, probably several months, and will likely spread in waves across geographic areas and populations<sup>6</sup>. Higher absentee rates are anticipated due to a large number of people falling ill, being quarantined for a period because of close contact with the infected or suspected cases, staying home to take care of sick family members, or choosing not to leave home to avoid close contact with the public. Financial institutions will have to face the challenge of dealing with these high absentee rates (estimated at up to 30%<sup>7</sup>) and prolonged disruptions to their services as well as planning for business survival.

A pandemic is also likely to cause simultaneous multiple events affecting financial institutions' service providers, counterparties and customers. The readiness of external parties<sup>8</sup> is sometimes beyond the control of financial institutions and therefore becomes one of the institutions' most important business continuity considerations. As part of their risk assessment, financial institutions should determine carefully what they need to do to ensure continuity of all their essential business services, despite the problems of external parties.

## Key initiatives undertaken by the HKMA

The banking sector is in a race against time to prepare for a possible influenza pandemic. Since November 2005, the HKMA has been working with the banking industry to ensure a high degree of

preparedness and to minimise systemic risk in Hong Kong. A number of initiatives have been taken:

- (a) A briefing, attended by about 250 industry representatives from over 130 authorized institutions (AIs), was organised in November 2005 to discuss precautionary measures against an influenza pandemic. Following the briefing, a circular was issued to all AIs setting out recommended measures against a pandemic.
- (b) A secure, effective communication infrastructure and network was implemented between all AIs and the HKMA in December 2005. The systems were satisfactorily tested the same month during the Sixth Ministerial Conference of the World Trade Organisation.
- (c) An industry task force involving eight major banks has been established by the HKMA to monitor potential outbreaks and to review applicable good BCP practices for the banking sector. The Department of Health attended the last meeting to brief members on the latest situation regarding avian flu.
- (d) The HKMA conducted theme examinations of selected AIs in January and February 2006 to assess their preparedness for an outbreak. A circular was issued on 1 March to all AIs giving details of the general observations, good practices, and major common issues identified in the theme examinations.

The results of the examinations show that the preparedness of the local banking industry is generally satisfactory. The AIs not up to par have stepped up their preparedness and implemented a series of contingency measures to handle a possible

<sup>6</sup> During the 1918-1919 pandemic, the second wave (which began at the end of August 1918) had a higher case fatality rate than did the first (which began the previous spring). In the 1957 pandemic, the first wave primarily affected school-age children, whereas the second had a greater impact among the elderly. Source: WHO ([www.who.int/csr/disease/influenza/WHO\\_CDS\\_2005\\_29/en](http://www.who.int/csr/disease/influenza/WHO_CDS_2005_29/en))

<sup>7</sup> During past pandemics, attack rates reached 25-35% of the total population. Source: WHO ([http://www.who.int/csr/disease/avian\\_influenza/avian\\_faqs/en/index.html#vaccine](http://www.who.int/csr/disease/avian_influenza/avian_faqs/en/index.html#vaccine)).

<sup>8</sup> External parties include key external service providers, suppliers and outsourced agents.

outbreak. In improving their BCPs, all AIs covered in this exercise have drawn on the experience and lessons learned from the 2003 SARS outbreak and the preparation for the World Trade Organisation event in December 2005. Although some AIs needed to enhance their emergency response procedures and measures, satisfactory progress was made in finalising these arrangements during the examination. By the end of March 2006, all the examined AIs had largely completed their preparations. The examinations also identified good practices adopted by some AIs that will be useful for the industry to better prepare for an outbreak. These are described as follows.

