

Speech by

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Financial System Risks in the UK – Issues and Challenges

Centre for the Study of Financial Innovation Roundtable

Tuesday 25 July 2006

THE BANK AND FINANCIAL STABILITY

The Bank of England's central position in the economy owes a great deal to the development of its role in managing financial crises. The need for a central bank to provide liquidity to the market was identified as early as 1802, when Henry Thornton said:

“...if the Bank of England, in future seasons of alarm, should be disposed to extend its discounts in a greater degree than heretofore, then the threatened calamity may be averted through the generosity of that institution.”¹

It took until the 1870s for that role to be institutionalised. The arrangement to request a letter from the Chancellor permitting the Bank to issue notes not backed by gold at a time of crisis was important to the remarkable financial stability that ensued. Indeed, some academics suggest that a true financial panic has not taken place in the UK since Overend Gurney & Company collapsed in 1866.²

Of course a lot has changed since then but maintaining financial stability remains one of the Bank's two core purposes. The current institutional arrangements are spelt out in a Memorandum of Understanding (MoU) between the Bank, the Treasury, and the FSA. It establishes a framework for cooperation on three joint responsibilities – first identifying risks to the stability of the UK financial system, second reducing the risks where we can, and third managing crises if they occur.

The Bank contributes to all three.

- We bring to the assessment of risks both the expertise in economic analysis that we have developed as the monetary authority and the experience that gives us as a participant as well as an observer of financial markets.

¹ Thornton, H (1802), *An enquiry into the nature and effects of paper credit of Great Britain* (Chapter 7), page 121.

² Allen, F & D Gale (2000), *Comparing financial systems*, MIT Press.

- We can help to reduce risks directly through our engagement with payment systems and by working with the FSA at home, and with other financial authorities abroad, to improve the resilience of the financial system.
- As Lender of Last Resort, we can contribute to the resolution of crises either by supplying liquidity to the market in general or, in rare circumstances, acting as the channel of support or facilitating transactions for individual institutions. The new MoU makes plain that the decision to authorise support operations rests with the Chancellor following independent advice from both the Bank and the FSA.

Our concern is with the stability and resilience of the financial system as a whole. Inevitably that causes us to focus on the major UK banks, markets and infrastructure at the centre of our economy, not because they are the most likely to run into problems but because an incident that doesn't affect them will not become a crisis for the system as a whole. While our responsibility is for the UK's system, the pivotal position of London as a major international financial centre means that we have to take a wider view of global developments and can share that perspective with colleagues abroad.

One way of reducing the probability and impact of the risks to the UK financial system is by helping the private sector to improve their identification and management of risks. We contribute to that by talking to market participants about their businesses and drawing those threads together with our economic analysis of financial markets and trends. This enables us to feed back to market participants the broader picture to inform their understanding and management of their own risks.³

In the latest edition of the Bank's Financial Stability Report, we have sought to improve the way that we present our assessment of risks. It is shorter, more selective and clearer on what we think is important and what isn't.

³ Bernanke (2006) also highlights risk management lapses by the private sector as a key source of crisis and stresses the vital role of market discipline in preventing such lapses from recurring. See Bernanke, B (2006), *Hedge funds and systemic risk*, remarks at the Federal Reserve Bank of Atlanta Financial Markets Conference, Sea Island, Georgia, 16 May.

Of course it is not difficult to draw up a long list of possible “triggers” for changes in sentiment in markets. Avian flu or worsening strife in the Middle East are two obvious ones at the moment. What we have tried to do in the new FSR is to identify the features of the economy and the structure of financial markets which could lead an initial shock to turn into a crisis. We set out six main sources of vulnerability.

Two of these vulnerabilities are features of the global economy: unusually low premia for bearing risk and the large financial imbalances among major economies. Two relate to the balance sheets of the non-financial sector: rapid leveraging of some parts of the corporate sector and high UK household debt. And two arise from structural dependencies within the financial system: the rising systemic importance of large complex financial institutions (or LCFIs for short) and the heavy dependence of financial institutions on some elements of market infrastructure. In each case the probability of the risk materialising is small but non negligible.

Rather than go over all that ground today, I’d like to pick out two themes that span many of these six vulnerabilities: first the increased competitive pressure on financial firms, and second the way in which changes to the structure of our financial system that have made it more efficient at sharing risk may also have made it more efficient at transmitting shocks.

