

UK Financial Sector
Market Wide Pandemic
Exercise 2006
Progress Report



HM TREASURY



BANK OF ENGLAND

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Market Wide Pandemic Exercise 2006 Progress Report

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Tripartite Deputies' foreword

The Market Wide Pandemic Exercise in October and November 2006 highlighted a number of important challenges that would face the financial sector in the event of a flu pandemic. To address those issues, a series of working groups have considered how the sector might improve its ability to respond to the challenges and thus enhance its resilience.

This report provides updates and describes the progress made by those working groups over the last year. The achievements it sets out are encouraging and we would like to thank all who have contributed to this good outcome. Clearly, however, the challenge of increasing resilience to this type of threat is ongoing; the Tripartite Authorities will, therefore, continue to pursue further improvements to the resilience of the financial sector.

David Strachan
Director
Financial Services Authority

John Gieve
Deputy Governor
Bank of England

Tom Scholar
Managing Director
HM Treasury

Executive Summary

Introduction

The six-week Market Wide Pandemic Exercise, held in late 2006, delivered immediate benefits. All participants reported that their preparedness had been improved and almost all amended their plans either during or immediately after the exercise. Equally important, however, the exercise also highlighted a number of key issues which needed further work to strengthen the resilience of the financial sector against pandemic or indeed any other long-duration event. We summarise those issues, and the progress made on each, below.

The report sets out the progress that has been made in each of those key areas. It also includes:

- updates from experts on the continued spread of H5N1 flu since the exercise took place;
- a commentary on the possible macroeconomic impact of a pandemic; and
- a description of the pandemic exercise the US financial sector ran last autumn.

While many of the work streams which emerged from our exercise were adopted by existing trade bodies, the exercise was notable for acting as a catalyst for new areas of cooperation. New groups were established on remote working, recovery sites and insurance in response to the exercise findings. Having been established, these groups are now expanding their horizons to address a wider range of business continuity issues.

As this report makes clear, good work has been done to analyse the key issues and devise new approaches. It is a tribute to all those involved that, despite the distractions of recent market turbulence, they have stuck with the programme to deliver concrete results. It goes without saying that the work on preparing for such a wide-ranging event can never be fully completed. But this report gives us reason to believe that the sector is considerably better placed to respond to a pandemic than it was before the exercise.

Internationally, the UK exercise has been recognised as ground-breaking by other regulators, some of whom have sought our advice to organise their own pandemic

exercises. This interest is facilitating closer cross-border working and the exchange of information so that, for example, earlier this year we were able to compare our findings and analysis with those of the US financial authorities. We will look to do the same with our counterparts in other jurisdictions as they take their pandemic preparations forward.

Summary of progress on key issues

Since the exercise the following initiatives have been developed or are in progress:

- In November 2007 the Government published ‘**A National Framework for Responding to an Influenza Pandemic**’ and over the next 18 months sector specific plans will be developed.
- Organisations engaged in circulation of cash have developed a **code of conduct** for use in the event of a pandemic.
- A **principles-based framework** has been developed by the retail banks, to improve coordination arrangements to maintain banking services during a pandemic.
- Financial infrastructure providers (London Stock Exchange, LCH, Clearnet and Euroclear) have reviewed and **enhanced contingency arrangements** and communicated this via the CMBCG¹ and MERLIN² business continuity group.
- Insurance firms have set up a continuity group chaired by the Association of British Insurers (ABI) to identify issues which may require **sector-wide solutions** and, through the ABI plan, to share experience with its membership.
- The Remote Working Group, established following the Market Wide Exercise to consider key risks associated with working from alternative locations, has prepared guidance on key issues identified which will be issued more widely in due course.
- ICM, IBM, HP and SunGard have published a statement of intent (see the Tripartite’s Financial Sector Continuity (FSC) Website) to provide clarity to customers and to stimulate further discussion on provision of recovery site service during a pandemic.
- In addition to their work with the above groups, the Tripartite Authorities have met with a number of international regulators to share information about their preparations to manage a pandemic and to discuss cross-border regulatory coordination.

1 The Cross-Market Business Continuity Group, an advisory group chaired by the Bank of England and including the FSA and HM Treasury, which during a major operational disruption provides a forum for the Authorities, infrastructure providers and key firms to share information to help ensure coordination across the markets.