### **Emergency preparedness and response**

- (a) A multi-disciplinary pandemic contingency planning team involving various business and support functions and a clear emergency response structure have been set up to closely monitor progress of the outbreak and manage any possible incidents.
- (b) BCPs have been reviewed and enhanced and are now in line with the Hong Kong Government's three-tier response system. Contingency arrangements have been developed for high absentee rates (30%).
- (c) The resource and system requirements for supporting the "work-from-home" and "split-operations" strategies for a prolonged period (up to three months) have been documented and implemented. These requirements include acquisition of additional mobile computing equipment, pre-arrangement with Internet service providers to rapidly increase the network bandwidth, and the establishment of permanent sites that are readily available for split-operations when needed.
- (d) The capacity of AIs' electronic channels has been reviewed and, where necessary, increased to cater for the possibility of a sudden surge in transaction volumes.
- (e) Drills and walk-through tests of the BCPs have been conducted to familiarise staff with the contingency procedures and to validate the split-operations arrangement.
- (f) The preparedness of key service providers and suppliers has been assessed and confirmed.

### **Infection control procedures**

- (g) Adequate infection control procedures have been established, including acquisition of personal protective equipment (masks, liquid soap, disinfectants, and hygiene kits). Some AIs have also conducted regular inspections of their internal drainage pipes and sanitary fittings, and arranged more frequent cleaning of air-conditioning ducts and dust filters.
- (h) A number of AIs have appointed medical practitioners to organise health talks and seminars for their staff on infection control measures. Others have also established stress management and counselling services for individual staff, particularly for those who are likely to be exposed to a higher stress environment, such as frontline personnel.
- (i) AIs have developed plans for reducing non-essential overseas trips and meetings during an outbreak, with video or telephone conferencing facilities to be used when needed.

### **Staff awareness and communication**

- (j) Staff awareness programmes, for example, briefings, posters, and e-Bulletins on the Intranet, have been organised to disseminate to staff relevant health information and guidelines on the importance of good personal hygiene.
- (k) Effective communication strategies have been adopted to keep staff and external parties, including regulators, customers, counterparties, the media and other stakeholders, informed of any specific action to be undertaken by the AIs. Some AIs have also established a dedicated round-the-clock hotline to be activated during the crisis.

The sharing of experience in preparing for a possible influenza pandemic was a major agenda item for an International Information Technology Supervisors Conference hosted by the HKMA in April 2006. Fifteen bank supervisors from around the world attended the conference. Many economies had yet to issue specific BCP guidance to their financial institutions on a possible outbreak or to assess the preparedness of their financial and banking sectors. The delegates agreed that the HKMA and the UK Financial Services Authority would help establish a focused working group to organise regular conference calls among the major bank supervisors to share experiences. The working group will also explore ways of ensuring effective cross-border communications in an emergency.

## Special supervisory arrangements

In addition to ensuring the preparedness of the banking sector, the HKMA has also reviewed the role of the supervisory process during a pandemic. In a serious outbreak, the HKMA will need to bear in mind whether its normal supervisory process is causing extra stress on the banking industry. It will also be necessary for the HKMA to assess whether flexibility should be exercised in the enforcement of certain supervisory requirements. The HKMA's BCP already takes into account the need for special supervisory arrangements. Where appropriate, such arrangements are primarily intended to lower the regulatory burden on AIs. This enables them to make more effective use of their resources during the crisis, while not significantly compromising the quality of the supervisory process.

Although AIs may want advance knowledge of a list of special supervisory arrangements that will be invoked in the event of an outbreak, it is not practical to publish an exhaustive list because of uncertainties over the impact of the outbreak and potential moral hazard issues involved. In addition, various AIs may require different treatment during the crisis. Depending on the circumstances, the HKMA will consider the appropriate package of supervisory arrangements to be applied to an AI. To allow AIs to

be better prepared for their resource allocation and contingency planning, some general principles for applying the special supervisory arrangements are described in the following paragraphs.

### *Serious Response Level*

Based on experiences during the 2003 SARS outbreak, the HKMA may consider suspending routine on-site examinations when the Serious Response Level is declared. This will help avoid any close contact between staff of the HKMA and AIs. AIs will also be able to free up resources, originally assigned to the HKMA examination, for higher priority tasks. The HKMA may shift on-site examination resources to off-site reviews to facilitate the supervision of AIs.