A CHANGING FINANCIAL LANDSCAPE

Over the past decade technological change, financial innovation, cross border financial consolidation and the increasing demands of investors for better performance have had a profound effect on financial markets and institutions (Charts 1 and 2), and have increased the flow of savings across markets and national boundaries.

These changes have brought with them a shift away from bank-dominated finance, with its emphasis on a “special relationship” between lender and borrower, towards “anonymous” markets and arms-length asset management. Traditional worries about bank runs – where vulnerabilities lay on the liability-side of the balance sheet – have not disappeared but these days there is equal concern about the reliability of apparent liquidity on the asset side of the balance sheet.

The changing nature of financial activity is illustrated by developments in credit derivatives markets. The availability of these instruments is enabling a change in the nature of banking itself towards business models based on origination and distribution rather than the retention of credit risk. The notional amount outstanding on CDS contracts globally reached \$14 trillion in 2005, up from \$40 billion in 1996. And the issuance of asset-backed securities in the UK, which involve parcelling up and selling different claims on pools of assets such as consumer loans and mortgages, has risen to some \$165 billion from \$5.5 billion in 1995. The UK now accounts for around a third of the issuance volume in European ABS markets.

On the whole, such developments are positive for financial stability. Coupled with greater macroeconomic stability (Chart 3), they have made the financial system more robust by allowing market participants greater scope to distribute and diversify risk and to manage it effectively.

Experience of previous rounds of financial innovation also suggests grounds for optimism. Swaps and other over-the-counter interest rate derivatives, for example, are now well understood and widely recognised as increasing economic flexibility and the productivity of capital. More recently global financial systems and the newer asset markets appear also to have withstood several recent shocks, such as September 11, the Dotcom bubble, the GM related wobbles in May 2005, Refco, and the Iraq war. The fact that some investors, such as hedge funds, are willing to take on greater risk does not necessarily give rise to system-wide concerns.

SYSTEMIC RISK IN MODERN FINANCIAL SYSTEMS

But there are limits to the amount of risk that can be hedged away. The financial system cannot reduce the amount of risk in the economy, but only repackage and transfer it. As more instruments that transfer risk are added to the balance sheets of financial institutions, so leverage and connectivity grow. While some of these connections might constitute a "perfect hedge", they can leave the system more vulnerable to both counterparty risk and the liquidity of these markets.

The precise extent to which market participants are now connected through interlocking obligations is difficult to gauge, but the UK interbank market provides some clues. Over 70% of the total lending in the market is accounted for by 15 institutions. And the major UK banks' large exposures to the main foreign-owned LCFIs are almost two-thirds of Tier 1 capital. The rising correlation between the share prices of major UK banks and foreign-owned LCFIs also provides a hint of the growing interconnections (Chart 4).

At the same time, rapid innovation in new financial instruments poses challenges within the financial system. As I have already discussed, these developments are likely to be positive in the long run, allowing market participants greater scope to diversify and manage risk. But in the short run, newer products, such as structured credit derivatives, do pose challenges. We simply do not have experience of how they behave in the full range of market conditions. The models that have been built by banks and other players in the market to value and hedge positions in these instruments are more sophisticated than ever before, but they are not proven in adversity. The infrastructure to support credit default swaps, the building blocks of many of these new products, is developing rapidly thanks to the initiative of the FSA and the New York Fed but there is still some way to go.

Competition between financial firms to establish positions in these new and fast growing markets is also rising. The business risk not just of losing profits this year but of being left behind in the longer term by competitors looms large at the moment. And compensation structures that strongly reward financial performance are also influencing risk-taking.⁴ There is a tendency for rewards from generating "excess returns" to far outstrip the penalties for poor performance. This intensifies the need to stay ahead of, or keep up with, the pack and stretches risk management systems in the process.

The more aggressively management pursues short term shareholder value in the form of rates of return on equity, the greater the motivation to build leverage to meet its targets. Balance sheets have been growing strongly (Chart 5). In markets where a 20% return on capital is seen as disappointing, we are seeing efforts to emulate the business models of

⁴ For a discussion of the role of compensation structures in systemic risk, see Rajan, R (2005), *Has financial development made the world riskier?* Paper presented at the Federal Reserve Bank of Kansas City Symposium on "The Greenspan Era – Lessons for the Future", Jackson Hole 25-27 August.

others and take on more risk through both proprietary trading (in fairly liquid markets) and principal position taking (in illiquid investments).