2 The Markets and Exchanges Regulatory Liaison Information Network

Next steps

There is still work to do before every statement of intent, code of conduct or checklist document can be finalised. We will publish these documents on the Tripartite Authorities' FSC Website www.fsc.gov.uk as they are finalised.

We have begun preparations for the next Market Wide Exercise which will take place in November 2008. We will be paying attention to the lessons learned and key issues from the last exercise when designing the next, so that some of the more challenging issues, such as returning to business as usual, are revisited.

Main report – updates

Dr David Nabarro, UN System Senior Coordinator for Avian and Human Influenza, UN Systems Influenza Coordination (UNSIC)

The impacts of an influenza pandemic will first be felt within the health sector as people seek care for their illness, and public health expertise (and the International Health Regulations) will be called into play.

The World Health Organisation (WHO) will lead the international response on behalf of member states, working within the framework provided by the Revised International Health Regulations which came into force in mid-2007. However a pandemic will have far-reaching consequences for all sectors, not only health, due to the impact on labour (absenteeism), consequences for essential services and the damage to international trade associated with attempts by individuals and communities to avoid infection. The World Bank estimates that, as well as causing millions of deaths, the next influenza pandemic could well cost the world economy up to two trillion US dollars³.

This impact can be reduced if people and their nations are properly prepared, and the providers of essential services have made plans to ensure that they can continue under pandemic conditions. The only option is for all national governments to continue to be vigilant so that they can identify the early signs of a possible pandemic, and work together, so that communities, private sector and the government minimise the pandemic's impact on people, livelihoods and society.

3 World Bank's June 2006 edition of the Global Development Finance www.worldbank.org/gdf2006

Current risk level

Health

Update by Dr Nick Phin, Acting Head Pandemic Flu Office, Health Protection Agency (HPA)

An influenza pandemic will occur when a new subtype of the influenza virus emerges that is capable of efficient person-to-person spread and to which few of the world's population are immune. The pandemic will be a global phenomenon with all countries being affected within a matter of months of the emergence of the new subtype. It is likely that many millions of people will be affected by the disease and deaths will be in the range of 4-50 million. The current pandemic influenza risk assessment by the WHO remains at Phase 3 – a new influenza subtype (H5N1) exists capable of causing human infection but with no human-to-human spread or, at most, rare instances of spread to a close contact.

Global spread of H5N1 in wild and domestic birds continues, with more new countries in Asia, Africa and Europe being affected in 2007. As at 26 February 2008, there had been 368 confirmed human cases of H5N1 of whom 234 have died – the mortality from this disease remains at just over 60%. Human disease with the current strain of the H5N1 subtype is only associated, in the vast majority of cases, with close contact with sick or dead birds. However, there have been rare instances of human cases due to possible person-to-person spread. During 2007 a further four countries were added to the ten existing countries in which human cases of H5N1 had been confirmed by the WHO since 2003.

In terms of pandemic preparedness, the UK has already stockpiled sufficient antivirals to treat 25% of the population (14 million treatment courses), with plans to procure a further 25%. A sleeping contract for a pandemic vaccine for the whole of the UK population has been agreed and plans for administering this are being developed by the NHS. If H5N1 emerges as the next pandemic virus then sufficient vaccine is already available to vaccinate healthcare workers and other key groups. Pandemic preparedness within the UK is considered by many to be amongst the most advanced in the world.

Government

Bruce Mann, Director, Civil Contingencies, Cabinet Office

An influenza pandemic is recognised as one the biggest risks that could face the UK. The persistence and growing spread of H5N1 outbreaks in poultry sustains the risk that this or another highly pathogenic related flu virus will develop the ability to spread efficiently from person to person, leading to a global influenza pandemic.

Previous flu pandemics have occurred at 10-40 year intervals. It is now 39 years since the last pandemic. The international consensus is that a flu pandemic could occur at any time.

Recent developments

The Department of Health and Cabinet Office published a joint paper 'National Framework for Responding to an Influenza Pandemic' in November 2007: www.ukresilience.info/news/flu_national_framework.aspx. This updates previous national contingency plans through adopting a more operational and cross-government focus. And it includes information on the likely impact and timing of a pandemic, although these cannot be predicted with confidence.

