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FINANCIAL MARKETS LAW COMMITTEE

ISSUE 56 – EMERGENCY POWERS LEGISLATION

Analysis of how the law and market practice would respond to an event of major operational disruption

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FINANCIAL MARKETS LAW COMMITTEE

ISSUE 56 - EMERGENCY POWERS LEGISLATION WORKING GROUP

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Hong Kong Monetary Authority (www.info.gov.hk/hkma)

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FOREWORD

This report considers the extent to which there are gaps in the legal measures that might be taken by public authorities and participants in the international wholesale financial markets in response to an event of major operational disruption. If such an event occurs, such as the atrocities of 11 September 2001, it is important to know that the markets will be able to cope.

The analysis has necessarily had to cover a very large amount of material in a very short period of time. The wholesale financial markets cover a wide range of diverse financial products and geographical areas, which are closely connected by a complex network of transactions, and parties to contracts are heavily reliant on numerous other market participants and systems to enable them to meet their obligations. The London market is the world's most international marketplace, so any disruption to the London wholesale financial markets could be felt worldwide.

During the preparation of this report we have communicated, and to an extent worked in parallel with, the Task Force on Major Operational Disruption established by the Treasury and chaired by Sir Andrew Large at the Bank of England, which has been able to take advantage of the views we have formed as they have emerged.

The analysis we have conducted has covered other jurisdictions of particular importance to the global wholesale financial markets. We are especially grateful to the European Financial Markets Lawyers Group in Frankfurt, the Financial Markets Lawyers Group in New York, the Financial Services Agency of Japan, the Hong Kong Monetary Authority and the Swiss National Bank for the wealth of material they have willingly supplied. This has given our analysis a fully international perspective into the problems faced by the wholesale financial markets and how they might be resolved.

When the FMLC was designed by the Bank of England at the beginning of last year it was intended that the Committee would rely heavily in its work on the resources of firms, both financial and professional, and trade bodies. There must have been some element of hesitation on the part of the designers - certainly there was on my part as the Committee's Deputy Chairman - as to whether this collaborative model would work easily in practice. The collaboration that has gone into this report validates the model. We have been very fortunate in the detailed and necessarily fast input from all of the Working Group members, many of whom have given up substantial amounts of their time to work on this analysis. Without their expertise and collaboration this report could not have been completed so quickly and so thoroughly.

In particular, we are immensely grateful to the three members of the Working Group who chaired the sub-groups developing our main analytical chapters: Chris Bates of Clifford Chance LLP, for the chapters on Standard Contracts, Ian Annetts of Allen & Overy for the chapter on the Infrastructure, and Geoffrey Yeowart of Lovells for the chapter on Existing Emergency and Other Powers. For all three, this has necessarily involved a review of a daunting body of material, most of which is highly technical, and all of which has had to be scrutinised in detail.

Above all, I must express my thanks to Martin Thomas, Secretary to the FMLC, without whose professionalism this report would not have been prepared with such thoroughness, and to the highly able Secretary of the Working Group, Simon McKnight who, having been assigned through the generosity of his firm, Linklaters, to work full-time for several months on this project, has co-ordinated the views of the Working Group members and marshalled the relevant materials with great skill.

Bill Tudor John

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NOTE ON APPENDICES

The appendices are all available at www.fmlc.org. No hard copies are available.

Appendix 1 – Working Group and Terms of Reference

List of members of the FMLC Working Group and the Terms of Reference sent to each Sub-Group.

Appendix 2 – Letters to foreign bodies

Copies of the letters sent to the EFMLG and the FMLG.

Appendix 3 – References and weblinks

Sources of useful material.

Appendix 4 – Contracts materials

This appendix (consisting of Appendix 4A and Appendix 4B) contains extracts of primary material relating to standard contracts used in the preparation of the report, such extracts being relevant to show how market participants in general agree to deal with an event of major operational disruption. Appendix 4A contains extracts of relevant documents but excludes ISDA documents. Appendix 4B contains extracts of ISDA documents.

Appendix 5 – Infrastructure materials

This appendix contains extracts of primary material used in the preparation of the report, such extracts being relevant to show how the infrastructure body in question would deal with an event of major operational disruption.

Appendix 6 – Materials from other international wholesale financial marketplaces

This appendix contains extracts of primary material relating to other international wholesale financial marketplaces, such extracts being relevant to show how an event of major operational disruption would be dealt with in different jurisdictions.

1 INTRODUCTION

The terrorist attacks on the United States on 11 September 2001 caused terrible loss of life and physical damage. They also highlighted the problems that physical disruption on such a scale brings for the wholesale financial markets and the financial system of which they form part. Since then, there have been increasing concerns at the possible adverse effects of major operational disruptions (however caused) on the smooth and efficient operation of the wholesale financial markets.

In response to these concerns, HM Treasury issued a consultation paper[1] (the "Consultation Paper") asking participants in the financial markets and others whether they thought that new legislation should grant powers to the Government to assist it in promoting order in the UK financial system in an event of major operational disruption. HM Treasury stated that the main responsibility for ensuring the UK financial sector's resilience lies with the financial sector itself, but specifically asked whether Government powers to suspend financial obligations and/or direct infrastructure bodies would assist in promoting order. The deadline for responses was 25 April 2003; a total of 36 responses were received[2]. In general, it was felt that a market-based approach would be preferable to new legislation, but that more research was needed into the law and market practice as they currently stand.

The Financial Markets Law Committee was invited by HM Treasury to consider the Consultation Paper. On 13 March 2003 Bill Tudor John, Deputy Chairman of the FMLC[3], convened a preliminary discussion of experts in the range of activities and sectors comprising the wholesale financial markets. The main views exposed in that meeting[4] were that:

(i) the wholesale financial markets are too interconnected internationally for the foreign dimension to be ignored;

(ii) the case was not made out that legal uncertainties resolved by the proposed powers would outweigh those created by them;

(iii) no detailed analysis had been conducted to determine how matters would proceed, if there were major disruption, as the law and market contracts stand;

(iv) there may be more to be done in market-based approaches to cater for major disruption; and

(v) the FMLC might be an appropriate group to have a role in facilitating a City-wide perspective.

The FMLC, at a meeting on 20 March 2003, decided that it should consider these issues. It concluded that arguments for and against the proposed legislation cannot be assessed without a clearer understanding of forms of contracts currently used in market dealings and powers available to public authorities. It decided to convene a further meeting with a wider group of market experts.

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[1] Green paper on "The financial system and major operational disruption", Cm 5751, February 2003, available on the HM Treasury website at www.hm-treasury.gov.uk

[2] The responses that were not marked confidential and a summary of these responses are available at http://www.hm-treasury.gov.uk/consultations_and_legislation/major_operational_disruption/consult_operationaldis_ index.cfm

[3] The Chairman of the FMLC, Lord Browne-Wilkinson, is a member of a committee appointed under s.122 Anti-Terrorism, Crime and Security Act 2001 for the purpose of conducting a review of that Act. The main function of that committee is to consider, and advise upon, the necessity for extremely wide expropriatory powers in the fact of post-11 September 2001 terrorism. For this reason, it is not appropriate for him to be involved for the FMLC in a related field. Bill Tudor John is therefore leading this FMLC issue.

[4] Notes of the meetings taking place on 13 and 31 March 2003, and 27 June 2003, are available on the FMLC website at www.fmlc.org

At this meeting, on 31 March 2003, it was decided that it was necessary to conduct an analytical exercise - a "gap analysis" - to identify whether and, if so, where there are gaps in preparedness. Such an analysis was to be conducted from a City-wide perspective, and include the other main financial marketplaces.

For the conduct of this analysis, the FMLC established the Emergency Powers Legislation Working Group (the "Working Group"). The Working Group met on 27 June 2003 and 6 October 2003. The remit of the Working Group was to analyse the legal background to the issues raised in the Consultation Paper, that is to say, to analyse how the law and market practice would respond to an event of market operational disruption.

The analysis was split up into three strands:

(a) what powers are currently available to UK and relevant international public authorities (such as the European Central Bank)? This is the **powers** strand.

(b) what is the effect of contracts currently used as standard in UK and international wholesale financial markets (including those which establish the rules of exchange and other infrastructure bodies), as regards events of default, "force majeure", definitions of business days and similar issues and how do they interrelate? This is the **contracts** strand.

(c) how do UK and international wholesale financial market centres and legal systems interlink? This is the **infrastructure** strand.

Sub-groups of the Working Group were set up to consider each of the these strands.

1.1 Structure of this report

The issues discussed in this paper are not wholly new. The market has benefited from collective analysis conducted in preparation for the introduction of the euro in 1998 and Y2K in 1999, as well as following the terrorist events of 11 September 2001. These earlier experiences are outlined in chapter 2.

In the rest of the report, we have:

1.1.1 described the relevant parts of English law in chapters 3 and 6. Chapter 3 deals with UK contract law principles of continuity and how contracts might come to an end (e.g. by frustration or contractual provision). Chapter 6 deals with existing powers available to public authorities to allow them to intervene in financial markets in the event of a major operational disruption;

1.1.2 described in overview in chapters 4 and 5 details of more specific transactions. Chapter 4 covers the approaches taken in the contractual documentation that constitutes the international wholesale financial markets to cater for disruptive events. Chapter 5 describes the responses of exchanges and clearing, securities settlement and payment systems used to recover from operational disruptions; and

1.1.3 drawn conclusions in chapter 7.

1.2 Working method

The essence of the issue this report seeks to clarify is the position of the law as it currently stands with regard to major operational disruptions to the wholesale financial markets. This has necessarily involved a review of a daunting body of material, most of which is highly technical, and all of which has had to be scrutinised in detail.

We have therefore needed to adopt a method not only of presenting the findings in a form which is at the same time summarial and informative, but also of stress-testing the material against possible events of major operational disruption both in isolation and interconnectedly. To achieve this, the Working Group adopted two simple hypothetical scenarios (they are identical except as regards the timing of the event).

In the present world political climate, the type of disruption that springs most readily to mind is a terrorist attack. However, there are many other ways in which disruption to financial markets might be caused, not all of which lead to loss of life. The hypothetical scenarios used in the development of this report were:

A

On a windless morning at 6.00 a.m. one Wednesday in 2003, clouds of the notoriously noxious but highly visible Hypothetical Gas form over the Square Mile and Canary Wharf. Those already there are warned immediately by local police to leave and do so. Police cordon off the affected zones by 6.15 a.m. No one is harmed but no one can get to their offices. Hypothetical Gas dissipates harmlessly between one and seven days after its appearance, and its clouds once formed never move.

B

On a windless day at 12 noon one Wednesday in 2003, clouds of the notoriously noxious but highly visible Hypothetical Gas form over the Square Mile and Canary Wharf. Those already there are warned immediately by local police to leave and do so. Police cordon off the affected zones by 1.00 p.m. No one is harmed but no one can get to their offices. Hypothetical Gas dissipates harmlessly between one and seven days after its appearance, and its clouds once formed never move.

These hypothetical scenarios were applied to the material collected to assist in the analysis, but on completing the report it appeared they did not add anything further to the analysis and so are not considered further in detail. However, they are referred to where it is convenient to do so.

1.3 Draft Civil Contingencies Bill

A draft Civil Contingencies Bill (the "CC Bill") was published[5] on 19 June 2003 for consultation, with a deadline for comments of 11 September 2003. If passed by Parliament in its current form, it would give the Government broad powers to make regulations to deal with a widely defined category of emergencies.

In order to exercise the powers set out in the CC Bill, the Government would have to be satisfied that:

1.3.1 there is an event or situation which presents a threat to, among other things, the economic stability of the UK or a part of the UK. This is defined to include, among other things, an event or situation that causes, or may cause, disruption of the activities of banks or other financial institutions. It should be noted that:

(i) this is not expressly limited to operational disruption in the sense discussed in the Consultation Paper, and might include disruption arising as a result of a financial crisis, however caused; and

[5] Available at www.ukresilience.info/ccbill/index.htm

(ii) the CC Bill would also allow the Government to exercise these powers where there is a threat to the "welfare" of the population[6];

1.3.2 the threat is "serious";

1.3.3 it is "necessary" to make regulations for the purposes of "preventing, controlling or mitigating" an aspect or effect of the event or situation; and

1.3.4 the making of the regulations is "necessary" for the purpose of preventing, controlling or mitigating a "serious" aspect or "serious" effect of the event or situation.

If these conditions are fulfilled, the regulations could make provisions of any kind that could be made by Act of Parliament, including the prohibition of activities specified in the regulations or requirements for a person to exercise a particular function. In addition, the Human Rights Act 1998 would apply as if the regulations were an Act of Parliament, which means that UK courts would have no power to nullify the regulations, but only to make a declaration of incompatibility of the regulations with the European Court of Human Rights.

From this alone, even though the CC Bill has not been described in detail, it is clear that in the event of a major operational disruption the CC Bill might give the Government the power to intervene. However, because (a) the CC Bill has not yet been passed and (b) the FMLC analysis is primarily targeted at existing laws and market practice, it seems inappropriate to consider the impact of the CC Bill further in this report.

1.4 International co-operation

The overriding view of the Working Group on how to set about the task was that the international aspects of the wholesale financial markets could and should not be ignored. A great deal of what follows relates to the specificities of the laws and market practice in New York, elsewhere in the US, Japan, Hong Kong, Switzerland, and the rest of the European Union. Much of this material has been obtained through the unstinting cooperation – in an unusually tight timetable – of the FMLC's overseas counterparts, in particular the Financial Markets Lawyers Group in New York, the European Financial Markets Lawyers Group in Frankfurt, the Financial Services Agency of Japan, the Hong Kong Monetary Authority and the Swiss National Bank. We are truly grateful for the wealth of material and advice they have willingly supplied.

[6] The examples given in the CC Bill suggest physical emergencies, but these examples are not exhaustive.

2 LESSONS FROM EXPERIENCE

2.1 11 September 2001

Although the political impact of the terrorist attacks on 11 September 2001 (the first strike took place at around 9.00 a.m. New York time) was felt all round the world, the effect on financial markets was perhaps not as serious as might have been feared. It has been observed that market participants were in general extremely supportive of each other, and were prepared to make allowances for other market participants who were hindered in performing their obligations. However, it should be noted that contracts would probably be scrutinised much more closely following major operational disruptions in situations where a major financial institution was rumoured to be in trouble (i.e. where the market participants stand to lose a large amount of money).

The main effects and responses thereto of which we are aware[7] can be roughly divided into the three strands in which this report is arranged (see chapter 1):

2.1.1 Contracts

(i) Two debt issues due to close on 11 September 2001 (a Tuesday) were postponed to the following Monday. It was significant that these two deals were preplaced, otherwise there might have been difficulty in proceeding at all.

(ii) There was one equity deal where the European tranche had already closed but the US tranche had to be postponed, which caused some confusion.

(iii) There were problems with calculating LIBOR, and Telerate was not available for a while.

(iv) Numerous funds suspended dealings (in the examples identified this was done by suspending calculation of the net asset value per share), including some whose assets were not primarily securities traded on the New York Stock Exchange.

2.1.2 Infrastructure

(i) The New York Stock Exchange was closed for four days[8], as were all other US stock exchanges (including Nasdaq, which is not strictly an exchange) and all US options exchanges. This was mainly due to damage to telecommunications systems and loss of facilities and personnel by key[9] broker-dealers. Lack of physical access to the affected area was another reason. Opening for stock and options exchanges was delayed until Monday, 17 September 2001 to allow companies to complete their restoration efforts and use the weekend to test connectivity[10]. No significant operational difficulties occurred on the Monday and record volumes were traded.

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[7] Most of this information has been obtained from the General Accounting Office's paper on "Potential Terrorist Attacks: Additional Actions Needed to Better Prepare Critical Financial Market Participants", February 2003, GAO-03-251 and press releases and news reports following 11 September 2001. The GAO website is at www.gao.gov

[8] There is some uncertainty as to whether the New York Stock Exchange and other US exchanges ever opened on 11 September 2001.

[9] This means those broker-dealers that provide sufficient liquidity for the markets to operate.

[10] It was initially intended to try to reopen on Friday 14 September, but exchanges and market participants agreed that investor confidence would be seriously affected if technical problems caused the markets to close again once they had been reopened.

(ii) Partial failure of contingency arrangements at the Bank of New York led to multi-billion dollar cash imbalances occurring with several other institutions, both within and outside the US, thereby incurring major unplanned exposures over a period of several days.

(iii) There were some problems with exercising options expiring on or just after 11 September 2001, particularly where the address to which notice of the exercise of the option was to be sent no longer existed. There was an issue as to whether exercise would be honoured if notice was received late, though market participants were of the opinion that options should be assumed to have been exercised if they were substantially "in the money".

(iv) There were isolated, temporary and limited cases of payment problems associated with nostro agents, which mainly led to delays.

(v) There was a massive failure to settle commercial paper transactions on 11 and 12 September 2001, which had to be settled on 13 September.

(vi) The US bond market (despite being an OTC market) was affected by physical and operational disruptions, but trading broadly resumed on 13 September 2001 (though it closed early at 2.00 p.m.).

(vii) Much of the trading in the US government securities market occurs early in the day, so following the attacks when the operations of eight of the nine inter-dealer brokers[11] ("IDBs") were severely disrupted, the results of trading were largely lost and had to be reconstructed from the records of the individual dealers. Trading in US government securities was suspended for less than two days, but it resumed at much lower levels than usual. As the IDBs were unable to communicate with the Government Securities Clearing Corporation, clearing and settlement problems occurred and persisted for weeks (some transactions even took months to be reconciled).

(viii) Repos are one of the most important transactions in government securities markets, and are mainly used to finance market participants' daily operations. Because of this, over US$500 billion in repos had been transacted on 11 September 2001 by the time of the attacks, and the collapse of the IDBs caused dramatic failures in clearing and settlement, and consequently some transactions failed as well[12].

(ix) The Bond Market Association ("TBMA") and the Securities Industry Association ("SIA") helped to arrange daily conference calls with markets participants and regulators to address the steps necessary to reopen the financial markets, which was felt to be important to restore confidence among other things. Both TBMA and SIA issued recommendations to ease the pressure on the trading infrastructure, and TBMA set up a clearing house for its members.

(x) TBMA recommendations to its members included:

(a) settlement of government securities extended from a T+1 to a T+5 basis;

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[11] The IDBs provide brokerage services to other dealers in US government securities.

[12] Repos operate on a much tighter timeline than most securities transactions, so if they cannot be cleared and settled promptly the transaction will often fail.

(b) settlement of secondary market trades on a T+5 basis;

(c) settlement of secondary cash market transactions in treasury and agency securities on a T+3 basis; and

(d) settlement of commercial paper due on 11 and 12 September to be effected on 13 September.

(xi) The SIA was instrumental in helping to develop an industry consensus on how to resolve operational issues.

(xii) To mitigate the impact of failed trades, the Federal Reserve extended the operating hours of Fedwire and the US government securities settlement system. Fedwire continued to operate throughout the affected period.

(xiii) Many securities settlement systems, such as DTC, NSCC and CHIPS, settled transactions on 11 September 2001 and subsequent days. Some systems, including DTC and Euroclear, also extended settlement deadlines to accommodate disruptions and late instructions from the US.

(xiv) Telecommunications services were severely disrupted when a major Verizon central switching office was struck.

(xv) George Pataki, the Governor of New York, issued Emergency Executive Orders permitting New York banks to close offices that were affected from 11 to 21 September inclusive. However, it is not clear whether 11, 12, 13 and/or 14 September were considered to be business days in the sense of banks being open for business.

2.1.3 Powers

(i) Disruption in the financial markets caused a massive demand for intra-day liquidity. The Federal Reserve System actively responded to the situation by releasing a public statement to inform market participants that the Federal Reserve System was open and operating, by contacting banks to encourage use of the discount window to cover unexpected shortfalls, and by waiving daylight overdraft fees and overnight overdraft penalties. Commercial bank borrowings from the Federal Reserve discount window rose from US$200 million to about US$45 billion on 12 September 2001. Daylight overdrafts at the Federal Reserve peaked at US$150 billion on 14 September, their highest level ever and more than 60 per cent. higher than usual. This was despite the Federal Reserve injecting billions of dollars of liquidity into the financial system and with opening system-wide reserve balances on 14 September being slightly more than US$120 billion, when such balances normally range between US$30 billion and US$45 billion.

(ii) From 11 to 13 September (inclusive) the Federal Reserve loaned US$22 billion worth of securities to broker-dealers that needed securities to complete settlement of failed trades. The Federal Reserve subsequently relaxed restrictions on its securities lending, which led to a sharp increase in borrowings by the end of September.

(iii) The Federal Reserve and the Bank of England entered into a temporary swap under which the Bank of England would be able to draw up to US$30 billion for up to 30 days in exchange for sterling. The dollars would, if necessary, be made available to banks in the UK to facilitate settlement of their US dollar transactions (i.e. to

provide liquidity in dollars). A swap on identical terms was entered into between the Federal Reserve and the European Central Bank to swap up to US$50 billion for euro, and another swap was entered into between the Federal Reserve and the Bank of Canada.

(iv) The Securities and Exchange Commission ("SEC") granted temporary relief from certain regulatory requirements to allow market participants to focus on resuming operations. These relaxations included:

(a) extending deadlines for disclosure and reporting requirements;

(b) postponing the implementation date for new reporting requirements;

(c) temporarily waiving some capital regulation requirements;

(d) relaxing rules that restrict buy-backs of quoted shares; and

(e) simplifying registration requirements for airline and insurance industries to enable them to raise capital more easily.

(v) The US Treasury issued 10-year notes to address a shortage of notes of this duration in the US government securities markets (they are typically used by market participants as collateral).

(vi) There was no regulatory intervention in financial contracts. Market participants were encouraged to sort out their problems amongst themselves.

(vii) On 12 September 2001, the New York State Banking Department issued a statement declaring that banking organisations affected by the disaster could close their offices at their discretion, but it also *"strongly encouraged all banks, both branches and principal offices, to continue doing everything possible to serve the public by conducting operations and performing transactions for the convenience of their customers"*, and *"expressed confidence in the ability of banks to meet the needs of their customers"*. It also stated that it was *"expected that only those bank offices directly affected by the emergency will close and will make every effort to reopen as quickly as possible to address the banking and liquidity needs of their customers"*.

(viii) The New York Insurance Department took extensive actions to protect consumers and facilitate recovery in the marketplace. In particular, a claim-handling centre was created to expedite insurance claims and ensure fast and proper recovery of payments.

(ix) The Governor of New York declared a disaster emergency in the State of New York under the Executive Law of the State (entitled "State and Local Natural and Man-Made Disaster Preparedness"). This had the effect, among other things, of triggering the gubernatorial power in section 29a of the Executive Law, which provides that "*the governor may by executive order temporarily suspend specific provisions of any statute, local law, ordinance, or orders, rules or regulations, or parts thereof, of any agency during a state disaster emergency, if compliance with such provisions would prevent, hinder, or delay action necessary to cope with the disaster.*"

(x) 62 Emergency Executive Orders were issued in New York following the attacks[13]. The ones relevant to the wholesale financial markets were issued on 11, 12, 13, 14, 17, 18, 19, 20 and 21 September 2001 by Governor Pataki[14] authorising banking organisations, at their discretion, to close any or all of their places of business affected by the emergency on those days. However, all bank offices and principal offices were encouraged to continue to serve the public by conducting and performing operations and performing banking transactions for the convenience of their customers or relating to transactions between such banks and other banks or persons which remained opened for business.

2.1.4 General Accounting Office report

A report[15] produced by the General Accounting Office ("GAO") reviewed 15 US exchanges and clearing and settlement systems in the wake of the events of 11 September 2001. It highlighted a number of shortcomings in the US financial markets and made certain other observations. These include:

(i) better business continuity plans were required in many instances, and should provide for more wide-scale events. Back-up sites were sometimes also within the affected area and were not always furnished with sufficiently up-to-date equipment;

(ii) there were problems locating staff capable of operating critical aspects of back-up sites;

(iii) some financial market organisations are considered to be critical, and these could be targeted by terrorists to cause maximum disruption (e.g. exchanges such as the New York Stock Exchange that set prices relied on by other exchanges);

(iv) although financial market regulators have now begun to develop *"sound practices [to] better ensure that clearing in critical U.S. financial markets could resume and settlement [be] completed after a disaster, potentially avoiding a harmful systemic crisis"*, *"trading on the markets for corporate securities, government securities, and money market instruments is also vitally important to the economy, and the [U.S.] deserves similar assurance that trading activities would be able to resume when appropriate and without excessive delay."*;

(v) the three regulators for major market participants (the Federal Reserve, the Office of the Comptroller of the Currency, and the SEC) are now working jointly with market participants to develop recovery goals and sound business continuity practices to ensure that they can clear and settle transactions and can meet their financial obligations after future disasters (they have since produced the Interagency Paper described in 2.1.5 below);

(vi) key market participants need to be identified for each market and be required to adopt sound business continuity plans to ensure that they are able to provide sufficient liquidity for markets to open following a disruption;

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[13] Available at www.state.ny.us/sept11/wtc_exeorders.html

[14] Executive Orders 113.3, 113.8, 113.10, 113.11, 113.15, 113.16, 113.17, 113.20 and 113.22 respectively. The wording used for each is identical.

[15] "Potential Terrorist Attacks: Additional Actions Needed to Better Prepare Critical Financial Market Participants", February 2003, GAO-03-251. The GAO is the audit, evaluation and investigative arm of Congress.

(vii) exchanges and clearing systems did not suffer direct damage, and would probably have taken longer to reopen if they had;

(viii) many of the telecommunications failures were caused because there were insufficient redundancies[16] in the systems (i.e. too many failed when a single link failed);

(ix) the SEC's Automation Review Policy, which oversees how exchanges and clearing systems reduce operational risk, is merely voluntary;

(x) few securities regulations specifically address exchange and broker-dealer operational issues, and securities regulators have largely left such operations to the business decisions of these organisations; and

(xi) although regulators are now developing recovery goals and sound business continuity practices for clearing, settlement and payment systems, they have not begun a similar effort for trading activities. The GAO states that trading on the markets for corporate securities, government securities and money market instruments is vitally important to the economy and it needs to be ensured that trading in such markets resumes when appropriate and without excessive delay.

The GAO has also issued recommendations that the SEC should work with the financial markets industry to:

(a) develop goals and strategies to resume trading in securities markets;

(b) determine sound business continuity practices needed to meet these goals;

(c) identify market organisations (including broker-dealers) critical to market operations and ensure they implement sound business continuity practices; and

(d) test strategies to resume trading.

2.1.5 Interagency Paper

On 7 April 2003, the Federal Reserve, the Office of the Comptroller of the Currency and the SEC signed and issued a report entitled "Interagency Paper on Sound Practices to Strengthen the Resilience of the US Financial System". The Interagency Paper notes that the financial system *"operates as a network of interrelated markets and participants. The ability of an individual participant to function can have wide-ranging effects beyond its immediate counterparties."*

The Interagency Paper has identified broad industry consensus on three business continuity objectives that have special importance after the events of 11 September 2001 for all financial firms. These are:

(i) *"Rapid recovery and timely resumption of critical operations following a wide-scale disruption*.

(ii) *Rapid recovery and timely resumption of critical operations following the loss or inaccessibility of staff in at least one major operating location.*

[16] Redundancies are duplicated links, so if one link fails another link is able to carry the telecommunications signal.

(iii) *A high level of confidence, through ongoing use or robust testing, that critical internal and external continuity arrangements are effective and compatible."*

The Interagency Paper has also identified sound practices that focus on minimising the immediate systemic effects of a wide-scale disruption on critical financial markets. These focus on appropriate back-up capacity necessary for recovery and resumption of clearing and settlement activities, not recovery and resumption of trading itself. The sound practices are to:

(a) Identify clearing and settlement activities in support of critical financial markets.

(b) Determine appropriate recovery and resumption objectives for clearing and settlement activities in support of critical markets.

(c) Maintain sufficient geographically dispersed resources to meet recovery and resumption objectives.

(d) Routinely use or test recovery and resumption arrangements.

Systemic risk is defined[17] as *"the risk that the failure of one participant in a transfer system or financial market to meet its required obligations will cause other participants to be unable to meet their obligations when due, causing significant liquidity or credit problems or threatening the stability of the financial markets."*

The critical financial markets are defined as the markets for:

(i) federal funds, foreign exchange and commercial paper;

(ii) US Government and agency securities; and

(iii) corporate debt and equity securities.

The UK critical financial markets are identified in section 5.6.

It is interesting to note that the Interagency Paper defines core clearing and settlement organisations as those which present systemic risk should they be unable to perform (either because they are used by critical markets and high value payments, or their aggregate market share is significant enough such that there are no viable substitutes). This is considered in relation to the UK in section 5.5.

It should be noted that at a macro level, the damage caused by the events of 11 September 2001 was confined to a relatively small area of downtown Manhattan. The responses listed in 2.1.1 to 2.1.3 above might have been significantly different had a much greater area been evacuated (which is essentially what our hypothetical scenarios considered). In particular, the main processing sites of the US payment systems Fedwire and CHIPS were unaffected, the only problems encountered being caused by widespread damage to the telecommunications systems.

The emphasis of the response to the events of 11 September 2001 was to reopen the financial markets as quickly as possible, while always bearing the human tragedy in mind. The aim of the responses taken were threefold: (i) to avoid uncertainty; (ii) to give people confidence in the financial markets; and (iii) to give people extra time to perform contractual obligations. A

[17] This definition is based on the international definition of systemic risk in payment and settlement systems used in "A glossary of terms in payment and settlement systems", 2001, produced by the Committee on Payment and Settlement Systems, Bank for International Settlements. See section 5.4.3.

systematic review of the statutory authorities (mainly the Federal Reserve and the SEC) is being conducted by several interested regulatory authorities and market associations to see if anything more could be done, but the general consensus among regulators and market participants appears to be that there is no pressing need for change.

2.2 Y2K

Leading up to the year 2000 ("Y2K") there was considerable concern globally that computer systems might not be able to handle the date change for whatever reason, which was known as Y2K date change problem (or the Millennium Bug). Consequently, regulators required exchanges, clearing, securities settlement and payment systems, and market participants to conduct extensive reviews of their systems and communications networks, and to report to the regulators on progress. A number of financial markets industry associations conducted a review of their standard documentation to determine whether they would respond adequately to these problems.

2.3 Introduction of the euro

Similar analyses were conducted to determine how the introduction of the euro and subsequent disappearance of certain currencies (and therefore related price sources) would affect existing financial contracts. While this is not really an operational disruption, the analyses have been helpful for their discussions of principles of contract law and how the general principle of continuity of contracts might not apply in certain events.

2.4 The Russian Moratorium

During 1998, Russia was severely affected by financial crises[18] and political scandals. In response to this, after earlier failed attempts to shore up the financial system, the Russian government imposed among other things (i) a mandatory restructuring of state bonds to extend maturity dates, and (ii) a moratorium on repayments to non-residents. These provisions (together known as the "Russian Moratorium") were announced on 17 August 1998. The aims were to (a) devalue the rouble and (b) provide Russian banks with some breathing space to renegotiate the terms of their foreign liabilities.

Under the mandatory restructuring of state bonds, existing short-term state bonds[19] were replaced with new, longer-term debt securities (this had the effect of a moratorium in that payment of the debt was postponed). The details of the mandatory restructuring are not important for this analysis, but it is worth noting that there was uncertainty over whether this was legal under the Russian constitution. The bondholders were not happy with this mandatory restructuring as they would only receive a low return on the restructured bonds.

The moratorium on repayments was even more controversial. Under this, certain transactions classified as movements of capital or debt repayments to non-residents of Russia were subject to a 90-day moratorium. This meant that non-residents of Russia would not receive their capital or debt repayments until 14 November 1998.

The net effect of the Russian Moratorium was a massive loss of investor confidence and the Russian stock exchange plunged by over 80 per cent. Far from alleviating financial disaster, the intervention by the Russian government appeared to have created more uncertainty in the volatile Russian

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[18] This was partly caused by a knock-on effect from the Asian crisis in 1997 and falling oil prices.

[19] GKOs (rouble denominated zero-coupon treasury bills) and OFZs (rouble denominated floating rate notes).

market and increased panic amongst foreign creditors. This is perhaps a prime example of the dangers of government intervention, which is why it has been summarised here (note, however, that the actions of the Russian government were not triggered by operational disruption).

The most high-profile casualty at that time was Long-Term Capital Management ("LTCM") which suffered a spectacular near-collapse and eventually had to be bailed out. The Russian Moratorium was only one contributory cause of LTCM's problems when it effectively ruined a trading strategy LTCM had entered into (one of these required delivery of roubles to LTCM, which could not be performed). Other lower-profile hedge funds and investment banks were also adversely affected.

2.5 Pure financial crises

Another source of major operational disruption could be a purely financial crisis, such as the collapse of Barings in 1995 and of LTCM in 1998. Although Barings incurred derivatives trading losses of almost £1 billion, it was allowed to collapse without Government intervention and did not cause much disruption to the wholesale financial markets. The Bank of England had made it clear to the financial markets that it was prepared to make liquidity available, but in the end it was not needed. No problems were caused in the interbank market as Barings was relatively small, and it was eventually bought by ING for a nominal sum of £1. In LTCM's case, LTCM was bailed out by a consortium from the private sector (encouraged by the Federal Reserve) because many market participants thought that allowing it to collapse and selling off its assets (a "fire sale") would have too great an impact to the detriment of the wholesale financial markets by impairing liquidity.

Alan Greenspan[20] stated that *"a fire sale [of LTCM assets] may be sufficiently intense and widespread that it seriously distorts markets and elevates uncertainty enough to impair the overall functioning of the economy. Sophisticated economic systems cannot thrive in such an atmosphere."* He also noted that a bail-out was partly required due to the difficult market environment prevailing at the time (following the Asian crisis in 1997), and emphasised that it might not have been required when the financial markets were full of confidence.

A report[21] produced by the Economic and Financial Committee (based in Europe) looks into the options available for a purely financial crisis. These are:

(i) private sector solutions with public authorities acting as "honest broker";

(ii) liquidity support measures. It distinguishes between provision of liquidity to firms under the central bank's standing facilities from emergency liquidity assistance;

(iii) public intervention tools for exceptional circumstances (e.g. deposit insurance funds, rehabilitation of assets, nationalisation); and

(iv) winding down by closing all open contracts and terminating other obligations (this occurred with both Barings and LTCM).

The report emphasised the need for accurate information to enable decisions to be taken, and this has led to the memorandum of understanding between the banking supervisory authorities and national central banks

[20] The Chairman of the Board of Governors of the US Federal Reserve System. He testified to the Committee on Banking and Financial Services of the US House of Representatives on 1 October 1998 on the private-sector refinancing of LTCM. See http://www.federalreserve.gov/boarddocs/testimony/19981001.htm for a transcript.

In the last five years there has been extensive research into risk modelling processes used by financial institutions, which is intended to reduce the likelihood of such events occurring again. Policies have been made based on this research, in particular capital adequacy requirements. Analyses conducted into the Barings and LTCM crises suggest that liquidity is the greatest issue that needs to be addressed for purely financial crises, which is properly the role of central banks and major financial institutions.

Although some of the solutions the Government would need to consider for a purely financial crisis are different from those for other major operational disruptions (e.g. bailing out the insolvent financial institution and winding up its open contracts), for the purpose of this analysis a purely financial crisis can be treated largely as a subset of a major operational disruption as there is no great difference between its impact on the wholesale financial markets and the necessary powers are already in place (although there may be competition issues to consider). Therefore, a purely financial crisis does not merit special consideration in this analysis.

[21] "Report on financial crisis management", July 2001. The Economic and Financial Committee is an advisory body that was established to prepare the work of the European Council in relation to a range of economic and financial issues. More information is available at http://europa.eu.int/scadplus/leg/en/lvb/l25038.htm

3 CONTRACT LAW

This chapter discusses the approach taken by English law to existing contracts affected by circumstances surrounding formation or performance of the contract, and goes on to discuss the differences in other jurisdictions.

3.1 General principles of English contract law[22]

It is a fundamental principle of English contract law that parties voluntarily entering into a contract should be strictly bound by that contract, even if circumstances change after the contract is entered into.

3.1.1 Balance between certainty and fairness

When parties reach an agreement which forms a binding contract, they do so against the factual background at the time and their anticipation of the ways in which the circumstances might change. Often, expected changes do not come about or unexpected changes occur. Either event might have led one or both parties, with the benefit of hindsight, to contract on different terms or not at all. In any legal system this creates a dilemma. On the one hand, the need for predictability and certainty requires that, once parties agree to be bound by contractual obligations, they should honour those commitments. On the other hand, it is artificial to separate the obligations which parties undertake from their shared understanding of the circumstances in which those obligations are undertaken and will be performed. If, without fault on anyone's part, the circumstances turn out to be radically different from those anticipated, fairness and common sense dictate that the obligations should be adjusted or, if that is not practicable, the parties should be released from their obligations altogether.

Each legal system has to devise rules which balance these two principles. It has been said[23] that there is a distinction between civil law systems and common law systems in the way which they approach this problem. In civil law systems the basic contractual remedy is an action to enforce performance. For this reason, the legal system tends to favour the second principle, since it is unwilling to order parties to perform obligations when they might be impossible to perform or where performance will be manifestly unfair. In the common law, however, the principal remedy for breach of contract is an award of damages, and the Court need not find itself in a situation where it has ordered parties to do things which are impossible or unrealistic. In any event, the early history of the common law was to insist upon continuity of contractual obligations despite radical changes in circumstances. The fact that individual parties might sometimes be treated harshly was considered a price worth paying for the principle of sanctity of contract.

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[22] A great deal of this section is based with permission on the paper issued by the Financial Law Panel in January 1998 entitled "Economic and Monetary Union – Continuity of Contracts in English Law".

[23] "Frustration and Force Majeure" by G.H. Treitel, Sweet & Maxwell 1994, chapter 1-002.

3.1.2 Continuity - the basic rule

The starting point of common law thinking was, and remains, that parties should be strictly bound by the terms of the contracts which they have voluntarily made[24].

The strict doctrine of contract continuity has always been subject to qualifications and exceptions. However, the first principle has always been that contracts properly made should be enforced in accordance with their terms.

3.1.3 Legal mechanisms to preserve continuity

The courts developed a series of refinements and exceptions to the absolute contract doctrine, which culminated in the development of the doctrine of frustration of contract during the late 19th century.

The situations in which a contract may come to an end, or have its terms materially altered, on the occurrence of unforeseen events are:

(i) Contractual provisions (force majeure)

It is open to parties, when they enter into a contract, to make express provision for future events which might change the way in which their obligations should be interpreted, or which should discharge their obligations altogether.

Such a provision might relate to a future event which, although foreseen, was not expected. For example, multi-currency loan agreements often contain a "disappearance of market" clause, which foresees the possibility that the lenders are unable to obtain deposits in the currency which they are otherwise contractually obliged to lend, and usually provide for the loan to be made or maintained in an alternative currency.

The loan agreement may expressly contemplate the happening of events, the exact nature of which cannot be foreseen, but which alter the economic assumptions on which the agreement was based. The parties may have agreed to include a provision which deals with this situation. Such a provision, again drawn from standard form loan agreements, is the "change of circumstance" clause which provides that, in the event of a material change in circumstances which has the effect of rendering it illegal for the bank to maintain its loan, it is discharged from that obligation and may demand repayment of outstanding amounts.

The most widespread form of this kind of anticipatory drafting is the "force majeure" clause, included in many kinds of contracts, which in its usual form excuses the parties from liability for failing to perform their contractual obligations if performance of those obligations is prevented or delayed by circumstances outside their control. It brings the contract to an end in certain situations (most commonly where performance becomes illegal, such as where the parties reside in countries that go to war with each other after the contract is entered into, and where trade in such circumstances is prohibited by law), but provides that performance shall be merely suspended in others until the force majeure event no longer exists. Force majeure clauses have the flexibility to be drafted very widely. Illegality is the

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[24] See *Paradine v Jane* (1647) Aleyn 26: *"But when the party by his own contract creates a duty or charge upon himself, he is bound to make it good if he may, notwithstanding any accident by inevitable necessity, because he might have provided against it by his contract."*

strictest form, and is often separate from the force majeure provision. It brings the contract to an end if it becomes illegal to perform any of the obligations (subject to some consequential variations). The more relaxed forms of force majeure clauses are sometimes known as hardship clauses, and usually request renegotiation of the contract if performance becomes excessively onerous (but not necessarily impossible) due to some unforeseen event.

(ii) Implied terms

In some circumstances, courts are prepared to imply into a contract a term which the parties did not think to include expressly. This mechanism is not easily invoked and is subject to a number of constraints. In particular, a term will only be implied if it is necessary in order to give commercial efficacy to the contract, and if it is clear what the parties would have decided had they addressed the question at the time when the contract was entered into.

A relevant and clear example of this reasoning occurred in August 1981. The occasion was the decision by the Bank of England in that month to cease publishing Minimum Lending Rate ("MLR"), following a change in the way in which the Bank conducted monetary policy. There were, at the time, many contracts in existence where interest was to be calculated by reference to MLR, or where MLR was a factor in the calculation of interest. Among these were contracts for the sale of land concluded on standard terms drafted by The Law Society, under which interest for late completion of the transaction was calculated by reference to MLR. Many thousands of these contracts were in existence at the date of abolition of MLR, and its effect on the contractual obligations was therefore of critical importance.