The history of financial crises is replete with injudicious attempts to “*keep up with the Joneses*”. The very first CSFI survey in 1994 highlighted the important tension between financial risk and business risk when it observed:

“...that banks are being forced by the quest for new sources of business to become a different sort of financial institution – sometimes without noticing it, and probably without the necessary skills.”⁵;

As 1987 and 1998 remind us, the best laid hedges and collateral can lose much of their reliability during times of stress. When financial institutions seek to liquidate portfolios to meet margin calls or solvency requirements, their attempts to lower risk exposures can cause a high degree of correlation amongst assets that appeared uncorrelated in normal times. We saw the same phenomenon on a much smaller scale in May and June this year.

In less liquid markets the price impact of any shock tends to be larger, the knock-on to balance sheets greater, and the spillover effects across market participants wider. Our contacts in financial markets continue to suggest that market liquidity remains plentiful, but that there is a trend towards tying up funds in potentially illiquid assets in markets with relatively few players. And while hedge funds have played a positive role in recent episodes of turbulence – by absorbing some of the losses – their capacity and willingness to provide liquidity in the event of a large shock to the market remains uncertain.

To summarise, although financial innovation and macroeconomic stability have strengthened the financial system, the pace of innovation and the battle for market share may have also deepened some vulnerabilities.

More generally, and pulling together a number of issues that I have already discussed, the changing landscape may also be altering the character of the financial system. In a system with more connections between firms, losses are likely to be more widely dispersed and

⁵ *Banking Banana Skins*, CSFI, June 1994, page 2.

so absorbed more easily by individual firms and the system itself. So the probability of a contagious crisis may have fallen. But should we ever find ourselves in a crisis, with more connections between firms the impact could be spread around the financial system more rapidly and widely.⁶ Thus we may be moving to a world of less frequent but higher impact crises.

DEALING WITH SYSTEMIC RISK

Of course regulation and market infrastructure have not stood still as markets have developed – whether on capital requirements, large exposure limits or the introduction of real time gross settlement. But the growth of financial firms active across different business lines and national boundaries does make designing policies to address systemic risks more challenging. Let me conclude by highlighting some actions we can take to guard against such risk.

First, there is scope for more private and public sector cooperation on stress-testing. There is room to develop further our analysis of the combined effects of market and credit risk on the balance sheets of financial firms and at a system-wide level. And it is important that macroeconomic stress scenarios do not blindly extrapolate from the robust economic performance of recent years. The FSA is reviewing stress-testing practices of UK firms as part of a campaign to identify and encourage best practices. Of course each firm needs to tailor its tests to its own business, but I believe that there may also be merit in looking at a common set of plausible scenarios. This would help compare risk profiles and publishing these results could potentially strengthen market discipline.

Second, efforts are underway to improve further liquidity risk management. The fundamental reforms to the sterling money market introduced in May should make for greater flexibility in the day-to-day management of sterling liquidity, and help ease potential liquidity bottlenecks in times of stress.⁷ These changes build on the lessons of

⁶ Recent work at the Bank has been exploring this issue. See, for example, the analysis in Wells, S (2002), UK Interbank Exposures: Systemic Risk Implications, *Financial Stability Review*, December, pages 175-182, and Cifuentes, R, Ferrucci, G and H S Shin (2005), Liquidity Risk and Contagion, *Bank of England Working Paper* No. 264.

⁷ See Tucker, P (2004), *Managing the central bank's balance sheet: where monetary policy meets financial stability*, lecture to mark the fifteenth anniversary of Lombard Street Research, 28 July.