Forward look – next 18 months

The Cabinet Office and Department of Health are working closely together to compile a programme plan for the next 18 months. This plan will incorporate lessons learned from exercise Winter Willow⁴ (see below).

The emphasis of the programme will then shift from strategic planning to implementation at all levels, including in terms of business continuity and sector specific plans.

The Government continues to recommend that all organisations adopt robust and flexible generic business continuity management arrangements which will help ensure that the impact of any disruptions will be minimised.

Exercise Winter Willow

The exercise made clear that the challenge of maintaining business continuity at local, regional and national levels during a pandemic is recognised by all organisations. However, there was a clear need for organisations to better define their linkages to others and to ensure that their business continuity plans meshed with those of their partner organisations. Issues identified included the need for good recovery plans to handle the backlog of work and further work with both voluntary and private sectors to clarify linkages and the areas of help they might be able to provide.

The evaluation process after the exercise is now complete and can be found at: www.ukresilience.info/news/winter_willow_lessons.aspx

Initial evaluation of these lessons falls into the following categories: public health advice and communications; data and modelling; information flows and reporting templates; policy development; regulatory issues; and wider business continuity issues.

⁴ Exercise Winter Willow was a national pandemic influenza exercise, designed to enhance the UK's ability to manage the effects of an influenza pandemic by practising and validating response policies and the decision making process at national, regional and local levels.

Macroeconomic impact

Peter Matheson, Economic Adviser, HM Treasury

The channels through which a flu pandemic would affect the economy are generally well accepted; it is the quantitative effects which are subject to much more uncertainty. A flu pandemic would give rise to worker absenteeism, fatalities, and thus a loss of output. It would also likely lead to a temporary fall in demand, as individuals tried to minimise the risks associated with face to face contact, and possibly some increased precautionary saving if disproportionate panic caused business and consumer confidence to take a knock. There could also be adverse economic consequences if a pandemic encouraged Governments to impose restrictions on international trade as part of their efforts to stem the spread of infection. Against this, some output losses might be made up once the pandemic had abated.

Financial sector

The Market Wide Pandemic Exercise raised a number of important issues where further work was required to ensure that the sector as a whole is better prepared to withstand a flu pandemic. This section of the report describes the work that the sector has been doing since the exercise to improve resilience.

Retail – Cash Services Group

Andrew Wallace, Senior Consultant, APACS on behalf of the Cash Services Group

Although a flu virus could potentially be transmitted by banknotes and coins these are usually tucked away in purses and wallets; you would be more exposed to infections from coughs and sneezes, and from touching exposed hard surfaces (hand rails, escalator hand belts, door handles, etc.)

Face-to-face cash transactions are inherently resilient, needing no support from any system or infrastructure. But the circulation of cash creates interdependence between cash-handling businesses.

The organisations engaged in the circulation of cash perform many roles: issuers of notes or coin, financial institutions, Post Office, ATM deployers, cash in transit (CIT) companies, cash sorting companies, etc. Each of them has contingency plans which deliver a high degree of resilience, and there are contingency plans for the sector which address the aspects where there are interdependencies.

The Market Wide Exercise 2006 tested these plans and highlighted the extent to which the circulation of cash relies on adequate availability of skilled staff, such as CIT drivers, note sorting machine operators, etc. Modest levels of absence can be handled adequately, while the severe levels of absence seen at the peak of the exercise raised a number of challenges.

The main stakeholders in this sector have been working to refine the plans for a pandemic, so that they centre on:

- preparedness by each stakeholder in the cash sector to handle each stage of a pandemic;
- cooperation, not competition, between stakeholders when the situation merits it (legal advice on this is encouraging); and
- sensitive and pragmatic (non-) enforcement of contracts and SLAs.

A code of conduct has been prepared to set out the ground rules for such a situation. The aim is to optimise cash circulation across the UK during a crisis by ensuring a spirit of cooperation between key stakeholders. With the support of the Bank of England, this work has been taken forward by the financial institutions and cash-handling companies in the APACS Cash Services Group, together with engagement from the British Retail Consortium, Northern Ireland Bankers Association and LINK.