There were only two alternatives. The first was that the interest provisions were entirely inoperable, since it was impossible to calculate interest as provided by the contract. If this was the case, the contract would probably come to an end by operation of law. In the context this result would be highly undesirable. The alternative was to imply a term into the contract in order to fill the gap. The conditions necessary, at law, for the implication of a term would be satisfied since:

(a) it was necessary to imply such a term in order to give business efficacy to the contracts; and

(b) it was, in the event, possible to see what the parties would have chosen as their term, had they thought about it. It was clear that the base rate published by the main clearing banks (which was the same rate for all banks) reflected the cost of money in a way that was in practice very close to that which had previously been shown by MLR.

It was therefore the clearly sensible solution for a court to imply into the contracts a reference to clearing bank base rate, in place of MLR. This was accepted by consensus among lawyers and the point never came before the courts for argument[25].

[25] The view was supported by an opinion given to The Law Society by Leonard Hoffmann Q.C. (now Lord Hoffmann, one of England's most senior judges).

It is important to approach with care the question of implication of contractual terms. English courts are not prepared to rewrite commercial contracts to cover matters which the parties simply overlooked. The example does, however, illustrate the pragmatic approach that English commercial courts are likely to adopt, as they are in general very reluctant to allow the application of technical legal doctrines to undermine the purpose and intent of commercial arrangements.

(iii) Frustration

The doctrine which holds a party liable to perform its contractual obligations in their strict terms, even if that has become impossible or no longer makes commercial sense, can produce injustice. As set out in (ii), there are a number of ways in which the parties themselves, or the courts, can adjust the content of contractual obligations to provide for radically changed circumstances. There are, however, circumstances where none of these mechanisms is available. To deal with this very small number of cases, the courts developed the doctrine which is now known as "frustration of contract". This doctrine differs from the mechanisms described above in a crucial respect: it does not lead to the adjustment of the affected contractual obligations, but to the termination of the contract[26].

For the purposes of this paper there is no need to discuss in detail the conceptual basis on which the various aspects of the doctrine of frustration are founded, nor to address the issues of fine detail which arise from the case law. There are two aspects of the doctrine which need to be considered:

(a) When does the doctrine of frustration apply?

The doctrine is very rarely invoked by the courts. Because of the importance attached to the principle of continuity by the common law, the courts will only in very extreme cases find themselves compelled to hold that a contract has become frustrated and the parties discharged from fulfilling their obligations.

The doctrine applies

> *"as an expedient to escape from injustice where such would result from enforcement of a contract in its literal terms after a significant change of circumstances."* [27]

In view of this objective, it comes as no surprise that the courts have never laid down a definitive test which will determine whether or not a particular change of circumstances has the effect of frustrating a contract. There are, however, a number of conditions which must be met. For example, a frustrating event must be an extraneous event or change of situation which takes place without fault on the part of the party seeking to rely on it. It is also established that the doctrine must be kept within very narrow limits and should not be extended[28].

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[26] One of the mechanisms (specific provision in the contract) might bring about termination of the contract, if that was what the parties had agreed.

[27] Bingham L.J. (as he then was) in *J Lauritzen A.S. v Wijsmuller B.V. (The Super Servant Two)* [1990] 1 Lloyd's Rep. 1.

[28] *ibid.*

General statements of when the doctrine might apply can be misleading. Instead, one needs to examine the case law in detail, to see the circumstances in which the courts have held it appropriate to apply the doctrine. These cases fall into two broad categories. First, the most obvious cases of frustration are those in which it has become physically or legally impossible to perform the anticipated contractual obligations. This would apply, for example, where performance of the obligation becomes illegal after it has been undertaken, or where the subject-matter of the contract has been destroyed. Another obvious application is where the contract requires the performance of personal services (e.g. a musical performance by a particular musician) and the individual concerned dies or is incapacitated.

Even if performance of the obligation is possible, both legally and physically, the doctrine may nonetheless apply where the commercial object of the contract can no longer be performed. It must be stressed that this does not apply where a change in circumstances has merely made a contract uneconomic, or obligations more onerous. Something much more radical is required. A clear explanation of this category is that given by Lord Radcliffe in 1956[29], when he explained that a contract might be discharged on the grounds of frustration

> *"... whenever the law recognised that, without default of either party, [it] has become incapable of being performed because the circumstances in which performance is called for would render it a thing radically different from that which was undertaken by the contract. ... it is not hardship or inconvenience or material loss itself which calls the principle of frustration into play. There must be as well such a change in the significance of the obligation that the thing undertaken would, if performed, be a different thing from that contracted for."*

This illustrates the reason why it is not possible to give a definitive test of whether a contractual obligation will be deemed frustrated on the occurrence of a particular event. The question of whether "*the thing undertaken would, if performed, be a different thing from that contracted for*" is a question of fact which can only be determined in the light of events, after they occur. A particular event might have a different effect on different contracts. Thus, in one case[30], the incidence of inflation after a contract had been made was referred to as one of the "*circumstances in which the doctrine has been invoked, sometimes with success, sometimes without*".

It is often said that, for the doctrine of frustration to apply, the event involved must be unforeseeable, or at least unforeseen, by the parties. The reasoning behind this is that if an event was foreseen by the parties, but they decided not to provide for its occurrence in the contract, they must have been content that they should continue to be bound by their obligations,

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[29] *Davis Contractors Ltd v Fareham U.D.C.* [1956] A.C. 696, at 729.

[30] *National Carriers v Panalpina* [1981] A.C. 675.

even if it happened. This proposition must be approached with great care. The issue of foreseeability is in reality a question of construction of the intention of the parties when they entered into the contract.

It may be, for example, that the change concerned was seen by the parties as a theoretical possibility at the time that they entered into their contract, but regarded as a possibility which would not come to pass. In this case, the parties may have contracted on the basis of the shared expectation that no change would occur.

On the other hand, if it is clear that, at the time when the contract was made, the parties were aware that a particular event might well happen, but deliberately chose *not* to provide for its occurrence in their contract, the construction will normally be that they intended to be bound by their contractual obligations, even if the event happened[31].

It must be remembered that, where the event concerned is unforeseen by either party, it does not necessarily lead to the frustration of the contract. The effect of the event must be to make performance impossible, or to remove the commercial point to the contract[32].

(b) The consequences of frustration

An event which frustrates a contract brings the contract to an end at that point, and releases both parties from any obligations which were intended to be performed after that point. The frustrating event does not make the contract void (which would have the effect of treating the contract as if it had never existed at all).

The adjustments in the financial affairs of the parties which a court may make, following a frustrating event, are set out in the Law Reform (Frustrated Contracts) Act 1943 ("LRFCA"). The LRFCA is short and its wording deceptively simple. There are a number of unanswered questions about the detail of the wording, particularly where the contracts concerned are not straightforward agreements for the sale of goods or provision of services. Paradoxically, the lack of judicial interpretation of the LRFCA's provisions is a positive sign – it shows how rarely the LRFCA has been invoked.

The most important provisions of the LRFCA, in the present context, can be summarised as follows:

(I) Where a contract can be properly broken down into different parts, these parts which have been performed already will be unaffected by the frustration[33].

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[31] This is not, however, always the case. There have been instances where events were foreseen, but where the Court decided that the wish of the parties was that, if the events happened, the doctrine of frustration should apply. See for example *Ocean Tramp Tankers Corporation v V/O Sorfracht (The Eugenia)* [1964] 2 Q.B. 226.

[32] *Davis Contractors Ltd v Fareham U.D.C.* [1956] A.C. 696.

[33] Law Reform (Frustrated Contracts) Act 1943 s.2(4).

(II) As regards those parts of the contract which are affected, the basic rule is that all sums paid or payable by any party at the time when the frustrating event occurs are to be repaid (or will cease to be payable), with an allowance being made for "expenses" which the payee has incurred for the purpose of the contract[34].

In the case of contracts in the financial markets, it is difficult to see how the provisions relating to expenses would apply. In practice, the likelihood is that all payments would be reversed.

(III) Where, under an affected contract, a party has received a valuable benefit, other than a payment of money, the other party may recover such sum as the Court feels is just in the circumstances[35].

Certain specified classes of contract are excluded from the ambit of the LRFCA altogether. These are[36]:

(I) most charterparty contracts;

(II) contracts for the carriage of goods by sea;

(III) contracts of insurance; and

(IV) contracts for the sale of specific goods which have perished.

In these cases, the legal consequences of frustration will follow the law as it was before the LRFCA was passed.

There is very little authority on the interpretation of these rather cryptic provisions. What is clear is that they were not drafted to deal with sophisticated financial contracts, but rather had in mind arrangements relating to commercial trade. However, there is a considerable degree of flexibility and discretion built into the rules and, in the unlikely event of their being applied in the context of financial markets, there is no reason why the result should be inappropriate or unjust.

(iv) Agreement between the parties

Performance of the obligations under a contract can of course be postponed or cancelled if all parties to that contract agree. This would suggest that if one party is unfairly prejudiced by an unforeseen event, the other party might reasonably be expected to waive its right to insist on performance. Following 11 September 2001, there was evidence to suggest that market participants were generally supportive of one another, and were prepared to overlook strict contractual terms in the interests of the financial markets as a whole. However, it is important to note that this was not just about altruism. Many market participants are likely to be on both sides of a potential problem posed by a major operational disruption (they will be referred to as "insiders" for convenience) so it is in their interests to clear matters up quickly rather than argue in favour of one side or the other. "Outsiders" are more likely to

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[34] *ibid* s.1(2).

[35] *ibid* s.1(3).

[36] *ibid* s.2(5).

have a position favouring one particular solution, and might therefore be less inclined to resolve issues on the basis of fairness.

In addition, even insiders might be less likely to support each other so willingly if, following the major operational disruption, there are rumours about the financial stability of a major market participant.

3.1.4 Continuity in the context of wholesale financial markets

Market participants do not like to rely on the doctrine of frustration as there is nearly always some uncertainty as to whether it applies to a particular event. Force majeure clauses of some form are now found in most major commercial and financial contracts specifically to clarify the agreed position regarding disruptions. Specific force majeure clauses used in the wholesale financial markets are discussed in chapter 5. Other contractual provisions providing for alternative performance if particular provisions cannot be complied with are now commonplace, and force majeure clauses are always used as a last resort.

One of the most common reasons for entering into financial contracts is to hedge other liabilities. This means that complex chains of transactions have become commonplace, and it is clear that a market participant would not be happy if one transaction loses huge sums of money and he is not able to rely on another transaction (for whatever reason) that he had entered into purely as a form of hedge in case the first transaction went wrong. Therefore, it is not enough to consider contracts individually, it is necessary to determine how they interrelate. This is discussed in more detail in chapter 5.

3.2 International approaches to continuity of contract and force majeure[37]

The doctrine of force majeure derives from Roman law[38], which effectively based liability for breach of a contractual obligation on the "fault" of the parties. The words "force majeure" come from French law, which like most civil law jurisdictions is largely based on Roman law. Force majeure is now a fundamental legal principle prescribed by law in most jurisdictions that are important for the wholesale financial markets; English law appears to be exceptional in not specifically providing for it.

In the US there are common law doctrines of impossibility, frustration of purpose and commercial impracticability. The US doctrines of impossibility and frustration of purpose are largely similar to the English common law principle of frustration. US courts generally try to avoid breaking a contract if they can and often put pressure on the parties to amend the terms of the contract rather than break it (but note state variations as to what standards need to be met for these doctrines to be invoked, though the threshold is generally pretty high).

Commercial impracticality under US law is a subset of impossibility. Impossibility means not only strict impossibility but also impracticality because of extreme and unreasonable difficulty, expense, injury or loss involved. A decision as to what is impractical is largely subjective, based on US case

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[37] For a more comprehensive discussion see "Force Majeure and Frustration of Contract" by Ewan McKendrick, second edition, 1995, published by Lloyd's of London Press Ltd.

[38] The Latin name for it is *vis maior*.

law. The Restatement of Contracts §454 (1932) provides[39] that: *"Legal impossibility may be established without showing actual or literal impossibility. Thus a finding of legal impossibility may be based on "commercial impracticality" ... As noted before, practical impossibility need not be actual impossibility. It can be such that it is economically infeasible or it is not possible to construct within either the allotted or a reasonable construction time. As best expressed, practical impossibility means that the result asked for is not possible within the basic objectives contemplated by the parties so as to amount to commercial senselessness."* If commercial impracticality occurs, the party's *"duty to render ... performance is discharged, unless the language or the circumstances indicate the contrary."*[40] However, there is no US case law where it has been used to excuse non-payment, it predominantly relates to delivery of goods and performance of services (particularly in relation to construction contracts), though there is nothing to suggest that it cannot be used to excuse non-payment. Commercial impracticality has a similar effect to force majeure clauses commonly included in contracts, though it appears to be rarely used.

The Uniform Commercial Code ("UCC") in the US has codified the law governing commercial transactions (which appears to include financial transactions), and expressly excuses a *seller* from liability for delay in delivery or non-delivery if performance *"has been made impracticable by the occurrence of a contingency the non-occurrence of which was a basic assumption on which the contract was made or by compliance in good faith with any applicable foreign or domestic governmental regulation or order whether or not it later proves to be invalid."*[41] The UCC has been adopted by all US states apart from Louisiana, subject to some state variations. Most importantly, New York law has adopted this UCC clause in exactly the same form, and has accepted claims on the basis of commercial impracticality. It should be noted that this UCC provision is only available to a seller.

Virtually all EU Member States recognise the legal doctrine of force majeure, though they might apply it in slightly different ways. In addition, the European Court of Justice has, when considering the effects of EU Regulations, shown itself to be keen[42] to infer force majeure provisions even where the relevant EU Regulations and contracts do not expressly refer to it. A paper issued by the European Financial Markets Lawyers Group provides a useful guide on force majeure in various European countries[43].

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[39] The Restatement of Contracts is a secondary source developed by the American Law Institute, but is often used by US judges. It essentially restates contract law as it stands based on state law from all US states, which have almost identical approaches to contract law (apart from Louisiana which continues to maintain the Napoleonic Code), and is frequently relied on by New York courts.

[40] Restatement of Contracts (Second) §261 (1982).

[41] By §2-615 UCC on "Excuse by Failure of Presupposed Conditions". The words "force majeure" are not used, but the principle is largely the same.

[42] Commission notice C(33) 1697 goes as far as saying: *"Force majeure is not a general principle of [EU] law, but can be regarded in exceptional cases, as an embodiment of the principle of proportionality, in the strict conditions laid down by the court's decisions."*

[43] "Force majeure clauses and financial markets", draft dated August 2003 (the European Financial Markets Lawyers Group kindly allowed the FMLC to see the draft as the report had not been fully completed).

4 STANDARD CONTRACTS

This chapter discusses how contractual provisions used in certain standard documents widely used in wholesale markets address the issues that could arise as a result of a major operational disruption.

4.1 Contractual impact of major operational disruption

Before looking at the standard contracts in detail in section 4.3, it will be useful to review the principal reasons why financial institutions are concerned to address the possible impact of major operational disruption when structuring their contractual obligations.

Clearly, the primary source of concern is that a major operational disruption may prevent an institution from performing its obligations and that, as a result, it will be found to be in breach of its contractual obligations. This is a particular concern in relation to contracts governed by systems of law, such as English law, which do not contain any general exception which excuses non-performance due to hardship or force majeure or which only excuse non-performance in exceptional circumstances.

Committing a breach of contract is not, in itself, necessarily a problem for the party in default. What is important to the defaulting party is the possible adverse consequences it may face as a result of the breach and these will depend on the nature and terms of the contract and the surrounding circumstances. In some cases, a contracting party may wish to rely on contractual provisions that directly prevent or excuse a breach of contract that results from operational disruption or other circumstances outside the party's control. In other cases, it may place reliance on contractual techniques which eliminate or mitigate specific consequences of such a breach[44].

The specific consequences of breach which are often addressed by contractual provisions can be classified as follows:

4.1.1 Risk of liability to pay indeterminate amounts of compensation

One of the principal concerns is that a breach of contract may give the other contracting party rights to sue the defaulting party for damages for compensation in respect of losses suffered as a result of the breach[45]. In particular, there is a risk that large, indeterminate liabilities to pay compensatory damages could adversely affect the solvency of an institution. These claims might be asserted after an operational disruption has been resolved and, possibly, even if the default has been cured by (delayed) performance. Where these risks exist they can be addressed by contractual techniques which either avoid or excuse the breach of contract or which exclude or limit the defaulting party's liability in damages for the breach.

However, this risk does not exist, or does not exist to the same degree, in relation to all contractual obligations. In particular, there is no general right to claim damages for delayed payment of a money debt. The principal remedy is a claim for contractual or statutory interest to compensate for the delay in payment. While default rates of interest may apply, the quantum of liability is clearly more predictable (and thus manageable) than an open-

[44] Of course, if one party is relieved from the consequences of its non-performance, this may have the effect of shifting a loss on to the counterpary since the non-performance may, for example, result in it being in breach of a contract with the third party.

[45] A breach of contract resulting from a major operational disruption may give the other contracting party other remedies, such as a right to seek equitable remedies (e.g. specific performance or injunctive relief) or to initiate insolvency or similar proceedings. However, these remedies are dependent on court discretion and become largely irrelevant once the breach is cured by performance.

ended liability to damages (and, in most cases, the liability will be offset by the benefit of interest earned on funds not paid out). This is clearly relevant to those (many) financial contracts, the main object of which is to create debt claims. In these cases, the main focus will often be on whether and how to address other possible consequences of a default caused by operational disruption.

4.1.2 Risk of exercise of acceleration, termination or other rights by the non-defaulting party

In many cases, the contract itself will provide the non-defaulting party with specific "internal" rights or remedies to address non-performance by the other party[46]. This non-performance is often, but not invariably, referred to as an "event of default". These rights and remedies may include rights for the non-defaulting party to withhold its own performance, rights to terminate the contract (or to accelerate the time for performance of other obligations) or rights to liquidate or exercise other rights over collateral provided by the defaulting party.

There is a concern that if a major operational disruption gave rise to widespread exercise of rights of this kind against a financial institution, this could have a material adverse effect on its financial position. This risk will often be addressed in a number of ways, even if the contract does not itself contain a force majeure clause or other clause which excuses non-performance.

For example, contracts frequently limit the exercise of rights on an event of default to defaults of a material nature and require prior notice and an opportunity to cure any default within a specified "grace period" (which will be lengthier in relation to the obligations that are not central to the contract). In contracts with multiple beneficiaries of the rights, such as loan agreements or bond documentation, there may be other procedural requirements restricting the exercise of these rights (e.g. voting thresholds, or the intervention of a trustee to waive immaterial defaults).

4.1.3 Risk of exercise of cross-default rights

A breach of a contract may also have an impact on other contracts, whether with the same contracting party or other contracting parties. Many financial contracts provide a contracting party with internal remedies, even where the other party has not yet failed to perform any of its obligations under that contract, if other events occur that indicate that failure to perform is likely.

In particular, contracts often include provisions that allow the exercise of termination, acceleration or other internal remedies on the happening of a "cross-default" event. These would apply where the other party fails to perform another specified type of contractual obligation or where another specified type of contractual obligation becomes due, or (except in the case of "cross-acceleration" provisions) becomes capable of being declared due prior to its scheduled maturity because of the occurrence of an event of default or similar event.

If a major operational disruption gave rise to widespread non-performance by financial institutions of contractual obligations, this could trigger the operation of cross-default

[46] In some cases, even in the absence of specific internal remedies, a breach of contract may entitle the other contracting party to terminate the contract. In particular, this would be the case if the breach amounted to a repudiatory breach.

provisions in a way which could have a material adverse effect on those institutions. Even where they enter into contracts containing clauses of this kind, financial institutions can address this risk in a number of ways, for example, by limiting these provisions to relatively narrow classes of obligations (such as borrowed money), by setting financial thresholds to exclude defaults which are not material in size, or by only allowing cross-default rights to be exercised after the expiry of any grace periods in respect of the defaulted obligation (or if the cross-default has not been cured). There may also be procedural obstacles to the exercise of those rights similar to those that restrict the ability to declare an event of default.

However, these restrictions may have limited effect in a major operational disruption, such as in the hypothetical scenarios, which results in widespread non-payment of obligations. In such a case, the defaulted amounts may well exceed any specified threshold and many of the defaulted obligations will not themselves include a relevant grace period[47]. No doubt for reasons such as this, a number of major financial institutions do not include cross-default or cross-acceleration provisions in their publicly issued bonds.

A major operational disruption may have an impact on contracts going beyond non-performance as such. It may affect the contractual machinery in a number of different ways, in particular, by affecting the parties' ability to determine appropriate rates or prices used in the operation of the contract. It is customary to address such practical impacts in the contractual provisions.

Concerns may also arise to the extent that differences in documentation governing related transactions create additional risks to an institution (so-called “documentation basis risk”). This is discussed in section 4.5.

However, in considering these risks, it is important not just to focus on the specific legal arrangements between the parties, but also to consider the context in which these obligations exist. Where the contracts in question are between core members of the financial community, particularly those with operations in the affected location, it is likely to prove easier to resolve differences or disputes resulting from a major operational disruption which affects a broad segment of the community.

Each of these “insiders” is likely to face the issues resulting from the disruption in a number of different capacities. A bank or broker-dealer will, for example, be a seller of gilts in some relationships but, at the same time, a buyer in others. They are therefore more likely to favour a fair and balanced solution which accommodates the interests of other market participants. In addition, they are more likely to be susceptible to regulatory or other external pressures to resolve issues in a fair or accommodating way.

In contrast, “outsiders” are likely to have fewer financial relationships that are affected by a disruption and are likely to be less susceptible to regulatory or other external pressures. A corporate borrower may be party to a loan agreement and a limited number of over-the-counter derivative transactions, perhaps with only one or two institutions. Although it is not possible to identify discrete categories in quite this way, those who are less directly involved in the financial community may be more likely to seek to optimise their individual interests in the context of an individual transaction and be less willing to take alternative issues into account in any negotiations.

[47] For example, certificates of deposit typically will not allow the holder to accelerate payment on a non-payment of interest and so will not specify a grace period as such. Similarly, bonds providing for "bullet" repayment also may not provide a grace period in respect of a failure to repay principal on final maturity (since the bond can at that stage no longer be accelerated).

These issues are particularly acute in relation to an institution's obligations on its publicly traded bonds. The tradeability of the instrument means that, in the event of a difficulty with performance, it might be necessary to deal with a very large number of relatively anonymous bondholders in a very public way. For this reason, major financial institutions often seek to ensure that bondholders do not have extensive rights to accelerate the institution's obligations under outstanding bonds, e.g. by limiting or excluding cross-default provisions and by including relatively long grace periods for non-payment of the bonds.

4.2 Relevant contractual techniques

In light of this, it is possible to see that different contracts can use a number of contractual techniques to address these concerns.

4.2.1 Business day provisions

Many financial contracts are structured so that the performance of contractual obligations is only required on a day which qualifies as a business day (or equivalent concept) and so that other determinations are linked to days (or periods caclulated by reference to days) that are business days. One of the objects of these provisions is to adjust the timing of the required performance (or determination) so that it falls due on days on which it would be reasonable to expect the performance (or determination) to take place because the necessary means are available to the parties.

These provisions are therefore relevant in the context of a major operational disruption. It is possible that the disruption will have the effect that the relevant day for performance of a contractual obligation will not be a business day, which may lead to a postponement of the time for performance of the relevant obligation (or calculation). To some extent, these provisions can have some of the same effects as a force majeure clause, as they deal with some of the effects of market-wide (rather than firm-specific) disruptions.

For example, it is possible that the result of the hypothetical scenarios would be that some of the affected days would not be "business days" in London for some purposes, although (in many cases) this is likely to depend on the factual issue as to whether banks are open for business. Some of the issues associated with the possible impact of major operational disruption, and the hypothetical scenarios, in the context of business day definitions are discussed in section 4.4.

4.2.2 Rate/price determination

Many financial contracts require determinations of rates or prices to be made during the life of the contract in order to determine the amount or nature of the parties' obligations. These determinations would normally only fall to be made on days that qualify as business days within the relevant contractual definition. However, it is possible that a day qualifies as a business day under a contract (for example, because relevant payment systems or other relevant infrastructure bodies are open for business) but it is not possible to determine the particular rate or price on that day[48].

[48] Other issues can arise where it remains possible to use the specified contractual mechanism or a primary fall-back, but the circumstances are such that the rate or price may not be fairly representative or appropriate. Sometimes these are addressed by allowing postponement of certain rate or price determinations in the event of specified market disruption events.

For example, in the hypothetical scenario A, it might be the case that the day in question is still a business day for the purposes of the contract in question (e.g. because UK based payment systems successfully continue to function due to a switchover to unaffected backup sites). Nevetheless, the disruption may be such that it is not possible to determine LIBOR or another relevant rate or price using the primary contractually prescribed mechanic (e.g. the screen rate is not available).

Many financial contracts will provide fall-back mechanisms for determining the relevant rate or price when the primary mechanism is not available, for example, by requiring reference bank or dealer quotations to provide a substitute rate. However, there is a risk that, in the case of a major operational disruption, it would not even be possible to operate "objective" fall-back mechanisms of this kind. In that event, it may be necessary to place reliance on more "subjective" fall-back mechanisms provided in the contract, such as those which require the party in question (or a calculation agent or similar) to determine its own cost of funds or its own assessment of a relevant value. These types of fall-back mechanisms will be most useful, in the context of major operational disruption, if they do not preclude the making of relevant determinations after the specified time (even if they are required to be be made "as of" that time).

Similar issues arise with respect to the determinations that may be required on the close-out or termination of a contract or group of contracts (under close-out netting or other similar arrangements). These will usually require the determination of a value for the terminated obligations in order to produce a single net payment obligation. The prescribed valuation mechanism will raise similar questions as to the availability of valuation inputs, especially to the extent that it places primary reliance on external or objective sources. In the context of any close-out or termination taking place during a major operational disruption (whether for reasons related to the disruption or not), the party making the determination is likely to wish to be able to delay the making of determinations (even if they are to be made as of an earlier time) and to be able to rely on its own assessments of relevant values.

4.2.3 Settlement or performance disruption provisions

Some agreements may have specific provisions dealing with disruption to the expected means of settlement or performance. These provisions may operate alongside relevant business day provisions and allow for delay in the performance of a particular obligation (and any related other obligations) where the expected means of performance are not available. In the hypothetical scenarios, they might operate if the days in question were found (notwithstanding the disruption) to be business days, but nevertheless CREST or another relevant settlement system was not operational.

Other contracts may address the issues that arise where the contract calls for delivery of a particular currency or securities on a certain date, but it is impossible to deliver them. In those circumstances, the contract may provide that a different currency or different securities might be acceptable and indicate the basis on which the alternative is to be chosen.

As with business day provisions, these provisions have some similarity to force majeure clauses, in that they provide a means of adjusting the performance obligations of the parties in circumstances where (for reasons not specific to a particular institution) the expected means of performance is not available.

4.2.4 Market convention overrides

Some contracts contain provisions subordinating the obligations of the parties under the contract to exchange or clearing house rules or market conventions. These could be relevant in the case of major operational disruption in a number of ways.

For example, where brokers contract with their customers in relation to the execution of futures contracts on an exchange, the broker and its customer would expect their obligations in the contract between them to be determined by reference to the obligations of the broker under the contract executed on exchange. If the relevant exchange responds to a major operational disruption of the kind contemplated in the hypothetical scenarios by postponing settlement of the on-exchange contract, the broker would expect its contract to allow it to postpone delivery to its client, probably through an overriding provision of this kind.

To the extent that contracts allow aspects of performance to be determined by reference to market conventions, it is likely that this may also allow some flexibility in the event of major operational disruption. It may be possible to identify a broadly agreed market convention as to how to deal with a particular event.

4.2.5 Exclusions or limits on liability

As already noted, where non-performance could expose a contractual counterparty to significant damages claims, that counterparty will often seek to exclude or limit its liability for that non-performance. In many cases, these limits on liability will also provide protection to a party against the risk of damages claims based on non-performance due to operational disruption.

For example, many types of contracts used in the financial sector contain provisions stating that a party will not be liable under the contract for loss arising otherwise than as a result of its wilful default or negligence (sometimes restricted to gross negligence). This may have the effect, among other things, of excluding liability for involuntary defaults caused by a major operational disruption.

For example, in the hypothetical scenarios, if a custodian bank failed to give the necessary instructions to enable the settlement of a client's transaction as a result of the compulsory evacuation of its building then it might seek to rely on a clause such as this in order to resist liability to the client. However, the failure to have appopriate back-up arrangements might be regarded as, in itself, a species of negligence.

A party's contractual position may be buttressed by provisions stating that it will not be liable for losses caused by circumstances outside its reasonable control. A provision of this kind more explicitly links the excuse for non-performance to the existence of force majeure events.

Frequently, a contracting party will seek to limit or exclude its liability for indirect or consequential losses. This can be important in relation to financial contracts where it is possible to trace a distinction between direct and indirect losses.

It is also possible for the contracting parties to use other well-established techniques for limiting liability, such as monetary caps, although these are less common in the financial sector than in other sectors.

Clauses limiting or excluding liablity in this way are relatively common in relation to the obligations of those providing agency or other services in the financial sector (e.g. paying

agents, trustees, custodians, fund managers, etc. as well as investment banking engagement letters). They are less common in the context of what might be described as transactional obligations. In those cases, a party's expectations of its counterparty are not usually that the counterparty will merely use its reasonable endeavours to perform its obligations, and it may not be acceptable to allow the counterparty an excuse for non-performance for circumstances beyond its control without providing specifically for the consequences.

4.2.6 Grace periods

As already noted, grace periods are one of the most important contractual techniques for managing the consequences of non-performance caused by operational disruption. If the result of a major operational disruption is that a contracting party fails to perform its obligations, then in many cases the key question will be whether the other contracting party can exercise rights to accelerate or terminate the contract (or exercise other internal remedies) and whether third parties have similar rights under cross-default clauses.

Grace periods provide a means of mitigating or avoiding some of the most important adverse effects of default. If the contractual counterparty cannot exercise its internal remedies during some grace period, this provides a breathing space in which the non-performing party can seek to overcome the effects of the operational disruption. The length of this breathing space will be extended if the grace period does not begin until notice is given requiring a cure and, to the extent that it is calculated as a number of business days (assuming that the disruption results in additional non-business days). In the hypothetical scenarios, there may be some disruption of payments as firms switch to their back-up sites. However, it is likely that these defaults would be cured within a few days if, as one would expect in the scenario, payment systems and other infrastructure providers were able to switch to their back-up sites as well within a reasonable time.

A grace period agreed with a contractual counterparty may also have important effects in relation to any applicable cross-default provision. Cross-default provisions commonly only allow the other party to exercise remedies on a failure of performance after the expiry of any applicable grace period. In some cases, a cross default may exclude defaults arising as a result of a force majeure or at least accelerations or terminations arising as a result of such a cause.

There is also a direct link between the length of grace periods and the necessity for a force majeure clause. If grace periods are long and there are few, if any, other adverse consequences flowing from a breach, there is less incentive to provide in detail for the consequences of a force majeure event. If, on the other hand, grace periods are short, it becomes more necessary to consider the inclusion of a force majeure clause as otherwise the contract would allow the contracting party insufficient protection against breaches arising from circumstances outside its control.

4.2.7 Force majeure clauses

Force majeure clauses are of differing types. However, there are some common elements.

In most cases, the operation of the clause is triggered by some event or circumstance outside a party's reasonable control which makes it impossible or, at least, impracticable for the party to perform its obligations. Usually, any list of the possible categories of events will be open-ended (reflecting the difficulty of anticipating all possibilities; although typically they will involve illegality). The list will also cover events or circumstances which are specific to the institution in question as well as more generic, market-wide issues (as in

most cases it is impractical to distinguish between them in an adequate way in a clause such as this).

When these circumstances arise, the obligations of the party concerned may then be suspended during some period while it endeavours to avoid the force majeure event. Alternatively, or additionally, either party may be given a right to terminate the relationship, normally (if the parties' obligations are suspended) after some waiting period. In each case, these consequences may arise only after notice has been given or some other contractual procedure has been followed. Also, there is an allocation of liability for compensation for delays in performance.

The Global Documentation Steering Group ("GDSC") in New York prepared a uniform definition of "Force Majeure Event" for use in financial market transactions. The definition seeks to provide a common framework for market participants in invoking appropriate termination and similar contractual provisions upon the occurrence of such an event.

The GDSC, as a threshold matter, adopted the view that the occurrence of a traditional "force majeure" event generally should *not* constitute an excuse from performance. It took the view that the definitive allocation of risk with respect to various market events is a critical element of financial market contracts and the occurrence of unforeseen events, even when outside the control of the parties, should not enable one party to deprive the other of the benefit of its bargain. It also accepted that it might be appropriate for some contracts not to distinguish force majeure from other default events.

The GDSC force majeure definition is:

> *"Force Majeure Event" shall mean, on any date, that:*
>
> *(a) a party, by reason of force majeure or act of state, is or would be prevented from complying with, or it is or would be impossible or impracticable to comply with, any material provisions of this Agreement relating to a Transaction (but only where (i) such event or circumstance is beyond the control of the affected party and (ii) such party has taken precautions commonly adopted by financial market participants to anticipate, and cannot with reasonable diligence overcome, such event or circumstance); and*
>
> *(b) it is or would be unlawful for a party to comply with any material provisions of this Agreement relating to a Transaction.*
>
> *For the purposes of this definition, it is acknowledged and agreed that the failure to make or receive a payment or delivery on a timely basis in respect of a Transaction shall constitute a failure to comply with a material provision of this Agreement."*

Force majeure clauses are never a panacea. It may, for example, be difficult to be sure that performance has actually been prevented and not merely made more burdensome.

In any event, force majeure clauses appear to be less widely used in transactions where the only obligation is to make a payment. In these circumstances, it is unlikely to be appropriate to terminate the transaction, as this would only substitute one immediately payable monetary claim for another. At the same time, it might be felt that interest (possibly even default interest) is the appropriate method of compensating the other party for the delayed payment, without any need to seek to excuse the breach as such.

4.2.8 Changes in circumstances

Some contractual provisions address different aspects of operational disruption. In particular, the force majeure clause commonly used in securities underwritings, or its equivalent in loan syndications, does not seek to excuse the underwriter from performance because it would be impossible or impracticable for it to perform its obligations. In the circumstances of an underwriting commitment the main concern is that there is a change in the overall marketplace such that it would be inappropriate for the bank to be expected to perform its obligations.

4.3 Specific contracts

For the purposes of this report, we have reviewed a number of published market standard form contracts. This was not intended to be a comprehensive review. Rather, it was an attempt to illustrate the differing approaches that can be taken to address the issues identified above. Extracts of the relevant contractual terms can be found in Appendices 4A and 4B (printed as separate documents).

The focus on published standard forms inevitably also means that little is said about the many transactions that are carried out on the basis of relatively simple documentation, for example in the interbank deposit market. These obligations would not have extensive force majeure or other provisions. To the extent that operational disruption could give rise to default under those contracts, an institution would probably seek mainly to address the consequences of that default through limiting the applicability of cross-default clauses in other agreements. It also means that, generally, we have not looked at contracts which might, typically, be individually negotiated.

The focus in this section is also on transactional obligations. In order to perform these obligations financial institutions rely on a variety of "service providers", such as custodians, paying agents, calculation agents, correspondent banks and trustees. The contracts regulating the obligations of service providers usually limit the liability of the service provider in a number of the ways described above, including through use of force majeure and limitation of liability clauses.

4.3.1 Commercial contracts

Before looking specifically at financial contracts in detail, it is worth looking briefly at the approach taken in general commercial contracts (such as contracts for the sale of goods or supply of services).

Of greatest interest in this regard is the approach taken to force majeure clauses, as these are relatively commonly included in commercial contracts. While there is no universal standard form, in February 2003, the International Chamber of Commerce ("ICC") published a paper[49] containing a standard form force majeure clause and hardship clause. The paper distinguishes the two by stating that a force majeure clause excuses one party from liability if its obligations become impossible due to some unforeseen event, whereas a hardship clause requests renegotiation of the contract if performance becomes excessively onerous on one party due to some unforeseen event. The ICC force majeure clause includes a list of events that, in the absence of proof to the contrary, are presumed to amount to force majeure excusing performance. Under the ICC hardship clause, the burden of proving that performance has become excessively onerous lies exclusively on the non-performing party.

[49] "ICC Force Majeure Clause 2003; ICC Hardship Clause 2003".

From an English law perspective, the ICC hardship clause amounts to an agreement to negotiate and is therefore not enforceable.

The purpose of the ICC clauses is to provide parties with standard form clauses and a list of force majeure events as a starting point to facilitate negotiation. They are intended to be jurisdiction neutral, and therefore useful for cross-border transactions. Paragraph 2 of the force majeure clause provides that force majeure may be invoked by a contracting party if a sub-contractor fails to perform its obligation but only if the contracting party establishes that:

(i) the sub-contractor's failure was due to a force majeure event; and

(ii) the contracting party could not reasonably have been expected to take this into account when entering into the contract and could not reasonably have avoided or overcome the effects of the sub-contractor's failure to perform.

This provides limited relief for parties in the middle of a chain of transactions. However, this approach is not commonly adopted in financial contracts.

Other associations have also published standard force majeure clauses. The ICC, when producing its force majeure and hardship clauses, considered the international instruments which all had a general force majeure, and no hardship, clause. These were the United Nations Convention on Contracts for the International Sale of Goods, the Principles of European Contract Law, and the Unidroit Principles for International Commercial Contracts.

4.3.2 Loans

The Loan Market Association ("LMA") aims to encourage liquidity and efficiency in both the primary and secondary loan markets by promoting market depth and transparency as well as producing standard documentation and establishing codes of practice.

The LMA Multicurrency and Revolving Facilities Agreement dated January 2003 defines a Business Day as a day on which banks are open for general business in London and the principal financial centre of any currencies used (TARGET for euro).

It also contains an illegality clause, which excuses a Lender from its Commitments (i.e. its obligation to lend money) if it becomes unlawful for the Lender to honour them, and requires the Obligor to pay back the Lender's existing Participation in the Loan on the next Interest Payment Date. However, there is no more general force majeure clause which excuses a Lender from its obligation to make funds available where it is otherwise prevented from doing so (on a day which is a business day) due to operational or other disruptions.

Similarly, there are no provisions excusing the borrower for non-payment due to operational disruption. However, non-payment is not an Event of Default allowing the Lenders to accelerate if the failure to pay is caused by administrative or technical error and payment is made within a certain number of Business Days to be agreed between the parties. It is unclear whether this would be broad enough to cover non-payment due to operational disruption of the kind under discussion. In any event, pending payment, the Lenders would usually be excused from any further obligation to lend as the event would be treated as a potential event of default.

A Market Disruption is defined as occurring where none or only one of the Reference Banks is able to provide a rate to determine LIBOR (or EURIBOR if applicable) at about

noon on the Quotation Date (the relevant interest for the next Interest Period is established on the Quotation Date), and if it occurs the Lender may determine a suitable rate based on any reasonable source.

4.3.3 Primary issues of securities

The International Primary Markets Association ("IPMA") is the global trade association for underwriters and managers of international public debt issues, and private debt and equity issues. IPMA's mandate is to facilitate the smooth operation of the international primary markets, which involves addressing legal and documentation issues, setting best practice guidelines and other related issues. The IPMA Handbook recommends that the Subscription Agreement between the Managers and the Issuer for debt and equity-linked debt instruments should contain one of the two standard "force majeure" clauses. If invoked, these discharge the Managers from their underwriting obligations.

Under both IPMA force majeure clauses, a force majeure event may be invoked if it is the opinion of the Lead Manager that such an event has occurred. The Lead Manager then needs to give notice to the Issuer. The Lead Manager may well wish to consult with the Issuer, other Managers and (possibly) other market participants before exercising its rights under such a provision. Nevertheless, if communication among these parties is impractical or undesirable, the Lead Manager could form its own judgement, and if it concluded that there was a force majeure event, the force majeure clause could be invoked as long as notice of this could be provided to the Issuer.

The most commonly used IPMA force majeure clause[50] sets out a two stage test, requiring:

> *"(i) ... a change in national or international financial, political or economic conditions ...*
>
> *(ii) as would [in the view of the Lead Manager] be likely to prejudice materially the success of the offering and distribution of the securities or dealings in the securities in the secondary market ..."*

Only if both these conditions are fulfilled can the Lead Manager terminate the underwriters' obligations. The Lead Manager would have to take into account all the circumstances in determining whether to exercise these rights.

IPMA indicated to its members through press and e-mail that they did not view the events of 11 September 2001 as a force majeure event.

For equity issues, there are no standard form underwriting agreements available. In the London market there could be a wide range of different approaches to the adoption of force majeure clauses. However, from the underwriting agreements reviewed for the purposes of this analysis, the standard approach appears to be to contain a clause similar to one of the IPMA force majeure clauses and a material adverse change clause. The material adverse change clause is unlikely to be triggered by a major operational disruption.