Certain regulatory reporting requirements may have to be delayed or temporarily suspended until after the crisis. Possible action to be taken includes skipping or deferring certain banking returns (such as the half-yearly returns relating to securities and insurance activities of AIs), control self-assessments (securities-related activities, e-banking, technology risk management and business continuity planning) or ad hoc surveys (survey on taxi loans for example), which may be considered not time-critical and of a lower priority during the crisis. Whether and to what extent regulatory reporting requirements can be reduced will depend on the specific circumstances of the outbreak and its impact on the banking industry.

### *Emergency Response Level*

The HKMA will have to be flexible in enforcing certain supervisory guidelines and guidance, to the extent justifiable and allowed under the law, given the pressure that the banking sector will experience in such a scenario. An example is where the liquidity of individual AIs comes under pressure when interbank liquidity drops significantly. In such circumstances, the HKMA will be flexible in enforcing the liquidity management requirements that have been agreed with the AI, which are intended for a normal operating environment. Another example is a high absentee rate resulting in short-term non-compliance with

certain statutory provisions (such as a delay in updating relevant individuals' information to the HKMA's electronic register). The HKMA will also consider extending the time for implementing requirements set out in new modules of the Supervisory Policy Manual.

If an AI faces a serious liquidity problem, the HKMA will take appropriate steps in keeping with the seriousness and urgency of the case. The HKMA may, subject to certain pre-conditions, consider providing liquidity support within the terms of its policy statement on Lender of Last Resort (LOLR)<sup>9</sup>. Where the pre-conditions are not met, funding support will only be provided with the specific approval of the Financial Secretary for certain situations, for example, if it is considered necessary to give the institution a breathing space longer than that provided in the LOLR terms.

Subject to the specific conditions of a banking problem, and provided the situation warrants, the HKMA may consider taking other supervisory measures to protect the interests of an AI's depositors and potential depositors, and even the integrity of the banking system. These measures include, under section 52 of the Banking Ordinance, the imposition of business restrictions and the appointment of a Manager to manage the AI, if necessary.

The HKMA may also advise AIs that they should generally adopt a more accommodating and flexible approach when dealing with customers experiencing financial stress prompted by the pandemic. Our experience with the SARS outbreak showed it was useful for the banking sector to minimise the risk of a potential asset quality problem arising from a credit crunch. It also helped those economic sectors expecting to face greater pressure, as a result of the pandemic, to overcome their difficulties.

## Conclusion

The HKMA recognises that business continuity planning involves costs, and it may not be cost effective for financial institutions to develop and implement plans for all possible and worst-case scenarios arising from a pandemic. However, the increased level and intensity of the threat following the events of 11 September 2001 and the SARS outbreak in 2003 have shown a clear need for financial institutions to address operational and reputation risks, as well as to maintain customer confidence. Those events revealed important vulnerabilities in various financial institutions and the financial system as a whole. Therefore, it is sensible for financial institutions to have a well-developed and thoroughly-tested BCP for a pandemic that could cause a high absentee rate for a prolonged period.

The implementation of BCPs for a pandemic by individual AIs and the experience gained from SARS have heightened the readiness of the banking sector in Hong Kong. But given the uncertainty of the timing of another possible outbreak and the scale of its impact on the financial and banking sectors, AIs should remain vigilant and continue to review the adequacy of their emergency preparedness as the situation evolves. In conjunction with the industry task force, the HKMA will continue to monitor the development of avian flu and to review the BCP preparedness of AIs through the annual control self-assessment and on-site examinations.

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<sup>9</sup> The "Policy Statement on the Role of the Hong Kong Monetary Authority as Lender of Last Resort" issued in June 1999, formally sets out the HKMA's policy as a lender of last resort to the banking system, including the nature of LOLR support.