Retail Banks Business Continuity Group (RBBCG)

Cassandra Kenny, Policy Adviser, Market Infrastructures, British Bankers' Association on behalf of RBBCG

As expected during the exercise, the largest impact was on the more labour-intensive parts of the retail sector. One of the main issues, given the levels of absenteeism set out in the scenario, was the coordination of branch closures. The RBBCG has taken forward this work.

Since the Market Wide Exercise recommended that retail banks investigate whether improvements in coordination arrangements to maintain banking services during a pandemic could be made, the retail banks have developed a principles-based framework.

These principles cover a number of areas, including:

- an agreed trigger point;
- not putting staff in danger;
- alignment with government priorities;
- activating a coordination and collaboration framework;
- use of alternative channels; and
- promulgation of the principles.

The principles have been sent to the Tripartite Authorities for ratification and have also been disseminated more widely to other interested parties in the retail banking and building societies sectors with a view to gaining wider acceptance in the UK.

Financial infrastructure

Andy McStravick, Head of Property, Business Continuity and Security, London Stock Exchange (LSE), on behalf of LSE, LCH, Clearnet Ltd and Euroclear

Following the Market Wide Exercise 2006, a series of discussions took place between LSE, LCH, Clearnet Ltd and Euroclear to review the way in which the three organisations prepare for and respond to major operational disasters. As a result of these discussions, the mechanism for notifying the withdrawal of Central Counterparty (CCP) services was reviewed and enhanced, the contingency arrangements for maintaining equity trading in a non-CCP environment were clarified and re-communicated to the market, and the general procedures for maintaining the resilience of securities trading – including execution, clearing and settlement – were reviewed, re-tested and where appropriate upgraded.

Representatives of several investment banks were involved in the discussions, and updates were provided to CMBCG and MERLIN. Further work in this area, including the potential impact of CCP withdrawal on the derivatives market is being taken forward by the relevant parties.

Insurers Group

Phil Hine, Head of Business Continuity, Prudential, on behalf of the Insurers Business Continuity Group

The Market Wide Exercise presented the UK insurance industry the opportunity to exercise its plans to deal with the impact of a flu pandemic. Ten of Britain's major insurance and re-insurance firms participated and demonstrated a high level of preparedness.

Representatives from the insurance firms that participated have been working with the Association of British Insurers (ABI) to:

- identify and confirm sector-wide issues which might need to be addressed collectively; and
- to ensure the membership of the ABI is as well prepared as possible to deal with the threat of a flu pandemic.

Our findings concluded that most of the larger organisations considered they were able to cope fairly well with the scenario. Some UK-based insurers were able to transfer work between regional centres, while some international organisations were able to use their overseas operations to support each other. This ensured continuity of service for core functions like claims handling and servicing for life and general insurance business. Smaller organisations that were based primarily in one location would not be able to divert resource from other countries, but they could divert staff within their organisations. Customer service was considered a key priority so resources and staff were diverted to call centres and customer-focused processes where necessary.

Lessons learned included the need to:

- ensure HR plans have identified policies and amendments are made in advance;
- identify opportunities within operational plans for home working;
- identify the impact of suspension of core/non-core services;
- identify opportunities for transferring operations to unaffected areas; and
- work closely with key third-party outsourcers and suppliers to maintain critical processes.

Individual firms have undertaken internal reviews and projects to address these areas and identify responses. Furthermore, the ABI is actively considering a number of suggestions intended to assist insurance customers in the event of a severe pandemic. The ABI is preparing a discussion paper with its members to consider these issues.

Finally a number of firms commented that much of the work done to plan for a pandemic has delivered enhanced resilience against a range of other (non-pandemic) threats.

Remote Working Group

Ian Martin, Executive Director, EMEA Management Office, UBS, on behalf of the Remote Working Group

The Market Wide Exercise highlighted the importance the financial sector places on home working as a pandemic response strategy. Firms considered that while general business activities could be conducted remotely, compliance and risk management concerns deterred wide-scale trading from home.