[50] The other, less commonly used, clause allows a Lead Manager to terminate the underwriting in two circumstances. First, a force majeure event can be invoked if circumstances prevent or to a material extent restrict payment and/or securities settlement. Secondly, a force majeure event can be invoked if there is a calamity or emergency which, in the view of the Lead Manager, has caused a substantial deterioration in the price and/or value of the securities.

It appears to be standard practice in the London market for force majeure clauses of this kind to also be available to the underwriters for rights issues up to the time of admission to listing of the nil paid rights.

4.3.4 Bonds and other debt securities

There are no market standard forms for the terms and conditions applying in respect of bonds or other debt securities issued in the euromarkets. The primary obligation of the issuers under bonds or other debt securities is usually to make payments on specified dates defined by reference to business days (in the case of bearer securities against presentation of the securities through the clearing system or to a paying agent).

To the extent that there are provisions for interest determination (as in floating rate issues) there will normally be provisions dealing with the possibility of market disruption events.

Non-payment on the due date would normally be an event of default, subject to applicable grace periods. As discussed above, issuers would often seek to restrict the rights of holders of debt securities to accelerate bonds on the basis of a default or cross-default.

4.3.5 Secondary market trading in bonds and other debt securities

The International Securities Market Association ("ISMA"), headquartered in Switzerland, is a trade association and self-regulatory body for trading and dealing in international securities. Secondary market trading in international securities, which generally includes international bonds, usually takes place subject to ISMA's rules and recommendations, which generally apply to all transactions between ISMA members involving international securities.

ISMA's rules and recommendations provide for settlement of transactions to take place on a T+3 Business Days basis. A Business Day is defined as a day on which Clearstream and Euroclear and the cash market for the currency of settlement are open for business (or TARGET in the case of euro). If any of these are closed for business on any day between the trade date and the value date, accrued interest is adjusted to reflect this.

The rules do not contain other specific provisions dealing with force majeure and there are relatively few contractual consequences arising from non-settlement. However, they do provide a contractual mechanism for quantifying the amount of a party's liability on a failed delivery, which is not uncommon, through the mechanics of its buy-in or sell-out provisions. These provide that if the seller fails to deliver the securities on the relevant settlement date, enable the buyer to buy the relevant securities in the market and pass on the cost of doing so to the seller. If the buyer invokes these procedures on the contractual settlement date, the earliest time at which it can effect the buy-in is 12 business days. Such failures are relatively common, the buy-in provisions leisurely, and few transactions cross-default to settlement failures. Therefore, non-settlement appears not to be a major concern for this analysis.

The Bond Market Association ("TBMA"), headquartered in the US, is also a trade association for the international debt markets. It is heavily involved in developing market practice guidelines and standardised agreements. TBMA was very active following the events of 11 September 2001, and issued various recommendations to market participants. These TBMA recommendations are not mandatory, so market participants have the flexibility to depart from them if so required. The recommendations are important, according to TBMA, because they provide an important signal to the market as to the

collective sense of industry firms as to the anticipated liquidity that will be available to support trading on a given day.

In its response to the Consultation Paper, TBMA states that it has reviewed, enhanced and streamlined its internal procedures for dealing with potential operational disruptions. These changes include better defining the circumstances that will trigger the implementation of emergency procedures and prescheduling specific conference calls of key industry representations and key TBMA staff on days on which an emergency is declared.

4.3.6 Stock lending agreements

The International Securities Lenders Association ("ISLA") is a trade association for securities lenders. It publishes standard form agreements for industry use, the most important of which are the Overseas Securities Lender's Agreement ("OSLA") and the Global Master Securities Lending Agreement ("GMSLA"), both governed by English law. There are also other industry-standard securities lending agreements governed by other laws, including TBMA's Master Securities Lending Agreement governed by New York law.

Both the OSLA and GMSLA specify that a Business Day is a day on which banks are open for business in London and in the specified jurisdictions and, in relation to delivery, where the relevant securities and/or collateral are to be delivered.

Neither the OSLA nor GMSLA contain specific force majeure or illegality clauses or other powers to suspend deliveries or payments in the event of an emergency. In the event of a failure to deliver or pay as a result of an operational disruption, the other party could, pending such delivery or payment, withhold its own performance (e.g. its obligation to return collateral) and declare an immediate event of default (without any grace period), triggering the termination and valuation of the parties' obligations. The OSLA and GMSLA contemplate that the defaulting party would be responsible for direct costs and expenses (including any buy-in). However, they do make clear that no claims can be made for indirect or consequential loss and that the provisions of the contract constitute the exclusive remedy in respect of an event of default.

Transactions under the OSLA and GMSLA are usually fully collateralised.

The Stock Lending and Repo Committee ("SLRC") is a forum for market participants chaired by the Bank of England. It has issued the Stock Borrowing and Lending Code of Guidance summarising the basic procedures which UK based participants should observe. It strongly recommends that parties use GMSLA, or at least another standard agreement, which will reduce problems with documentation basis risk. The SLRC code also recommends that there be explicit agreement between the parties on the arrangements to be followed if called stock cannot be delivered (such as following an operational disruption); both the OSLA and GMSLA contain such provisions.

4.3.7 Repos

ISMA and TBMA have produced a standard English law master agreement[51] for repo transactions, known as the Global Master Repurchase Agreement ("GMRA"). The latest version was published in 2000, previous versions being from 1995 and 1992. Again, there are similar industry-standard documents with other governing laws, such as the New York law Master Repurchase Agreement published by TBMA.

The GMRA contains a Business Day definition based on when the relevant settlement systems are open for settlement, and when the banks are open for payment.

The GMRA does not contain a specific force majeure or illegality clause. It provides that it is an Event of Default if a party fails to make a payment or meet a margin call when due or (in the 2000 version but then only if the parties so elect) if a party fails to deliver securities on the purchase date or repurchase date for the transaction and the other party serves a notice of default.

Following an Event of Default, transactions are terminated and closed-out on the basis of their value. If the non-Defaulting Party is unable to deal in the market or obtain dealer quotes, the default value is the Net Value. The Net Value of Deliverable Securities or Receivable Securities is the amount which, in the reasonable opinion of the non-Defaulting Party, represents their fair market value based on any pricing sources and methods. The GMRA makes clear that no claims can be made in respect of consequential loss or damage for a failure by one party to perform any of its obligations under the GMRA.

Repos entered into with the Bank of England as part of its open market operations to provide liquidity to payment systems are not effected pursuant to the GMRA: see section 4.3.8.

4.3.8 Bank of England open market operations

The Bank of England's open market operations in the sterling money markets implement the Monetary Policy Committee's interest rate decisions and meet the liquidity needs of the banking system as a whole. These open market operations in repos and bill purchases are traded under the Money Market Operations Master Sale and Purchase Agreement ("MMO Master").

The MMO Master defines a Business Day as simply a day other than a Saturday or a Sunday on which banks are open for business in London. There is no grace period available for non-payment or failure to deliver, a grace period of one day in respect of margin maintenance and a grace period of three days for performance of other obligations. Default interest is one per cent. above LIBOR, but if LIBOR is unavailable it is replaced by the average of rates at which deposits in sterling are offered to prime banks in the London interbank market by at least two reference banks. There is no force majeure clause.

4.3.9 OTC derivatives

The International Swaps and Derivatives Association, Inc. ("ISDA") is the global trade association representing leading participants in the privately negotiated derivatives industry. One of its purposes is to provide standard documentation to facilitate the use of derivatives, but it also provides guidance on practical issues (as it did following the events of 11 September 2001).

(i) Documentation

Most OTC derivatives (including interest rate and currency swaps, equity swaps and options, cash-settled commodity swaps and options and credit default swaps) are now based on standard form documents published by ISDA. In practice this means that most OTC derivative transactions are evidenced by a short-form

[51] There is a separate US version.

confirmation. The confirmation incorporates a set of product specific definitions published by ISDA and supplements and forms part of a master agreement based on one of the forms published by ISDA. The master agreement may also be supplemented by a credit support document in one of the forms published by ISDA.

The definitions published by ISDA address disruptive events in a variety of ways: (a) through the use of business day definitions which provide for performance of payment and delivery obligations, as well as the exercise of option rights and valuation procedures, to be postponed or adjusted if a date for performance, exercise or valuation falls on a day that is not a good business day; (b) through the use of market disruption provisions which provide a remedy where, on a day when a valuation would otherwise fall to be performed, the source of the information necessary to perform the valuation (often an exchange or a screen based information vendor such as Telerate or Reuters) is unavailable; and (c) through the use of settlement disruption provisions which provide a remedy (often postponement of the obligation) where, on a day when one party would otherwise be required to perform a delivery obligation, the relevant settlement system or other delivery mechanism is not operating.

(a) ISDA master agreements

ISDA has published a number of different forms of master agreement. For the purposes of this paper, we will only consider the ISDA Master Agreement (Multicurrency — Cross Border) published in 1992 ("1992 Agreement") and the 2002 Master Agreement published in 2002 ("2002 Agreement"). The standard form of 1992 Agreement (which governs the vast majority of outstanding transactions) did not address impossibility or force majeure issues. However, many users of the 1992 Agreement elected to amend the standard form by including, in the Schedule to their 1992 Agreements, impossibility provisions which allowed one or both of the parties to terminate transactions if performance became impossible. The 2002 Agreement contains a force majeure clause which allows one or both parties, after an imposed waiting period of eight business days, to terminate outstanding transactions if, by reason of force majeure or act of state, it becomes impossible or impracticable for a party (or its credit support provider) to perform its obligations.

Other relevant clauses from these Master Agreements, discussed in more detail, are:

(I) ***1992 Agreement*** In the case of an emergency, the 1992 Agreement's Illegality provision will apply to the extent such emergency results in legal changes affecting the transactions under a 1992 Agreement. Illegality is a Termination Event, but is narrowly defined as being caused by changes to current laws or their interpretation, or adoption of new laws, which render performance or receipt of a payment or delivery illegal. If an Illegality occurs, the party whose obligation is affected must, as a prerequisite to its right to designate an Early Termination Date, use all reasonable efforts to transfer its rights and obligations, within 20 days after delivering notice of such Illegality, to another office or

Affiliate so that the Illegality ceases to exist. If the affected party cannot make such a transfer, it will give notice to the other party within the 20 day period and the other party may effect such a transfer within 30 days after the original notice was given. If a transfer does not take place, either party may elect to terminate all (but not some only) Affected Transactions by designating an Early Termination Date by not more than 20 days notice.

An emergency clearly may impair the ability of a party to fulfil its obligations under a 1992 Agreement in ways other than by causing an Illegality, although such cases are dealt with only indirectly by the 1992 Agreement. A party may terminate outstanding transactions under the 1992 Agreement if, among other circumstances, its counterparty fails to make a payment or delivery when due, but only if that failure is not remedied within three Local Business Days, following notice. A Local Business Day for this purpose is a day on which commercial banks are open in the place(s) specified in the relevant Confirmation.

The method of calculating payments following early termination is based on either "Market Quotation" or "Loss" (as selected by the parties and set out in the schedule). The calculation is to be made on or as soon as reasonably practicable following the occurrence of the Early Termination Date, which allows for the possibility of operational disruption affecting the party's ability to make the appropriate calculation on a timely basis.

(II) ***2002 Agreement*** The 2002 Agreement also contains an Illegality provision but, unlike the 1992 Agreement, the parties' rights to terminate are not subject to an obligation to try to transfer the Affected Transactions, but are, instead, subject to an enforced three business day waiting period. The terminating party is also entitled to terminate less than all Affected Transactions.

The 2002 Agreement also contains provisions dealing specifically with force majeure. A Force Majeure Event occurs if performance of any payment or delivery obligation is prevented or becomes impossible or impracticable due to force majeure or an act of state beyond the control of the party, and such prevention, impossibility or impracticability cannot be overcome after using all reasonable efforts. In such a case, the Force Majeure Event gives rise to an eight Local Business Day waiting period during which payments or deliveries otherwise required are deferred. If, at the end of this waiting period, the circumstances that gave rise to the Force Majeure Event are continuing, either party (or in some circumstances, one of the parties) may, by not more than 20 days notice, designate an Early Termination Date in respect of all or some of the Affected Transactions.

The 2002 Agreement provides that any applicable provisions, disruption fallbacks and remedies must be considered first before invoking the Illegality or Force Majeure Event clauses. This is an

express recognition of the fact that parties may include (whether by reference to an ISDA-published set of definitions or otherwise) sophisticated market/settlement-disruption provisions at a transaction level, thereby avoiding the need to have recourse to the illegality and force majeure provisions of the 2002 Agreement itself.

As noted above, under the 2002 Agreement, parties can select which Affected Transactions to terminate and are not obliged to terminate them all (unlike the 1992 Agreement). However, in the case of selective termination of Affected Transactions, the other party has the option of designating the same Early Termination Date in respect of any or all other Affected Transactions.

A grace period of one Local Business Day (or Local Delivery Day as applicable) following notice applies to a failure to pay or deliver before it would constitute an Event of Default. A Local Business Day has largely the same meaning as in the 1992 Agreement. A Local Delivery Day concept has now also been introduced, which is a day on which the relevant settlement system is open.

Termination valuation provisions are similar to those in the 1992 Agreement, except that the amount due is based on a "Close-out Amount" concept rather than Market Quotation or Loss, and failure to pay any Early Termination Amount under the 2002 Agreement will not constitute an Event of Default where such failure is due to an Illegality or Force Majeure Event. Such payment accrues interest until it can be paid.

(b) 2000 ISDA Definitions (and annex)

These definitions ("2000 Definitions") are designed for use with interest rate and currency swaps and related transactions. They define a Banking Day with respect to any city as a day on which commercial banks are open for general business in that city. A Business Day is, in respect of dates specified in the 2000 Definitions and/or a Confirmation subject to adjustment in accordance with a Business Day Convention, a day on which commercial banks and foreign exchange markets settle payments and are open for general business in the places and on the days specified.

These definitions are relevant in the context of an emergency as the designation of a particular day as a Business Day or Banking Day may be affected by such emergency. If a day which would typically be a Business Day or Banking Day under the definitions does not qualify due to the emergency scenario, provisions employing Business Day or Banking Day definitions will be affected accordingly. To illustrate, the Banking Day definition is used to determine Exercise Business Days and Valuation Business Days. Payment Dates, Cash Settlement Payment Dates, Exchange Dates, Compounding Dates, Calculation Dates, Mandatory Early Termination Dates, Period End Dates and Reset Dates will be adjusted if they fall on days which are not Business Days.

The 2000 Definitions contain several clauses that cater for specific disruptions. For example, there are extensive provisions in relation to calculating the Settlement Rate (the swap rate against which swaptions or swaps with optional termination provisions are settled), and as the last resort one of the parties will determine the rate in good faith and in a commercially reasonable manner. These clauses (and others) are designed to overcome operational disruptions if possible, and will apply before the parties are entitled to rely on the force majeure provisions under the master agreement.

(c) 2002 Equity Derivatives Definitions

The 2002 Equity Derivatives Definitions (the "Equity Definitions") are designed for use with equity derivatives transactions of various types. Events that cause disruptions under the Equity Definitions can generally be divided into two broad groups: (i) events affecting the obligation to exercise an option and the performance of pricing, valuation and settlement obligations; and (ii) events affecting the fundamental characteristics of the Shares or the Index underlying an equity derivatives transaction (including events affecting the relevant Issuer or Sponsor of the Shares or Index, or a holder of the Shares) and any hedging arrangements entered into in parallel with equity derivatives transactions.

The Equity Definitions provide for certain actions in respect of equity derivatives transactions (including those involving exercise, valuation, payments and deliveries) to be postponed if the scheduled date for action is not a business day. There are four general "business day" definitions in the Equity Definitions, and the other relevant dates in the Equity Definitions will refer to one them. These are: (a) Scheduled Trading Day, which is a day on which each Exchange and Related Exchange are scheduled to be open; (b) Exchange Business Day, which is a Scheduled Business Day on which each Exchange and Related Exchange are open for trading (notwithstanding early closing); (c) Clearance System Business Day, which is a day on which the relevant Clearance System is open for acceptance and execution of settlement instructions (or would have been open but for the occurrence of a Settlement Disruption Event); and (d) Currency Business Day, which is a day on which commercial banks are open for business in the principal financial centre for the relevant currency.

Of the four main "business day" definitions, the introduction of the concept of a Scheduled Trading Day is perhaps the most significant, because when it is used in tandem with the "Disrupted Day" concept discussed below it allows the consequence of market disruption, i.e., postponement of one of the actions described above, to no longer be dependent on whether an exchange actually opens for trading. It also takes into account the possibility that exchanges' schedules may change from time to time, for a variety of reasons, without market participants necessarily wanting to treat such changes as market disruptions. Due in part to the inability of market participants to agree on the test for determining whether the failure of an exchange to open is "scheduled" or not, the definition does not include a precise number of days' advance notice before the failure of an exchange to

open will be deemed “scheduled”, which illustrates the difficulty of addressing these issues. With respect to the definition of Early Closure, however, market participants were in general agreement that an hour's advance notice was sufficient for them to effect orderly unwinds of their trades. The Early Closure definition has been included in the Equity Definitions to allow parties to distinguish between scheduled and unscheduled closures and provide certainty when determining whether an early closure will constitute a market disruption event or not. This, along with the Scheduled Trading Day concept, is particularly important, as the events of 11 September 2001 left significant concerns as to whether the affected days were Exchange Business Days on which Market Disruption Events had occurred, or were not Exchange Business Days at all for purposes of the provisions of the 1996 ISDA Equity Derivatives Definitions.

A Disrupted Day is any Scheduled Trading Day on which a relevant Exchange fails to open as scheduled or on which a Market Disruption Event has occurred. A Market Disruption Event is defined as, in respect of a Share or an Index, the occurrence of (i) a Trading Disruption; (ii) an Exchange Disruption; or (iii) Early Closure (subject, in the case of (i) and (ii), to materiality and timing). The consequences of a Disrupted Day are that the Buyer of an unexercised Option can defer the expiration date of its option until the disruption clears, up to a maximum of eight Scheduled Trading Days after the originally scheduled Valuation Date, and that valuation in respect of any transaction will also be postponed for the same period. After this period, an option must be exercised and valuation must take place, in which case parties are likely to have to rely on the good faith estimate of the Calculation Agent for relevant valuations and other determinations to the extent markets are still disrupted.

A Settlement Disruption Event is any event beyond the control of the parties as a result of which the relevant Clearance System cannot clear the transfer of the relevant Shares. The consequence of a Settlement Disruption Event is that the Settlement Date is postponed to the first succeeding date on which delivery of the relevant Shares can be effected. After eight Clearance System Business Days, other commercially reasonable methods of delivery will be acceptable.

With respect to certain other disruptive events, the Equity Definitions permit the parties to adjust or terminate a transaction, in some cases automatically, if certain events that are outside the control of the parties and have a material effect on the transaction occur.

The Equity Definitions allow for certain consequences to follow from events that have an impact on the Shares (including their issuer or a holder) or the Index underlying a transaction. Events impacting Shares include Potential Adjustment Events (such as extraordinary dividends, issuer calls, and issuer repurchases), which permit the Calculation Agent to make adjustments to a transaction to account for the effect of the event on the transaction; Extraordinary Events such as Merger Events, Tender Offers, Nationalisation, Insolvency and Delisting, which permit the parties either to

adjust the terms of a transaction or to terminate it in accordance with parties' elections; and Change in Law, which permits the parties (assuming they have elected for this event to apply) to terminate a transaction if a change in law leads to a transaction becoming illegal or subjecting a holder of Shares to a materially increased cost in holding them. If the Sponsor of an Index makes a material change in the formula for calculating an Index, cancels the Index without naming a successor or fails on a Valuation Date to announce a level for an Index, the parties can either adjust the terms of the transaction or terminate it.

Finally, the Equity Definitions include elective disruption events that are generally tied to parties' hedging and stock borrow arrangements. There is no single set of consequences applicable to these disruption events, and the remedies provided in the Equity Definitions in respect of an Extraordinary Event are specific to such event, with each such remedy prescribing a number of fallback positions. However, most include a final fallback permitting the parties to terminate any affected transaction.

(d) 2003 Credit Derivatives Definitions

These definitions are designed for use with credit default swaps. A Business Day is defined as a day on which commercial banks and foreign exchange markets are generally open to settle payments in the places specified in the Confirmation. Again, this definition is relevant in the context of an emergency as the designation of a particular day as a Business Day may be affected by such emergency. If a day which would typically be a Business Day under the definitions does not qualify due to the emergency scenario, provisions employing the term Business Day will be affected accordingly. Physical Settlement Dates, Cash Settlement Dates and Valuation Dates all adjust if they do not fall on Business Days.

A Grace Period Business Day is a day on which commercial banks and foreign exchange markets are generally open to settle payments in the places specified in the relevant Obligation. A Grace Period of three Grace Period Business Days is deemed included in the terms of an Obligation to determine whether a Failure to Pay has occurred.

Credit Events arising because of a major operational disruption (e.g. where it prevents a Reference Entity from entering into any Obligation) nonetheless still constitute Credit Events for the purposes of a Credit Derivative Transaction. However, prevention of Physical Settlement due to an impossibility or illegality will not entitle a party to terminate a Credit Derivative Transaction.

If a quotation cannot be obtained from any dealer, the quotation is assumed to be zero, which may not be satisfactory in certain circumstances.

In an event of major operational disruption, the then current practice for settlement of the relevant Deliverable Obligation may be difficult to determine, especially if such settlement has been suspended. The Physical Settlement Date may consequently be difficult to determine or indefinitely postponed. If Physical Settlement cannot take place because of impossibility or illegality, Partial Cash Settlement is required instead and the Credit

Derivative Transaction cannot be terminated.

If a Buyer is unable to deliver bonds in circumstances that do not result in impossibility or illegality, the Buyer potentially has an unlimited amount of time in which to effect settlement in respect of the transaction if the Seller is unable to obtain the relevant quotations from dealers.

(e) 1998 FX and Currency Option Definitions

The 1998 FX and Currency Option Definitions (the "FX Definitions") are designed for use with foreign exchange and currency option transactions (both deliverable and non-deliverable). As with several of the other definitions published by ISDA, the adjustment of a performance date so that it falls on a business day is one method by which the FX Definitions address the occurrence of disruptive events. Under the FX Definitions, Business Day has a number of definitions depending on the context it is used in (e.g. for the Settlement Date), but is always based on where the relevant commercial banks in the specified places are open for business. The relevant dates defined will be adjusted if they fall on days which are not Business Days for such purposes.

Apart from the use of business days as described above, the principal remedy under the FX Definitions in respect of disruptive events is the use of Disruption Fallbacks. They apply in three instances: (i) following a Disruption Event; (ii) following a Market Disruption; and (iii) if it is impossible or illegal to Deliver the Benchmark Obligations (whether or not this is caused by a Disruption Event).

Disruption Event. A Disruption Event is defined as an event that, in accordance with an applicable Disruption Fallback, would give rise to either an alternative basis for determining the Settlement Rate or an alternative basis for settling the Transaction. A list of Disruption Events is set out in the FX Definitions for inclusion in the terms of the relevant Transaction. If none is specified in the relevant Confirmation, only Price Source Disruption will be deemed to apply, and only in respect of Non-Deliverable Transactions. If a Disruption Event occurs, the parties will look to the applicable Disruption Fallback in order to determine the manner in which they should continue their performance of the relevant transaction. A list of Disruption Fallbacks is also set out in the FX Definitions for inclusion in the relevant Confirmation. If none are included, the FX Definitions specify, in respect of each Disruption Event, the Disruption Fallbacks which are deemed to apply in respect of such Disruption Event. In general, the Disruption Fallbacks occur in steps. First, they require the affected party to look for alternative ways of performing its obligations. Second, they provide for postponement of performance until the disruption no longer exists. Third, if none of these works, they provide an ultimate fallback of a No Fault Termination.

Market Disruption. Where a transaction provides for the relevant Settlement Rate to be determined by obtaining the arithmetic mean of the relevant Spot Rate on specified Averaging Dates, a Market Disruption shall have occurred where it is impossible to obtain the Spot Rate on any such Averaging Dates.

Although separately defined in the FX Definitions, Market Disruption is very similar to Price Source Disruption (one of the Disruption Events) which occurs where a transaction specifies a single Valuation Date for the determination of the relevant Settlement Rate and it is impossible to obtain the Spot Rate on such Valuation Date. Accordingly, under the FX Definitions if a Market Disruption occurs the Disruption Fallbacks will apply as if a Price Source Disruption had occurred, for which the ultimate fallback position upon a failure of alternative price sources is the good faith determination of the Settlement Rate by the Calculation Agent.

Inability to Deliver the Benchmark Obligations. If, due to an event beyond the control of the parties, it is impossible or illegal to Deliver or take Delivery of the Benchmark Obligations and the relevant waiting period expires, the FX Definitions provide that the Transaction will settle in accordance with the next applicable Disruption Fallback.

The FX Definitions are unique among the definitions published by ISDA in that they provide that if a Disruption Event occurs that is also a force majeure event under the master agreement used (whether an ISDA master agreement or FEOMA, IFEMA or ICOM), it is to be treated as a Disruption Event and not as a force majeure event. This aims to ensure that obligations are performed wherever possible. As the FX Definitions were published in 1998, the reference to ISDA master agreements only includes the 1987 Interest Rate and Currency Exchange Agreement and the 1992 Agreement. However, if a transaction is entered into under a 2002 Agreement, the parties may amend this provision to refer to the 2002 Agreement through the 2002 Master Agreement Protocol published by ISDA in 2003.

(f) 1997 Bullion Definitions

The 1997 Bullion Definitions (the "Bullion Definitions") are designed for use with bullion swaps, forwards and options. In respect of such transactions, the likelihood of a party being required to perform an obligation on a day on which a disruptive event has occurred is minimised as the various performance dates are defined to be Bullion Business Days. A Bullion Business Day is defined as a day on which commercial banks are open for business in London, New York and the location where payment is to be made, and in relation to a Bullion Trade or Bullion Option requiring Settlement by Delivery, it must also be a day which is a scheduled trading day in the Bullion market in the delivery location.

The Bullion Definitions divide disruptive events into the following groups: (i) Settlement Disruption Events, being events affecting settlement by delivery; and (ii) Market Disruption Events being, broadly, events affecting the performance of pricing or valuation obligations.

Settlement Disruption Events. A Settlement Disruption Event is an event beyond the control of the parties as a result of which delivery cannot be effected in the manner specified by the parties. There are two possible consequences of a Settlement Disruption Event set out in the Bullion Definitions: "Negotiation" and "Cancellation and Payment", and parties may select any of these. Negotiation involves, after the expiry of the

relevant waiting period, the parties agreeing in good faith to a course of action with the object of settling in a commercially reasonable manner. Cancellation and Payment involves, after the expiry of the relevant waiting period, the termination of the affected transactions on the basis of the deemed occurrence of a Termination Event under the relevant ISDA Master Agreement and on the basis that the party which had been required to make the delivery is the affected party. Contrary to the other definitions published by ISDA, which provide for termination as a final alternative, Cancellation and Payment is, perhaps surprisingly, deemed to be specified if the Confirmation is silent on this issue.

Market Disruption Events. A Market Disruption Event is an event that would give rise in accordance with an applicable Disruption Fallback to an alternative basis for determining the price of the relevant Bullion in respect of a specified price source or the termination of the relevant Bullion Transaction. The Market Disruption Events listed in the Bullion Definitions are: (i) Price Source Disruption; (ii) Trading Suspension or Limitation; and (iii) Disappearance of Bullion Reference Price. If none are specified in the relevant Confirmation as applicable, all three will be deemed to apply. The parties can also nominate Additional Market Disruption Events in the Confirmation, but no examples of these are set out in the Bullion Definitions.

If a Market Disruption Event or an Additional Market Disruption Event occurs, the parties will look to the applicable Disruption Fallback in order to determine the manner in which they should continue their performance of the relevant Bullion Transaction. Disruption Fallbacks are defined as sources or methods used following a Market Disruption Event or Additional Market Disruption Event on a Pricing Date to provide an alternative basis for determining the Relevant Price or terminating the contract. The Confirmation may specify the Disruption Fallbacks to be used, such as Negotiated Fallback or No Fault Termination. If none is so specified and the parties have not specified an alternate Bullion Reference Price, the Disruption Fallback deemed to apply is Calculation Agent Determination where the Calculation Agent in good faith determines the price of the relevant Bullion.

(g) 1993 Commodity Derivatives (and 2000 Supplement)

The 1993 Commodity Derivatives Definitions (the "Commodity Definitions") are designed for use with cash-settled commodity derivatives transactions. As with several of the other definitions published by ISDA, the adjustment of a performance date so that it falls on a business day is one method by which the Commodity Definitions address the occurrence of disruptive events. Under the Commodity Definitions, there are two types of business days: (i) the Business Day, incorporated by the other defined dates which relate to payments; and (ii) Commodity Business Day, incorporated by the other defined dates which relate to the determination of the price for a Commodity.

A Business Day is defined as a day on which commercial banks and foreign exchange markets settle payments in the local currency in the places

specified for that purpose in the Confirmation. Payment Dates and Settlement Dates are adjusted if they fall on days which are not Business Days.

A Commodity Business Day is a day on which the price source used is published (e.g. when an Exchange is open). Pricing Dates and Expiration Dates are adjusted if they fall on days which are not Commodity Business Days.

Under the Commodity Definitions, disruptive events are encapsulated in the Market Disruption Events. A Market Disruption Event is an event that would give rise in accordance with an applicable Disruption Fallback to an alternative basis for determining the price of the relevant Commodity in respect of a specified price source or the termination of the relevant Transaction. A list of disruption events is set out in the Commodity Definitions and may be included in the terms of the relevant Transaction as Market Disruption Events. If none are specified in the relevant Confirmation, the following will be deemed to apply: (i) Price Source Disruption; (ii) Trading Suspension; (iii) Disappearance of Commodity Reference Price; (iv) Material Change in Formula; and (v) Material Change in Content. The other listed disruption events may be included in the terms of the relevant Transaction as Additional Market Disruption Events.

If a Market Disruption Event or Additional Market Disruption Event occurs, the parties will look to the applicable Disruption Fallback in order to determine the manner in which they should continue their performance of the relevant Transaction. Disruption Fallbacks are defined as sources or methods used following a Market Disruption Event or Additional Market Disruption Event on a Pricing Date to provide an alternative basis for determining the Relevant Price or terminating the contract. The Confirmation may specify the Disruption Fallbacks to be used, such as Postponement or Calculation Agent Determination. If none is so specified, the following Disruption Fallbacks will be deemed to apply in the following order: Fallback Reference Price, then Negotiated Fallback, then finally No Fault Termination.

(h) 1994 Credit Support Annex (New York Law)

This document can be used to govern collateral arrangements in relation to a 1992 Agreement or a 2002 Agreement. In this document, a Local Business Day is as defined in the relevant master agreement to which this annex applies. Transfers of Eligible Credit Support or Posted Credit Support are required to be made on a Local Business Day. The grace period for failure to transfer is two Local Business Days. During a market disruption, days which would otherwise be Local Business Days may not qualify under the definition. This may result in delays to the actions that must be performed on a Local Business Day or to actions which must take place after a grace period comprised of Local Business Days.

(i) 1995 Credit Support Annex (English Law)

This document can be used to govern margin arrangements in relation to a 1992 Agreement or a 2002 Agreement. In this document, a Local Business

Day is defined as a day on which commercial banks are open for business in the place used for the relevant transaction for (i) transfers of cash and other properties; (ii) valuation under this Annex; and (iii) notice given under this Annex. Where there is a transfer of securities, a Local Business Day is a day on which the relevant clearance system is open. Notifications of calculations and requests for exchange of Credit Support are required to be made on a Local Business Day. As we have seen above, actions that must be performed on a Local Business Day or after a grace period comprised of Local Business Days has expired, may be delayed by a market disruption.

A Settlement Day is, in relation to a date for transfer of cash or other property other than securities, the next Local Business Day. For a transfer of securities it is the first Local Business Day after a trade in the relevant securities that, if effected on such date, would have been settled in accordance with customary practice. An exchange of Original Credit Support or New Credit Support is required to be made on a Settlement Day, so they could be affected by a major operational disruption. Distributions are also required to be made on a Settlement Day. There is no grace period.

(j) 1995 Credit Support Deed (English Law)

This document can be used to govern margin arrangements in relation to a 1992 Agreement or a 2002 Agreement. In this document, the definitions of Local Business Day and Settlement Day are the same as for the 1995 Credit Support Annex (English Law). Notifications of calculations or requests for substitution of Credit Support must be made on a Local Business Day. There is a grace period of two Local Business Days before a failure to transfer becomes a Relevant Event. Again, actions that must be performed on a Local Business Day or after a grace period comprised of Local Business Days has expired, may be delayed by a market disruption. A substitution of Original Credit Support for Substitute Credit Support must be made on a Settlement Day, which could be affected by a major operational disruption. There is no grace period.

(ii) Guidance

ISDA established a clearing house for disaster recovery after 11 September 2001.

ISDA published on 14 September 2001 a news release setting out guidelines for determining prices in some energy derivatives. It did the same on 17 September 2001 for equity derivatives. Some of the provisions in the 2002 Equity Derivatives Definitions, as well as the Force Majeure Event provisions in the 2002 Agreement, reflect the documentation lessons learnt from this process.

4.3.10 Exchange traded derivatives

The Futures and Options Association ("FOA") is a European trade association for participants in the derivatives industry. Its international membership includes banks, brokers, fund managers, energy and power market participants, commodity trading companies, exchanges and clearing houses. In its response to the Treasury consultation paper, the FOA states that (i) it has established and tested a centralised conference call facility for its exchange and clearing member firms which would be implemented in the event of a major operational disruption (it is operated on a "best efforts" basis and is

intended to be a central information point/emergency forum), and (ii) it manages two libraries of standardised documentation covering numerous products[52], customers[53] and exchanges[54] and the documentation requirements of a range of major jurisdictions. Each set of core terms contain disruptive events clauses (e.g. force majeure).

The Futures and Options Master Netting Agreement for Exchange Traded and Related Transactions was produced by the FOA to reduce exposures to individual counterparties. It contains a Business Day definition requiring banks to be open in the principal financial centre of the relevant currency for payments, and in relation to delivery of property a Business Day is a day on which property of such type is capable of being delivered.

There is no general force majeure or illegality clause (although the underlying transactions may be subject to force majeure or illegality provisions). All transactions between the parties are terminated for non-payment or failure to deliver/receive property when due, following a two day grace period after notice of such non-performance has been given. The payment following termination is made in the Non-Defaulting Party's base currency by close of business on the business day following termination. If delayed, interest on such payment will be charged at the average rate at which overnight deposits in such currency are offered in the London interbank market plus one per cent. or, if no such rate is available, at such rate as the Non-Defaulting Party may reasonably decide plus one per cent. These netting rules do not apply to transactions if inconsistent with rules of exchanges or clearing systems relevant for those transactions.

The Terms of Business for Market Counterparties ("Terms of Business") produced by the FOA are intended to provide a model set of terms of business for dealings in futures and other exchange traded derivatives for clients classified as market counterparties. Under the Terms of Business, a Business Day is defined as a day on which bodies based in the jurisdiction of the relevant currency are open for business (London for euros) and, in relation to delivering of property, a day on which property of such type is capable of being delivered. There is a force majeure clause excluding liability for non-performance due to events beyond the parties' reasonable control. There is a grace period of one or two days (chosen on entering into a contract) before non-payment or failure to deliver/receive property becomes an Event of Default after notice of such non-payment or failure is given. When a relevant exchange (or specific transactions on that exchange) is suspended or restricted, the rules of the exchange may require one party to take such action that it cannot enter into transactions with the other party, and the market intervention clause excludes liability to the other party as a result of this.

4.3.11 Funds and asset management

It is common practice for funds to be permitted to suspend calculation of their net asset value (and thereby suspend trading in their shares or units) on the occurrence of (among other things) (i) unexpected closure or restricted trading on one or more stock exchanges that provide the basis for valuing a substantial portion of the funds' assets, and (ii)

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[52] Products covered are equity and fixed income products, exchange traded and OTC financial, commodity and energy derivatives (including forwards), foreign exchange cash and options, contracts for difference (including equity and energy), Exchange for Physicals (more commonly known as EFPs) and bullion.

[53] Market Counterparties, Intermediate and Private Customers.

[54] Includes terms required by these exchanges where applicable: Euronext Amsterdam, Euronext Brussels, Euronext Paris, Euronext.liffe, Eurex, LME, IPE, LSE, Chicago Board of Trade and Chicago Mercantile Exchange.

unforeseen events that make disposing of part of the funds' assets unreasonable or impracticable without being to the detriment of the funds' shareholders.

The FSA Handbook's sourcebook on Collective Investment Schemes ("CIS Sourcebook") at 13.1.3 allows the manager of an authorised fund to suspend the issue, cancellation, sale and redemption of units in authorised funds (i.e. UK authorised unit trusts or open-ended investment companies) if it is of the opinion that due to exceptional circumstances there is good and sufficient reason in the interests of holders or potential holders to do so.

The Investment Management Association ("IMA"), which is the UK trade body for the professional investment management industry, has proposed changes to its Model Terms for Discretionary Fund Management. These Model Terms govern the relationship between a fund manager and its customers. One of the proposed changes is for the insertion of a force majeure clause expressly excluding a party's liability for delay or failure in the performance of any obligations due if such delay or failure is caused by an event outside its control (it lists one event as "*market conditions affecting the execution or settlement of transactions or the value of the assets*" and another as "*failure of any relevant exchange or clearing house*").

4.3.12 Foreign exchange

The Foreign Exchange and Options Master Agreement ("FEOMA"), the International Foreign Exchange Master Agreement ("IFEMA") and the International Currency Options Market Master Agreement ("ICOM") specifically provide a set of common terms for the relevant transactions. These Master Agreements were produced by the British Bankers' Association ("BBA") in conjunction with equivalent associations from other jurisdictions during the 1990s in response to the growing recognition by banks and regulators alike that the settlement risk arising from foreign exchange transactions had become significant. The BBA represents banks operating in the UK.

The BBA has produced, in conjunction with the Foreign Exchange and Currency Deposit Brokers' Association (now the Wholesale Market Brokers' Association), recommended terms and conditions in relation to interest rate swaps (BBAIRS) and forward rate agreements (FRABBA) used in the interbank market, which are described below.

In FEOMA, a Business Day is defined as the Local Banking Day in respect of (i) the buyer in relation to late or non-payment of option premiums; (ii) the seller for exercise and settlement of options and the definition of American Style Options; and (iii) the non-defaulting party for events of default; (iv) the currency for delivery of that currency; and (iv) both buyer and seller for any other provisions. A Local Banking Day is based on when banks in the relevant markets are open for business.

FEOMA contains a force majeure clause which provides that either party may require the close-out and liquidation of each Currency Obligation and Option if either party is prevented, hindered or delayed from performing its obligations due to force majeure or act of state, though the party prevented from performing its obligations must use all reasonable efforts to transfer the obligations to an unaffected office before it can exercise its right to close-out and liquidation. However, if close-out does not take place, this force majeure clause does not suspend or defer performance of a party's obligations or contain any provisions deferring the obligation to settle the close-out amount.

There is a grace period of two days for non-payment in relation to Currency Obligations and Options, and a grace period of 30 days for everything else (ignoring the Credit Support

provisions which have various different grace periods), before such failure constitutes an Event of Default. There is a rate disruption clause, but no settlement or performance disruption clauses. FX Transactions are settled on the Value Date, which is a Business Day unless Split Settlement occurs, in which case each part takes place on the relevant Local Banking Day. Following the Close-Out Date, the Determining Present Value clause adjusts the Closing Gain or Closing Loss.

IFEMA and ICOM appear to be identical to FEOMA in these respects.

An optional bilateral amendment to the force majeure provisions of FEOMA, IFEMA and ICOM was published by the Foreign Exchange Committee and the Financial Markets Lawyers Group in New York. This provides for a Waiting Period of three Business Days (or days that would have been Business Days but for the Force Majeure Event) after the Force Majeure Event occurs before either party can elect to close-out and liquidate.

The BBA interest rate swaps recommended terms and conditions ("BBAIRS Terms") were intended for use in interbank transactions with maturities up to and including two years, and can be adopted for longer dated swaps. They were the first concerted attempt made by the market (in 1985) to create a standard agreement for interest rate swaps. Although BBAIRS Terms are still used, they have been largely superseded by ISDA documentation. FRABBA is more widely used.

There are recommendations in relation to three types of swaps: (i) Single Currency Fixed/Floating Rate Swaps; (ii) Cross Currency Swaps; and (iii) Cross Currency Floating Rate Swaps.

Under the BBAIRS Terms, a Business Day is a day on which banks in London and in the financial centres of other currencies involved are open for business. A party can terminate the transaction if it becomes illegal for that party to perform its obligations as a result of existing or future laws or requirements and it cannot make reasonable alternative arrangements to avoid this illegality. There is a grace period of three Business Days following notice of non-payment before such non-payment becomes an Event of Default. There are no provisions in relation to rate and settlement disruption.

A forward rate agreement seeks to protect the buyer from future interest rate movements. The BBA Forward Rate Agreement Recommended Terms and Conditions ("FRABBA Terms") are used for interbank transactions. There is no express definition of a business day. Provisions relevant for this analysis are: (a) if no BBA Interest Settlement Rate (now known as BBA LIBOR) is available for the Contract Period, the parties are required to agree the basis for establishing an alternative rate and the reference banks to be used; and (b) if a Contract Period ceases to be eligible because the original Settlement Date ceases to be a normal business day, the settlement rate will be obtainable for the revised Fixing Date from a member of the Foreign Exchange and Currency Deposit Brokers' Association as specified by the Secretary thereof, although the BBA expects that the settlement rate for the revised Fixing Date would be the relevant BBA LIBOR rate for the Contract Period. There are no illegality, force majeure or grace period clauses (non-payment is not expressed to be an Event of Default).

4.3.13 Codes for foreign exchange and money markets

Two codes of practice are worth noting for the purposes of this analysis because of their impact on contracts. These are:

(i) Non-Investment Products code

Non-investment products ("NIPs") cover sterling, foreign exchange and bullion wholesale deposit markets, and the spot and forward foreign exchange and bullion markets. The NIPs code is published by the Bank of England, but has been drawn up by market practitioners to underpin the professionalism and high standards of these markets[55]. It applies to trading in the wholesale markets in NIPs. It is not legally enforceable, and is intended as guidance only.

The NIPs code contains a provision regarding maturity dates unexpectedly falling on a public holiday. In this event, the NIPs code states that it is normal market practice in London to extend contracts maturing on a non-business day to the next working day, but to minimise possible disputes market participants should agree settlement arrangements in advance for such scenarios.

The NIPs code also provides that in the event of unexpected circumstances resulting in interruptions to the sterling settlement systems and consequent delays in sterling payments, the Bank of England should determine and publish the interest rates which affected parties should use to calculate appropriate interest rate adjustments (unless the parties agree otherwise, for example where the contract already provides for such disruption).

(ii) ACI Model Code

ACI[56] – The Financial Markets Association ("ACI") is an industry association aiming to represent the interests of the international financial markets and actively to promote the educational and professional interests of the markets and the industry. It has produced its Model Code to promote best market practice and conduct in the global OTC foreign exchange, money and related derivatives markets.

The ACI Model Code does not have the force of law, but by adhering to it ACI believes that this effectively shows that market participants can provide sufficient self-discipline to obviate the need for any market regulation.

The ACI Model Code provides that in the event of a bank holiday being declared, or some other occurrence preventing settlement of banking transactions on a specified date, certain procedures should be followed to adjust the value date on outstanding currency transactions maturing on that date. These are that: (a) the new value date will be the first common business day (i.e. the business day common to both currencies involved in the foreign exchange transaction) following the original value date, unless the bank holiday is declared on the last common business day of the month, in which case the new value date will be the first preceding common business day (this could cause problems if, for example, the UK unexpectedly declares on Sunday 30 May that Monday 31 May is to be a bank holiday so the contract requires performance on Friday 29 May); (b) value dates in foreign exchange transactions will not be split unless the parties agreed or where special local practice allows for split delivery (as in certain Islamic countries); and (c) there will be no adjustment of the exchange rate on outstanding contracts.

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[55] The FSA Handbook contains codes, rules and guidance relevant to investment products. The codes and rules are binding on persons authorised by the FSA to conduct investment business. However, there does not appear to be anything relevant for the interpretation of contracts in an event of major operational disruption, so it is not considered here.

[56] ACI stands for Association Cambiste International.

The ACI Model Code also encourages market participants to provide for unforeseen events in contracts to avoid disputes as much as possible. Where there are instances of general market disruption, and local regulators and central banks prescribe applicable procedures (e.g. alternative interest rates to those unavailable from the usual source), market participants should strictly adhere to such rules in the absence of any other written agreement dealing with such disruption. The ACI Model Code also provides that where industry groups convene meetings to form a market consensus in situations where strict adherence to the market standard provisions is impracticable, market participants should attend those meetings and honour the consensus reached.

4.3.14 Commodities

Several commodities agreements have already been discussed in section 4.3 (see "OTC Derivatives" and "Exchange Traded Derivatives" above).

Commodities are traded on exchanges using standardised contracts to facilitate trading (e.g. specifying standard quantities), and these will be subject to the rules and regulations of the relevant exchange. These rules and regulations will prescribe what happens in the event of an operational disruption.

The OTC metals market does not tend to use standard documentation, but rather incorporates (but must not be subject to) the London Metal Exchange's rules and regulations. This should ensure that they are consistent with contracts traded on the London Metal Exchange.

4.3.15 Energy

There are numerous energy related products traded in the financial markets, many of which are also addressed elsewhere in this report. This analysis will be restricted to the most common contracts used for trading electricity, gas and petroleum. These industries are diverse, and are subject to significant levels of regulation, so it is only possible to give a fairly general introduction.

The Utilities Act 2000 has substantially altered the way electricity and gas markets are regulated. It established the Gas and Electricity Markets Authority ("GEMA") to oversee the regulation of the two markets, and the Government has also established the Office of Gas and Electricity Markets[57] ("OFGEM") to regulate the two markets on GEMA's behalf on a day-to-day basis. In particular, OFGEM takes action to ensure compliance with generation and supply licences. OFGEM is also responsible for approving all modifications to the Balancing and Settlement Code (described below).

(i) Electricity

On 27 March 2001, the New Electricity Trading Arrangements ("NETA") were introduced in England and Wales. These were designed to deliver more competitive market-based trading arrangements like those in other commodity markets by allowing electricity to be traded through a series of bilateral contracts rather than the previously existing "Pool" which was considered to be too "generator-friendly".

[57] Website at www.ofgem.gov.uk. OFGEM existed under previous legislation as well.

NETA is governed by the Balancing and Settlement Code ("BSC") and provides for :

(I) a mechanism for contracting parties to notify all volumes of electricity to be supplied under contract. Notifications are to be made to Elexon, a wholly owned subsidiary of the National Grid Company ("NGC") which supervises the management, development and implementation of the BSC;

(II) a "Balancing Mechanism" in which NGC, as system operator, accepts offers and bids for electricity, from generators and suppliers close to real time, to enable it at all times to balance the system; and

(III) a settlement process for charging participants whose notified contracted positions do not match corresponding metered volumes of electricity.

Licensed electricity generators and suppliers as well as electricity traders must sign up to the BSC.

(a) Power trading

Electricity is traded by market participants on all or some of the following:

(I) Grid Trade Master Agreements;

(II) power purchase agreements; and

(III) power exchange trades.

(b) Grid Trade Master Agreement

The Grid Trade Master Agreement ("GTMA") was introduced to develop a generic framework for OTC electricity trading. It has been accepted as the standard set of terms under which the majority of forwards take place.

Note that while the analysis below describes the position under the standard GTMA terms and conditions, the GTMA can be, and generally is, amended by terms of a separate schedule to put in place variations agreed for all trades between the two relevant counterparties.

Under the terms of the GTMA:

(I) one of the parties elects to notify agreed volumes to Elexon;

(II) the Buyer pays the Seller each month for traded volumes (being volumes which have been agreed and notified to Elexon);

(III) either party has a right to terminate in the event that any of the pre-agreed termination events occur (e.g. failure to pay);

(IV) a termination sum is payable on termination. This is similar to the ISDA concept of "Market Amount" and "Loss" (the parties agree up front which methodology to use, although "Loss" is predominantly used in the London market). If a defaulting party is "out of the money", then it is still eligible to be paid a termination sum;

(V) a Banking Day is defined as a day (other than a Saturday or Sunday) on which clearing banks in London are open for general business. This is relevant to payments, which are made once a month on a Banking Day. In addition, there is a grace period of three Banking Days before an act of non-payment becomes an Event of Default, and a grace period of five days for breach of Material Obligations; and

(VI) the GTMA contains a Force Majeure provision but this only covers an inability to issue the required notification to Elexon for reasons beyond the control of the notifying party. There is also an illegality clause.

Electricity is not traded under ISDA documentation in the UK, unlike other countries such as Australia. However, the 1993 Commodity Derivatives Definitions and the 2000 Supplement thereto provide a framework for cash settled electricity derivatives, though at present there is no market standard approach to documenting such transactions under an ISDA master agreement (ISDA is working on an electricity annex similar to the gas annexes).

(c) Power purchase agreements

Parties who wish to enter into long-term power supply contracts are usually contracted on the basis of bespoke power purchase agreements. These have many of the eventual regulatory elements of GTMAs (e.g. the notification obligations) but also contain specific payment provisions such as events of default.

(d) Power exchange trades

Electricity contracts are traded on the UK Power Exchange ("UKPX") and the UK Automated Power Exchange ("UKAPX"). Other exchanges may also offer electricity contracts.

The UKPX offers both spot and futures contracts in various blocks of time, the UKAPX offers only spot contracts. Both UKPX and UKAPX act as central counterparty and their spot markets are open 24 hours a day. Under the exchange traded contracts, the exchange is responsible for all regulatory notification obligations.

(ii) Gas

On 1 October 1999, the reform of gas trading arrangements ("RGTA") took place. Its main feature for the purpose of this analysis is a screen-based on-the-day commodity market ("OCM"), which is used by Transco to balance the system and also to support day-ahead and within-day trading. The system is balanced at the National Balancing Point ("NBP"), which is where gas is physically delivered before being distributed around the UK through Transco's National Transmission System (i.e. pipelines) under the Network Code. OCM is regulated by Ofgem.

EnMO is the OCM operator. It clears and acts as central counterparty to all OCM trades.

(a) Gas trading

As with electricity, gas is traded using standard agreements, bespoke long-term supply agreements and on exchanges.

(b) Standard agreements

The Short Term Flat NBP Trading Terms and Conditions ("NBP Terms") are used for gas transactions requiring physical delivery in the UK. Under the NBP Terms:

(I) a Banking Day is defined as a weekday on which the clearing banks in London are open for business. This is relevant for payment. Delivery takes place on a Gas Flow Day (as defined in the network code), which appears to be unaffected by a declaration of a bank holiday;

(II) Force Majeure is defined as any event beyond the reasonable control of a party which prevents a Trade Nomination from being submitted by that party to Transco or from being received by Transco. It is available to both the buyer and the seller, provided that the affected party uses all reasonable endeavours to overcome the Force Majeure event. Either party may terminate the affected Transaction by giving three Banking Days notice if the Force Majeure in respect of that Transaction continues for seven calendar days or more;

Gas contracts may be effected using standard ISDA documentation (cash settled swaps and options using an ISDA Master Agreement and the 1993 Commodity Derivatives Definitions), but note that the NBP Terms must be incorporated for physically settled transactions using the appropriate annex to the ISDA Master Agreement (the ZBT Terms are used instead of the NBP Terms if delivery at Zeebrugge is required). Parties are also starting to use the European Federation of Energy Traders ("EFET") Gas agreement more frequently (the EFET Power agreement is typically used for European electricity forwards). See further at (v) below.

A consultation process is underway to update the standard gas trading terms so that they converge with standard electricity trading terms. However, this process is still at an early stage, and it has not yet been decided whether to merge GTMA with the NBP Terms or to use existing ISDA or EFET (described in (iv) below) documentation.

The Network Code will always need to be considered as it governs the transmission of gas across the UK in Transco's pipeline network – the National Transmission System. The Network Code contains steps that Transco and Users are required to take in emergencies *"(i) to avert and/or to reduce the probability of or the probable scale of a Gas Supply Emergency, and/or to prepare for the occurrence of a Gas Supply Emergency; or (ii) to overcome or contain a Gas Supply Emergency and/or to avert or reduce the hazard presented by it, and/or restore gas supply and normal operation of the System and facilitate appropriate reinstatement of the provisions of the Code following the taking of any such steps."*

There are extensive Emergency Procedures setting out what needs to be done in an event of major operational disruption, and there are provisions explaining Force Majeure and what effects it has. These are not particularly relevant for this analysis of standard contracts and will not be considered further.

(c) Gas exchange trades

Natural gas is traded on the International Petroleum Exchange and various other exchanges.

(iii) Petroleum

Brent Crude and Gas Oil contracts are traded predominantly on the International Petroleum Exchange or other petroleum and oil based products are traded OTC using standard ISDA documentation (cash settled oil swaps and options using the confirmation attached to the 1993 Commodity Derivatives Definitions).

(iv) European Contracts (EFETs)

The European Commission has established several EU Directives to open up the EU markets in electricity and gas. The specific content of these EU Directives is not important for this analysis, but it should be noted that contracts and trading standards are being harmonised across Europe by the European Federation of Energy Traders ("EFET") (which consists of over 60 energy trading companies across Europe).

EFET has produced standard contracts for trading electricity and gas. The General Agreement Concerning the Delivery and Acceptance of Electricity dated December 2002 ("EFET Power", as referred to above) defines a Business Day (other than a Saturday or a Sunday) as a day on which commercial banks are open for general business where each party has its registered office. It also contains a force majeure clause which releases a party from its obligations (not just suspending them) for the duration of the force majeure event provided that it complies with the notification requirements (there is no long stop before the contract can be terminated). Examples of such force majeure include the failure of communications of computer systems which prevents delivery or acceptance, and also suspension of delivery or acceptance due by the operator of the network. The other party's obligations are also released for the same period.

Before a Material Reason (allowing close-out of outstanding transactions) is deemed to occur, there is a two Business Day grace period in respect of a failure to pay, and a ten Business Day grace period for certain other failures under the EFET electricity agreement. In the event of a Market Disruption Event caused by failure of a relevant Price Source or Commodity Reference Price, there is a Fallback Procedure to follow.

The EFET General Agreement Concerning the Delivery and Acceptance of Natural Gas is more complex. Many of the provisions of interest for this analysis are the same as for the EFET electricity agreement (including the Business Day definition), but there are a few extra clauses. In particular, there is a Long Term Force Majeure Limit which grants the party not relying on the force majeure clause the right to terminate a particular contract if that contract has been affected every day for a period of days exceeding the Long Term Force Majeure Limit agreed

between the parties, provided that on average 50 per cent. of the contracted quantity over such time has been affected.

Both EFET Power and EFET Gas can be amended in an equivalent fashion to the GTMA.

(v) Fuel Security Code ("FSC")

It has long been recognised that there is a need to ensure continuity of fuel supplies, which is ensured by the FSC (first introduced when the coal strikes were crippling the UK). While the exact provisions of the FSC are not relevant for this analysis, it is worth noting that if the government declares an "emergency period", the Department of Trade and Industry can direct electricity generators to operate in a certain way and determine how much they earn, and similarly direct on the use of gas and petroleum reserves (among others). It is also worth noting that the UK electricity generators are heavily reliant on gas[58] to run the generators.

4.3.16 Cross-product agreements

The CRMPG's recommendations in its report published in June 1999 stated that: *"Parties should make the best possible use of multi-product master agreements, and master-masters, to facilitate obligation netting and collateral netting across product lines."* The CRMPG noted the risks arising from discrepancies in events of default and notice periods for close-outs in different industry master agreements.

The Cross-Product Master Agreement ("CPMA") was produced[59] as a useful means of managing counterparty risk and documentation basis risk across different financial product types. It acts as a contractual superstructure encompassing any number of bilateral master agreements (the "Principal Agreements").

Under CPMA, a Business Day is defined as a day on which commercial banks effect deliveries of the Base Currency in accordance with the market practice of the principal foreign exchange market for the Base Currency (which is TARGET for euro). A Close-Out Event clause ensures that all transactions are closed-out at the same time, and can (but does not have to) be exercised when a party has the right to accelerate, close out, liquidate, cancel or terminate all transactions under one Principal Agreement covered by the CPMA. Calculations of Settlement Amounts is effected under the terms of each Principal Agreement, and they are set off against each other to give the Final Net Settlement Amount, which is payable in the Base Currency (Settlement Amounts in other currencies are converted into the Base Currency).

Force majeure events (and Disruption Events as defined in the 1998 ISDA FX and Currency Option Definitions) occurring under Principal Agreements are excluded from the definition of Close-Out Event. However, it is not clear whether a force majeure event that leads to an Event of Default might in fact result in a Close-Out Event.

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[58] Gas from Russia in particular.

[59] The associations involved in drafting it were TBMA, British Bankers' Association, Emerging Markets Traders Association, Foreign Exchange Committee, IPMA, ISDA, Japan Securities Dealers Association, London Investment Bankers' Association and Investment Dealers Association of Canada.

If the Closing-Out Party determines, in its good faith judgment, that it is unlawful to include any particular Settlement Amount in the set-off procedure, that Settlement Amount shall be excluded.

ISDA has produced a number of bridge agreements, which are based on exactly the same principle as the CPMA. The main ones are the 2001 Cross-Agreement Bridge and the 2002 Energy Agreement Bridge, but it is not necessary to consider them in detail in this analysis.

Cross-product master agreements and bridge agreements (together referred to as "cross product agreements") could be useful for avoiding documentation basis risk if one agreement is terminated because of a force majeure event. However, in the event of a major operational disruption, it might in fact be preferable for all contracts to continue and provide that settlement and payment should simply be delayed. This will be ensured in each individual agreement rather than in the cross-product agreement. In fact, it is possible (albeit unlikely) that one party could terminate a number of transactions under a cross-product agreement even if only one or two give rise to an event of default caused by a major operational disruption.

4.3.17 International Deposits

The International Deposit Netting Agreement ("IDNA") was produced by the BBA to provide a contractual basis to offset, following an event of default, deposits taken by a bank from a counterparty bank against deposits placed with the same counterparty bank. This effectively reduces credit risk exposure to the counterparty bank.

Under the IDNA, a Business Day is defined as (in relation to giving notice of non-payment) a day on which commercial banks are not authorised or required by law to close in the location of the office of the Defaulting Party to which such notice is given. There is a grace period of two Business Days after written notice of non-payment is given before an Event of Default occurs, unless the Defaulting Party is prevented from doing so by way of force majeure or illegality. Force majeure and illegality are not defined.

4.3.18 Insurance and reinsurance

For the most part, the expectation in relation to insurance policies is that payment will be made following investigation and evaluation of the claim. Therefore, it is unlikely that the beneficiaries of such policies would be relying on timely payment.

There are some insurance policies which operate as surrogates for financial contracts, such as guarantees or credit derivatives. In these cases the position is different. However, these are not standardised in any way and raise many of the same issues as apply in relation to any financial contract entered into by a financial institution.

4.4 Business day definitions

The following section discusses three specific issues in relation to the operation of business definitions in financial markets contracts: first, the possible effect of the declaration of an unscheduled bank holiday under s.1 Banking and Financial Dealings Act 1971 ("BFDA"); second, some more general issues with respect to the effect of unscheduled non-business days on contracts; and, thirdly, the possible effects of a day being a business day for only part of the day.

4.4.1 Effect of unscheduled bank holidays under BFDA

It is thought that, in general, the fact that a day is declared a bank holiday under s.1 BFDA has no effect on the contractual obligations of the parties to a contract. If a party is

contractually obliged to make a payment or do another act on a day which turns out to be a bank holiday he is still in default if he does not perform that act on that day (see section 6.4.4). The principal exception to this general rule relates to bills of exchange and cheques (see section 6.4.8).

However, the declaration of a bank holiday might affect the parties' contractual obligations in a number of ways:

(i) ***Direct effect:*** In some cases, the parties may define their obligations by reference to "business days" and define the meaning of business days by reference to the term "bank holiday" and/or the BFDA. Where this is the case, the declaration of a bank holiday may have a direct effect on the party's contractual obligations[60].

However, for the most part, the standard contracts considered in section 4.3 do not define the term business day (or its equivalent) by reference to the BFDA. Instead, they define that term by reference to whether banks, markets, exchanges and/or settlement systems are in fact open or whether payments or other deliveries are in fact made or capable of being made on that day.

Examples of contracts on which a declaration of a bank holiday under s.1 BFDA could have direct effect are (i) FEOMA, IFEMA and ICOM, whose definitions of a Local Banking Day refer to days on which banks are not *"authorised or required by law to close"*, which might be construed so as to exclude days which are bank holidays under the BFDA (although the BFDA does not specifically authorise banks to close on bank holidays); and (ii) the FOA Terms of Business, which states that for all purposes other than currency payments and delivery of property, days which are not bank holidays are not business days.

(ii) ***Indirect effect:*** It is possible that the declaration of an unscheduled bank holiday might have an indirect effect, if as a result of the declaration, relevant markets, exchanges or settlement systems decided to close (or not open) on a particular day. In particular, if the UK payment systems were closed for business, then it is likely that a day would not be a business day for many (if any) purposes. A similar result might obtain if HM Treasury were to direct banks, exchanges and/or payment systems to close under s.2 BFDA.

4.4.2 Unscheduled non-business days

However, there are circumstances where the occurrence of an unscheduled non-business day could have unexpected results under contractual provisons.

This could occur in relation to contractual provisions where the date for performance of an obligation or for the doing of some other thing is set as the date falling a specified number of business days before a particular date. For example, the contract might provide that a rate is to be taken on a quotation date two business days before a roll-over date. If the roll-over date is a Thursday, the parties would expect the rate to be taken on the Tuesday. However, if the intervening Wednesday is, unexpectedly, a non-business day, then technically, the rate will have been taken (and possibly any hedge put in place) on the incorrect day.

[60] In addition, there might be other contracts (perhaps non-financial) which would be affected by the declaration of a bank holiday. It could impact on employee overtime and holiday arrangements, including for businesses which would otherwise have been totally unaffected by the particular operational disruption. Further drawbacks of declaring a bank holiday in response to an event of major operational disruption are considered in section 6.14.3.

Similar issues can arise with respect to preceding business day conventions. For example, where performance is scheduled to take place on a Monday but, due to an operational disruption arising due to events over the weekend, it turns out that Monday is not a business day, then a preceding day convention would suggest that performance should have been made on the preceding Friday (before it was known that the problem existed).

In some cases, it may be appropriate to address these issues in contracts by distinguishing the treatment of cases where the non-business day was an unscheduled event.

4.4.3 Partial business days

In some cases, it may also be necessary to address the possibility that business may open normally in a financial centre (or on a relevant market) but that, due to some disruptive event, business ceases before the scheduled end of business or is interrupted for a substantial period during the day. In these circumstances, it may not be appropriate to treat the day as a business day for all purposes or it may be appropriate to specify that other results follow. For example, it may be inappropriate to rely on a rate or price ascertained on such a day on the basis that the circumstances suggest that the rate or price would be unrepresentative or unreliable (e.g. by treating these events as some form of market disruption).

To the extent that a contract deals with performance on such a day, it would equally be possible (although unusual) for a contract to treat such a day as not being a business day. Alternatively, a party may be able to rely on a force majeure clause or grace period to excuse, or excuse the consequences of, the involuntary breach.

4.5 Documentation basis risk

There are clearly concerns that differences in documentation might give rise to different performances being due under linked contracts that had been designed to rely upon one another. An obvious example is where a party is expecting to fix a rate or price on one day for several interrelated contracts but where, for some, but not all, of those contracts, the day in question turns out to be an unscheduled non-business day. In these circumstances, the amount due under the contracts may not match as originally intended because different rates or prices apply.

In relation to force majeure clauses, somewhat different considerations apply. Take a case where Party A is expected to deliver securities to Party B which is on-delivering those securities to Party C. If Party A fails to deliver due to force majeure, Party B may wish to be excused from its obligations to Party C.

However, Party C may regard it as inappropriate to excuse Party B in these circumstances, at least if Party B is not directly affected by the force majeure event so that it could have performed its obligations if it had held the securities directly and had not been relying on Party A. For the most part, parties would probably not regard it as desirable to excuse a performance that was possible simply because the contracting party has chosen to rely on a particular source in order to meet its obligations. Excusing performance in these circumstances would expose a contracting party to risks of non-performance which are difficult for it to manage or control.

On the other hand, in this example, if the effect of a force majeure event is that Party B cannot deliver even if it had the securities, it would not be relevant to Party B (in the context of its obligations to Party C) whether or not Party A had actually performed or not. Party B would still want to be excused its contractual performance to Party C.

In addition, there may be other differences that could cause problems in hedged transactions. These need to be considered by the party hedging its risk when entering into the hedge.

5 INFRASTRUCTURE

This chapter considers the interconnectedness of the institutions that form the wholesale financial markets, and how they each respond to events of major operational disruption. Diagram 6 on the next page provides a basic idea of how they link together.

After a discussion below of the various payment systems, exchanges and clearing and securities settlement systems, we consider the role of the regulators and of other systemically important systems ("quasi-infrastructure") and we briefly discuss the nature of certain of the critical markets which could be affected by a major operational disruption. We then consider business continuity arrangements, since these will be an obvious practical solution to the problems caused by the occurrence of a major operational disruption. We nevertheless go on to consider the nature of the infrastructure bodies' powers in the event of an emergency and whether they address the events which are likely to occur. In this context, we cover the powers and protections which the infrastructure bodies have in law when acting in response to an emergency and the relevance of business days and bank holidays to them. We also set out, by way of comparison, the broad approaches adopted in the US and Hong Kong markets towards material operational disruptions.

Summaries in respect of the relevant UK and certain international infrastructure bodies, and extracts from the applicable rules and regulations of these bodies and of other international infrastructure bodies, are contained in Appendix 5 (produced as a separate document). At the front of Appendix 5 is a table summarising the relevant rules of the principal infrastructure bodies.

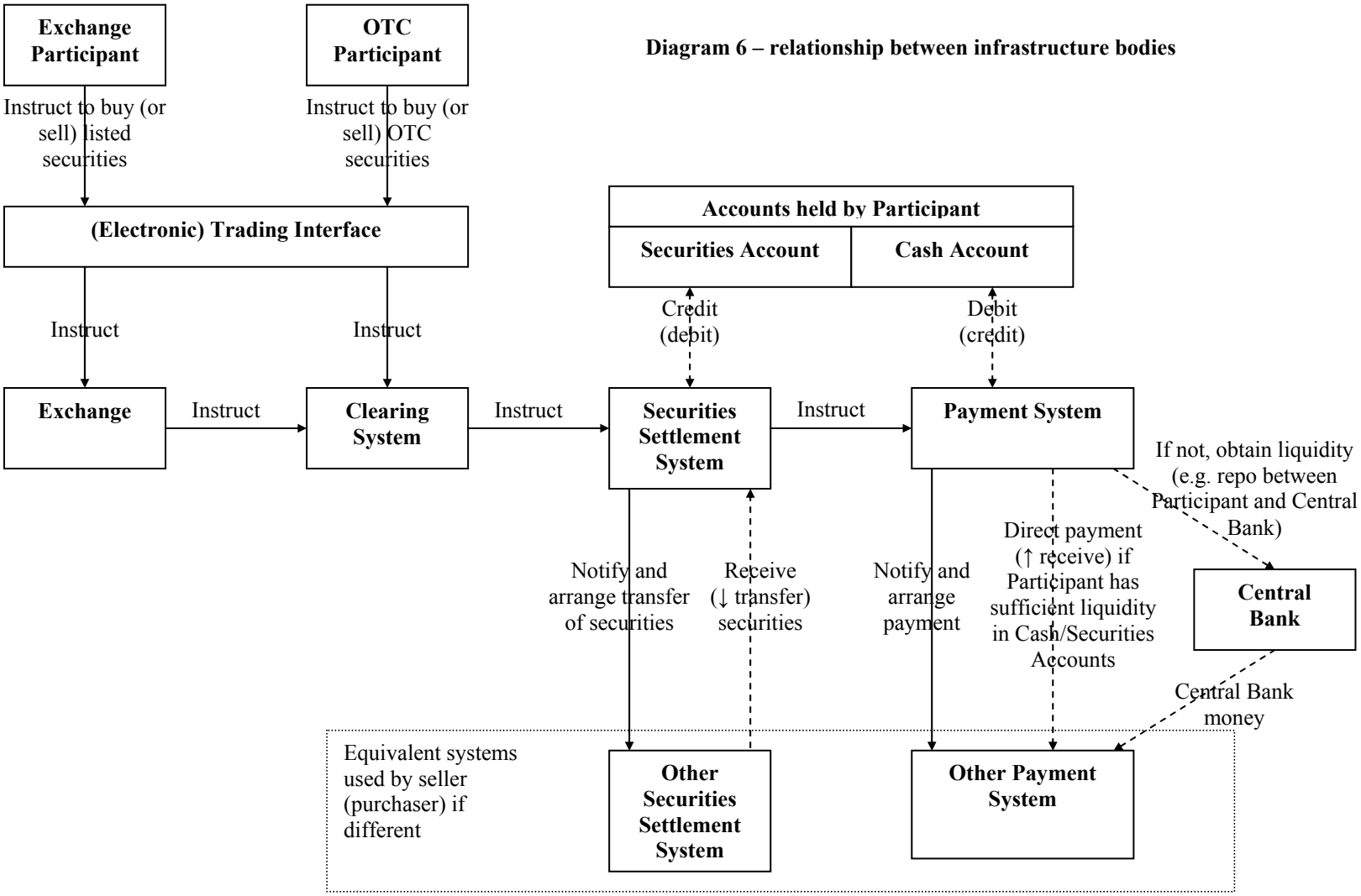
5.1 Payment systems

Payment systems perform the core function of transferring money from one person or account to another. The failure of a payment system because of a major operational disruption has a potentially serious effect on virtually all market activity: no contract which involves payment of the relevant currency will, where the payment obligation is required to be effected through an inter-bank system, be capable of being discharged (unless another payment system is available in respect of the same currency, generally in another country, or unless there are alternatives to payment, such as set-off).

A real time gross settlement ("RTGS") payment system involves the making of a gross payment in real time, so that the account of the settlement bank making the payment is debited with the relevant payment at the same time as the account of the settlement bank receiving the payment is credited. These debits and credits are final and irrevocable (although the corresponding debits and credits to customers' accounts with the settlement banks may not be final or irrevocable). This is to be contrasted with, for example, net settlement arrangements where payment obligations are typically bundled together during a cycle (which may be of any duration, from seconds to a day or longer) and only the net amount of those obligations falls to be settled at the end of the cycle.

Insolvency and similar problems which might otherwise arise in connection with either RTGS or net settlement arrangements are typically addressed either in the contract governing the system and/or through designation under the EU Settlement Finality Directive (see section 6.8.2). The major risk to be avoided is an insolvency challenge to a payment or a payment message, which could lead to an unwind of that payment or of any netting that has been carried out. Unwinding of this kind could lead to uncertainty, considerable practical disruption and liquidity or solvency problems for those banks which have relied on the final receipt of moneys already paid or on the effectiveness of any netting.

Diagram 6 – relationship between infrastructure bodies



Many contracts involving securities and commodities are now settled on a "delivery versus payment" ("DvP") basis. DvP requires simultaneous payment when a delivery is made[61], which effectively eliminates any counterparty risk. Whilst the increased number of RTGS payment systems has made DvP easier in principle, there can still be problems in implementing DvP in practice. These problems occur where the systems involved process settlements at different times of the day, which is known as pipeline liquidity risk. Pipeline liquidity risk is generated by timing differences between settlement in different systems in a settlement pipeline.

To get over this problem in domestic transactions, banks may provide intra-day cash advances on credit to permit the seller to receive payment on the same day. Cross-border transactions are more problematic because the greater time differences, multiple currencies and different securities regulations mean that banks providing liquidity have exposures for longer periods of time and these may be increased by unfavourable exchange rate fluctuations. These exposures would increase in the event of an emergency which closes systems otherwise expected to be open on the relevant day.

Certain securities settlement systems, such as CREST, use "embedded payment systems". These are dedicated payment arrangements put in place by the operator of the securities settlement system, the relevant national central bank and/or the settlement banks of the system. They are independent of the main payment systems (such as CHAPS and BACS). It is in fact the operation of these embedded payment systems which truly facilitates DvP settlement. This is because, as they form part of the settlement arrangements put in place by the operator, the securities settlement system's procedures and rules can be fashioned (without any dependency on an independent payment system) to support simultaneous transfer of title to securities by credit/debit book-entry to securities accounts against final payment by debit/credit book-entry to cash accounts or cash memorandum accounts maintained in the system.

The issue of cross-border pipeline liquidity risk has been looked at in depth by numerous committees, and it is widely agreed that harmonisation of cross-border standards, and maybe eventually a single settlement service system, are the optimum solutions. There has been significant consolidation across Europe in particular.

There are two RTGS payment systems operating in the UK: CHAPS Sterling and CHAPS Euro. Both use the Bank of England RTGS system to settle. CREST is also linked to the RTGS processor to facilitate sterling and euro payments in central bank money in support of securities transactions, but the embedded payment system in CREST allows for payment finality by reference to processes which occur in CREST rather than by reference to real-time movements across settlement accounts in the RTGS processor itself. The Bank of England RTGS system is therefore a distinct element in the UK's settlement arrangements. CHAPS Euro is linked to other European RTGS payment systems through the TARGET interlinking system. CHAPS is designated by the Bank of England for the purposes of the EU Settlement Finality Directive (see section 6.8.2).

The BACS and Cheque and Credit Clearing systems are typically used for smaller, bulk or less time critical payments (such as standing orders, direct debits and other automated payments), as well as cheques (although some payments and cheques can be very large indeed). They operate on a three day settlement cycle (so that payment messages submitted on day D will be discharged through a net payment due on day D+2) and, as a consequence, do not provide settlement services to other infrastructure bodies. They are not designated for the purposes of the EU Settlement Finality

[61] In most cases, there is no physical delivery of securities as they are almost always kept in a depositary or are held in dematerialised (uncertificated) form. Settlement systems (whether dematerialised or immobilised systems) operate as "book-entry" transfer systems, under which title to securities (or an entitlement to securities) is transferred by electronic debit/credit to stock accounts.

Directive. Because of their less time-critical nature, they are not considered further in this section, although their disruption can have a serious effect on the retail market.

CHAPS Euro provides a way, but not the only way, to effect euro payments. The other national payment systems forming the TARGET system could (depending on the circumstances) allow a payer to continue making RTGS euro payments if CHAPS Euro failed. This would not assist in the case of CREST, for example, where the Bank of England RTGS system in respect of euro is embedded in CREST's settlement process and it would not be possible at short notice to substitute alternative settlement methods. However, in principle and subject to the circumstances, the payment arrangements which support CREST allow for CREST settlement to continue against sterling or euro payments even if the RTGS processor itself, or the communications link between the RTGS processor and CREST, were affected by a major operational disruption. This is because the arrangements contemplate (with the Bank's approval) the possibility of "re-cycling" sterling or euro liquidity which was previously notified to CREST by RTGS as being "earmarked" by each CREST settlement bank for the purposes of CREST settlement.

In addition, euro payments can be made through the EBA EURO 1 system. This is a system which allows for the net settlement of obligations submitted in each cycle. As a result, it is not used as a settlement mechanism for any other infrastructure body outside of the EBA Clearing Company, but could provide a means of discharging other euro payment obligations.

The Bank of England is responsible for overseeing UK payment systems.

5.2 Exchanges

It appears to be common ground that it is desirable to keep exchanges open during their normal business hours for so long as it is practically possible to do so, even if a major operational disruption occurs. If an exchange is open, its participants can continue to trade and conduct their business, which enhances liquidity in the relevant market and increases the likelihood that participants and third parties can establish representative prices for the securities or commodities being traded.

The FSA is responsible for overseeing UK exchanges. An investment exchange in relation to which a recognition order is in force under Part XVIII FSMA enjoys a limited exemption from the general prohibition contained in s.19 (under which no person may carry on a regulated activity in the UK unless it is authorised or an exempt person). It is exempt in respect of any regulated activity which (a) is carried on as part of the exchange's business as an investment exchange, or (b) which is carried on for the purposes of, or in connection with, the provision of clearing services by the exchange[62]. HM Treasury has imposed certain Recognition Requirements[63] for investment exchanges. The FSA may only grant a recognition order in relation to an investment exchange if it appears to the FSA that the applicant satisfies the relevant Recognition Requirements. Further, the FSA may revoke a recognition order if it appears to the FSA that the exchange is failing, or has failed, to satisfy the Recognition Requirements[64]. This is discussed in more detail in section 6.7.1.

In the REC Sourcebook the FSA provides guidance on the matters to which the FSA will have regard in assessing a recognised body's compliance with the requirement that the recognised body must ensure that the systems and controls used in the performance of its relevant functions are

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[62] By s.285(2) FSMA.

[63] The Recognition Requirements for investment exchanges are contained in Parts I and II of the Schedule to the Financial Services and Markets Act 2000 (Recognition Requirements for Investment Exchanges and Clearing Houses) Regulations 2001 (SI 2001/995).

[64] By s.297(2) FSMA.

adequate, and appropriate for the scale and nature of its business. In REC Sourcebook 2.5.19G, the FSA indicates that it will have regard to the arrangements made to ensure business continuity in the event that an information technology system fails.

In addition, the FSA has exercised its rule-making powers under ss.156, 293 and 295 FSMA to make rules for recognised bodies relating to the suspension of services and the inability to operate facilities or systems (see REC Sourcebook 3.15 and 3.16). These impose regulatory obligations on a recognised body with a view to putting in place contingency procedures aimed at minimising the risk of operational disruption and, where it occurs, the period of any such disruption.

The alternative to being granted a recognition order is for the investment exchange to obtain a Part IV permission for the relevant regulated activities, as described in section 6.7.2. This is indeed the approach taken by some alternative trading systems[65] ("ATSs"). The FSA Handbook's sourcebook on Market conduct (the "MAR Sourcebook") devotes Chapter 5 to ATS, and states that the FSA will impose requirements on the Part IV permissions of ATS operators in a way that has regard to the principle in the CESR ATS standards[66] that the standards should be implemented in a differentiated way, taking into account the particular risk to be addressed and each ATS's circumstances. The illustrative requirements that the FSA will be inclined to impose on the Part IV permission of an ATS operator[67] makes no mention of business continuity requirements, but in individual cases the FSA would probably impose business continuity requirements as well[68].

5.3 Clearing and securities settlement systems

Clearing systems are used to register and match trades, then calculate resulting obligations of counterparties. For transactions in securities listed on exchanges, the clearing system may also act as a central counterparty to guarantee performance. Securities settlement systems enable their participants to discharge their obligations through the delivery of the securities and/or the making of payments, and may also arrange custody of the securities.

For clearing systems and securities settlement systems, the emphasis is on ensuring that their participants' transactions complete in a timely and accurate manner on the intended settlement date, since the contractual obligations will already have been entered into. Therefore, force majeure clauses are not as important as the practical issues of business continuity. Equally, it is vitally important that clearing and securities settlement systems operate so far as possible for so long as the exchanges and other markets which they serve continue to do so.

The FSA is responsible for overseeing UK clearing and securities settlement systems. However, the connections between those systems and payment systems, or with the Bank of England's own RTGS system (as is the case with CREST), mean that the Bank of England may also be involved in certain decisions. A clearing house in relation to which a recognition order is in force under Part XVIII FSMA (including CRESTCo as operator of the CREST settlement system) enjoys a limited exemption from the general prohibition contained in s.19 (under which no person may carry on a regulated activity in the UK unless it is authorised or an exempt person). It is exempt in respect of

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[65] Defined in the FSA Handbook Glossary as systems *"that bring together multiple buying and selling interests in designated investments … in the system and according to non-discretionary rules set by the system's operator in a way that results in a contract but does not include: (a) a system that is operated by [a recognised investment exchange] or that is a regulated market or an EEA commodities market; or (b) a bilateral system."*

[66] "The Standards for the Regulation of Alternative Trading Systems" published by the Committee of European Securities Regulators.

[67] MAR Sourcebook at MAR 5 Ann 1G.

[68] See s.41(3) FSMA, which allows the FSA to take *"such steps as it considers are necessary, in relation to a particular authorised person, in order to secure its regulatory objective of the protection of consumers."*

any regulated activity which is carried on for the purposes of, or in connection with, the provision of clearing services by the clearing house[69]. HM Treasury has imposed certain Recognition Requirements[70] for clearing houses. The FSA may only grant a recognition order in relation to a clearing house if it appears to the FSA that the applicant satisfies the relevant Recognition Requirements. Further, the FSA may revoke a recognition order if it appears to the FSA that the clearing house is failing, or has failed, to satisfy the Recognition Requirements[71].

The alternative to being granted a recognition order is for the clearing house to obtain a Part IV permission for the relevant regulated activities, as discussed in section 6.7.2. See section 5.2 for a discussion in relation to investment exchanges, which are analogous to clearing houses in this respect.

The European Association of Central Counterparty Clearing Houses ("EACH") consists of the principal European clearing systems. It has issued Standards of Risk Management Control which, among other things, provide that (i) cash liabilities should be finally settled as quickly and securely as possible using either central bank or commercial bank money, (ii) DvP settlement only must be used, and (iii) the IT arrangements must be robust and provisions made to ensure business continuity (i.e. continuous service and a rapid recovery in an emergency).