Work performed since the Market Wide Exercise

As a result of the Market Wide Exercise findings, a working group was established to determine the key risks and issues associated with working for sustained periods from alternate locations (e.g. home or recovery sites). Some of the key risks and issues are:

- **Uncertainty of the extent of regulatory forbearance** (e.g. specific regulations which might be relaxed, together with the associated communication process to affected firms).
- **Resilience and capacity of the telephony infrastructure** (e.g. reliability of broadband connection and speed during a pandemic).
- **HR and Health & Safety issues relating to home working** (e.g. contract terms of employment and home insurance considerations).
- **Information security risk** (e.g. the risks associated with staff accessing sensitive information outside their organisation's secure environment).
- **Provision of IT equipment and services** (e.g. what policies are in place to support remote working).
- **The availability of recovery sites** (e.g. whether the terms of the contract for supply of alternative space will apply during a pandemic period).

Next steps

Guidance on these topics will be issued in conjunction with the Tripartite Authorities.

Regulatory forbearance

Stuart Willey, Head of Markets and Wholesale Firms, General Counsel's Division, the FSA

In the Market Wide Exercise, an early question was whether, and if so how, the FSA would provide regulatory forbearance to regulated persons who were affected by the loss of staff and the consequent disruption of their businesses. The FSA did so by relying upon a general provision in its Handbook which provides that in an emergency which makes it impracticable for a person to comply with a rule such persons will not be in contravention of the rule.

Where this rule (GEN 1.3) applies, it is necessary for the persons concerned to take all practicable steps to deal with the consequences of the emergency and to mitigate any losses to clients. It is also necessary for an affected person to give notice to the FSA that it is relying upon the emergency provision. In view of the number of firms involved it was decided that, to further assist, the requirement for notice to be given should be waived. An announcement reminding firms that they could rely upon the emergency provision and informing them that the notification requirement had been waived was issued early on in the exercise once it became apparent that significant numbers of firms were affected by the pandemic.

The FSA was also able to give individual guidance to any firms which were unsure of how the emergency provision might apply in their circumstances. Generally the exercise showed that the existing general provision in the FSA Handbook, together with the modification disapplying the need for written notification, substantially addressed many concerns raised by regulated persons.

We did point out that, insofar as regulated persons are subject to regulatory provisions in statute and other directly applicable regulations for which we are not responsible, we were unable to provide regulatory forbearance in the way given by the emergency Handbook provision. However, we were able to say that where we are an enforcement authority for these other legislative provisions, we would of course take the circumstances created by the pandemic into account in deciding whether it would be appropriate to take enforcement action.⁵ We noted that EU legislation (in the form of directives and regulations) does not typically contain any express ‘force majeure’ provisions along the lines of the FSA’s general emergency provision. But we suggested that such legislation might well be capable of purposive interpretation which would result in similar implicit forbearance.

Suppliers

Recovery site providers

Mike Osborne, Managing Director, ICM, on behalf of the Recovery Site Providers Group – ICM, IBM, HP and SunGard

As firms sought to mitigate the concentration risk during a pandemic, the exercise exposed contractual uncertainty over the permitted use of third-party recovery sites with key issues identified by participants being:

- accessibility of recovery sites during a pandemic; and
- changes to service provision by recovery site providers during a pandemic.

⁵ More generally at the wider-government level, government departments (including HM Treasury) have identified possible regulations that may need to be relaxed in a pandemic scenario. The Cabinet Office is leading on work to identify appropriate legislative vehicles.

To address these issues, the FSA and the Bank of England have worked with the four main providers of recovery site services to produce a statement of intent on what subscribers to recovery sites can expect in a pandemic situation.

It has been published on the FSC Website and those of the providers themselves. The statement serves to provide clarity to customers and stimulate further discussion between stakeholders, customers and providers on service provision during a pandemic.

The authors would welcome the subscription of other recovery site providers to the statement.

A working relationship has now been established between the Tripartite Authorities and the recovery site providers, who have indicated a wish to meet regularly to discuss other issues of mutual interest.

Telecommunications

During the exercise firms sought clarification from the telecommunications sector on the levels of service that could be expected during a pandemic. Following the exercise the telecommunications resilience forum undertook to provide a joint statement on the thorough analysis done by its members in preparation for a pandemic, comparing estimates of potential demand and demand experienced during actual events. The statement will be made available on the FSC Website.