5.4 Supervision

5.4.1 UK Supervision

The Bank of England is responsible for overseeing UK payment systems, as discussed in section 6.8. The FSA's oversight powers and responsibilities in respect of UK recognised bodies are as referred to in section 6.7. Of particular relevance to this analysis are the following powers discussed in those sections:

(i) in relation to recognised bodies, the FSA's power to ensure compliance with the Recognition Requirements and its rules;

(ii) the guidelines set out in the REC Sourcebook;

(iii) the directions which the FSA may give to a recognised body in respect of its default rules (under s.166 Companies Act 1989); and

(iv) the FSA's delegated powers under the Uncertificated Securities Regulations 2001 (the "USRs") to give directions to CRESTCo, as an approved operator of a system that enables the holding and transfer of title to securities in uncertificated form, and certain supplementary and incidental matters (the threat of withdrawal of approval under the USRs may also be relevant to CRESTCo).

Although the threat of withdrawing recognition from the relevant body (as discussed in section 6.7.1) may not appear to be a useful way of dealing with a major operational disruption, in practice it ensures that infrastructure bodies are likely to maintain compliance with the regulatory requirements at all times for fear of losing that recognition.

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[69] By s.285(3) FSMA.

[70] The Recognition Requirements for clearing houses are contained in Parts III and IV of the Schedule to the Financial Services and Markets Act 2000 (Recognition Requirements for Investment Exchanges and Clearing Houses) Regulations 2001 (SI 2001/995).

[71] By s.297(2) FSMA.

5.4.2 Non-UK Supervision

The corresponding national regulators are responsible in respect of non-UK infrastructure bodies, such as Euroclear and Clearstream. For example, CLS Bank International, a New York based institution, is regulated by the Federal Reserve Bank of New York, although the Bank of England also has a role in its oversight by virtue of the fact that CLS settles foreign exchange transactions involving sterling and this impacts on the sterling market. A special arrangement exists in relation to SWIFT, where the National Bank of Belgium acts as lead overseer, but with the support of the other G10 central banks, particularly the ECB.

5.4.3 The Bank for International Settlements

The Bank for International Settlements ("BIS") has fostered co-operation among national central banks and other agencies in pursuit of monetary and financial stability[72]. As part of the overall forum promoting discussion, the Committee on Payment and Settlement Systems ("CPSS") serves as a specific forum for the central banks of the Group of Ten countries[73] (the "G10 Countries") to monitor and analyse developments in domestic payment, settlement and clearing systems as well as in cross-border and multicurrency settlement schemes.

It has produced a number of recommendations setting out minimum standards for payment and securities settlement systems in order to reduce cross-border settlement risks. These CPSS recommendations are not legally binding but have strong moral suasion (e.g. the International Monetary Fund audits payment systems against the ten Core Principles referred to below under their ROSC programme). National authorities in the G10 Countries and other international marketplaces are expected to consider whether their payment and securities settlement systems comply with the recommendations, and develop action plans for implementation where necessary.

In conjunction with the International Organization of Securities Commissions ("IOSCO"), the BIS has also developed a Disclosure Framework for securities settlement systems to complete which provides information about, amongst other things, the operational risks which can arise from those systems. Neither the BIS nor IOSCO audit the information provided by the systems.

(i) Payment systems

The CPSS periodically publishes reference works on payment arrangements in various countries (not just the G10 Countries). Together, these are known as the Red Book, which is available on the BIS website[74]. The CPSS has also published international standards in its paper "Core Principles for Systemically Important Payment Systems"[75]. There are 10 Core Principles, of which two are more important to this analysis:

(a) **Core Principle IV** *The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day.*

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[72] Its website is at www.bis.org and contains papers it has published.

[73] The G10 Countries are Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the UK and the US

[74] The Red Book is found at http://www.bis.org/publ/cpss53.htm

[75] Published January 2001: to be found at http://www.bis.org/publ/cpss43.htm

(b) **Core Principle VII** *The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing*.

(ii) Securities settlement systems

The CPSS, in conjunction with IOSCO, has also produced "Recommendations for Securities Settlement Systems"[76]. This contains 19 recommendations.

In summary, these recommendations encourage: trade confirmation as soon as possible after trade execution (on T+0); settlement cycles of T+3 or less; extensive and easily available securities lending and borrowing to expedite settlement; use of Central Securities Depositaries to immobilise or dematerialise securities and transfer by book-entry; use of DvP; and reliable systems with contingency plans and back-up facilities to allow for timely recovery of operations and completion of settlement.

These recommendations form the basis on which a working group established by the European System of Central Banks (**"**ESCB**"**) and the Committee of European Securities Regulators (**"**CESR**"**) are currently preparing standards for providers of securities clearing and settlement services. These standards have not yet been finalised but, for example, operational reliability would apply to all operators of systemically important systems (as well as to trade confirmation, messaging services and network providers). As part of their programme for operational reliability, such operators would need to have *"appropriate business continuity and disaster recovery arrangements that allow for timely recovery of operations and the completion of the settlement process"* (Standard 11). This standard therefore goes beyond the recommendations of the CPSS-IOSCO report. See also section 5.5 below.

5.5 Quasi-infrastructure bodies

"Quasi-infrastructure bodies" is a term which can be used to describe those commercial entities (banks, custodians, clearers, registrars etc.) which, although not infrastructure bodies of the kind described above, are nevertheless of considerable importance to the smooth conduct of the wholesale markets. This may be because of the sheer volume of business which passes through their books (whether proprietary or for their customers) or, with the consolidation of custodial and settlement roles, because of their critical importance to a particular market in which there are few other major participants. For example, the disruption of a major custodian bank could severely limit its customers' access to their securities and thereby prevent the settlement of transactions already entered into; similarly, the disruption of a large clearing bank could delay settlements as liquidity is taken out of the market and other payments cannot, as a consequence, be made.

An obvious distinction to be drawn between a quasi-infrastructure body and a recognised body (a recognised clearing house or investment exchange) is the nature of its regulation. A UK quasi-infrastructure body is likely to be an authorised person, as considered in detail in section 6.7.2, and therefore subject to a different regulatory regime than applies to recognised bodies (see section 6.7.1). It is likely that non-UK quasi-infrastructure bodies would be regulated to a comparable degree by their own national regulators.

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[76] Published November 2001: to be found at http://www.bis.org/publ/cpss46.htm

The working group established by the ESCB and CESR, referred to in section 5.4, published a consultative paper dated July 2003 entitled "Standards for Securities Clearing and Settlement Systems in the European Union"[77], in which they refer to the Interagency Paper discussed in section 2.1.5 above. In the Interagency Paper, the US regulators distinguish between "core clearing and settlement organisations" and firms that play a "significant role in financial markets". The "core organisations" include not only market utilities but also private sector firms that provide clearing and settlement services, when their market share is significant enough to present a systemic risk in the event of their sudden failure to continue those activities because there is no viable immediate substitute. The definition of "significant" organisations includes, as a guideline, firms that consistently clear or settle at least five per cent. of the value of transactions in the "critical markets".

On the basis of these criteria, the ESCB/CESR working group is currently considering extending the proposed standards to *custodians* operating systemically important systems. The working group is proposing to define such a "systemically important provider" as an institution that has a share of five per cent. at EU level or 25 per cent. at domestic level (or lower, at the discretion of the national authorities) in the bond, equities or derivatives markets (the "relevant markets"). Even where a custodian falls below these thresholds, the relevant authorities could nevertheless decide that it is systemically important because it is linked to a number of systems, because of the nature of its clients or because of the scope for it being replaced in the event of failure.

The outcome of the working group's consultative paper is unlikely to be known for some time. The standards will not have Community law status, but regulators are expected "on a best-endeavour basis" to integrate the standards into their assessment frameworks. The consultative paper indicates that common standards will be applied to both public sector infrastructure bodies and to private sector custodians operating systemically important systems. In practice, both groups probably operate (or aspire to operate) to similar standards in any event, but the existence of common standards should ideally encourage those entities with weaker business continuity and disaster recovery arrangements to bring their arrangements into line with the best practice in the market.

In any event, regulators are likely to need to adapt their rules so that the common standards apply to both recognised bodies and the relevant authorised persons (using the language of the UK regulatory regime).

5.6 Critical Financial Markets

5.6.1 Critical financial markets generally

In their Interagency Paper, the Federal Reserve, the OCC and the SEC identified certain markets as being the critical financial markets in relation to New York (see section 2.1.5). We believe the UK's critical financial markets include the markets for:

(i) sterling and euro payments and foreign exchange;

(ii) gilts and Treasury bills; and

(iii) corporate debt and equity securities.

Sterling and euro payments are effected across the books of banks and through CHAPS Sterling and CHAPS Euro. Foreign exchange will be settled through the same means (if denominated in sterling or euro) or through CLS Bank (which maintains its sterling account

[77] See http://www.europefesco.org/v2/default.asp.

with the Bank of England, so sterling payments to and from CLS Bank are made to or from the Bank of England through CHAPS Sterling). A failure of CHAPS is therefore highly disruptive to these activities, particularly if it occurred during the CLS settlement window. EBA EURO 1 is also used for some euro payments.

The ESCB/CESR working group referred to in section 5.5 above identifies the "relevant markets" as being the markets in bonds, equities and derivatives. Most bonds (as distinct from other types of corporate debt falling under the heading 'money market instruments', discussed below) will be held in Euroclear or Clearstream. Most derivatives are transacted over-the-counter ("OTC") and will be settled by the parties bilaterally through payment systems, so the continued operation of CHAPS will be important. In addition, a large number of derivatives are transacted on exchanges (such as Euronext.liffe) or cleared through services such as SwapClear, provided by the London Clearing House.

5.6.2 Gilts

Gilts are listed on the London Stock Exchange and settled in CREST[78], but are treated somewhat differently to other listed securities. Euronext.liffe offers trading in gilt futures.

Gilts are issued by the UK Debt Management Office ("DMO"), which is an executive agency of HM Treasury. The DMO took over responsibility for gilt issuance from the Bank of England following the transfer of responsibility for setting interest rates from HM Treasury to the Bank in May 1997. The strategic objective of the DMO is to maintain orderly, efficient and liquid markets in gilts[79]. Interest on gilts is paid through BACS.

Issues of gilts take place at auctions, which are open to all bidders. Telephone bids are made by Gilt-edged Market Makers ("GEMMs") only, who are all banks. Anyone can make a postal bid. The auction procedure to be followed is complex, and depends on the type of auction, but for the purposes of this analysis it is sufficient to note that bids are submitted by 10.30 a.m. on the day of the auction and results are generally announced by 11.10 a.m. the same day. Settlement generally takes place on the following business day. GEMMs are expected to participate actively in the auction process and to bid on a competitive basis at auctions, as part of their commitment to the gilt market, though there are no underwriting arrangements. GEMMs provide market-making services in the gilts secondary markets in return for their special privileges in auctions. Gilts are held and transferred in uncertificated form in CREST.

A major operational disruption is likely to interrupt the auction process, if only because it will prevent at least some of the GEMMs from actively participating. Nevertheless, the auction process seems flexible enough to be capable of being revived as soon as means of settlement are available.

5.6.3 Money market instruments

Money market instruments are not generally traded on exchanges (none have been listed on the London Stock Exchange, though commercial paper listings have recently been introduced on Euronext exchanges). They are issued, held and transferred as uncertificated "eligible debt securities" in CREST. The money market instruments issued by the

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[78] Having merged with the Central Gilts Office on 3 July 2000.

[79] A liquid market in gilts should minimise the Government's cost of raising funds.

Government are Treasury bills, banks issue certificates of deposit and corporates issue commercial paper.

The DMO's Exchequer cash management responsibilities involve it offsetting the expected cash flow into or out of the National Loans Fund on every business day. This is done primarily through a combination of (i) structured weekly Treasury bill tenders, (ii) bilateral operations with DMO counterparties and (iii) *ad hoc* tenders of Treasury bills.

Structured weekly issues of Treasury bills in the primary market are made to the Primary Participants (a group of nine banks that bid on behalf of other investors at tenders and provide secondary market trading in Treasury bills for their customers) and other eligible participants. Primary issues of Treasury bills settle on a T+1 basis.

As with gilt auctions, the process of issuing Treasury bills seems flexible enough to deal with a major operational disruption.

5.7 Business continuity arrangements

The consensus view of the markets appears to be that, following a major operational disruption, wherever possible infrastructure bodies should remain open during their normal business hours to allow for the performance of contracts in accordance with the original expectations of the parties. UK infrastructure bodies all appear to have extensive business continuity arrangements, which are monitored by the FSA or, in respect of payment systems, by the Bank of England. In addition, the Bank of England acts as a consultative body to the FSA in relation to the designation of systems under the regulations implementing the EU Settlement Finality Directive where those systems have embedded payments systems (for example, CREST). We have also seen that the IMF, the BIS, the ESCB, IOSCO and CESR try to ensure that the relevant countries participating in the wholesale financial markets provide payment and securities settlement systems that conform to a set of international standards.

It would seem that the business continuity arrangements of the UK infrastructure bodies are likely to be robust in an event of major operational disruption, although this is an operational issue rather than a legal one and therefore not something the FMLC can assess or verify. We note that the GAO report referred to in section 2.1.4 above found shortcomings in the US financial markets after the events of 11 September 2001.

Payment systems are involved in almost all transactions, and must therefore be operating for obligations to be fulfilled. If an obligation is not fulfilled, the market participant expecting to receive money cannot apply that money for its intended purpose, and may suffer liquidity and (ultimately) solvency problems as a result. Therefore, as far as payment systems are concerned, business continuity arrangements are vital. In many payment systems, intra-day liquidity is provided by the national central banks ("NCBs"), so even if individual market participants or banks cannot meet their payments because of an event of major operational disruption, the NCBs might be prepared to do so. The US experience after 11 September 2001 was that the Federal Reserve was willing to lend much greater sums, and on more generous terms, than was usual to meet the resulting liquidity squeeze. Following a major operational disruption, the Bank of England would be able to provide additional sterling liquidity, and in some instances foreign currency liquidity, to the wholesale financial markets, or in certain circumstances to individual firms, to help banks manage their liquidity should money markets or securities settlement and payment systems be disrupted.

For payment systems to operate there are certain other essentials: for example, the telecommunications networks must be operating and electricity must be available. We understand that the Government has established committees to consider these issues, and will address them in

reports to be released in the near future (in particular for electricity following the recent power cuts in the US and the UK).

Securities settlement systems are also vital for DvP transactions. As discussed in section 5.3, it is important to settle securities transactions as soon as possible to avoid disruptions to chains of transactions, so good business continuity plans are essential. The Bank of England provides key infrastructure and liquidity services to, in particular, CHAPS Sterling, CHAPS Euro, TARGET and CREST plus key settlement services to the sterling based systems, and therefore might be able to assist in a major operational disruption.

Clearing and settlement systems are necessary if exchanges are open for business and new OTC transactions are being entered into (in the UK the London Clearing House and CRESTCo conduct the vast majority of clearing and settlement operations and so it is essential for these to have good business continuity plans). At first sight, trading on exchanges and entering into new OTC transactions would not seem to be especially critical for market participants. However, in the GAO report described in section 2.1.4 and as discussed in section 5.6, it was shown that certain trading markets are critically important and need to be reopened following a major operational disruption as soon as possible.

Part of the business continuity arrangements should be a process of co-ordination between infrastructure bodies (both domestically and internationally) so that all are kept informed of how other aspects of the market have been affected and how and when they expect to resume their operations. If this process of co-ordination does not yet exist, it should presumably be led by a regulator such as the Bank of England or the FSA, which would in any event expect to be kept informed and to give guidance to infrastructure bodies at such a time.

5.8 Emergency powers of infrastructure bodies

Even where an infrastructure body has adequate business continuity arrangements, the occurrence of a major operational disruption may require it to invoke certain emergency powers. For example, it may be necessary temporarily to suspend trading or operations whilst the relevant body moves to a fully-functioning back-up site. Even where one body has adequate arrangements in place, it may have to invoke its emergency powers because it depends on other infrastructure bodies for its performance and those other bodies may be unable to keep operating.

All the infrastructure bodies with which we are primarily concerned have wide-ranging emergency powers which permit them to take a variety of steps if a major operational disruption occurs. Whilst there is considerable interlinking between their operations, so that many are dependent on one another for successful operation, in practice the breadth of their powers should allow them to respond as appropriate to the actions taken by the other relevant infrastructure bodies. There are some express provisions in their rules for consultation in an emergency, but there does not appear to be any formal mechanism by which all the infrastructure bodies would meet or consult to ensure a consistent approach is adopted. Similarly, there is no formal mechanism of which we are aware for ensuring that information about the major operational disruption available at the time is collated and then disseminated so that each infrastructure body is adequately informed. Given that the interlinking is not merely national but (particularly by reference to Euroclear and Clearstream) international, any such mechanism should ensure that overseas infrastructure bodies such as these and global bodies such as CLS Bank are part of the information sharing and consultation exercise. Such a mechanism should be part of the co-ordinated response to a major operational disruption, as discussed at the end of section 5.7 above.

The emergency powers possessed by the principal UK infrastructure bodies are essentially of three kinds: those expressly set out in the rules of the infrastructure body; those that are implied into its rules or constitution; or those that flow from directions handed down by the infrastructure body's regulator. These are considered further in turn below. In practice, it seems that the officers of the UK infrastructure bodies rely on a combination of these powers (and, in particular, on the essential need to comply with the directions of their regulators) to demonstrate the overall adequacy of their powers to deal with an emergency.

Because the nature of any major operational disruption is necessarily unpredictable, the flexibility in the infrastructure bodies' powers discussed below is likely to assist in achieving a practical response. The less desirable consequence of such flexibility is a degree of uncertainty for the markets. This uncertainty is really uncertainty over how infrastructure bodies are going to respond to a major operational disruption, which is itself an inherently uncertain event.

5.8.1 Express emergency powers

From our review of the rules of the infrastructure bodies in the UK or of greatest importance to the UK's wholesale markets, it seems that they have adequate express powers to deal with major operational disruptions. Powers that might be exercised include:

(a) the power to suspend trading, clearing or settlement, to close the infrastructure body down or to switch to stand-by (contingency procedures);

(b) the power to vary the daily timetable;

(c) the power to suspend a participant in the system (which would be of assistance if there is a threat of contagion to the integrity of the system but which is unlikely to be a useful power if all participants are affected or if in the nature of a power to default, given the consequences which might affect the suspended participants as a result of being perceived as defaulters);

(d) the power to amend the rules or (if relevant) the terms of any contract which is in some way dependent on that infrastructure body (for example, for its pricing); and

(e) the power to take any action (a power which might also flow from an unlimited power to amend the rules).

Even where the powers specified in an infrastructure body's rulebook may not be wide enough to address all situations, a power of the type contemplated above to amend its rulebook as it sees fit in an emergency would give it the ultimate flexibility.

Some systems set out which persons or group within their organisation may exercise the relevant powers. Thus, the LSE and the LME specify that their powers may be exercised by their respective boards of directors. In other cases (e.g. Euronext.liffe and the IPE), certain powers are expressly delegated to officials of the relevant exchange, but the remainder are otherwise exercisable by the board. CLS Bank generally gives its powers to the board or to the executive of the bank, but grants to its president the power to amend the rules on notice. CREST goes slightly further and states that all powers are exercisable by the Chief Executive or Deputy Chief Executive. The decision to move to CHAPS' RTGS By-Pass Mode is granted jointly to the board of the system operator (CHAPS Clearing) and to the Bank of England. Similarly, those systems whose operations interlink with LCH (e.g. the LSE, Euronext.liffe, the LME) require there to be a degree of consultation and co-ordination with LCH in emergencies; the practical difficulties of doing this in an emergency

should not be underestimated, although we have no reason to believe that these bodies do not have appropriate procedures in place (for example, Euronext.liffe's Rules merely require it to invite LCH to attend its board meeting; they do not actually require LCH to be there for the board to be able to reach a decision).

Where the power is apparently reserved to the system operator (e.g. BACS, Cheque and Credit Clearing), it will not always be clear to third parties who is properly authorised to make decisions. This is, of course, not to say that these bodies do not have appropriate procedures in place – it is just not possible for an independent person to identify them. We also understand that individuals may be reluctant to assume responsibility for decision-making in emergencies; the liability questions arising from that are discussed in section 5.9 below.

In practice it may be difficult to convene quorate board meetings if the need should arise, since most systems will have non-executive board members representing market participants who will be intimately involved in their own financial institution's difficulties if a major operational disruption occurs. On normal principles of legal authority, a senior officer of the relevant system operator will often have ostensible authority to act for or bind that system operator. However, if any infrastructure body is relying on such normal principles, it would seem to us undesirable to rely on those principles at the time of a major operational disruption when a clearer express procedure could be laid down in advance.

Many rulebooks exclude the liability of the system and the system operator if a force majeure event should arise. This analysis does not consider such provisions, or their enforceability, at length. Such clauses will probably protect a system if a major operational disruption occurs, and to that extent they might encourage the system to take all necessary steps. However, they do not of themselves indicate what powers the system has or how they might be exercised. We consider below in section 5.9 a related question in relation to such exclusions of liability and consumers.

(i) Payment systems

RTGS payment systems like CHAPS arguably need fewer powers since their failure means that further payments will merely cease to be made. Whilst this cessation of payments has serious consequences for other bodies and for the performance of payment obligations generally, it does not cause further adverse effects to the payment system itself (other than, perhaps, of a reputational nature). Payments which have been made will already be final and irrevocable under the rules of the payment system and (if designated under the Settlement Finality Directive, as CHAPS is) by the laws implementing the Settlement Finality Directive. The payment messages which are then mid-process will cease to be processed and no new messages will be capable of being submitted. Once the system has resumed service, uncompleted payment messages will be handled in accordance with operational processes/instructions then in force. For information, the system does contain duplicate checking functionality which is likely to be useful in such cases. CHAPS therefore has limited express powers, which are largely concerned with the ability to switch to its RTGS By-Pass Mode if the Bank of England is unable to receive or process settlement requests.

Similarly, a messaging system like SWIFT, whose operation is central to many infrastructure bodies, is not itself adversely affected by a major operational disruption. Messages that have been passed on to their addressees can be acted

upon; those that are stopped will not be acted upon. Unsurprisingly, SWIFT protects itself against liability arising from the occurrence of a force majeure event, but it also has highly developed business continuity arrangements.

CLS Bank's powers are rather more extensive, not least because it will be co-ordinating payments in a number of currencies, so the failure of one currency has a knock-on effect on payments in other currencies. For example, CLS Bank is authorised to suspend settlement or adjust the value date of affected instructions if settlement in a currency is "impossible, impracticable or inadvisable". One course of action would therefore be for CLS Bank to roll forward the value date for all FX transactions where one side is payable in the affected currency. CLS Bank also has the power to amend its rules on notice to its members if "exigent circumstances exist".

(ii) Exchanges

The UK's exchanges generally have wide express powers, in particular to suspend trading of securities or commodities or to postpone settlement (e.g. the LSE), but also of an all-encompassing nature (e.g. Euronext.liffe, the IPE, the LME). In addition, some have express powers to amend existing and future exchange contracts (e.g. Euronext.liffe); such powers to amend are probably implied where the exchange has all-encompassing powers.

(iii) Clearing and securities settlement systems

The board of LCH has a power, following the occurrence of a broadly expressed force majeure event, to require its members to deal with contracts and to take such other action as LCH directs: this power can be construed widely. CREST can suspend its operations and amend contracts and its rules generally if the need arises. Euroclear can adjust its rules in "exceptional or contingency situations", whilst Clearstream may undertake such measures as it may deem necessary to protect the interests of itself and/or its customers.

5.8.2 Implied powers

There has been little case law on the question of whether an infrastructure body has implied powers that might go beyond the letter of their rulebook, but probably the most relevant authority is the first instance decision of Webster J in *Shearson Lehman v Maclaine Watson*[80]. This case arose from the failure of the International Tin Council ("ITC") in 1985: considerable litigation ensued, but most of it was concerned with the nature of the ITC, issues surrounding the discovery of documents and the assessment of damages. However, Webster J's decision in relation to the role of the LME and its powers was not the subject of any subsequent appeals.

The rules of the LME that were in force at the time included:

"Rule 4(1): The general management of the Exchange shall be under the control of the Committee.

Rule 34: The Directors reserve to themselves the right to alter or add to or temporarily suspend these Rules and Regulations or any part thereof as they may think expedient ...

[80] *Shearson Lehman Hutton Inc & Another v Maclaine Watson & Co Ltd & others* [1989] 2 Lloyd's Rep 570.

[operative after seven days] … but in cases of Emergency the Directors may by Resolution … provide that … additions or suspensions shall become operative as soon as posted."

One question before the court was whether there was a power to suspend trading. Webster J held that such a power was within the general power under Rule 4(1) and, even if it was not, it was necessary to imply it:

"…even if r 4(1) properly construed does not contain a power to suspend dealing, I would conclude that it is necessary ***to imply*** *[emphasis added] into the rules a wholly unexpressed rule giving power, either temporarily or permanently, to suspend dealing in one of the metals; for it could be destructive of the Exchange in certain circumstances if the power to carry on business of the Exchange were not also to contain, by necessary implication, a power to cease to carry on part of that business providing that such a power is not inconsistent with the objects of the LME. If a company's objects include, but are not limited to, manufacturing or selling a particular good there is surely a power, necessarily to be implied, for the board of the company to decide to stop manufacturing or selling that particular good, either temporarily or permanently, if it is not in the shareholder's interests for it to continue to do so. It surely could not be required to continue to manufacture or sell that good if, to do so, would be likely or certain to cause damage to the company. The same considerations must apply to the LME: its objects are to provide a market for the purchase and sale of metals: it cannot be required to continue to provide a market for the purchase and sale of a particular metal if the continued provision of that market in that particular metal would endanger the market as a whole in all metals bought and sold in the City of London. I therefore conclude that there is no qualification on the power given to the committee to manage the Exchange such as to exclude a power to suspend dealing in a specific metal; and I also conclude that a decision to suspend dealing is a decision which is within the powers given to the committee upon proper construction of the rules. I see no reason why the power should be confined to a power to suspend dealings temporarily, although a longer suspension which necessarily involves the de facto suspension for longer than is temporary of one or more of the rules would probably necessitate the making of a new rule, in view of the provisions of r 34. But the limit to what can properly be called a temporary suspension must be a question of fact."*

The decision in this case shows the willingness of the courts to support the actions of infrastructure bodies undertaken in an emergency, at least where undertaken in good faith and not motivated by self-interest or malice. Whilst undoubtedly reassuring for the infrastructure bodies, the existence of clear, express powers would surely be more reassuring and would remove the possibility of unnecessary and costly litigation resulting from the bodies' decisions.

5.8.3 Regulatory directions

We see in section 6.7.1 the power of the FSA to give directions to recognised bodies. In particular, where a recognised body has failed or is likely to fail to satisfy the Recognition Requirements or has failed to comply with any other obligation imposed on it by or under FSMA, the FSA can direct the recognised body to take specified steps for securing compliance with the Recognition Requirements or other obligations, which may include the suspension of trading or settlement or the adjustment of its opening hours[81]. Even if not expressly reserved in a recognised body's rulebook, it must surely be implied into the

[81] s. 296 FSMA.

rulebook that the body is empowered to act in accordance with the directions of its regulator. The same principle might extend in relation to payment systems and their UK overseer, the Bank of England, although the Bank of England's powers are not statutory.

5.9 Protection of Infrastructure Bodies and Statutory Immunity

We have seen above that infrastructure bodies reserve wide powers as part of their arrangements to minimise systemic and other risks which arise upon the occurrence of a major operational disruption. These powers are reserved as part of the contractual structure which underpins the recognised body's rules, terms and conditions. The powers are, therefore, contractual in nature and are usually allied with a contractual limitation of liability provision protecting the infrastructure body from liability for any loss suffered as a result of taking action pursuant to its contractual powers.

There are certain recognised bodies (CREST is an example) whose membership is constituted not only by banks, investment houses and other financial institutions, but also by individuals. For example, there are approximately 36,000 "CREST Personal Members". In the context of CREST, the "systemic" significance of such a large body of "Personal Members" is recognised by the fact that, in designating the CREST UK system under the Financial Markets and Insolvency (Settlement Finality) Regulations 1999, the Financial Services Authority exercised its discretion under regulation 8 of the 1999 Regulations to treat such members as "participants" on the basis that such treatment is required on grounds of systemic risk.

The involvement of natural persons in key infrastructure systems raises a particular issue for the robustness of the contractual arrangements under which unilateral powers (such as powers of suspension) are reserved by the operator. (However, the point should be made that although mandatory laws protecting consumers raise particular issues here, the following considerations would apply more or less to the potential application of the Unfair Contract Terms Act 1977 in relation to contractual rules, terms and conditions which purport to bind corporate members acting in the course of a business – as a result of the provisions of s.3 of the 1977 Act.)

The Unfair Terms in Consumer Contracts Regulations 1999 provide that an "unfair term" concluded in a contract between a supplier (and for this purpose an operator of an infrastructure service would be a supplier) and a consumer shall not be binding on the consumer. A contractual term which has not been individually negotiated (which is likely to cover most, if not all, rules, terms and conditions of a recognised body) *"shall be regarded as unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer"* (regulation 5(1)). Schedule 2 of the 1999 Regulations contains a "grey list" of indicative terms which may be regarded as unfair. As the 1999 Regulations implement a European Directive, it is a working assumption that the grey list is adopted by all other EEA member states as part of their implementation of the Directive. The grey list includes terms which have the object or effect of:

5.9.1 inappropriately excluding or limiting the legal rights of the consumer vis-à-vis the supplier in the event of total or partial non-performance by the supplier of any contractual obligations;

5.9.2 making an agreement binding on the consumer whereas provision by the supplier is subject to a condition whose realisation depends on his will alone;

5.9.3 enabling the supplier to terminate a contract of indeterminate duration without reasonable notice except where there are serious grounds for doing so;

5.9.4 irrevocably binding the consumer to terms with which he had no real opportunity of becoming acquainted before the conclusion of the contract;

5.9.5 enabling the supplier to alter the terms of the contract unilaterally without a valid reason which is specified in the contract; and

5.9.6 enabling the supplier to alter unilaterally without a valid reason any characteristics of the product or service to be provided.

It is generally considered that powers of unilateral action reserved by an infrastructure body's rules, terms and conditions (and any associated limitation of liability provision) in response to the occurrence of a major operational disruption should not be successfully open to challenge as an "unfair term" (or as "unreasonable" for the purposes of the Unfair Contract Terms Act 1977). This is because of the clear public policy interest in preserving such powers for an infrastructure body. However, it is clearly undesirable that there should remain any residual doubt over this issue, especially in view of the international reach of the consequences of actions taken by such an infrastructure body. The concern is that if a member (or other third party) were to suffer loss by reason of action taken by an infrastructure body in response to a major operational disruption, and pursuant to powers of unilateral action reserved by contractual rules, terms and conditions, it might subsequently be determined by a court that such powers were reserved pursuant to an unfair term which is not binding on the consumer. There would in consequence be an impact on the enforceability of any related limitation of liability clause.

It is correct that, under s.291 FSMA, a recognised body is provided with immunity from an action for damages for anything done (or omitted to be done) in the discharge of its "regulatory functions". "Regulatory functions" is defined in s.291(3) as the functions of a recognised body so far as relating to, or to matters arising out of, the obligations to which the recognised body is subject under or by virtue of FSMA.

This protection alone is unlikely to ensure that the response of an infrastructure provider to a major operational disruption will remain completely unfettered by considerations relating to potential liability for losses suffered by a member (or other third party) as a result of action taken. First, it is of course limited to actions taken (or not taken) by a recognised body (and does not cover payment systems and systemically-important service providers other than recognised bodies). Secondly, it is not clear that in all circumstances action taken by a recognised body in response to a major operational disruption would properly be considered to be in performance of its functions so far as relating to its obligations under or by virtue of FSMA. Thirdly, principles of privity of contract raise some concerns over the binding effect of powers (and limitations on liability) as between the operator and a non-member (and who is not, therefore, in a binding contractual relationship with the operator).

Regulation 4 of the Unfair Terms in Consumer Contracts Regulations provides that the Regulations do not apply to a contractual term which reflects *"mandatory statutory or regulatory provisions (including such provisions under the law of any EEA State)"*. This provision reflects Article 1(2) of Directive itself, and therefore it can be assumed that the laws of each EEA state which have implemented the Directive will recognise that a term cannot be challenged as unfair if it reflects a mandatory statutory provision of UK law - which would be significant if the courts of that jurisdiction were to be seised of a dispute between the infrastructure provider and a consumer resident in that jurisdiction.

For these reasons, it would be helpful if statutory support for contractual powers (and limitations on liability) could be provided along the lines that any infrastructure body and its officers and staff are not to be liable in damages for anything done or omitted to be done in order: (i) to limit systemic

and other risks which arise in the event that major operational disruption occurs, or appears likely to occur; or (ii) to minimise the period of disruption to the operation of its systems or services as a result of the occurrence of major operational disruption, unless it can be shown that the act or omission was in bad faith.

5.10 Effect of declaration of a non-business day

If a bank holiday is declared under s.1 Banking and Financial Dealings Act 1971 ("BFDA"), it may require certain infrastructure bodies not to open (or to close) under provisions in their rules even if they would prefer to open (or remain open). We believe that any proposal for a mandatory declaration of a non-business day, with retrospective (zero-hour) effect if declared intra-day, is highly undesirable (and is likely to be inconsistent with the spirit, if not the letter, of the Settlement Finality Directive).

It appears that no payment system in the City would be automatically required to close by the proclamation of a special bank holiday, and could carry on business as usual unless this was impracticable. In addition, the Treasury's power of suspension under s.2 BFDA 1971 does not appear to extend to payment systems.

The LSE and Euronext.liffe could also carry on business as usual. At first sight, there appears to be an anomaly in respect of the LSE and the Listing Rules because under the Listing Rules a business day excludes a bank holiday. This could potentially lead to the LSE being open but certain requirements of the Listing Rules might not be applicable. However, by chapter 9 of the Listing Rules, notification requirements must be made "without delay" and do not have to fall on a business day. Listed companies are still required to make usual disclosures on bank holidays.

The other two UK recognised exchanges considered, IPE and LME, would appear to be required to close on a bank holiday as their rules expressly state that they will be closed on public holidays and days on which trading is suspended under the BFDA 1971 or other enactment. However, the board of the LME has the power to amend its rules as it thinks fit.

The London Clearing House would not be directly affected.

The CREST Glossary of Terms defines a business day as a day on which the CRESTCo systems are operational and (i) in relation to settlement in euro, TARGET is open; (ii) in relation to settlement in US dollars, a day on which banks are generally open for business in New York and it is not a bank holiday in England or a day on which banking transactions in England are suspended under s.2 BFDA; and (iii) in relation to all other transactions, a day which is not a bank holiday in England or a day on which banking transactions in England are suspended under s.2 BFDA.

CRESTCo is not obliged by its rules to close CREST if a bank holiday is declared under BFDA. However, in practice CRESTCo can be expected to suspend settlement operations if such a declaration is made, unless the declaration is made under s.1 BFDA, and the Bank of England and the CREST settlement banks[82] are willing to continue to make payments in support of CREST settlement on a bank holiday.

Members of CREST are required to maintain cash memorandum accounts ("CMAs"), in CREST, for each settlement currency (sterling, euro and US dollars) in which they wish to make payments in support of the settlement of securities transactions. Under its contract with CRESTCo and each

[82] There are 13 sterling settlement banks and 12 euro settlement banks. In addition, there are 9 US dollar settlement banks that use the end-of-day (net) settlement assured payments mechanism provided by CREST.

other CREST settlement bank, upon the debit of a payment to a buying member's CMA and corresponding credit to the selling member's CMA, the settlement bank acting for the buying member is irrevocably and unconditionally obliged to effect final payment of the purchase price to the settlement bank acting for the selling member. For sterling and euro payments, the moment of debit/credit to the CMAs also triggers an irrevocable and unconditional obligation of the Bank of England to effect the payment across the settlement accounts of the relevant settlement banks. This debit/credit occurs simultaneously with the transfer of the legal title to the purchased securities to the buying member across the operator register maintained by CREST.

If banks are ordered to close under s.2 BFDA, CREST will clearly have to suspend settlement operations for DvP transactions as the settlement banks will be shut. If a bank holiday is declared under s.1 BFDA, CREST is likely in practice to suspend settlement (at least for DvP transactions) because the payment contracts put in place by CRESTCo with the Bank of England and the CREST settlement banks contemplate that the irrevocable and unconditional obligations of a paying settlement bank and of the Bank of England, which arise on the debit/credit to CMAs, may only arise on a business day (as defined in the CREST Glossary). However, if the Bank of England and the CREST settlement banks were willing to open on a bank holiday declared under s.1 for the purposes of enabling CREST settlement, this could be achieved for example by CRESTCo (with the consent of the Bank and the CREST settlement banks) declaring that the operation of CREST on that day shall be treated as an extension of the previous settlement day (as a business day) under CRESTCo's powers to vary the daily timetable.

5.11 International context

5.11.1 US infrastructure bodies

The rules of the United States financial infrastructure examined are characterised by large measures of discretion, flexibility and informality, so gaps are less of a problem than potential uncertainty as to the particular course of action to be taken by these institutions. The lack of rigid rules and procedures may contribute to the resilience of the US financial infrastructure by enabling the relevant bodies to tailor their actions to their circumstances, as demonstrated by their response to the events of 11 September 2001.

Generally, the US financial institutions ensure a flexible response to major operational disruptions by combining two elements in their governing rules. First, they provide their Board of Directors or another agent with sweeping powers in the event of an emergency or other situation where such powers are necessary. Secondly, they give the same Board or agent significant discretion in determining whether particular developments necessitate the use of such powers.

For example, in the event of an *"emergency or extraordinary market condition"*, the By-Laws of NASD, Inc. empower its Board of Directors to take *"any action"* regarding the operation of the OTC securities market, any automated system owned or operated by NASD or Nasdaq, participation in any such system, and the operation of any member's offices or systems. Additionally, the By-Laws do not define either "emergency" or "extraordinary market condition", apparently allowing the NASD Board itself to decide whether and how this requirement is satisfied.

The New York Stock Exchange (the "NYSE") addresses emergency situations in both its Constitution and its Rules of the Board of Directors (the "Rules of Board"). The NYSE Constitution provides that where it appears to the NYSE's Board of Directors that an emergency exists, the Board may delegate all of its lawful powers to a special committee of

three or more directors. Additionally, NYSE Rule of Board 51 enumerates specific powers possessed by the Chairman of the Board (the "Chairman") to suspend trading in any securities and to close NYSE facilities when he decides such action is *"necessary or appropriate"* to respond to extraordinary circumstances that threaten the public interest. Rule of Board 51 invokes examples of *"extraordinary circumstances"* such as terrorism, interruption of facilities used by NYSE, and a request by a governmental agency, but the list is not exclusive and the Chairman largely remains free to decide whether circumstances warrant the exercise of these powers. Also, while the Chairman does not have the broad affirmative authority to take any action in the face of an undefined emergency, he or she enjoys discretion as to the extent and duration of any suspension or closure ordered under this Rule.

The clearing, securities settlement and payment systems also permit their Board or President wide discretion in determining whether and what emergency powers are necessary. The National Securities Clearing Corporation's (the "NSCC") rules provide that its Board may extend any deadline fixed by its rules, or waive or suspend any requirement of its rules, whenever the Board decides that such extension, waiver or suspension is necessary or expedient. The Depository Trust Company (the "DTC") uses an identical provision. In contrast to both the NASD and NYSE, neither NSCC nor DTC empowers its Board to order or require the performance of any affirmative act by a member.

The Clearing House Interbank Payments System's ("CHIPS") rules enable the CHIPS President to decide how transactions shall be handled in the event of an emergency. The CHIPS rules expressly provide that the President's emergency powers are triggered only by a halt of communications between the Clearing House and a Participant, the closing down of CHIPS, or some other emergency that affects CHIPS' operations. While the CHIPS President maintains discretion as to whether an event that affects CHIPS' operations constitutes an emergency, he must also treat both the halting of communications and the closing of CHIPS as such. CHIPS' rules also enumerate a non-exclusive list of possible actions the CHIPS President may take. Any restrictions on the CHIPS President's judgment are illusory, though, because he retains full control over the nature and scope of CHIPS' response to any emergency.

The Fedwire system, although decentralised across the 12 Federal Reserve banks, is governed collaboratively under the guidance of the Board of Directors of the Federal Reserve System. Each Federal Reserve bank has issued an identical Operating Circular 6, which governs Fedwire operations, and while each bank's contingency guidelines are not publicly available, the Federal Reserve System's response to recent events suggests that their emergency plans are effective.

5.11.2 Hong Kong infrastructure bodies

The widespread use of emergency procedures concerning typhoons and black rainstorms means that Hong Kong's financial infrastructure is familiar with serious operational disruptions. Many of the relevant financial institutions also seem prepared for disruptions of a less natural sort, since their boards of directors are granted wide discretion in deciding how and when to respond to events that threaten to, and in fact do, impair operations. But overall, the concentration of ownership and control over its various parts conceals a number of questionable overlaps and gaps, and suggests that its most important institutions are heavily reliant on the discretion of a few people.

Two major organisations own and control most of Hong Kong's financial institutions. The area's dominant exchanges and clearing houses are wholly-owned subsidiaries of Hong Kong Exchanges and Clearing Limited ("HKEx"). The Stock Exchange of Hong Kong (the "SEHK") provides facilities for the trading of both primary securities and options. The SEHK's primary securities are cleared by the Central Clearing and Settlement System (the "CCASS"), while its options contracts are cleared by the Stock Exchange of Hong Kong Options Clearing House (the "SEOCH"). The Hong Kong Futures Exchange (the "HKFE") operates markets in commodity and financial futures, and its contracts are cleared by the HKFE Clearing Corporation (the "HKCC"). Hong Kong's other key financial institution is the Hong Kong Monetary Authority (the "HKMA"), which owns and controls, in conjunction with other bodies, the central depository for Hong Kong dollar ("HKD") debt securities and the RTGS payment systems for both HKD and United States dollars ("USD").

The two major Hong Kong exchanges, the SEHK and the HKFE, demonstrate a number of common characteristics. First, the board of directors (the "Board") of each institution generally may take any action necessary or appropriate to deal with an emergency. Second, the term "emergency" is defined broadly, to encompass any event or circumstance that impairs, or is likely or threatening to impair, the operation of the relevant institution. Third, although the Boards may respond in any manner they deem necessary, the institutions' rules also enumerate specific courses of action that the Boards may take, including suspending trading or clearing, closing the relevant institution, and amending certain rules and requirements. Finally, although the Boards of these institutions do enjoy significant discretion in shaping their response to emergency conditions, the HKEx Board also retains a degree of control over their actions.

The SEHK cash market rules provide the clearest example of these qualities. Its Board has the authority to take any action necessary or appropriate to deal with an emergency – a term which remains undefined – that threatens to, or in fact does, severely and adversely affect the functioning of the SEHK trading system. Also, the SEHK rules present concrete options to the SEHK Board, such as suspending all or part of the trading activities, and extending the time within which errors must be reported. Importantly, despite the broad powers they grant to the SEHK Board, the SEHK rules also provide that it must abide by any directions of the HKEx in the event of an emergency. The SEHK options trading rules and procedures grant the SEHK Board almost identical powers over options trading, but do not empower the HKEx Board to direct contingency operations.

The HKFE, the other exchange owned by HKEx, also demonstrates all four characteristics. In the event of any undesirable situation or practice that affects or is capable of affecting the market in a commodity, the HKFE Board is authorised to take any necessary measure, save for suspending trading in a market. Before taking any such action, though, the HKFE Board must consult with the HKCC, its clearing house. This requirement emphasises the important role of institutional links in shaping the contingency plans of Hong Kong's financial infrastructure. The HKFE rules also suggest specific responses for its Board. To address an "undesirable situation or practice," the HKFE Board may vary the specification of any exchange contract, so long as such variation does not affect any open contracts. In addition, when either the HKEx Board or the HKFE Board believes an event that renders trading impossible, or at least impossible without serious risk of injury or death, to be imminent or to have already occurred, that Board may suspend trading in the affected markets. Among the enumerated events that present such a situation are a state of war, hostilities, or emergency, and any other event directly affecting HKEx, HKFE, or HKCC.

Again, by enabling HKEx to make this decision and including events that affect HKEx and HKCC, the HKFE rules reinforce the close relationships between Hong Kong's main financial institutions. But, by distinguishing between undesirable situations and events that render safe trading impossible, the HKFE rules guide the HKFE Board's exercise of its discretion, while also introducing some measure of uncertainty as to the appropriate response.

In contrast, the three clearing houses owned by HKEx share some of those dominant characteristics, but provide HKEx with less of a role than do its two exchanges. For example, the CCASS rules grant the Hong Kong Securities and Clearing Company (the "HKSCC"), which is the parent of CCASS and a wholly-owned subsidiary of HKEx, the power to take any appropriate action to address an event that impairs, or is likely to impair, the functioning of CCASS. Its rules also provide detailed procedures for suspending operations in the event of typhoons and black rainstorms, and suggest that other contingency situations will be handled in a similar manner. Additionally, HKSCC may suspend CCASS' operation in any situation that warrants action, and, in the interest of CCASS' efficient operation, it may waive the application of any rule. Unlike the Boards of the two HKEx exchanges, HKSCC enjoys this discretion without any express interference from the Board of HKEx itself. The CCASS rules also employ a force majeure provision that excludes liability for any action, failure, hindrance, or delay that arises from causes beyond its control.

The SEOCH Board is similarly free from the direct influence of the HKEx Board, but it is not empowered to take any action necessary to respond to an emergency; its powers are quite limited. It can appoint an emergency committee with "full power" to regulate the affairs of SEOCH, but the extent of such "full power" is unclear because the SEOCH Articles of Association do not appear to be publicly available. In addition, the SEOCH rules often do not make clear which actor may make the relevant decisions. For example, they provide that the SEOCH can, in conjunction with the SEHK, suspend any of its participants on any terms, at any time. It can also demand intra-day margin from any of its participants, and such demands must be met in cash within one hour. But which agent has the authority to order those suspensions and demands remains unclear. Finally, the SEOCH rules include a force majeure clause similar to that in the CCASS rules, which exempts SEOCH, SEHK, and HKFE from liability for any actions, or failures or delays in providing services that arise from causes beyond their control.

By tying the HKCC's emergency actions to those taken by the HKFE, the exchange that it clears, the HKCC rules provide the HKCC Board with little authority to determine its response to major operational disruptions. The HKFE rules provide that the HKFE Board must consult with the HKCC before taking any action necessary to address an emergency, and that the HKFE and the HKCC can take such actions jointly. Surprisingly, the HKCC rules do not expressly provide the HKCC Board with the authority to take any measure necessary to deal with such events. Also, the HKCC rules do not grant the HKCC Board discretion to alter the HKCC operating hours or to close the clearing house in an emergency; instead, they require the HKCC to remain open whenever any of the HKFE's markets are open for business. Even much of the discretion granted to the HKFE Board must be exercised jointly with the HKCC. In the event of substantial fluctuations in HKFE markets, the two institutions may require all of their participants not to register any new positions and to close out all of their open contracts within a certain period. One action the HKCC may take independently to address such a fluctuation is to require additional margin and intra-day variation adjustment from any or all participants.

6 EXISTING EMERGENCY AND OTHER POWERS

6.1 Contents

This chapter examines the following:

6.1.1 the emergency powers available to government in the UK (sections 6.2 to 6.5);

6.1.2 the role and powers of HM Treasury (section 6.6), the Financial Services Authority (section 6.7) and the Bank of England (section 6.8);

6.1.3 the role and powers of the European Central Bank (section 6.9);

6.1.4 the emergency and supervisory powers available to executive and regulatory authorities under US Federal law and the law of the States of New York, New Jersey and Illinois (section 6.10), Switzerland (section 6.11), Hong Kong (section 6.12) and Japan (section 6.13)[83]; and

6.1.5 the question whether there are any gaps in existing UK legislation (section 6.14).

This analysis extends to the USA, Switzerland, Hong Kong and Japan, since each of them contains a major financial centre. The international wholesale financial markets are so inter-linked that the powers exercised in relation to one financial centre could affect the performance of contracts in others. It is also useful to compare the powers available in each financial centre in order to evaluate whether any useful lessons can be learned. The comparison is based on selected material provided to us and is not definitive.

The analysis of contracts and infrastructure bodies in chapters 4 and 5 respectively suggests that, following major operational disruptions, the financial markets are sufficiently well prepared for there to be no need for Government intervention and, if there were ever such a need, the major operational disruption could be serious enough to interfere with the essentials of life and so constitute an emergency (see section 6.3). Therefore, the aim of this chapter is to describe and identify those powers that might be of use in a major operational disruption and then to analyse them to see whether they are sufficient as they stand, rather than to try to list all the powers that might be useful.

6.2 Sources of UK executive power

The legal sources of executive power in the UK are: (i) the royal prerogative, (ii) statutes, and (iii) common law powers deriving from the legal personality of the Crown such as powers of contract and ownership. Whilst statutes are the main source of emergency and supervisory powers, prerogative powers are mentioned in the interests of completeness.

While the most important of the prerogative powers in domestic affairs relate to the summoning and dissolution of Parliament, the appointment and dismissal of ministers and the royal assent to bills, the powers also include the defence of the realm and the keeping of the peace. The Crown may use such force as is reasonably necessary to put down riot or insurrection. The Crown is responsible for the defence of the realm by sea and land, and is the only judge of the existence of danger to the realm from external enemies, although it is not the sole judge of the means by which such danger is

[83] Material about emergency powers legislation in Austria, Belgium, France, Germany, Greece, Ireland, Luxembourg, the Netherlands, Portugal, Spain and Sweden are included in Appendix 6 to this report.

to be averted, e.g. the imposition of taxation or conscription (Bill of Rights 1688). In modern times, the Crown has relied in times of war and other grave emergency on statutory powers, such as the Emergency Powers (Defence) Acts in the Second World War[84].

The prerogative is limited by the common law. No prerogative may be recognised that is contrary to Magna Carta or any other statute or that interferes with the liberties of the subject. The courts have jurisdiction to inquire into the existence or extent of any alleged prerogative[85]. No new prerogative powers may be claimed by the Crown.

Relevant statutory powers available to public authorities are summarised in sections 6.3 to 6.5.

6.2.1 Emergency powers reserved to the UK Government

Emergency powers are in general reserved to the UK Government and have not been devolved to the Scottish Parliament or the National Assembly for Wales[86].

6.2.2 Human rights derogations

The European Convention on Human Rights recognises that human rights may need to be qualified in the case of emergency. Article 15(1) states that, *"In time of war or other public emergency threatening the life of the nation any High Contracting Party may take measures derogating from its obligations under this Convention to the extent strictly required by the exigencies of the situation, provided that such measures are not inconsistent with its other obligations under international law"*[87].

The Secretary of State has power under ss.14(1) and (6) of the Human Rights Act 1998 ("HRA 1998") to make an order designating a proposed derogation under the Convention. This power was exercised by the UK following the attacks on 11 September 2001, in order that it could introduce new extended powers of arrest and detention for foreign nationals suspected of being connected with international terrorism (Anti-Terrorism, Crime and Security Act 2001) pending their removal from the UK. Such powers would otherwise have been vulnerable to challenge on the basis that they would be incompatible with the right to liberty protected by Article 5 of the Convention.

S.3 HRA 1998 provides that, although primary and subordinate legislation must, so far as it is possible to do so, be read in a way which is compatible with the Convention rights, this does not affect the validity, continuing operation or enforcement of any incompatible primary legislation, nor does it affect the validity, continuing operation or enforcement of any incompatible subordinate legislation if (disregarding any possibility of revocation) primary legislation prevents removal of the incompatibility. It is proposed in the Civil Contingencies Bill that emergency regulations made under it will be deemed primary legislation for the purposes of HRA 1998.

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[84] See *O. Hood Phillips & Jackson: Constitutional and Administrative Law*, 8th Edition, at paragraph 15-016. The Commons Public Administration Select Committee has published a list of the main powers enjoyed by Ministers under the Royal prerogative. The Committee is considering legislation to ensure that Ministers would have to seek Parliament's approval before they use the prerogative:

http://www.parliament.uk/parliamentary_committees/public_administration_select_committee/pasc_19.cfm

[85] See *Halsbury's Laws of England, Constitutional Law and Human Rights*, Volume 8(2), paragraph 366.

[86] Schedule 5 of the Scotland Act 1998 and "Ministerial Accountability in Scotland and Wales after Devolution", issued by the Cabinet Office Constitution Secretriat, June 2000.

[87] A public emergency threatening the life of the nation has been interpreted by the European Court of Human Rights to mean *"an exceptional situation of crisis or emergency which affects the whole population and constitutes a threat to the organised life of the community of which it is composed"*: *Lawless v. Ireland Series A*, No 31, p 56.

6.3 Emergency powers in the UK

6.3.1 Emergency Proclamation

By s.1(1) of the Emergency Powers Act 1920 ("EPA 1920"), the Queen may declare by proclamation that a state of emergency exists if it appears to her that events have occurred, or are about to occur, of such nature as to be calculated, by interfering with the supply and distribution of food, water, fuel or light, or with the means of locomotion, to deprive the community, or any substantial part of it, of the essentials of life. No proclamation may remain in force for more than one month, although a further proclamation may be issued at or before the end of that period[88].

Where a proclamation has been made, it must be immediately communicated to Parliament. If Parliament is then separated[89] by an adjournment or prorogation which will not expire within five days, a proclamation must be issued for the meeting of Parliament within five days. Parliament must then meet and sit accordingly.

6.3.2 Emergency Regulations

By s.2(1) EPA 1920, the Queen in Council may, by Order, while an emergency proclamation is in force, make regulations for securing the essentials of life to the community. The regulations may confer or impose on a Secretary of State or other Government department, or any other persons in the Crown's service or acting on its behalf, such powers and duties as the Queen may deem necessary for (i) the preservation of the peace, (ii) securing and regulating the supply and distribution of food, water, fuel, light and other necessities, (iii) maintaining the means of transit or locomotion, and (iv) any other purposes essential to the public safety and the life of the community. The regulations may include such provisions incidental to these powers as may appear to the Queen to be required for the effective exercise of these powers.

Emergency regulations must be laid before Parliament as soon as may be possible after they are made. They must not continue in force beyond seven days from the time when they are laid, unless a resolution is passed by both Houses for their continuation.

Emergency regulations may be added to, altered or revoked by resolution of both Houses of Parliament or by regulations made in the same manner and subject to the same provisions as the original regulations.

The expiry or revocation of emergency regulations will not be deemed to have affected their previous operation, or the validity of any action taken under them, or any penalty or punishment incurred in respect of any contravention or failure to comply with them, or any proceeding or remedy in respect of any punishment or penalty.

Emergency regulations may also provide for the trial, by courts of summary jurisdiction, of persons guilty of offences against them. The maximum penalty is *"imprisonment for a term of three months, or a fine not exceeding level five on the standard scale, or not exceeding a specified lesser amount, or both"*. Goods or money in respect of which the offence has been committed may be forfeited. The existing procedure in criminal cases is not to be altered, nor is there to be any fine or imprisonment without trial.

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[88] See section 6.4.2 below for the procedure for making a Royal proclamation.

[89] This simply means that Parliament stands adjourned so there are no sittings.

The EPA 1920 applies to England, Wales and Scotland. Northern Ireland has its own legislation: the Emergency Powers (Northern Ireland) Act 1926 as amended by the Emergency Powers (Northern Ireland) Act 1964.

The EPA 1920 is expected to be repealed by the Civil Contingencies Bill when it receives royal assent and comes into force.

6.4 Bank holidays and non-business days

The government may also intervene to exercise the powers available under the Banking and Financial Dealings Act 1971 (the "BFDA 1971"). There are two principal powers (sections 6.4.1 and 6.4.5).

6.4.1 Proclamation of a special day to be a bank holiday

In addition to having the power to vary the dates on which normal bank holidays fall[90], the Queen may by proclamation *"appoint a special day to be, either throughout the United Kingdom or in any place or locality in the United Kingdom, a bank holiday under this Act"* (s.1(3) BFDA 1971). This provision replaced s.4 Bank Holidays Act 1871[91].

This power has been used for two different purposes. First, it has been used to declare a bank holiday on a special national occasion; the most recent examples are the bank holidays proclaimed for the Royal Wedding in 1981, the Millennium holiday in 1999 and the Queen's Golden Jubilee in 2002.

Secondly, although it has not been used for this purpose for more than 35 years, the power has also been exercised as a means of closing banks in an emergency or suspending certain types of business (such as foreign exchange dealings) in a financial crisis[92]. Examples are the special bank holidays declared under s.4 of the 1871 Act on 4 September 1939 at the start of the Second World War, on 19 September 1949 when the UK Government devalued sterling from US$4.03 to US$2.80, on 20 November 1967 when sterling was devalued to US$2.40 and also for the purpose of closing the London gold market and stock exchanges

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[90] Bank holidays in England and Wales comprise: (i) under the BFDA 1971, Easter Monday, the last Mondays in May and August, Boxing Day (if it is not a Sunday) and 27 December in a year in which 25 or 26 December is a Sunday; (ii) New Year's Day (or, as appropriate, 2 or 3 January) and the first Monday in May are, customarily, declared bank holidays; (iii) Christmas Day and Good Friday are common law holidays. There are three specific mismatches between bank holiday days in different parts of the UK. Scotland has 2 January (or, if it is a Sunday, 3 January) as against Easter Monday for the rest of the UK. Scotland has the first Monday in August as against the last Monday in August for the rest of the UK. Northern Ireland has St Patrick's Day and 12 July.

[91] S.4 provided that: *"It shall be lawful for Her Majesty, from time to time, as to Her Majesty may seem fit, by proclamation, in the manner in which solemn fasts or days of public thanksgiving may be appointed, to appoint a special day to be observed as a bank holiday, either throughout the United Kingdom or in any part thereof, or in any county, city, borough, or district therein, and any day so appointed shall be kept as a close holiday in all banks within the locality mentioned in such proclamation, and shall as regards bills of exchange and promissory notes payable in which locality, be deemed to be a bank holiday for all the purposes of this Act".*

[92] There was, at the times of the above crises, no other legislation which could have been used to close banks. It appears that the only alternative would have been for banks to open for a very limited time on the days in question (e.g. half an hour in both morning and afternoon). There was concern that banks would otherwise encounter legal problems if they were to close on a normal working day without adequate notice, since this might lead customers to claim that banks were acting in breach of contract and since it would delay or prevent compliance with time limits applicable under the Bills of Exchange Act 1882.

at the request of the US President on 15 and 16 March 1968 during the international gold speculation crisis[93].

The s.1(3) power was not exercised in relation to the hurricane of 15-16 October 1987; the extent of the disruption caused by the hurricane became apparent only after the commencement of business.

The s.1(3) power is exercisable, as respects Northern Ireland, in accordance with the Northern Ireland Act 1998.

6.4.2 Timing of proclamation

A special bank holiday can be declared under s.1(3) at short notice but it appears that it cannot take effect retrospectively[94].

In the case of the special bank holidays declared for 4 September 1939 and 20 November 1967, the proclamation was made under s.4 of the 1871 Act on the previous day.

In the case of the special bank holiday held on Friday, 15 March 1968, the proclamation was made under s.4 shortly after 1 am on 15 March itself following a post-midnight meeting at Buckingham Palace. Three ministers and the Queen's private secretary were required to make up the quorum[95]. The proclamation was made in response to a message from the US President to the Prime Minister on the "hotline" between the White House and Downing Street on the evening of 14 March, in order to prevent the development of disorderly conditions in the financial markets, pending an international meeting to be held in Washington at the weekend to consider the international monetary situation.

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[93] When the UK was forced to abandon the gold standard, proclamations were prepared on Sunday, 20 September 1931 under s. 4, declaring 21, 22, 23, 24 and 25 September to be special bank holidays. However, we understand from the Privy Council Office that none of the proclamations were sealed and gazetted and did not come into force. In the official statement issued from 10 Downing Street on the night of Sunday, 20 September 1931, the Government announced that it would introduce and pass through all its stages on Monday, 21 September, a Bill to suspend the operation of s.1(2) of the Gold Standard Act 1925 which required the Government to sell gold at a fixed price. There would be no interruption of ordinary banking business. The banks would be open as usual for the convenience of customers and there was no reason why sterling transactions should not be effected in the normal way. The banks had undertaken to co-operate in restricting purchases by British citizens of foreign exchange, except where required for the actual needs of trade or the fulfilment of existing contracts. The Government stated that, if further measures proved to be advisable, it would not hesitate to take them. The statement also announced that it had been arranged that the London Stock Exchange should not open on Monday, 20 September, but without interfering with current settlement which would continue as usual: The Times, 21 September 1931. The above Bill was enacted on 21 September as the Gold Standard (Amendment) Act 1931. In addition to suspending the operation of s.1(2) of the 1925 Act, it discharged the Bank of England from all liabilities in respect of anything done by the Bank in contravention of s.1(2) at any time after 18 September 1931. It also empowered the Treasury to make, and vary, orders authorising the taking of such measures in relation to the exchanges and otherwise as they may consider expedient for meeting difficulties arising in connection with the suspension of the gold standard.

[94] See the Consultation Paper, page 46, para A.7.

[95] The Times, 15 March 1968. See also "A Life at the Centre", Roy Jenkins, 1991 pages 236 and 237: *"Harold Lever suggested that Warburg was the best man to plug the gap. Not only did he respond to the summons discreetly and uncomplainingly, he also provided clear and succinct advice. We should accede to the American request to close the gold market and use it as a smokescreen to close the foreign exchange market as well. We should proclaim a Bank Holiday, keep it going for at least four days, and in the meantime try to block the sterling balances. He confirmed the official view that we were on the very brink of another devaluation … Meanwhile arrangements had been made to have a post-midnight Privy Council (the first in the early hours since the Accession Council following the death of King George VI in 1952) which was necessary to make the Order in Council proclaiming the Bank Holiday. For this we needed three ministers who, with the Queen's private secretary (Sir Michael Adeane) would make up the quorum of four. Wilson reiterated that he had failed to trace George Brown, but added that he had fortunately got Peter Shore, who was Secretary of State for the emasculated DEA, but widely then regarded as the Prime Minister's office boy, to stand by …At the Palace Wilson went in first and had a short private audience with the Queen. Shore and Adeane and I were then summoned… I half expected to find the Queen looking pale and dishevelled, if not exactly in her night-shift at least a little like Queen Victoria in 1837, and certainly bad-tempered. On the contrary she was tirée à quatre épingles, a great deal more cheerful than the rest of us, and almost excessively chatty for the circumstances. We were there about ten minutes".* For further background, see "The Benn Diaries" by Tony Benn, chapter 5, pages 182 to 184.

Subsequently, on 15 March, a special bank holiday was also declared for 16 March, in order to prevent the flow of capital out of London to the rest of the sterling area through banks (which would otherwise have been open for normal domestic transactions on Saturday morning). Each proclamation stated that the appointed date was to be "kept as a close holiday in all banks in the United Kingdom."

A Royal proclamation must be approved by the Privy Council and the Great Seal affixed to it[96]. The quorum for a Privy Council meeting is three members, although four are usually summoned, being Ministers concerned with the business in hand[97].

6.4.3 Effect of a bank holiday

A bank holiday does not have an automatic legal impact on the wholesale financial markets, except where contracts define "business days" to exclude bank holidays (section 4.4.1 for financial contracts and section 5.10 for contractual rules of infrastructure bodies). In addition, the declaration of a bank holiday does not itself require banks to close[98].

A bank holiday does not automatically entitle employees to a holiday as a matter of law. However, employees' terms of employment commonly include entitlement to a holiday on those days.

When declaring the special bank holiday on 20 November 1967, the Government stated in the House of Commons that banks in the UK would be closed to the public on that day but that bank staff should report for duty as usual[99]. The London Stock Exchange was also closed.

In the case of a bank holiday declared on 15 March 1968, an attempt was made to limit its effect[100]. In its statement issued just after 1 am on 15 March 1968[101], the Treasury stated

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[96] Anson, "The Law and Custom of the Constitution", Volume 2, 4th Edition, page 62. The proclamation becomes effective on publication in the Gazette. In the case of the proclamation made on 15 March 1968, it appears that this was announced by radio and in the late editions of national newspapers before it was formally gazetted.

[97] See O. Hood Phillips & Jackson, *supra*, at paragraph 16-007.

[98] The Court of Session in the Scottish case of *Turnbull v TSB Bank of Scotland Ltd [1998] Inner House Cases* confirmed that banks are not compelled to close on a bank holiday, both under the Banking and Financial Dealings Act 1971 and its predecessor the Bank Holidays Act 1871. The judge went on to say: *"For the reasons which we have given we do not consider that legislation was designed to play any part in employment law, but rather to regulate transactions which otherwise fell to be carried out on or by reference to the days which were declared to be "bank holidays"."*

[99] Hansard, 20 November 1967, column 952. In the case of the special bank holiday on 4 September 1939, it was reported in The Times that: *"Today has been declared a limited Bank Holiday affecting only banks. The arrangement applies to the Post Office Savings Bank and other savings banks. It does not apply to any other business, and the day is not a general holiday. It will be used by the banks to complete their measures for adapting themselves to the emergency, and tomorrow morning the banks will be open for business… The arrangements which have been made will render unnecessary any general moratorium such as was adopted in August, 1914, but a Courts (Emergency Powers) Act has been passed to give further protection to any institution or person who is unable to meet his liabilities solely by reason of the emergency. The Stock Exchange will remain closed, but will reopen as soon as possible."* In the case of the special bank holiday on 19 September 1949, a Treasury announcement stated that banks and stock exchanges would be closed, but the day would not be a general holiday: The Times, 19 September 1949.

[100] The form of proclamation prepared when the UK abandoned the gold standard in 1931 also attempted to limit the effect of the proposed bank holidays by stating that it was not intended that the appointed dates be kept as general holidays and should not be kept or deemed to be holidays for any purpose other than the purposes of the 1871 Act. This wording does not appear in the proclamations made in 1949, 1967 and 1968, although these stated that the appointed days would not be holidays under the Holidays Extension Act, 1875, which provided that bank holidays be kept as public holidays in customs and inland revenue offices and bonded warehouses. In the case of the special bank holiday declared for 19 September 1949, a Treasury announcement stated that banks and stock exchanges would be closed. The day would not be a general holiday: The Times, 19 September 1949.

that, while the London gold market would be closed on that day, banks were being asked to provide domestic customers with normal cash requirements in sterling. It was also intended that 15 March would not be a bank holiday for workers. The Stock Exchange Council also decided at the Treasury's request to close the London Stock Exchange[102]. All markets re-opened on Monday, 18 March 1968, except the London Gold Market which the Government agreed to close for the next two weeks[103].

If banks remain open on a future special bank holiday, this could have different effects on different contracts because some provide that a business day is a day which is not a bank holiday, whilst the majority provide that a business day is a day on which banks are factually open.

6.4.4 Performance of obligations on a bank holiday

S.1(4) BFDA 1971 provides that:

"No person shall be compellable to make any payment or to do any act on a bank holiday under this Act which he would not be compellable to make or do on Christmas Day or Good Friday[104]; and where a person would, apart from this subsection, be compellable to make any payment or to do any act on a bank holiday under this Act, his obligation to make the payment or to do the act shall be deemed to be complied with if he makes or does it on the next following day on which he is compellable to make or do it."

The extent to which payment and other obligations falling to be performed on a bank holiday are affected by s.1(4) was considered in 1999 by a Sub-Committee of the City of London Joint Working Group on EMU legislation[105] in conjunction with Mr. Robin Potts Q.C. They concluded that, although in the absence of a definitive court ruling the position is not entirely free of doubt, the better view is that s.1(4) excuses a person and permits him to make a payment or to do an act on the day after a bank holiday in England and Wales only in cases where the payment or act would otherwise be compellable on the bank holiday by legal process such as a court order. S.1(4) should not apply simply because a party to a contract is contractually bound to perform his obligation on a bank holiday.

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[101] The Treasury's Statement read: *"The London gold market will be closed today, Friday, March 15. This is at the request of the United States Government. At a meeting of the Privy Council held this morning at Buckingham Palace Her Majesty the Queen approved a proclamation appointing Friday, 15 March, to be observed as a Bank Holiday throughout the United Kingdom. The banks are, however, being asked to provide their domestic customers with normal cash requirements in sterling. The authorities are requesting that the stock exchanges also be closed."* The Times of 15 March reported the Treasury as explaining that it would in effect be an ordinary day except that the banks would be closed to all business apart from meeting the domestic cash requirements of customers in sterling. It would not, however, be a bank holiday for workers.

[102] The Bank of England on behalf of the Stock Exchange Council made this statement on 15 March: *"The authorities of the Council of the Stock Exchange have decided that the house will be closed today, Friday, March 15, and members of the Stock Exchange may not undertake dealing in securities of any sort. Similar arrangements are being made by other federated stock exchanges. Office staff report as usual."*

[103] This was intended to allow a breathing space so that the new arrangements announced at the Washington conference of central bankers on 17 March 1968 to replace the Gold Pool were given an opportunity to settle down: Hansard, 18 March 1968, column 40, and 19 March 1968, columns 252 to 254. It appears that the gold market was closed by instructions given by the Bank of England under the Exchange Control Act 1947 (which was repealed in its entirety by the Finance Act 1987).

[104] Common law holidays appear to be treated in the same way as Sundays. The common law does not in general prohibit the doing on a Sunday of any act which is lawful and does not render void any act so performed. Sunday is, however, *dies non juridicus*, a day on which no judicial act ought to be done.

[105] The Sub-Committee included representatives from Allen & Overy, Clifford Chance, Freshfields, Linklaters, Lovells and Slaughter and May. Representatives from the Association for Payment Clearing Services, the British Bankers' Association, the International Primary Market Association and the International Swaps and Derivatives Association, Inc. participated in the Sub-Committee's discussions. Representatives from the Bank of England also attended meetings of the Sub-Committee as observers. The Sub-Committee's views are set out in a Note of 26 May 1999 approved by Mr. Robin Potts Q.C.

Rights conferred by the contract, such as a right to receive interest for late payment or to debit an account or to set off or enforce collateral, would be unaffected by s.1(4).

In addition, s.1(4) would not apply where the place of performance specified in the contract is outside the United Kingdom.

6.4.5 HM Treasury's power to suspend financial dealings

S.2(1) BFDA 1971 provides that:

"If it appears to the Treasury necessary or expedient so to do in the national interest, they may by order (made by statutory instrument, which shall be laid before Parliament after being made) give, with respect to a day specified in the order, all or any of the following directions, namely:-

(a) a direction that, subject to any exceptions for which provision may be made by the order, no person carrying on the business of a banker shall, except with permission granted by or on behalf of the Treasury, effect on that day, in the course of that business, any transaction or, according as may be specified in the order, a transaction of such kind as may be so specified;

(b) a direction that, subject as aforesaid, no person shall, on that day, except with permission so granted, deal in any foreign currency or, according as may be so specified in the order, foreign currency of such kind as may be so specified;

(c) a direction that, subject as aforesaid, no person shall on that day, except with permission so granted, deal in any gold or, according as may be specified in the order, gold of such kind as may be so specified;

(d) a direction that, subject as aforesaid, no person shall on that day, except with permission so granted, deal in silver bullion;

(e) a direction that, subject as aforesaid, no member of any commodity exchange or, as the case may be, of any such commodity exchange as may be specified in the order, shall, on that day, except with permission so granted, deal thereon in futures in any commodity or, according as may be so specified, in futures in a commodity of such kind as may be so specified;

(f) [repealed];

(g) a direction that no member of a stock exchange in the United Kingdom shall, on that day, effect any transaction on that exchange; and

(h) *a direction that, subject as aforesaid, no building society shall, on that day, except with permission so granted, effect in the course of its business any transaction or, according as may be specified in the order, a transaction of such kind as may be so specified."*

The order is to be made by statutory instrument which must be laid before Parliament after being made.

6.4.6 Effect of an order made under s.2(1) BFDA 1971

S.2(3) provides that:

"An obligation on a person to do a thing on a day on which he is prevented from doing it by an order under this section, or is unable to do it by reason of any such order, shall be deemed to be complied with if he does it so soon as practicable thereafter."

Unlike s.1(4), the above subsection does appear to apply to contractual obligations. It has mandatory effect if an order is made under s.2(1) and does not permit parties to contract out. S.2(3) would not apply where the place of performance specified in the contract is outside the United Kingdom.

If a day specified in an order made under s.2(1) is otherwise a business day, the order may declare it a non-business day for the purposes of the enactments relating to bills of exchange and promissory notes (s.4(3)).

A person who knowingly or recklessly contravenes a direction given by an order under s.2(1) is guilty of an offence and liable (i) on summary conviction, to a fine of not more than a prescribed sum, and (ii) on conviction on indictment, to imprisonment for not more than two years or to a fine or to both.

6.4.7 Reason for enacting s.2 BFDA 1971

The reason for adding the s.2 power was explained by Mr. Terence Higgins, the Minister of State, Treasury, on behalf of the Government when the Banking and Financial Dealings Bill received its second reading as follows:

"It will be recalled that the previous Administration found it necessary to close the banks at the time of devaluation in 1967, and during the period of the gold speculation in 1968. That was done for the purposes which were then necessary by proclaiming a special bank holiday under the Bank Holidays Act, 1871. But it did have some inconvenient side effects, and perhaps I may give one example.

Certain wage agreements specify that employees are to have either a day off on a bank holiday or to receive extra pay for working, In the case of the special bank holidays in 1967 and 1968, there was some confusion about whether the bank holiday was a bank holiday for the purpose of wage agreements. Similar problems arose in a number of other situations. Hon. Members may recall that there was some doubt about whether parking meter restrictions applied on the days in question, and that demonstrated the inconvenience which could arise when there was recourse to bank holiday legislation in such circumstances. Hence the need for the powers conferred in Clause 2. They will enable the Treasury to close the banks without having recourse to the bank holiday legislation, with all the inconvenience which that involves, and will also provide for closure in the national interest of a number of financial institutions.

As it is difficult to foretell the exact occasions on which the powers conferred by Clause 2 would be of use, it would be a mistake to restrict them to limited and specified circumstances. They have therefore been drafted fairly comprehensively - but it does not necessarily follow that they will be used to the full extent at any one time. Indeed, we have deliberately framed the legislation so as to allow certain transactions and classes of person to be exempt from the scope of any order. This would allow the Treasury to proceed

whenever practicable for institutions which would otherwise be affected by an order to carry on as much normal business as possible compatible with the terms of the order."[106]

As far as we have been able to ascertain, the s.2 power has never been exercised.

The powers were designed for use when the City of London was a relatively closed financial centre and subject to exchange controls. The powers are now incomplete and ill-suited to the more open, complex, international financial centre of today. In particular, the limited categories of financial market activity referred to in s.2(1) do not correspond with those regulated under the Financial Services and Markets Act 2000. See section 6.14.4 for a further discussion.

6.4.8 Bills of Exchange Act 1882

The above Act does not grant any specific powers relevant to this report, but it does provide that, if a bill of exchange is due to be paid on a non-business day, then it shall be paid on the next succeeding business day. A non-business day is defined by s.92 to include bank holidays under the BFDA 1971 *and also* a day declared by order under s.2(1) BFDA 1971 to be a non-business day.

6.4.9 Service of legal process

If a document (other than a claim form) is served on a bank holiday, it will be treated as served on the next business day.

6.4.10 Impact on payment systems and exchanges of a bank holiday declared under s.1 BFDA 1971

It appears that no payment system in the City would be affected by the proclamation of a special bank holiday, and could carry on business as usual unless. They fall outside the scope of s.2 BFDA 1971, but in practice if the banks are closed then the payment systems would almost certainly be forced to close. Similarly, the London Clearing House would be unaffected by a declaration of a bank holiday, but would be forced in practice to close by an order under s.2 BFDA 1971 because the banks would be closed.

The LSE and Euronext.liffe could also carry on business as usual on a bank holiday, but both could be ordered to close under s.2 BFDA 1971.

The other two UK recognised exchanges considered, IPE and LME, would appear to be required to close on a bank holiday as their rules expressly state that they will be closed on public holidays and days on which trading is suspended under the BFDA 1971 or other enactment. However, the board of the LME has the power to amend its rules as it thinks fit. Both IPE and LME can be ordered to close under s.2 BFDA 1971.

Although CRESTCo is not obliged by its rules to close CREST if a bank holiday is declared under the BFDA 1971, in practice CRESTCo can be expected to suspend settlement operations because the payment contracts between CRESTCo, the Bank of England and the CREST settlement banks contemplate that the irrevocable and unconditional obligations of a paying settlement bank and of the Bank of England may only arise on a business day as defined in the CREST Glossary (which expressly excludes *"a*

[106] See Hansard, 12 November 1971, at column 1458 and 9 December 1971 at column 908. In addition, the special bank holidays in March 1968 led to a building society complaining unsuccessfully to the Parliamentary Commissioner that this had delayed repayment of Government stock which matured on one of those days.

day which is a bank holiday in England"). However, if the Bank of England and the CREST settlement banks were willing to open on a bank holiday for the purpose of enabling or facilitating CREST settlement, in practice this might be achieved by CRESTCo (with the consent of the Bank of England and the CREST settlement banks) declaring that the operation of CREST on that day shall be treated as an extension of the previous settlement day (as a business day) under CRESTCo's powers to vary the daily timetable. An order under s.2 BFDA 1971 will effectively close CREST as it would close the CREST settlement banks. For a full discussion see section 5.10.

6.5 Additional powers available in times of war or other hostile acts

Certain powers are available in times of war or other hostile acts which, if exercised, could have an effect on the activities of banks or other financial institutions.

6.5.1 Anti-Terrorism, Crime and Security Act 2001

S.4 of this Act gives the Treasury power to make a freezing order (that is an order which prohibits persons from making funds available to or for the benefit of a specified person or persons) where the Treasury reasonably believes that:

(i) actions to the detriment of the United Kingdom's economy have been or are likely to be taken by a person or persons; or

(ii) actions constituting a threat to life or property of one or more nationals of the United Kingdom are or are likely to be taken,

and the person who has taken or is likely to take the action is a government or resident of a country or territory outside the United Kingdom.

Funds for the purposes of this legislation are financial assets and economic benefits of any kind.

The power to make a freezing order is exercisable by statutory instrument which must be laid before Parliament and which ceases to have effect unless approved by Parliament within 28 days.

This power replaces a similar power contained in the Emergency Laws (Re-enactments and Repeals) Act 1964, which was used in 1990 to control gold, securities, payments and credits in relation to Kuwait and Iraq and again in 1992 in relation to Serbia and Montenegro.

6.5.2 Trading with the Enemy Act 1939

This Act provides that the transfer of negotiable instruments, choses in action, and the transfer and allotment of securities to the enemy are ineffective unless sanctioned by HM Treasury or the Department of Trade and Industry ("DTI"). Any person who trades with or attempts to trade with the enemy is guilty of an offence and this includes the purchase of enemy currency.

Trading with the enemy includes (non-exhaustively):

(i) any commercial, financial or other intercourse or dealings;

(ii) the supply of any goods;

(iii) the payment or transmittance of any money, negotiable instrument or security; and

(iv) the performance of any obligation to, or discharge of any obligation of, the enemy.

The Act also gives the DTI the power to make an order for the prohibition of the carrying on of a business of the enemy and an order requiring such a business to be wound up. The Act allows for the collection of enemy debts and custody of enemy property.

The term "enemy" means any State at war with Her Majesty, any individual resident in enemy territory, any body of persons controlled by an enemy person, any body constituted in a State at war with Her Majesty, and, as respects any business carried on in enemy territory, any individual or body of persons carrying on that business.

6.6 HM Treasury: role and powers

A memorandum of understanding[107] dated 28 October 1997 between HM Treasury, the Bank of England and the FSA (the "Memorandum of Understanding") establishes clear roles for each institution (albeit not legally binding) and explains how they will work together towards the common objective of financial stability. There are four guiding principles: (i) clear accountability; (ii) transparency; (iii) no duplication; and (iv) regular information exchange.

Under the Memorandum of Understanding, HM Treasury is responsible for the overall institutional structure of regulation and the legislation which governs it. It does not have any operational responsibility for the activities carried out by the FSA and the Bank of England, and will not be involved in such activities. HM Treasury will be alerted in circumstances which could cause wide economic disruption, particularly where diplomatic or Parliamentary issues arise.

The UK Debt Management Office ("DMO"), which is part of HM Treasury, is responsible for issuing gilts. It also undertakes a number of official operations in the gilt secondary markets, which includes creating stock for swap purposes if the DMO considers that there is sufficient evidence of "*severe market dislocation or disruption*"[108]. This could be of use following an event of major operational disruption if much of a particular Government stock is temporarily removed from the market (this would cause liquidity problems as Government stock is commonly used as collateral in payment systems). The US Treasury issued 10-year notes following 11 September 2001 for this reason.

The DMO took over Exchequer cash management responsibilities from the Bank of England on 3 April 2000. Its main objective in carrying out its cash management operations is to offset the expected cash flow into or out of the National Loans Fund on every business day. This is done primarily through a combination of: (i) structured weekly Treasury bill tenders; (ii) bilateral operations with DMO counterparties; and (iii) *ad hoc* tenders of Treasury bills. Again, these could be of use following an event of major operational disruption to provide collateral for use in payment systems and thereby improve liquidity.

HM Treasury also has the power to suspend financial dealings as described in section 6.4.5, though these powers are now obsolete and would seem to be inappropriate in an event of major operational disruption.

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[107] www.bankofengland.co.uk/legislation/mou.pdf

[108] See "Official Operations in the Gilt-Edged Market: Operational Notice by the UK Debt Management Office", November 2001.

6.7 Financial Services Authority: role and powers

The Financial Services Authority ("FSA") has been granted a range of powers by statute in relation to its general supervisory responsibilities. These powers *could* be used to allow it to intervene in an event of major operational disruption.