David Heath, Secretary of Electronic Communications – Resilience Response Group (EC-RRG), Cabinet Office

It is recognised that telecommunications forms an important part of the UK's Critical National Infrastructure (CNI): it supports the governmental, commercial and social life of the nation. Some major communication providers, government and the regulator have worked together to formulate a National Emergency Plan for this sector.

The telecommunication sector has formed a voluntary organisation called Electronic Communication – Resilience & Response Group (EC-RRG). This enables the coordination of the sector's response to an emergency and where appropriate promotes best practice. EC-RRG is a tripartite organisation made up of major industry players appropriate government departments and the sector regulator.

Members meet regularly to discuss issues relating to emergency planning and to develop and maintain the common approach specified in the plan.

Exercises

EC-RRG runs an annual sector exercise. These have objectives to:

- test the sector wide NEAT (National Emergency Alert for Telecoms) process;
- provide an opportunity for individual companies to test their internal business continuity plans;
- explore realistic modes of failure; and

- promote cooperation and communication between the electronic communication sector, other parts of the CNI and government (national, devolved and local).

The exercises have covered scenarios involving terrorism, extreme weather and extensive power failure.

Interdependency with other sectors

All sectors of the economy depend heavily on communications for their own business continuity. EC-RRG is working closely with government departments to determine the essential needs of these sectors, in particular the financial services sector and the energy sector. EC-RRG is also ensuring that the essential needs of the telecommunications industry during emergencies are recognised by government departments.

The future

The EC-RRG will continue to develop the Telecommunications National Emergency Plan and integrate it with the emergency plans of other UK sectors. It will also continue to arrange an annual exercise that tests the plan.

Telecommunications in an emergency

Several documents will inform the emergency planning community:

- An Introduction to the Structure of UK Telecommunications Sector
http://www.ukresilience.info/preparedness/ccact/cat2_info/telecoms.aspx ;
- Telecommunications Resilience Good Practice Guide (NISCC)
www.cpni.gov.uk/products/guidelines.aspx; and
- TI-EPF Resilience Guidelines for Providers of Critical National Telecommunications Infrastructure
www.resilience.gov.uk/upload/assets/www.ukresilience.info/flu_tiepf_resilience_guidelines.pdf .

International

US financial sector exercise

Valerie Abend, Deputy Assistant Secretary, US Department of Treasury

On 24 September 2007, the US financial services sector conducted a three-week exercise involving a global pandemic flu outbreak. The exercise was a partnership between the public and private sector led by the Financial and Banking Information Infrastructure Committee (FBIIC) and the Financial Services Sector Coordinating Council (FSSCC). The exercise was sponsored by the US Department of the Treasury and the Securities Industry and Financial Markets Association.

More than 2,700 organisations registered to participate anonymously in the exercise, which was free of charge and available through an industry-sponsored website. While small banks and credit unions made up the majority of participants, over 90% of the largest US institutions participated along with insurance companies, securities firms, the exchanges, financial utilities, and State and Federal regulators.

The exercise had three primary objectives:

- 1) enhance the understanding of systemic risks to the sector;
- 2) provide an opportunity for firms to test their pandemic plans; and
- 3) examine how the effect of a flu pandemic on other critical infrastructures will impact the financial services sector.

The scenario, which was planned by a team of financial regulators, health experts and the private sector, examined a number of issues including human resources, continuity of operations, and dependencies on other sectors such as transportation, energy and telecommunications.

The Tripartite Authorities are in touch with authorities in Singapore, Canada and Australia who are also conducting financial sector pandemic exercises.

Conclusions

The sector has made good progress towards improving resilience to this type of threat, developing statements of intent and principles describing the sector's response to a pandemic. Many of the issues raised will be relevant to other threats faced by the sector and we will incorporate some of these challenges in our development of the next Market Wide Exercise later this year. As work on the exercise progresses we will post documents on the FSC Website.

The following websites contain information on pandemic planning:

www.fsc.gov.uk

www.londonprepared.gov.uk

www.ukresilience.info/pandemicflu

www.cabinetoffice.gov.uk/reports/national_security_strategy.aspx