The FSA's general duties are set out in s.2 Financial Services and Markets Act 2000 ("FSMA 2000"). In exercising its "general functions" the FSA must, so far as is reasonably possible, act in a way that is compatible with, and most appropriate for meeting, the "regulatory objectives". The "regulatory objectives" are defined as (i) market confidence, (ii) public awareness, (iii) protection of consumers, and (iv) reduction of financial crime. The FSA's "general functions" are defined as (a) making rules under FSMA 2000, (b) preparing and issuing codes under FSMA 2000, (c) giving general guidance, and (d) determining the general policy and principles by reference to which it performs particular functions.

The Memorandum of Understanding is also useful to refer to because, although it does not create any legal powers or obligations, it sets out the role of the FSA as agreed with HM Treasury and the Bank of England to enable them to work together towards their common objective of financial stability. Under the Memorandum of Understanding, the FSA has been "allocated" the following responsibilities: (i) to seek to ensure, as part of its wider regulatory responsibilities, that firms and other authorised entities have business continuity plans which are appropriate to the nature and impact of their businesses; (ii) to engage in dialogue with firms and exchanges about business continuity arrangements to identify sound practice and reflect this back to the industry as a whole; and (iii) in the event of significant disruption to the financial system, to collaborate closely with other Standing Committee members[109] in taking all possible steps to ensure that the statutory objectives are met to the maximum extent possible.

The powers available to the FSA and the procedures associated with them are designed for dealing with day-to-day supervisory issues that arise at firm level. They are not designed to deal with the immediate fallout from major operational disruption to the financial system, so may be of limited use. The FSA's powers can be broadly categorised into the following areas:

6.7.1 Recognised bodies

Under s.286(1) FSMA 2000, HM Treasury has made regulations setting out the requirements that must be satisfied by investment exchanges and clearing houses in order for the FSA to make a recognition order in respect of those bodies[110]. These requirements (the "Recognition Requirements") are set out in the Financial Services and Markets Act 2000 (Recognition Requirements for Investment Exchanges and Clearing Houses) Regulations 2001 (SI 2001/995). The latest list of recognised bodies is available on HM Treasury's website[111]. The Recognition Requirements can be neither waived nor amended by the FSA. A recognised body is exempt from the requirement to obtain authorisation by virtue of s.285(2) FSMA 2000.

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[109] The Standing Committee consists of representatives from HM Treasury, the Bank of England and the FSA. It meets on a monthly basis. Standing Committees involving market practitioners are also established for particular roles, such as the Foreign Exchange Joint Standing Committee.

[110] Recognition orders are covered by s.290 FSMA 2000.

[111] http://www.hm-treasury.gov.uk/Documents/Financial_Services/Recognised_Investment_Exchanges/fin_rie_index.cfm contains an up-to-date list of bodies recognised by the FSA. At the time of writing the Recognised Investment Exchanges are the London Stock Exchange, International Petroleum Exchange, Euronext.liffe, London Metal Exchange, EDX London and virt-x Exchange Ltd.; the Recognised Clearing Houses are the London Clearing House and CRESTCo.

The Recognition Requirements set out a range of criteria (the most relevant ones of which are described below) that[112] applicants for recognition must satisfy. If the applicant does not satisfy the criteria, the FSA cannot grant a recognition order in relation to the investment exchange or clearing house. The power to grant recognised body status is unlikely to be relevant in the event of a major operational disruption.

The FSA has the power to revoke recognition in certain circumstances. Recognised bodies will therefore continue to bear in mind the FSA's requirements because of the potential threat of revocation of recognition, which could be relevant for requirements such as ensuring that systems and controls are adequate (see (i) below) and maintaining appropriate business continuity procedures. However, it is unlikely that a major operational disruption would give rise to a situation to which the appropriate response by the FSA would be to seek revocation of recognised status. Of more obvious relevance is the FSA's power to direct a recognised body.

If the FSA thinks that a recognised body (a) has failed, or is likely to fail, to satisfy the Recognition Requirements; or (b) has failed to comply with any other obligation imposed on it by or under FSMA 2000 (including FSA rules), the FSA can direct the recognised body to take specified steps for securing compliance with such Recognition Requirements or other obligations[113]. This is the FSA's single most important power over recognised bodies in response to an event of major operational disruption.

The FSA Handbook's sourcebook on Recognised Investment Exchanges and Recognised Clearing Houses (the "REC Sourcebook") provides guidance. It covers the matters to which the FSA will have regard in assessing compliance with the Recognition Requirements. The important ones are:

(i) REC Sourcebook 2.5 (Systems and controls) repeats the Recognition Requirements that recognised bodies *"must ensure that the systems and controls used in the performance of its [relevant functions] are adequate, and appropriate for the scale and nature of its business."* This section contains several guidelines of matters the FSA may consider when assessing the adequacy and appropriateness of the systems and controls of recognised bodies, and this is an important way in which the FSA can ensure that recognised bodies have appropriate procedures in place to minimise the risks posed by an event of major operational disruption.

(ii) REC Sourcebook 2.6G (General safeguards for investors) provides that recognised investment exchanges must conduct business in an orderly manner and so as to afford proper protection to investors. Recognised clearing houses must ensure their facilities afford proper protection to investors.

(iii) REC Sourcebook 2.8G (Settlement and clearing services) provides that recognised bodies must have satisfactory arrangements for securing the timely discharge of the rights and liabilities of parties. This could be directly relevant where a major operational disruption prevents such timely discharge, and the FSA would then be able to direct the recognised bodies affected to take any steps necessary to ensure such timely discharge.

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[112] By regulation 4 the provisions in Parts 1 and 2 of the Schedule apply to investment exchanges; by regulation 5 the provisions in Parts 3 and 4 of the Schedule apply to clearing houses.

[113] By s.296(2) FSMA 2000.

(iv) REC Sourcebook 2.12G (Proper markets and disclosure of information) requires recognised investment exchanges only to ensure that dealings in specified investments are limited to those in which there is a proper market. A major operational disruption could limit the number of persons who could deal in a specified investment, which would suggest that there is not a proper market and so the FSA could again direct the recognised body to take necessary steps to ensure "proper markets".

The FSA could use its powers of direction under s.296 FSMA 2000 to, for example:

(a) direct a recognised investment exchange to halt trading in one stock or the market as a whole;

(b) direct a recognised investment exchange to extend settlement periods; or

(c) direct a recognised clearing house to suspend settlement operations.

However, the legal effect of these steps is to require action to be taken or not taken by a recognised body. The legal effect on individual unsettled contracts between market participants is uncertain, and such interventions can have no impact on existing contractual obligations between parties to OTC transactions (except to the extent that the contracts provide a link to these issues) or operate to prevent parties from entering into such contracts.

FSMA 2000 prescribes a procedure to be followed when giving a direction, which requires written notice to be given, and grants the recognised body and other affected persons the right to make representations[114]. However, the FSA may give a direction without notice, to take immediate effect, if it considers it essential so to do.

The FSA's formal powers of direction have never been used and are wholly untested. The relationship between the FSA and the small recognised body community is a close one, involving mutual cooperation and constructive development of regulatory standards. It is expected that the FSA and the recognised bodies would work together, through the sharing of information and otherwise to ensure an appropriate response to any major operational disruption. In any event, the strength of the formal arrangements described above are bolstered by certain provisions of the REC Sourcebook that require that the FSA be notified of certain specific matters. These are:

(i) REC Sourcebook 3.15.2R (Suspension of services) requires recognised investment exchanges to immediately notify the FSA of any trading suspensions or halts in securities and derivatives, and explain why that action has been taken.

(ii) REC Sourcebook 3.15.3R (Suspension of services) requires recognised bodies to immediately notify the FSA of any suspension of clearing services and explain why.

(iii) REC Sourcebook 3.15.6R (Inability to operate facilities) requires recognised bodies to immediately notify the FSA if they are unable to operate any of their facilities within their normal hours of operation, and explain what caused it and how they are proposing to recommence operation of those facilities.

[114] s.298 FSMA 2000.

(iv) REC Sourcebook 3.15.7R (Extension of hours of operation) requires recognised bodies to immediately notify the FSA if they extend their hours of operation and explain what event caused them to do so.

(v) REC Sourcebook 3.16.2R (Information technology systems) requires recognised bodies to immediately notify the FSA of any changes in their business continuity plans.

(vi) REC Sourcebook 3.16.3R (Information technology systems) requires recognised bodies to immediately notify the FSA if their reserve information technology systems fail in such a way that if the main system also failed, the recognised body in question would be unable to operate any of its facilities during its normal hours of operation. The recognised bodies are also required to inform the FSA what action they are taking to restore operation of the reserve system.

These notification provisions will have the effect of ensuring that the FSA is kept informed of events as they develop at the recognised body.

Finally, if the FSA thinks that a recognised body should or should not take action under that body's default rules, the FSA can direct the recognised body to (i) take such action if failure to do so would involve undue risk to market participants, or (ii) not take such action if it would be premature or otherwise undesirable in the interests of investors or other market participants[115]. For example, the FSA could direct that a particular firm be placed in default, or alternatively not placed in default. However, the FSA must consult the recognised body in question before making such direction. Default powers are used on a firm by firm basis to control the impact of a member firm's failure. It is hard to determine whether the FSA's ability to require a recognised body to take action or not under its default rules would be of obvious use following a major operational disruption.

HM Treasury has specific powers under reg.8(2)(b) Uncertificated Securities Regulations 2001 (SI 2001/2755), by which it can direct the operator of a dematerialised securities system (i.e. CREST in the UK) to take such steps as are necessary to ensure the operator complies with the provisions in Schedule 1. HM Treasury has delegated these powers to the FSA under regulation 11. A major operational disruption could cause CRESTCo to fail to comply with one or more of the provisions in Schedule 1, and the FSA would be able to step in and direct CRESTCo accordingly. As with the FSA's general power under FSMA 2000 described above, the USRs prescribe a process to be followed when giving a direction, but this need not be followed if the FSA considers it essential to do so.

Any direction issued by the FSA, whether under FSMA 2000 or the Companies Act 1989, is enforceable by injunction on application by the FSA to the Court.

In addition, the FSA has the power to designate recognised bodies that are securities settlement systems as a "system" under the Financial Markets and Insolvency (Settlement Finality) Regulations 1999. The FSA also exercises this power in relation to embedded payment systems after consultation with the Bank of England. This is discussed in more detail in section 6.8.2. It should be noted that while the "default arrangements" that designated systems must comply with are broadly similar to the Recognition Requirements applicable to recognised bodies, the definition of a designated system is wider that the group of recognised bodies under FSMA 2000 so the FSA could therefore require a wider

[115] By s.166 Companies Act 1989.

set of infrastructure providers to put in place appropriate contingency arrangements than is possible under the REC Sourcebook.

6.7.2 Authorised persons

The FSA has a range of powers in respect of authorised persons that may be of use in the event of a major operational disruption.

The FSA may make general rules[116] to which authorised persons carrying out regulated activities are subject. The FSA may only make general rules applying to authorised persons, with respect to the carrying on of both regulated and unregulated activities, as appears to be necessary or expedient for the purpose of protecting the interests of consumers. Although "consumers" is broadly defined[117], it is not unlimited, and it may be that a desired step would fall outside the scope of consumer interests.

In any event, it is difficult to envisage circumstances in which use of this rule making power would be necessary or useful. The FSA rules affect authorised persons; they do not affect third parties in contractual relationships with authorised persons. Therefore, while rules could operate to ban an authorised person from completing a contract or from entering into new contracts, they do not on their face operate to relieve an authorised person of any pre-existing contractual obligations to a third party (e.g. they cannot provide a contractual breathing space through the suspension of contractual obligations of an authorised person affected by disruption).

Should it be necessary, rules may be made without consultation and take immediate effect if the delay that would otherwise result would be prejudicial to the interests of consumers[118]. Rule making is a legislative function reserved to the FSA's Board. In those circumstances in which a rule change might assist in the proper management of significant financial disruption, it may be that it is not achievable in an appropriate time frame.

Another potentially useful provision[119] allows the FSA to waive or modify rules as they apply to a particular authorised person. Unlike the power to make rules, this is not a legislative function reserved to the Board of the FSA. Rather it is a power that can be exercised by the FSA's executive. Before exercising this power, the FSA must be satisfied that compliance with the rule would be unduly burdensome or would not achieve the purpose of the rule, and that the waiver or modification would not result in undue risk to persons whose interests the rules are intended to protect. Unless satisfied that it is inappropriate or unnecessary so to do, the FSA must publish the waiver or modification.

The power to waive or modify a rule requires the consent or application of the authorised person. The firms concerned will not have to make a formal application, but will have to give their written consent for the waiver to apply[120]. However, in practice this procedural step should not operate as a bar to appropriate action. Should the FSA decide that it would

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[116] By s.138(1) FSMA 2000.

[117] Defined in s.138(7) as *"persons (a) who use, or have used, or may be contemplating using, any of the services provided by (i) authorised persons in carrying on regulated activities or (ii) persons acting as appointed representatives; (b) who have rights or interests which are derived from, or are otherwise attributable to, the use of any such services by other persons; or (c) who have rights or interests which may be adversely affected by the use of any such services by persons acting on their behalf or in a fiduciary capacity in relation to them"*.

[118] s.155 FSMA 2000.

[119] By s.148(2) FSMA 2000.

[120] From the FSA Handbook's sourcebook on Supervision (the "SUP Sourcebook") at 8.3.10G.

be appropriate to waive or modify rules for a sector or the market as a whole, it cannot act unilaterally; however, the FSA can let it be known that a waiver is available and that a firm simply needs to write to confirm that it consents to the waiver applying to it. For example, in January 2003 the FSA made it clear that it was monitoring closely the position of life insurance companies in the light of sharp falls in the equity markets. The FSA wrote to the chief executive officers of life insurance companies, in the context of the obligation to maintain a minimum margin over solvency, informing them that it was open to such firms to apply to the FSA to waive or modify particular rules which form part of the minimum margin over solvency calculation.

The FSA can also give guidance to authorised persons as to the operation of the rules and any other matter on which it thinks it would be desirable to give advice[121]. This guidance may be both individual and general. The giving of general guidance is usually circumscribed by a process of consultation, but this may be dispensed with and guidance given immediately if complying with the relevant provisions would be prejudicial to the interests of consumers.

This power to give general guidance was used by the FSA in June 2002 to address certain problems facing the life insurance industry caused by existing guidance on the stress testing of portfolios (known as the "resilience test"). By issuing revised guidance, the FSA was able to take account of existing market conditions and alleviate problems identified with the resilience test in anticipation of revised rules.

Should an authorised person find itself unable to comply with a particular FSA rule, the emergency provisions in the FSA Handbook's sourcebook on General Provisions (the "GEN Sourcebook") operate to provide relief.

GEN Sourcebook 1.3.2R provides that, if an unavoidable emergency arises, the person will not be in contravention of that rule for as long as the emergency continues if:

(i) the emergency is one that is outside the control of the relevant person;

(ii) the emergency cannot be avoided by the person taking all reasonable steps; and

(iii) the emergency makes it impractical for that person to comply with a particular rule in the FSA Handbook.

An authorised person in this position must keep the FSA informed of the steps it is taking or proposing to take to deal with it.

A number of specific rule making powers are available to the FSA. These might be relevant in an event of major operational disruption to the financial system, but again would only affect authorised persons and not third parties in contractual relationships with authorised persons. These include the power to:

(a) make client money rules;

(b) impose rule based restrictions on managers of authorised unit trust schemes;

(c) impose rule based restrictions on authorised persons effecting or carrying out insurance contracts;

(d) make price stabilising rules; and

(e) make rules relating to the disclosure and use of information held by an authorised person[122].

The FSA may vary an authorised person's Part IV permission to carry on one or more regulated activities[123]. Whether on its own initiative or otherwise, the FSA may: (i) add a regulated activity; (ii) vary the description of a regulated activity; (iii) vary the permission by including in it such requirements as the FSA considers appropriate, including a requirement to take or refrain from taking specific action; (iv) impose an "assets requirement"; (v) cancel or vary such a requirement; or (vi) cancel in whole or in part a Part IV permission.

This power to vary Part IV permissions is not designed to be used on a market or sector-wide basis; rather it is a power to be exercised on individual firms. As with the power to waive or modify rules, it is anticipated that in the event of a crisis, action under this power would be undertaken at the request of or in co-operation with individual firms. Unlike the power to waive or modify rules, action may be taken by the FSA either on the application of the authorised person or on the FSA's own initiative. However, the FSA may only exercise its power to vary a permission on its own initiative if it appears to the FSA that: (a) the authorised person is failing or is likely to fail to satisfy the threshold conditions; (b) the authorised person has failed during a period of at least 12 months to carry on a regulated activity for which it has a Part IV permission; or (c) it is desirable to exercise the power in order to protect the interests of consumers[124].

The relevant test will not always be satisfied in the event of significant financial disruption. As with the power to make rules, the power to vary a Part IV permission cannot operate to relieve an authorised person of any pre-existing obligations. It can operate to ban an authorised person from effecting or performing contracts, but it will not bind a third party or clearly affect third party rights against the authorised person. In considering the use of this power (for example, to provide a breathing space for people to clarify their positions), the FSA would need to balance the risk of increased legal uncertainty with any benefits that might result.

A further element of legal uncertainty will need to be considered in the exercise of these powers, namely the impact of any intervention on any rights and obligations that fall to be considered under jurisdictions other than English law. Broadly, the regulatory system operates by reference to rights and obligations under English law and within the jurisdiction of the English courts. Not all contractual arrangements of authorised persons will do so.

If the FSA varies a Part IV permission by imposing an assets requirement on an authorised person, certain contractual effects will follow[125]. An assets requirement is a requirement prohibiting or restricting the disposal of or other dealing with assets, or that all or any of the authorised person's assets or the assets of any consumers held by the authorised person must be transferred to or held by a trustee. One example of an asset requirement that might be imposed is a requirement on a firm not to transfer assets out of the jurisdiction. In such a case, if the firm's bank has notice of the requirement, it will not be in breach of contract

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[121] By s.157 FSMA 2000.

[122] ss.139, 140, 141, 144 and 147 FSMA 2000.

[123] ss.44 and 45 FSMA 2000.

[124] ss.45(5) and 43 FSMA 2000.

[125] s.48 FSMA 2000.

with the firm if it refuses to transfer any sum in the reasonably held belief that compliance would be incompatible with the requirement.

The FSA must give an authorised person written notice of a variation on its own initiative, but it can take effect immediately if the FSA reasonably considers that it is necessary for it so to do[126]. The authorised person may make written representations and has the right to refer the matter to the Tribunal. Any variation is enforceable by injunction on the application of the FSA to the court[127].

The FSA has a number of specific powers that relate to an authorised person's financial wellbeing that may be of use in the event of a major operational disruption impacting on a particular authorised person, although the FSA does not consider that these are likely to be of significance in the immediate aftermath of significant financial disruption. The FSA may petition the court for:

(i) an administration order in respect of an authorised person or an appointed representative, in the event of that person being in default of an obligation to pay a sum due and payable under an agreement the making or performance of which constitutes or is part of a regulated activity[128]; or

(ii) the winding up of an authorised person or appointed representative if (a) that person is in default of an obligation to pay a sum due and payable under an agreement the making or performance of which constitutes or is part of a regulated activity; or (b) the court is of the opinion that it is just and equitable that the person should be wound up[129].

6.7.3 Listed companies

The FSA, as competent authority for listing in the UK under Part VI FSMA 2000, has both statutory and rule based powers that may be exercised over companies whose securities are admitted to the Official List.

The FSA has scope to make, repeal or amend the Listing Rules[130] (abbreviated to "LR" where specific rules are referred to). This is a broad power, but it is not likely that the Listing Rules themselves will be central to the proper management of a financial disruption. Nonetheless, should it be necessary so to do, the FSA may make these rules, which may take immediate effect on listed companies if any delay would be prejudicial to the interests of consumers[131].

Under LR 1.11, the FSA has the power to waive or modify Listing Rules in such cases and in such circumstances as it considers appropriate[132]. This is a power that may be used in respect of an individual listed company, a particular sector or even the market as a whole. It may be used unilaterally by the FSA, as its use does not depend upon the consent or request of a listed company. These powers could be used, for example, to modify the usual

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[126] s.53 FSMA 2000.

[127] s.380 FSMA 2000.

[128] s.359 FSMA 2000.

[129] s.369 FSMA 2000.

[130] s.138 FSMA 2000.

[131] s.155 FSMA 2000.

[132] s.101(2) FSMA 2000.

arrangements for information dissemination by listed companies if the usual outlets have been disrupted.

The FSA may under LR 1.5 require an issuer to publish such information as the FSA considers appropriate for the purpose of protecting investors and maintaining the smooth operation of the market. This may be of some use to limit or prevent information asymmetries between market participants.

At all times, the FSA may give both general and individual guidance to listed companies as to the operation of the listing rules or on any other matter on which it appears desirable to give information or advice[133].

Under LR 1.15 the FSA may suspend the listing of any security: (a) where the smooth operation of the market is or may be temporarily jeopardised; or (b) where protection of investors so requires.

It may do so at any time and in such circumstances as it thinks fit[134]. This step may be taken without the consent of the listed company concerned and it may take immediate effect. However, of itself, this action does not stop on-market trading taking place in the security concerned; this step is taken under the rules of the exchange on which the security is traded. OTC trading can continue unaffected by the suspension. Should the FSA unilaterally suspend the listing of a security, the listed company has the right to refer the matter to the Tribunal[135]. This might be necessary following a major operational disruption (e.g. if the disruption means that the listed company is unable to make price sensitive information disclosures, though this will generally be done under the rules of the London Stock Exchange).

The FSA may discontinue the listing of a security if satisfied that there are special circumstances that preclude normal regular dealings[136]. Any discontinuance may take place with immediate effect and the listed company has the right to refer the matter to the Financial Services and Markets Tribunal[137]. However, it is likely that effective use of the power to suspend the listing of a security would render the use of this power unnecessary in the event of a major operational disruption.

6.7.4 Lloyd's

The FSA has a very broad power to direct Lloyd's. These powers are subject to a prescribed process, involving public consultation. This process may be dispensed with if delay would be prejudicial to the interests of consumers. These powers of direction are more extensive than those available to the FSA in respect of the insurance sector outside Lloyd's.

6.7.5 General

The FSA has a number of injunctive powers that may also be relevant in the event of a major operational disruption to the financial system. The FSA may seek an injunction if there is a likelihood of:

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[133] s.157 FSMA 2000.

[134] s.77(2) FSMA 2000.

[135] s.78 FSMA 2000.

[136] s.77(1) FSMA 2000.

[137] s.78 FSMA 2000.

(i) contravention of a relevant requirement[138]; this is unlikely to be of use to mitigate the effects of significant market disruption; and

(ii) market abuse[139]; the court may make an order restraining market abuse or requiring the abuser to take such steps as the court may direct to remedy the abuse. This would be a useful tool if any person sought to take improper advantage of financial disruption but would not necessarily help to manage the disruption itself.

6.8 Bank of England

Under the Memorandum of Understanding, the Bank of England (the "Bank") is responsible for the overall stability of the financial system as a whole. This expressly involves: (i) stability of the monetary system; (ii) financial system infrastructure, in particular payments systems at home and abroad; (iii) broad overview of the system as a whole; (iv) being able in exceptional circumstances to undertake official financial obligations; and (v) the efficiency and effectiveness of the financial sector, with particular regard to international competitiveness.

Many of the Bank's responsibilities under the Memorandum of Understanding are in the nature of monitoring roles. However, the Memorandum of Understanding does envisage at paragraph 11 exceptional circumstances. In those circumstances, the Bank might engage in a support operation. In practice, the Bank would be expected to take such a decision in conjunction with the FSA and HM Treasury. Even in such circumstances, the Bank would not have coercive powers to exercise (unless conferred by other legislation).

The Bank does have some, very limited, powers over banks (variously defined). These are summarised below. It also has powers exercisable in connection with its role in relation to monetary policy. In the event of a major operational disruption, the vital ways in which the Bank might intervene are as follows:

6.8.1 Payment systems

Almost all financial transactions involve the transfer of money from one party to another once the relevant contract has been entered into and the transaction has been cleared and settled (or it might be a purely monetary transaction, such as foreign exchange, with no underlying securities for delivery). This is done by the payment systems.

The Bank is responsible for overseeing the payment systems to ensure stability of the financial system as a whole. The Bank is the "settlement service provider"[140] for the CHAPS Sterling and CHAPS Euro payment systems as well as some smaller payment systems[141]. This requires the Bank to provide key infrastructure and liquidity services to these systems. Liquidity is discussed in section 6.8.3. In addition, the Bank acts as an intermediary institution for TARGET (but is not strictly a settlement service provider), with the effect that any outgoing TARGET payment becomes irrevocable when it is debited to the sending member's account with their national central bank. The CREST settlement banks which provide sterling/euro credit and liquidity to CREST members also maintain

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[138] s.380 FSMA 2000.

[139] s.381 FSMA 2000.

[140] This is the expression used in Bank of England documentation; the more generic term "settlement agent" is often used.

[141] These are CLS in relation to sterling payments, BACS, Cheque & Credit Clearing, LINK and Contingent Credit Lines (these are short-term finances available to International Monetary Fund member states with strong economic policies to helps them overcome exceptional balance of payments problems arising from sudden and disruptive loss due to international financial contagion).

settlement accounts with the Bank. Liquidity, in the form of a credit balance on these accounts, is "earmarked" for the purposes of CREST settlement prior to each settlement cycle. The Bank also provides liquidity, under repo arrangements, to the CREST settlement banks.

6.8.2 Designated systems

The EU Settlement Finality Directive[142] aims to contribute to *"the efficient and cost effective operation of cross-border payment and securities settlement arrangements in the Community, which reinforces the freedom of movement of capital in the internal market."* It is designed to prevent destabilisation of payment or securities settlement systems if a participant bank or financial firm becomes insolvent. It applies to payment and securities settlement systems that have been "designated" as a "system" by the EU Member State which regulates them. The consequential effects are:

(i) bilateral and multilateral netting are to be protected from the potentially disruptive provisions of insolvency law;

(ii) payment or securities transfer orders are to be protected from insolvency law provisions from the moment that they have entered a designated system;

(iii) prohibition of insolvency rules having retroactive effects on rights and obligations in payment or securities settlement systems;

(iv) the law governing the system will determine the effect of insolvency proceedings on participants' rights and obligations arising from participation in the system; and

(v) insulation of collateral security from the effects of insolvency law of the EU Member State of the failed system participant.

Previously, protection had been afforded by s.159 Companies Act 1989 (which is still in force) which provides that the proceedings of exchanges and clearing houses take precedence over insolvency procedures.

The Bank of England designates payment systems, and the FSA designates securities settlement systems. For embedded payment systems, the FSA must consult the Bank before making a designation. Designating systems is an important task in ensuring the stability of the wholesale financial markets by providing legal certainty, but it would not seem to be particularly useful in the event of a major operational disruption. However, when making a designation, the Bank of England must be satisfied that the system has appropriate "default arrangements", which are essentially those arrangements put in place by the operator of a designated system to limit systemic and other types of risk arising in the event of a participant appearing to be unable, or likely to become unable, to meet its obligations in respect of a transfer order. This enables the Bank of England to have some control over the procedures designated payment systems have in place before an event of major operational disruption occurs.

6.8.3 Liquidity

For a payment to be made in a payment system, the bank making the payment must have a sufficient balance or sufficient unutilised facilities within that payment system, which is

[142] Directive 98/26/EC on settlement finality in payment and securities settlement systems; implemented in the UK by the Financial Markets and Insolvency (Settlement Finality) Regulations 1999 (SI 1999/2979).

called liquidity. Such liquidity may consist of either central bank money, commercial bank money or a combination of both dependent on the construction of the payment system.

There are various ways of obtaining liquidity, including entering into repo transactions with or pledging assets to a central bank, commercial borrowing, swaps, foreign exchange transactions and incoming payment receipts. However, it is essential to have liquidity of an acceptable type in the right place to support the making of a payment in the payment system in question. The location of the liquidity is particularly important since in the event of major operational disruption it may be difficult or impossible to move liquidity. Where liquidity is in a different currency or is created by entering into a repo or pledging collateral, a haircut[143] is normally taken.

Historically, many payment systems were effectively closed zero-sum systems but this is no longer the case for two main reasons. Using CHAPS as an example:

(i) CHAPS shares liquidity used for many other purposes, ranging from settlements in CREST to banknote transactions.

(ii) Euro liquidity may be used (subject to an appropriate haircut) to support, for example, CHAPS Sterling operations.

Since payments are exchanged frequently during the day, liquidity is subject to multiple use. The amount of liquidity in relation to turnover is known as the liquidity ratio which may range from upwards of 10 per cent. or more for an RTGS system to under 1 per cent. for some netting systems.

If a major operational disruption occurs such that it affects either the payment system itself or certain settlement members, the free flow of liquidity is constrained leading potentially to a gridlock situation. Also, due to the global interconnection of payment systems both formally through CLS (currently for eleven currencies) and TARGET (euro only) plus more informally via commercial transactions, any disruption in CHAPS or the UK RTGS system (among others) may spread to other high value systems both within and outside the UK, hence the action taken by the Federal Reserve to provide liquidity in the 11 September 2001 crisis (see section 2.1.3).

Providing liquidity (in both sterling and foreign currencies) is a vitally important role for the Bank in the event of major operational disruption. Its obligations are in part due to the Bank's role as the UK's national central bank.

6.8.4 Operational risk

The Bank aims to ensure that system operators have taken reasonable steps to ensure the robustness of their systems, and identifies common dependencies (e.g. several systems relying on the same technology that might let them all down) but otherwise leaves primary responsibility with the operators.

6.8.5 Functioning of UK markets

In a crisis, the Bank monitors the effectiveness of the markets and, if necessary, helps to resolve any problems. It may be able to assist market participants in reaching a consensus

[143] A haircut is the amount by which the market value of certain collateral is reduced to get the accepted value of that collateral because there might be difficulties in realising it in sterling when required (in particular, foreign exchange fluctuations could reduce the value of the collateral when it needs to be realised).

on contractual provisions following a major operational disruption, but will not provide actual advice to avoid any possible liability in tort should the Bank be seen to be encouraging non-performance of contractual obligations.

The Bank has powers of making recommendations to bankers under the Bank of England Act 1946 (see below).

The Bank chairs the Foreign Exchange Joint Standing Committee, the Money Market Liaison Group and the Stock Lending and Repo Committee. These committees may issue recommendations on the performance of obligations under their respective financial contracts following a major operational disruption.

6.8.6 Bank of England Act 1946

S.4 of this Act remains in force. This provides a very circumscribed range of powers of intervention.

The Bank's powers only applies to "bankers". This term has a special definition for the purpose of s.4, based on designation by HM Treasury. There are three separate provisions:

(i) one enabling the Treasury to give directions to the Bank outside the sphere of monetary policy[144]. The directions must be necessary in the public interest. The Treasury must consult the Governor beforehand;

(ii) one enabling the Bank, if the Bank considers it necessary in the public interest, to request information from, and make recommendations to, bankers;

(iii) one enabling the Bank, if authorised by the Treasury, to issue directions to any banker to ensure that the requests or recommendations referred to above are followed. Before this power is exercised, the banker concerned must be given an opportunity to make representations.

We are not aware of any example of the invocation of these powers by the Bank.

Although on the face of it quite wide ranging, it must be doubtful how useful these powers are in practice. The "recommendation" power, if exercised, might provide a degree of "leadership" and make affected institutions which are bankers comfortable about pursuing or not pursuing a particular course of action. (i) merely confirms what in practice would occur in a crisis. The requirement to allow bankers to make representations makes it difficult for (iii) to be exercised rapidly in an emergency.

It is unclear what, if any, legal sanction there is for non-compliance by a banker with a direction under s.4.

6.8.7 Bank of England Act 1998

One of the purposes of this Act is to set out the Bank's role in relation to monetary policies and to confer powers in this connection.

S.17 gives the power to require information from categories of institution, including deposit takers and certain other financial institutions.

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[144] This having, under the Bank of England Act 1998, been transferred from HM Treasury to the Bank. The Treasury retains a reserve power in s.819 of the 1998 Act to give the Bank directions in relation to monetary policy in an emergency.

Paragraph 9 of Schedule 2 contains a separate power to require "eligible institutions" to supply data for the purposes of the cash ratio regime.

Both of these are limited in scope to information required for the purposes of carrying out the Bank's functions in the fields of monetary policy and administering the cash ratio deposits regime.

These powers:

(i) are limited to information gathering;

(ii) do not extend to controlling the actions of institutions (e.g. whether they open or close or what business they transact); and

(iii) are limited to certain financial institutions.

6.9 European public authorities

EU legislation appears to create no specific emergency powers directly exercisable in the UK in relation to a major market disruption. However, certain EU powers may have an effect on how powers of UK public authorities are exercised, and are discussed elsewhere in this report[145].

For the purpose of this analysis, the most important powers of the European Central Bank ("ECB") are exercised through its decision making bodies (the Governing Council, the General Council and the Executive Board of the ECB). These bodies are responsible for the European System of Central Banks ("ESCB"), which consists of the ECB and national central banks ("NCBs") of all 15 EU Member States, and the Eurosystem, which consists of the ECB and NCBs of Member States which have adopted the euro. Both the ESCB and the Eurosystem have responsibilities for most EU responses to specific events.

The Eurosystem carries out much the same tasks within EU Member States that have adopted the euro as the Bank of England does within the UK. Its tasks include conducting foreign exchange operations and managing official foreign reserves of Member States.

The primary objective of the ESCB is to maintain price stability[146]. TARGET is controlled by the ESCB, and is fundamentally important for the smooth running of European wholesale financial markets. It follows that it is also important for UK wholesale financial markets because of the extensive interconnections and numerous cross-border/cross-system transactions.

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[145] It is also relevant to mention article 297 of the EC Treaty which provides that *"Member States shall consult each other with a view to taking together the steps needed to prevent the functioning of the common market being affected by measures which a Member State may be called upon to take in the event of serious internal disturbances affecting the maintenance of law and order, in the event of war, serious international tension constituting a threat of war, or in order to carry out obligations it has accepted for the purpose of maintaining peace and international security"*. In addition, Article 58(1)b contemplates a derogation from the free movement of capital between Member States on the basis of *"measures which are justified on the grounds of public policy or public security"*. Attention is also drawn to draft Article 42 of the proposed Constitution for Europe: http://european-convention.eu.int/. This provides that the European Union and its Member States shall act jointly in a spirit of solidarity if a Member State is the victim of terrorist attack or natural or man-made disaster. The Union will mobilise all instruments at its disposal to prevent a terrorist threat in a Member State, protect democratic institutions and the civilian population from terrorist attacks and assist a Member State in its territory at the request of its political authorities in the event of a disaster or terrorist attack. Draft Article 43 also provides for enhanced co-operation. For current sanctions imposed by the EC on the basis of a common foreign and security policy, see http://www.europa.eu.int/comm/economy_finance/about/activities/activities_freecapitalmovement_sanctions_en.htm

[146] From Article 2 of the Protocol on the Statute of the European System of Central Banks and of the European Central Bank.

The ECB may make regulations to ensure efficient and sound clearing and payment systems. These are mentioned in the relevant sections of this report. The ECB also operates the payment mechanism at the heart of TARGET.

On 1 March 2003, a memorandum of understanding was entered into between the banking supervisory authorities and NCBs of all EU Member States (including the FSA and the Bank of England). It sets out high-level principles of co-operation in crisis management situations, including disturbances to money and financial markets and payment systems. It was recognised that the integration of financial markets (whether wholesale or retail) and market infrastructures in the EU has increased the likelihood of systemic disturbances affecting more than one EU Member State, and possibly increased the scope for cross-border contagion. The memorandum of understanding, which is not a public document, aims to enhance the practical arrangements for handling crises at EU level, since smooth interaction between supervisory and central banking functions will facilitate an early assessment of the systemic scope of a crisis and contribute to effective crisis management. This is a step towards implementing the recommendations of the Economic and Financial Committee[147].

6.10 US emergency powers

There are a number of US laws that could be used in an event of major operational disruption. The Federal laws are described first, and then the laws of New York State (where the most important financial centre is located), New Jersey State (where many of the processing and back office facilities are located) and Illinois State (where the important Chicago commodity and other exchanges are located).

6.10.1 Powers under US Federal law

There is no specific statute authorising the US President to declare public holidays except in an emergency. Title 12 of the United States Code Annotated ("12 USCA") at §95(a) provides that *"during such emergency period as the President of the United States by proclamation may prescribe, no member bank of the Federal Reserve System shall transact any banking business except to such extent and subject to such regulations, limitations and restrictions as may be prescribed by the Secretary of the Treasury, with the approval of the President."* This means that the President can prohibit or suspend transactions of banking business in an emergency, thereby effectively closing member banks (there is no definition of emergency in 12 USCA). This appears to have largely the same effect as s.2 BFDA 1971 does within the UK.

12 USCA §95(b)(1) authorises the Comptroller of the Currency to designate a *"legal holiday"* for national banks in any State *"[in] the event of natural calamity, riot, insurrection, war, or other emergency conditions occurring in [that] State ..."*, and also states that any day designated as a legal holiday for a State or part of a State will be a legal holiday for all national banking associations or their offices located in the affected area. A national banking association can elect to remain open on a designated holiday unless the Comptroller by written order directs otherwise. There does not appear to be anything in US Federal law dealing with the impact of a legal holiday on contractual obligations falling due on that day, but this is dealt with in some US state laws.

[147] Contained in "Report on financial crisis management", July 2001, Economic Paper No.156.

In times of war, the Trading with the Enemy Act 1947[148] grants the US President the authority to *"investigate, regulate, or prohibit, any transactions in foreign exchange, transfers of credit or payments between, by, through, or to any banking institution"*. Under this provision (although at the time it did not just apply to war situations), President Franklin D. Roosevelt declared a national emergency and proclaimed a national holiday on 6 March 1933 to apply to 6 to 9 March 1933 inclusive as a result of heavy withdrawals of gold and currency from US banking institutions for purposes of hoarding[149]. The order applied to *"all banking institutions and all branches thereof located in the [US], including the territories and insular possessions"*, and Roosevelt defined banking institutions to include Federal Reserve Banks.

More important for this analysis is the International Emergency Economic Powers Act ("IEEPA"), which was enacted to *limit* the extensive economic powers granted to the US President in peacetime emergencies under the original Trading with the Enemy Act (it is unaffected with respect to wartime situations). The US President must declare (in close consultation with Congress and subject to the procedures set out in the National Emergencies Act[150]) a national emergency with respect to the "threat" in question, and IEEPA then gives him the authority (among other things) to prohibit (i) any transaction in foreign exchange; (ii) transfers of credit or payments between, by, through, or to any banking institution, to the extent that such transfers or payments involve any interest of any foreign country or its national bank; and (iii) the importing or exporting of currency or securities.

IEEPA grants the US President authority over banking transactions in (ii) above only *"to the extent that such transfers or payments involve any interest of any foreign country or a national thereof."* The interpretation of "any interest" is so broad that it could be extended to cover banking transactions where there is no foreign property interest, merely a political/economic interest. This suggests that IEEPA could apply to large financial transactions involving US participants only if it affects the economy of a foreign nation, and given the current interdependence of the global wholesale financial markets this is likely to apply in many instances.

6.10.2 Powers under New York State law

Section 28 of Article 2B of the Executive Law of New York (entitled "State and Local Natural and Man-Made Disaster Preparedness") permits the Governor of New York to declare a disaster emergency in the State of New York. Section 29A of the Executive Law allows the Governor of New York to suspend specific statutory provisions or rules if compliance with such provisions would prevent, hinder, or delay action necessary to cope with the disaster.

In §4-104 of the Uniform Commercial Code (the "UCC") as adopted by New York, a banking day is defined as *"that part of any day on which a bank is open to the public for carrying on substantially all of its banking functions."*

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[148] Consolidated into 12 USCA §95a.

[149] This bank holiday was declared to give banking institutions time to comply with new banking policies.

[150] 50 U.S.C. 1641.

The Consolidated Laws of New York Annotated provide[151] that the Governor of New York can, by proclamation, designate a "bank holiday" in New York if an emergency occurs requiring such action. The officers of a banking organisation can close that office or suspend certain business operations if they are affected by an emergency, even if the governor has not proclaimed an emergency, although the permission of the superintendent of banks may be required.

An emergency is defined as *"any condition which may interfere with the conduct of normal banking operations, in the holiday area, or at one or more or all offices or the principal office of a banking organization ..., or which poses an imminent or existing threat to the safety and security of persons or property, or both, including ... power failures, ... threat of enemy action, and any similar or different condition which may interfere physically with the conduct of normal banking operations in the holiday area."* This could be wide enough to catch a major operational disruption.

A bank that has been closed *"may nonetheless conduct limited operations and perform banking transactions (i) for the convenience of customers or (ii) relating to transactions between that bank and other banks or persons which have remained open for business or are outside the holiday area."*

By s.25-a General Construction Law, if a contract requires payment or other performance on a condition on a Saturday, Sunday or public holiday, such payment or other performance may be made on the next succeeding business day unless the contract expressly or impliedly indicates a different intent. This contrasts with s.1 BFDA 1971 which is generally considered to have no direct effect on contracts.

Sections 2.1.3(vi) to (x) and 6.14.5 refer to some of the New York powers that were exercised following the events of 11 September 2001.

6.10.3 Powers under New Jersey State law

Unlike New York law, New Jersey law[152] automatically considers a declaration of a bank holiday by the US President to be a "public holiday" in New Jersey. The Governor of New Jersey can declare a bank holiday (which also constitutes a public holiday) in response to an emergency.

New Jersey has adopted a substantially similar definition of banking day under UCC §4-104 to the one set out above for New York.

All bills of exchange, bank cheques and promissory notes falling due on a public holiday are deemed payable on the next succeeding day that is not a public holiday. However, there does not appear to be an equivalent provision for contracts in general.

Any person or corporation (including banks) can carry on any business as usual on a public holiday.

Under the Emergency Banking Act, an "emergency" is defined as *"any condition which interferes with the conduct of normal business operations at one or more or all offices of a bank or banks, or which poses an imminent or existing threat to the safety and security of*

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[151] See the General Construction Law at Article 2 – Meaning of Terms.

[152] Title 36 of the New Jersey Permanent Statutes section of the New Jersey Legislature website at www.njleg.state.nj.us covers legal holidays, see in particular 36:1-1 and 36:1-2.

persons or property, or both. Without limiting the generality of the foregoing, an emergency may arise as a result of any one or more of the following: fire; flood; ...; power failures; transportation failures; war; and riots, civil commotion, and other acts of lawlessness or violence." If the Commissioner of Banking *"is of the opinion that an emergency exists in [New Jersey] or in any part or parts of [New Jersey], he shall, by proclamation, authorize those banks which, in the opinion of their officers, are directly or indirectly affected by such emergency to close one or more or all their offices."*

In an emergency the Commissioner of Banking may also *"make such orders and regulations, ... as he shall deem necessary during an emergency to provide for the uninterrupted continuance by banks to the extent consistent with the safety and security of persons and of property."*

6.10.4 Powers under Illinois State law

Banks may, but are not required to, remain closed on "legal holidays"[153]. In addition, Saturday afternoon is considered a "half-holiday", and banks may select any one day of the week to remain closed on a regular basis (referred to as a "selected day").

In the UCC §4-104 as adopted by Illinois, a banking day is defined as *"the part of a day on which a bank is open to the public for carrying on substantially all of its banking functions, except that any day that is not a banking day for purposes of Federal Reserve Regulation CC (as may be amended from time to time) shall not be a banking day for purposes of this Article or Article 3."*

Bills of exchange, bank cheques and promissory notes falling due on a legal holiday, a half-holiday or a selected day are deemed payable on the next succeeding business day. In addition: *"Any act authorized, required or permitted to be performed at or by or with respect to any bank doing business within [Illinois] on a day which it has selected to remain closed under this Section may be so performed on the next succeeding business day and no liability or loss of rights of any kind shall result from such delay."*[154] It is possible that this extends to financial payments under contracts.

Under the Banking Emergencies Act[155], an "emergency" is defined as "*any condition or occurrence which may interfere physically with the conduct of normal business operations at one or more or all of the offices of a bank*...", which clearly covers an event of major operational disruption. The Commissioner, who is designated by law to supervise banks and trust companies in Illinois, can issue a proclamation (if an emergency exists or is impending) authorising all banks in Illinois to close all or any of their offices in a particular area or the area affected by the emergency. Banks closing in accordance with this proclamation are excluded from any liability arising as a result of the unscheduled closure.

6.10.5 The Federal Reserve: role and powers

Relevant duties of the Federal Reserve include (i) maintaining the stability of the financial system, (ii) supervising and regulating banking institutions and (iii) providing certain financial services to the US government, financial institutions and foreign official institutions.

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[153] Promissory Note and Bank Holiday Act (205 ILCS 630/).

[154] 205 ILCS 630/17-1(e), available at http://www.illinois.gov/government/gov_legislature.cfm, which is the legislature section of the Illinois State website.

The Federal Reserve plays a key role in ensuring the smooth functioning and continued development of the US payments systems, Fedwire in particular, and has adopted a policy to reduce payments system risk.

Following 11 September 2001, the Federal Reserve intervened in the financial markets in a number of ways (see the examples set out in section 2.1.3 of this report), most importantly to provide liquidity, loans and securities to enable market participants to meet their obligations despite disruptions to clearing, settlement and payment systems.

During the recent hostilities with Iraq, the US Treasury arranged for critical financial institutions to have access to priority telecommunications services (fixed and wireless) to try to ensure that their communications were successfully transmitted during times of crisis.

6.10.6 The Securities and Exchange Commission: role and powers

The Securities and Exchange Commission ("SEC") states that its primary mission is to protect investors and maintain the integrity of the US securities markets. Its powers to intervene in the event of a major operational disruption are granted by the Securities Exchange Act of 1934, as amended. These powers are:

(i) Trading suspensions, s.12(k)(1)

If in its opinion the public interest and the protection of investors so require, the SEC is authorised by order:

(a) summarily to suspend trading in any security (other than an exempted security) for a period not exceeding 10 business days; and

(b) summarily to suspend all trading on any national securities exchange or otherwise, in securities other than exempted securities, for a period not exceeding 90 calendar days.

The action described in (b) will not take effect unless the SEC notifies the US President of its decision and the US President notifies the SEC that the US President does not disapprove of such decision. If the actions described in (a) and (b) involve a security futures product, the SEC must consult with and consider the views of the Commodity Futures Trading Commission.

(ii) Emergency authority, s.12(k)(2)

(a) The SEC, in any emergency, may by order summarily take such action to alter, supplement, suspend, or impose requirements or restrictions with respect to any matter or action subject to regulation by the SEC or a self-regulatory organisation under the Securities Exchange Act, as the SEC determines is necessary in the public interest and for the protection of investors:

(I) to maintain or restore fair and orderly securities markets (other than markets in exempted securities); or

(II) to ensure prompt, accurate, and safe clearance and settlement of transactions in securities (other than exempted securities).

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[155] 205 ILCS 610/.

(b) An order of the SEC under this paragraph (ii) will continue in effect for the period specified by the SEC, and may be extended, except that in no event shall the SEC's action continue in effect for more than 10 business days, including extensions. Again, if the actions described in (a) involve a security futures product, the SEC must consult with and consider the views of the Commodity Futures Trading Commission. In exercising its authority under this paragraph, the SEC is not required to comply with the provisions of s.553 of Title 5 of the United States Code or with the provisions of s.19(c) of the Securities Exchange Act.

(iii) Termination of emergency action by the US President, s.12(k)(3)

The US President may direct that action taken by the SEC under paragraphs (i)(b) or (ii) above will not continue in effect.

(iv) Limitations on review of orders, s.12(k)(5)

An order of the SEC pursuant to paragraph (i) or (ii) above will be subject to review only as provided in s.25(a). The review must be based on an examination of all the information before the SEC at the time such order was issued. The reviewing court will not enter a stay, writ of mandamus, or similar relief unless the court finds, after notice and hearing before a panel of the court, that the SEC's action is arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law.

For these purposes "emergency" means a major market disturbance characterised by or constituting either (a) sudden and excessive fluctuations of securities prices generally, or a substantial threat of fluctuation, that threaten fair and orderly markets; or (b) a substantial disruption of the safe or efficient operation of the national system for clearance and settlement of securities, or a substantial threat of disruption.

6.11 Powers under Swiss law[156]

The Swiss National Bank ("SNB"), Switzerland's central bank, assumes no supervisory powers in relation to banks or other financial institutions. The main authority in this area lies with the Swiss Federal Banking Commission ("SFBC"). However, under legislation currently pending before the Swiss Parliament, the SNB will assume responsibility for overseeing payment, clearing and securities settlement systems. These powers will include responsibility in the case of emergencies. The SNB expects this legislation to enter into force in the first half of 2004 and is currently in the process of setting up a division that will carry out the overseeing of financial market infrastructures.

Under current Swiss law, emergency powers are based on two distinct sets of rules, neither of which are designed to deal with failures of financial market infrastructures, but which are considered by Swiss authorities to be broad and flexible enough for use in such an instance:

6.11.1 Swiss Banking legislation

The Federal Law on Banks and Savings Institutions of 8 November 1934 (as amended) gives the Federal Council (which is the executive branch of government) the power to suspend performance of obligations by declaring a postponement of the maturity of claims

[156] We are grateful to the SNB for responding to our request for assistance. A copy of the letter from the SNB is contained in Appendix 6.

against one or several banks. These powers appear to be aimed primarily at the risk of bank insolvency. They have been used in the past (mostly before the Second World War) in a very limited number of cases. A high threshold must be met in order to trigger the application of these rules. Postponement of maturity (for all liabilities or certain classes) is provided for if a bank is exposed to *"continued and excessive withdrawals"*. Before issuing such an order, however, it must be *"established by a special audit report that the creditors' claims are fully covered and that the payment of interest can be maintained during the postponement"*. The legislation on bank insolvency is currently being completely overhauled and the new legislation is expected to come into force during 2004

Although there is at present no special legislation concerning payment, clearing or securities settlement systems, the SNB is expected to assume powers in this area under new legislation, including powers to make regulations. In addition, new banking legislation will include an article on "Protection of Systems" that, in relevant parts, will read as follows: *"If possible the Banking Commission informs operators of payment systems and securities clearing and settlement systems in Switzerland and abroad when it intends to take protective measures ... and the exact point of time these measures will become effective."*

6.11.2 Swiss Federal Constitution

The powers under the banking legislation currently apply to many, but not all, of Switzerland's financial infrastructure bodies. Swiss Interbank Clearing (Switzerland's RTGS payment system) most notably does not have banking status, and would therefore not be covered by bank insolvency legislation. In such a case, or if the powers under bank insolvency legislation would not be sufficiently broad, protective orders or regulations could be issued based directly on the Federal Constitution: *"[The Federal Government] may base itself directly on the present article to issue ordinances and orders to obviate existing or imminent great disturbances of the public order, the external or the inner security. Such ordinances shall be limited in time."* This is understood to include instances where failures of infrastructure would seriously impede trade and commerce. It is thought that it would provide a sufficiently broad basis for intervention in the case of an interruption of payment, clearing or securities settlement systems. The order or regulation would have to be issued by the Federal Council.

The powers under the banking legislation are exercisable immediately by issuing orders to banks. The constitutional powers could be exercised either by making a regulation or an order. Both types of power are currently exercisable by the Federal Council. Under the new banking legislation, the powers to make orders will be vested in the Banking Commission.

6.12 Powers under Hong Kong law

6.12.1 HKAB typhoon guidelines

Hong Kong is periodically affected by major operational disruptions caused by extreme weather conditions, and so has developed guidelines and laws to cope with them. These are relevant to this analysis, although the nature and effect of a typhoon is perhaps more predictable than other causes of major operational disruption; weather warnings will normally also be available in advance.

The Hong Kong Association of Banks ("HKAB") has developed Guidelines for its members to follow during and after typhoons[157]. These state that announcements will be made by the HKAB over the radio or television networks advising the times at which banks will close or re-open to the public according to the following criteria:

(i) all banks will close to the public when a No.8 typhoon signal is hoisted;

(ii) where the No.8 typhoon signal is lowered at any time up to and including noon on weekdays and 9.00 hours on Saturdays, banks will re-open two hours after the lowering of the No.8 typhoon signal; and

(iii) where the No.8 typhoon signal is lowered after noon on weekdays and 9.00 hours on Saturdays, banks will not re-open until the next Working Day.[158]

Banks should re-open according to the above schedule only "where conditions permit," in order to allow for situations where branches cannot re-open due to typhoon damage or where staff have not been able to reach them yet.

Where clearing and settlement of HK dollar and US dollar transactions are affected by the hoisting of the typhoon signal No.8, the HK dollar and US dollar Typhoon Procedures of the Clearing House apply. These cover maturing money market deals, advancement of overnight market loans, foreign exchange transactions, note transactions, forward rate agreements, and interest rate swaps. Generally, settlement of transactions may, in some (but not all) cases, be held over until the next working day and additional interest paid on the amount outstanding, depending on the time at which the No.8 signal is hoisted and the currency and type of transaction involved.

6.12.2 Business days

The calculation of time for any Ordinance (which is what Hong Kong statutes are called) is set out in the Interpretation and General Clauses Ordinance[159]. This provides that:

"..... (b) if the last day of the period is a public holiday or a gale warning day or black rainstorm warning day the period shall include the next following day, not being a public holiday or a gale warning day or black rainstorm warning day;

(c) where any act or proceeding is directed or allowed to be done or taken on a certain day, then if that day is a public holiday or a gale warning day or black rainstorm warning day, the act or proceeding shall be considered as done or taken in due time if it is done or taken on the next following day, not being a public holiday or a gale warning day or black rainstorm warning day;

(d) where an act or proceeding is directed or allowed to be done or taken within any time not exceeding 6 days, no public holiday or a gale warning day or black rainstorm warning day shall be reckoned in the computation of that time."

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[157] The current HKAB Typhoon Guidelines (issued in December 2000) are available on the HKAB's website: http://www.hkab.org.hk/eng/rules_guidelines.

[158] For the purposes of the Guidelines "Working Day" means a day on which banks should be open for business (whether for the whole or part only of such day) in accordance with the Guidelines. A Saturday on which the typhoon signal No.8 remains hoisted up to and including 9.00 hours and any weekday on which the typhoon signal No.8 remains hoisted up to and including 12.00 hours and banks are not required to be open for business on such a day under the Guidelines, will not be deemed a Working Day.

[159] Cap. 1 of the Laws of Hong Kong.

A gale warning day and a black rainstorm warning day are defined as any day throughout <u>or for part of</u> [*emphasis added*] which a gale warning and a black rainstorm warning respectively are in force.

6.12.3 General holidays

The General Holidays Ordinance[160] defines a "general holiday" as a day which "*shall be kept as a holiday by all banks, educational establishments, public offices and Government departments*". It does not say whether banks are permitted to open or conduct business on those days. There does not appear to be a specific power to declare an unscheduled general holiday, although a bank holiday was declared under the Emergency Regulations Ordinance referred to below.

It is not clear whether contractual obligations falling due on general holidays are in general postponed to the next business day, except acts relating to negotiable instruments which are expressly postponed.

6.12.4 Securities and Futures Commission: role and powers

The Securities and Futures Commission ("SFC") is responsible for regulating the securities and futures markets in Hong Kong. Its statutory powers are granted by the Securities and Futures Ordinance[161] ("SFO").

The regulatory objectives of the SFC include assisting the Financial Secretary in maintaining the financial stability of Hong Kong by taking appropriate steps in relation to the securities and futures industry. The functions and powers of the SFC include a requirement *"to take such steps as it considers appropriate to maintain and promote the fairness, efficiency, competitiveness, transparency and orderliness of the securities and futures industry"*. The SFC is also required *"to take appropriate steps in relation to the securities and futures industry further to any requirement of the Financial Secretary for the purpose of providing assistance in maintaining the financial stability of Hong Kong"*. The latter appears to be the most relevant power in the event of a major operational disruption.

The Chief Executive of Hong Kong[162] may direct the SFC in writing as to the furtherance of its regulatory objectives or the performance of its functions, provided that he thinks it is in the public interest to do so.[163] The SFC must be consulted in advance.

In addition to its general regulatory powers, the SFC has the power under s.29 SFO to direct, by written notice, a recognised exchange company to *"cease to provide or operate such facilities or cease to provide such services as are specified in the notice for a period not exceeding 5 business days."* This notice may only be given if the SFC *"is of the opinion that the orderly transaction of business on the stock market or futures market (as the case may be) is being, or is likely to be, impeded because (a) an emergency or natural disaster has occurred in Hong Kong; or (b) there exists an economic or financial crisis …"*.

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[160] Cap. 149 of the Laws of Hong Kong.

[161] Cap. 571 of the Laws of Hong Kong.

[162] The Chief Executive is Head of the Government of the Hong Kong Special Administrative Region of the People's Republic of China ("HKSAR"), and is appointed under the Basic Law of HKSAR.

[163] This provision was criticised by Mr. Neoh, the chairman of the SFC at the time, when it was proposed in 1998: *"Whilst no-one doubts the good intentions of those making this proposal, I would caution that discretionary directive powers conferred on the political head of the government, even in an emergency, would tend to detract from the need to provide certainty to the markets."*

Importantly for the purpose of this analysis, the written notice has immediate effect, though the SFC is required to consult the relevant recognised exchange company first.

6.12.5 Banking Ordinance

The Banking Ordinance[164] confers powers on the Hong Kong Monetary Authority to enable them to regulate institutions authorised to accept deposits. A working day under the Banking Ordinance is defined to mean a day other than a public holiday or a gale warning day within the meaning of s.2 of the Judicial Proceedings (Adjournment During Gales Warnings) Ordinance[165].

It is the general business understanding in Hong Kong that a business day for the purposes of contract does not include any public holiday, gale warning day or black rainstorm warning day.

6.12.6 Emergency Regulations

The Emergency Regulations Ordinance[166] at s.2(1) provides that: *"On any occasion which the Chief Executive in Council may consider to be an occasion of emergency or public danger he may make any regulations whatsoever which he may consider desirable in the public interest."* This appears to grant the Chief Executive in Council a very wide discretion whether a particular event constitutes an emergency. There is no need for a proclamation to be declared or for the regulations to be laid before the Legislative Council, although the Interpretation and General Clauses Ordinance 1911 would allow the Legislative Council subsequently to amend or rescind the emergency regulations.

There is a non-exhaustive list of areas in which the regulations can apply. It does not cover financial obligations, but it would seem that s.2(1) is sufficiently broad to enable the Chief Executive in Council to intervene in the wholesale financial markets if he determines that there is an emergency.

A number of emergency regulations have been passed in this way, including some dealing with relatively minor inconveniences. For example, in 1950 the Emergency (Small Change) Regulations prohibited people from having excessive amounts of small change due to a shortage. The Emergency (Bank Control) Regulations were used in February 1965 to prevent banks from paying more than H.K.$100 to any depositor in one day. The devaluation of sterling led to a declaration under the Emergency Regulations Ordinance of a public holiday to close all banks on 19 November 1967.

6.13 Powers under Japanese law

Japan has a number of statutory provisions relevant to performance of financial contracts.

6.13.1 Bank holidays

Article 15 of the Banking Law provides: *"The holidays of a bank shall be limited to Sundays and other days prescribed by Cabinet Order. The business hours of a bank shall be prescribed by Cabinet Order in consideration of circumstances, etc. of financial*

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[164] Cap. 155 of the Laws of Hong Kong.

[165] Cap. 62 of the Laws of Hong Kong.

[166] Cap. 241 of the Laws of Hong Kong.

transactions". The relevant Cabinet Order[167] relating to bank holidays prescribes the additional days as (a) holidays prescribed in the Law on National Holidays, (b) 31 December to 3 January (except days in a previous Cabinet Order), and (c) Saturdays. There does not appear to be any specific provision enabling a declaration of a bank holiday in an emergency, but equally there appears to be no reason why the Cabinet could not issue a Cabinet Order to that effect.

Banks are not obliged to close on days that are "holidays" (*kyuujitsu*), and can only be compelled to close certain branches under the Special Law if those branches are affected by special factors such as earthquakes.

Article 142 of the Civil Code provides that: *"If the last day of a period falls on a national holiday, Sunday or any other holiday, and it is customary not to do business on such day, the period shall terminate on the following day"*. There does not appear to be any guidance on what is "customary".

Article 520 of the Commercial Code provides: *"Where business hours have been determined by law, ordinance or custom, the performance of an obligation or a claim for such performance may be made only during such business hours."* This wording appears to prohibit any performance outside business hours.

6.13.2 Securities and Exchange Law ("SEL")

By Article 155(1)2 SEL, the Prime Minister in a cabinet meeting has the power to suspend trading of securities on all Japanese exchanges, in whole or in part, for a period of up to ten days. This power can be exercised if the trading is detrimental to the public interest or for the protection of investors.

6.13.3 Disaster Countermeasures Basic Act

Under the Disaster Countermeasures Basic Act, a "disaster" is defined to mean a storm, heavy rain, heavy snow, flood, high tide, earthquake, tsunami, or other unusual natural event, or a conflagration or explosion, or any other damage of similar extent from a cause to be prescribed by ordinance. Where a disaster has serious and far-reaching repercussions on the national economy and public welfare, the Prime Minister may, when he deems it necessary in the interest of enforcing emergency measures, declare a state of emergency involving the whole or part of the affected area, upon referring the matter to the Cabinet.

When a state of emergency has been declared, the Prime Minister must put the matter before the Diet for its consent not later than twenty days from the date of declaration. However, when the Diet is adjourned or the House of Representatives has been dissolved, he shall seek parliamentary consent at the next session of the Diet. If a resolution were passed to refuse consent, or if the Diet voted to repeal the declaration, or there was no longer the necessity for the declaration, the Prime Minister would be required promptly to revoke the declaration.

Where there is an urgent need to preserve economic order and to ensure public welfare as a result of a disaster, there is an emergency power for the Cabinet, if and the situation does not allow time to call the Diet into session or request an emergency session of the House of Counsellors, to enact an ordinance in order to take necessary steps on specified matters, including the deferment of monetary debts (exclusive of wages, compensation payments for

[167] *Sekou Rei* at Article 5.1

disaster damage, payment of monetary debts involving labour relations, withdrawals from accounts in banks or facilities for such payment) and extension of the duration of a creditor's rights[168].

6.14 Gap analysis in relation to existing UK emergency powers

6.14.1 General

Our analysis of UK emergency powers has not revealed any serious gaps and our comments on the legislation are summarised below.

6.14.2 Emergency powers

Existing UK emergency powers were not designed to deal with a major operational disruption in modern financial markets. The powers conferred by the EPA 1920 might be capable of exercise to secure the continuation of essential banking services (on the basis that money is an essential of life), or the movement of cash following flooding or storms (section 6.3). However, it is not clear whether they could be exercised in relation to the full range of financial market activities that might be affected by a major operational disruption. This should not matter because the analysis of contracts and infrastructure bodies in chapters 4 and 5 respectively suggests that, following major operational disruptions, the financial markets are sufficiently well prepared for there to be no need for Government intervention and, if there were ever such a need, the major operational disruption could be serious enough to interfere with the essentials of life and so constitute an emergency.

The Civil Contingencies Bill will, if enacted in its present form, create powers capable of applying to the financial markets, since "emergency" is defined to include an event or situation which presents a serious threat to the economic stability of the UK, including disruption to the activities of banks or other financial institutions.

If a major operational disruption occurs that constitutes an emergency under the EPA 1920 or, when enacted, the Civil Contingencies Bill, the Government would have wide powers to do whatever it deemed necessary, but there would be practical limits which would need to be recognised when exercising those powers (explained in section 6.14.4). We suggest that any emergency power to be used specifically in relation to the wholesale financial markets should be exercised by HM Treasury only after consultation with the Governor of the Bank of England and the Chairman of the FSA.

6.14.3 Power to proclaim a special bank holiday

The power to proclaim a special bank holiday might be useful in the sense of signalling that a day should not be treated as a normal day, in the hope that this would be acted on by market practitioners and system operators, so allowing a breathing space. It is relevant that the power was used in this way at the start of the Second World War in 1939, on the devaluations of sterling in 1949 and 1967 and during the international gold speculation crisis in 1968 (section 6.4.1). However, the power to proclaim a special bank holiday is not specifically designed to deal with a major operational disruption in the financial markets

[168] There is also a Disaster Relief Act which deals with the provision of relief by the government and a Large Scale Earthquake Countermeasures Act. Additionally, there is a "Basic Plan for Disaster Prevention" which deals with planning for earthquakes, storms, floods, volcanic eruptions, snowfall, maritime disasters, aerial disasters, railway disasters, road disasters, nuclear disasters, hazardous material disasters, large fires and forest fires. The Ministry of Land, Infrastructure and Transport (which incorporates the former National Land Agency) prepares an annual white paper which deals in part with disaster preparation.

and it is likely that the UK Government would consider that it was not appropriate to use it for this purpose for the same reasons that led to the enactment of s.2 BDFA 1971. In addition, the proclamation of a bank holiday would not be the most focused response to a major operational disruption and, if an attempt was made to use it for this purpose, the power under s.1(3) BDFA 1971 would give rise to a number of issues.

First, it appears that the s.1(3) power could not be used to proclaim a special bank holiday retrospectively (section 6.4.2). It is unclear whether a bank holiday could be declared during business hours so as to take effect for the remainder of the same day and, even if it could be, it might cause more complications than it would avoid.

Secondly, as the power is exercisable by Royal proclamation, it would involve following a cumbersome procedure at short notice. It could be used only if the Monarch was available and a sufficient number of Privy Council members could be gathered together to create a quorum (section 6.4.2 and footnotes). The proclamation would come into force only on being sealed and gazetted.

Thirdly, the s.1(3) power is a broad power and its use could have wider consequences and unintended side effects. Non-financial types of contract might be affected, even though the parties to them would otherwise have been unaffected by a major operational disruption (particularly if it occurred in a limited geographical area). In particular, the proclamation of a special bank holiday would relieve some employees of their obligations to work even if they were urgently required to cope with an emergency and, for others, would entitle them to be paid at overtime rates. When the s.1(3) power was used on the devaluation of sterling in 1967 and during the gold speculation crisis in 1968, it caused uncertainties especially in relation to wage agreements (section 6.4.7)[169]. Because of these side effects, it would not be suitable to declare a special bank holiday for more than one or possibly two days.

Fourthly, the effect on contractual obligations of calling an unscheduled bank holiday could cause significant potential problems, unless these had been addressed satisfactorily in advance by appropriate changes to contracts in the light of the checklist attached to this report. These issues are examined in section 4.4.

Fifthly, the proclamation of a special bank holiday in the UK has no extra-territorial effect.

Further, s.1(4) BFDA 1971 is widely regarded as excusing a person and permitting him to make a payment or to do an act on the day after a bank holiday in England and Wales only in cases where the payment would otherwise be compellable on the bank holiday by legal process (section 6.4.4). If s.1 were to be reviewed, it would be useful to confirm this interpretation by statute. In other words, it could be clarified that s.1(4) would not apply simply because a party to a contract is contractually bound to perform his obligation on a bank holiday. Rights conferred by contract, such as a right to receive interest for late payment or to debit an account or to set off or enforce collateral, should be unaffected by s.1(4).

6.14.4 Power to suspend business

The power conferred by s.2 BFDA 1971 was introduced to enable the Treasury to close all or any of the relevant financial markets, without necessarily imposing complete closure and

[169] The proclamation of a public holiday could also have unintended consequences in relation to other statutes which create rights and obligations by reference to bank or public holidays.

without the need to declare a special bank holiday. S.2 was intended to create a specific power for this purpose and to avoid the side effects referred to in section 6.14.3 above, but was devised more than 30 years ago, when the City of London was a relatively insular financial centre and subject to exchange controls. The abolition of exchange controls, the globalisation of financial markets (in particular through the use of computers and OTC transactions) has radically changed the City's markets.

It appears that the s.2 power has never been exercised. While it is difficult to rule out the possibility that s.2 might still have a residual purpose in an eventuality of a very exceptional nature (such as the protection of sterling for which it was mainly designed, see section 6.4.7), the description of the financial markets in s.2 is incomplete and out of date. However, it would be pointless trying to extend and update this description to cover all financial markets because the international nature of the current UK wholesale financial markets and the large number of OTC transactions (even listed securities can be traded OTC when the stock exchange on which they are listed is closed) mean that there is no realistic way in which the Government could unilaterally assert control over all transactions in the UK wholesale financial markets.

S.2 is also somewhat inflexible. It states that, where a person is prevented or unable to perform an obligation on a day by reason of an order under s.2(1), the obligation is deemed to be complied with if performed as soon as reasonably practicable thereafter. This does not allow scope for the parties to agree otherwise (which might be acceptable for protecting the currency, but not for a major operational disruption), nor does it address the issue that many contracts will include obligations performable outside the UK or may be governed by the laws of other jurisdictions. Differing views might well arise as to when compliance became "practicable" for s.2(3) purposes (section 6.4.6). In addition, while banks and financial institutions might be permitted to close their operations during a major operational disruption if necessary, they should not be compelled to do so. Equally, parties to contracts should continue to be free to perform their obligations (or to agree appropriate variations) if they wished to do so.

The making of an order under s.2(1) could result in the closure of an exchange or settlement system (section 6.4.10) which would also otherwise have remained open. This would conflict with the general objective of preserving the ability of market participants to perform obligations if they chose to do so. The preferred course would almost certainly be to keep markets open and, even if a particular market had to be closed, to keep payment and settlement systems in operation wherever possible.

We note that many of the responses to the Consultation Paper[170] from market practitioners and trade associations expressed a strong preference for the Government not to intervene unless this became unavoidable. Concern was expressed that the mere existence of wide discretionary emergency powers might cause serious uncertainty as to the circumstances in which those powers would be exercised and how they might affect financial markets, particularly where cross-border trading, clearing and settlement were involved. It would be essential to maintain the maximum possible level of legal certainty in the financial markets. It was also suggested that new legislative powers might create a "moral hazard" by inclining firms to believe that the Government would intervene in an emergency and that there was less need to invest in market based contingency plans.

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[170] "The Financial System and Major Operational Disruption" published by HM Treasury in February 2003.

6.14.5 New York emergency powers

The US legal system permits the declaration of an emergency under both Federal and State law. On 11 September 2001, two proclamations relating to banks in the US were issued. The first was made by the Office of the Comptroller of the Currency under 12 U.S.C. §95(b): it stated that, finding an emergency existed, *"the Office of the Comptroller of the Currency hereby authorizes national banking associations, at their discretion, to close offices affected by the emergency"*. The second was made by the Governor of the State of New York pursuant to Section 24-a of the General Construction Law: it also stated that, finding an emergency existed, *"banking organizations [in New York] may, at their discretion, close any and all of their places of business affected by the emergency"*[171].

US Federal law does not address the consequences of an emergency proclamation. New York law states that the effect of a proclamation under Section 24-a is that, if a banking organisation closes during an emergency, the day is neither a "full business day" nor a "banking day" for all purposes of the UCC, which is significant as the obligation of a bank to act under the UCC is only triggered on a banking day or a business day. Section 24-a(3)(f) also expressly provides that *"[n]o banking organization ... shall be liable to any person for any direct or indirect loss suffered by such person by reason of the banking organization's failure or inability to make access to the banking organization's premises and facilities available to such person or by reason of the banking organization's failure to perform, or its delay in performing, any contractual, statutory or other duty ... where such failure, inability or delay is caused by the banking organization, or any office or the principal office thereof, being closed as authorized by [Section 24-a]."* Although empowered to close, and excused from liabilities resulting from such closure, after the events of 11 September 2001, banks were strongly encouraged to remain open wherever possible (section 2.1.3(vii) above).

The words "bank holiday" were not used in theproclamation made under Section 24-a, but it appears to have taken effect as a "permissive bank holiday" (i.e. banks were not compelled to close). The declaration of a permissive bank holiday was necessary because New York banks are not generally allowed to close an office without providing the services normally conducted at the closed office at another office or, if this is not possible, without the approval of the superintendent of banks. In addition, if a bank otherwise closed on a banking day or a business day under the UCC, it might fail to comply with deadlines applicable under the UCC.

We have seen that a UK bank holiday has no direct legal effect, and its indirect legal effect is limited to express contractual terms. Bearing this in mind, it seems to be similar to the New York permissive bank holiday, subject to the following differences:

(i) a permissive bank holiday can be declared in New York only if an emergency exists, whereas it can be declared at any time in the UK;

(ii) it appears that a permissive bank holiday can be declared in New York and have immediate effect;

[171] For a full and helpful analysis of the effect of these proclamations on New York banks and their traditional commercial law liability scheme, see "How Does the Commercial Law Respond When the Unthinkable Happens?", by Thomas C Baxter Jr. and Stephanie Heller, Uniform Commercial Code Law Journal, Fall, 2002.

(iii) the New York permissive bank holiday power can be exercised by the Governor of New York swiftly, without the need for a proclamation of the Head of State in council; and

(iv) the New York permissive bank holiday power appears to avoid the side effects referred to in section 6.14.3 in relation to such matters as employment contracts and, if exercised, New York legislation expressly protects banks from potential claims resulting from their closure during an emergency.

6.14.6 Supervisory and other powers

The FSA has extensive powers under the FSMA 2000. They are not specifically designed for use in the event of a major operational disruption, but might be useful. In particular, the FSA's powers to direct recognised bodies to comply with the Recognition Requirements and to waive or modify rules applying to particular authorised persons (section 6.7) could be used.

A key function of the Bank of England would be to provide liquidity, loans and securities to enable market participants to fulfil their obligations despite disruption to the financial market infrastructure, as was provided by the Federal Reserve after September 11 (section 6.10.5). The kind of action taken by it after 11 September 2001 (section 2.1.3(iii)) indicates that the Bank's powers ought to be sufficient as they stand.

7 CONCLUSION

The purpose of this report has been to identify whether and, if so, where there are gaps in the state of preparation of the wholesale financial markets, from the point of view of public and private law, that may lead to difficulties in the event of a major operational disruption.

To the extent that, through contingency planning and co-operation among market participants, business can continue, this is likely to be far preferable to ceasing business and falling back on legal provisions. Any measures adopted to address a disruption should be consistent with two principles. First, that those who can conduct business should not be prevented from doing so. Secondly, that there should be broad parity between the powers exercised by authorities in the UK and those in equally sophisticated wholesale financial marketplaces.

Indeed, the international angle has informed every part of our work. The UK wholesale financial markets are thoroughly interconnected with other wholesale financial marketplaces, and this has had a significant impact on our conclusions. We have been fortunate in being able to collaborate with several overseas groups in comparing the relevant laws relating to force majeure and emergency powers. While there are of course differences, there appears to be no jurisdiction which provides more certainty and flexibility for responding to a major operational disruption than the UK.

As regards the principles of **English law**, we have not identified any significant uncertainties in our analysis of the fundamental principles, nor weaknesses in the legal mechanisms available to preserve continuity and cater for operational disruption.

As regards the **contracts** currently used as standard in international wholesale financial markets, there is a wide range of approaches taken in contractual drafting to cater for contingencies. This is hardly surprising in so diverse a market. We see no need to recommend an overall standardisation of approach. There are of course some inconsistencies between the contracts surveyed. Those responsible for the terms of contracts used in the wholesale financial markets are recommended to review those terms both now and in the future to assess whether they will operate as intended in the event of market disruption. To assist in the process we set out at the end of this report a checklist of the questions that should be considered, designed to ensure that the full range of relevant issues are taken into account.

As regards the **infrastructure** of the international wholesale financial markets, adequate and co-ordinated business continuity arrangements are more important than legal niceties. These arrangements are crucial to preserving the integrity of the infrastructure bodies and the UK regulatory framework already requires infrastructure bodies to have in place robust business continuity procedures. The clear understanding on what are the critical systems in the wholesale financial markets will ensure that all relevant infrastructure bodies are taken into account in ensuring a co-ordinated response. In addition to the UK and other European infrastructure bodies referred to in this analysis (including CLS Bank), consideration should be given to physical infrastructure providers such as telecommunications companies and electricity utilities. In broad terms, legal protection is only required to the extent the business continuity arrangements are not sufficient in the circumstances, as regards which two points arise:

- Although the infrastructure bodies in the UK of greatest importance to the UK's wholesale financial markets seem to have adequate express powers to resolve legal issues arising from major operational disruptions, it would be beneficial if there were clear and flexible rules for identifying the persons responsible for making decisions in an emergency.
- If new legislation is to be passed, it could include a grant of immunity of suit brought by consumers challenging any decision by infrastructure bodies (CREST and LCH in particular).

Thus, in relation to contracts and infrastructure bodies, there is already an advanced state of preparation for a major operational disruption and an awareness of the need for continuing efforts to ensure that such preparedness remains high. Against this background of these conclusions in relation to contracts and infrastructure bodies, there has been no need for us to consider what powers one might hope to find available to public authorities, as the advanced state of market preparation obviates the need to call on any such powers, other than perhaps the powers to be used in the event of a national emergency. Therefore, in relation to powers our approach has been to describe and identify those powers that might be of use in a major operational disruption and then to analyse them to see whether they are sufficient as they stand, rather than to try to list all the powers that might be useful.

As regards the **powers** currently available to relevant authorities, this report identifies four main sources:

- If any major operational disruption amounts to an emergency, there are powers available under the Emergency Powers Act 1920. These were not designed to deal with a major operational disruption nor aimed at modern financial markets. The Civil Contingencies Bill will, when enacted, provide general emergency powers wide enough to cover disruption to the activities of banks or other financial institutions if the major operational disruption amounts to a serious threat to the economic stability of the UK.

- Both main sections of the Banking and Financial Dealings Act 1971 have drawn attention. Section 1(3) establishes a power to declare a special bank holiday in the UK. This would at best have a signalling, mood-setting effect, with no direct legal consequences, since financial institutions and markets are not required to close on bank holidays and the occurrence of a bank holiday does not excuse contractual performance (unless the contract so provides). In addition, the power was not designed for use as a flexible response to major operational disruption in the financial markets. Its exercise could have indirect, unintended consequences. We do not see any amendment of section 1 as essential.

- Section 2 provides powers for HM Treasury to give directions for the suspension of certain classes of financial dealing in the UK in the national interest. It was designed to avoid declaring a special bank holiday in response to a financial crisis. It is of no use in a major operational disruption and, the wholesale financial markets having evolved into something very different since section 2 was enacted, could not through amendment be made any more useful. In addition, use of the type of powers section 2 provides would run counter to the principle that those who can conduct business should not be prevented from doing so.

- The FSA has extensive powers under the Financial Services and Markets Act 2000, including power to waive compliance with certain regulatory rules and direct recognised bodies to take steps to comply with regulatory requirements. These powers are not specifically designed for use in an event of major operational disruption, but they might be useful.

It should be noted that the 1920 and 1971 Acts were passed in a different era, when the staffing of branches by banks was critical to the conduct of their daily business and there were effective controls on the international use of the domestic currency. The financial markets of the 1970s could, in broad terms, be closed. Nowadays, the international wholesale financial markets that form the subject matter of this report are a commercial phenomenon which, spanning national boundaries, and using computer technology both for organised exchanges and for the ever-increasing over-the-counter markets, cannot in practice be closed, in any event not by the powers of any one country.

There is no UK legislation designed to cater for an operational disruption in the modern financial markets. Nor is any needed.

In summary, then, we believe, taking into account the desire for contractual freedom and continuity of business, that there are no significant gaps in the state of preparation of the wholesale financial markets and that such steps as we recommend can be taken without new legislation. If, however, there is to be fresh legislation in this area, the issues highlighted in this report should be taken into account. In any event, we hope that the checklist will assist in ensuring that wholesale financial market documentation remains apt for modern realities.

FINANCIAL MARKETS LAW COMMITTEE

EMERGENCY POWERS LEGISLATION WORKING GROUP

CHECKLIST FOR CONTRACTS

Those responsible for the terms of contracts used in the wholesale financial markets are recommended to assess the extent to which they are prepared for any major operational disruption by reference to the following questions.

- Is it intended that performance of obligations should be required come what may, subject only to the applicability of general legal principles (such as in English law the doctrine of frustration)?
- If not, is it intended that the contract should adjust the performance of obligations in circumstances that would cover a major operational disruption? Does the contract distinguish credit-related events from those arising from a major operational disruption?
- Does the contract appropriately address the consequences of a failure to perform an obligation, in particular a failure to make a timely payment or delivery, as a result of a major operational disruption (such as termination or close-out rights, liability for damages, and/or rights to collateral)? Does the contract define which transactions would be affected by a major operational disruption and subject to which rights and remedies? Does the contract specify how the obligations to be performed at or from specified offices of the parties would be impacted by a major operational disruption?
- Does the contract adequately provide for the possibility that a major operational disruption may interfere with any prescribed mechanism for determining rates or prices under the contract (including any mechanism for determining a single net amount payable) through fallbacks or other alternatives?
- Does the contract rely on a definition of a business day or similar concept? If so, would it disrupt the operation of the contract if a day, originally scheduled to be a business day, fell outside the definition, including on short notice (or if normal business closed early on, or was interrupted for a significant part of, such a day)?
- Does the contract provide any grace periods or waiting periods either generally, covering defaults or other events, or specifically for major operational disruption? Are the periods adequate to cover a major operational disruption?
- Does the contract allow a party to terminate the contract or exercise other remedies because of a failure by the other party to perform obligations under other, separate contracts which results from an operational disruption? If so, does the contract appropriately protect the party against the risk that this creates or do those other contracts adequately address this risk?
- Could a party's failure to perform its obligations under the contract due to a major operational disruption result in a cross-default under its other contracts? If so, does the contract appropriately protect the party against the risk that this creates or do those other contracts adequately address this risk?
- Are transactions documented under the contract hedged by or otherwise linked to transactions documented under other contracts, in relation to which it would be particularly important to minimise differences between material terms of the contracts (documentation basis risk), for example as regards business day definitions?

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