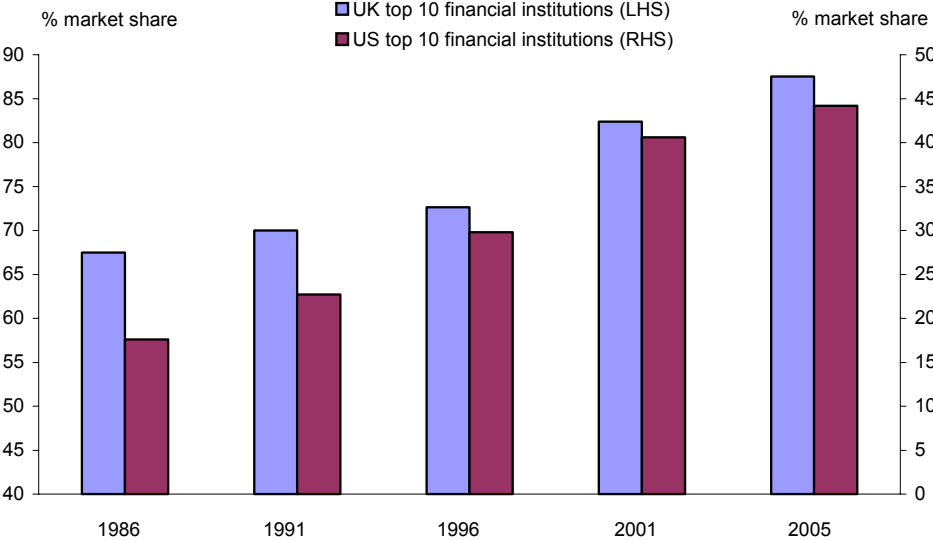
the Federal Reserve's discount window in US dollars and the ECB's marginal lending facility in euros. Handling potential liquidity pressures faced by LCFIs operating in multiple countries and currencies continues to be a focus of policy attention.

Third, the UK authorities are improving the procedures and information needed to manage system-wide risks should they crystallise. The Bank, the FSA and HMT now conduct regular crisis management exercises to develop the coordination needed to handle operational disruptions and financial crises. Market-wide testing of business continuity arrangements takes place annually. It involved some 70 firms and utilities in 2005 and another test is about to start.

Finally, the changing financial landscape has increased the importance of international crisis cooperation. An MoU to develop such coordination in the EU amongst central banks, finance ministries, and regulators has been established and tested. We need to build on that to reach beyond Europe and to test crisis management arrangements especially with US authorities.

Taken together, these measures should help reduce the likelihood of systemic instability in the UK. I hope that my remarks today help make clear that the private sector – through sound individual and collective risk management – has its part to play in lengthening those odds still further.

Chart 1
Concentration in the UK & US Banking Sector

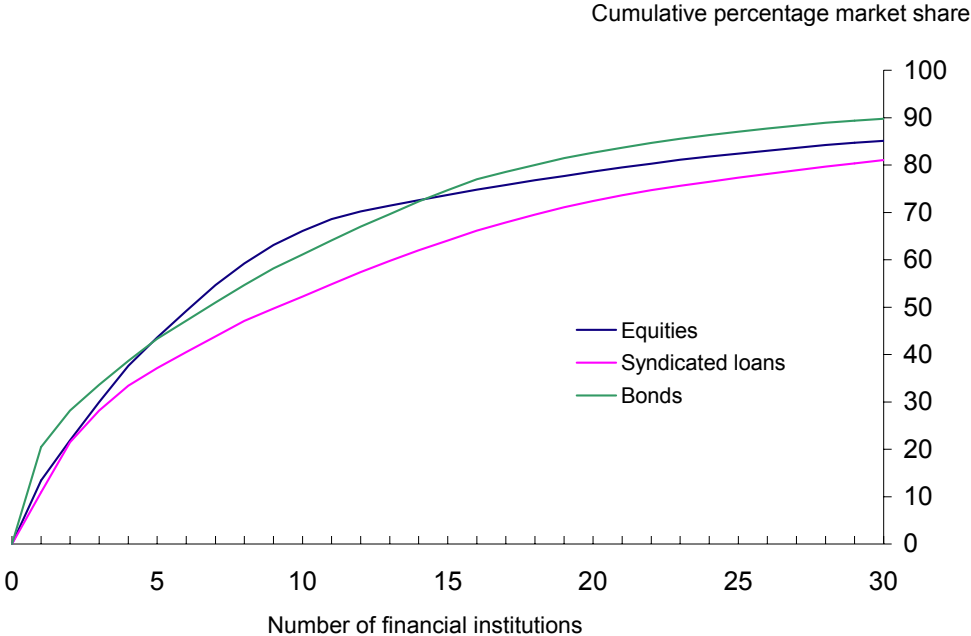


UK market shares determined by top 10 UK banks' proportion of domestic loans to private non-financial institutions and individuals.

US market shares determined by top 10 US banks' proportion of domestic commercial banking assets.

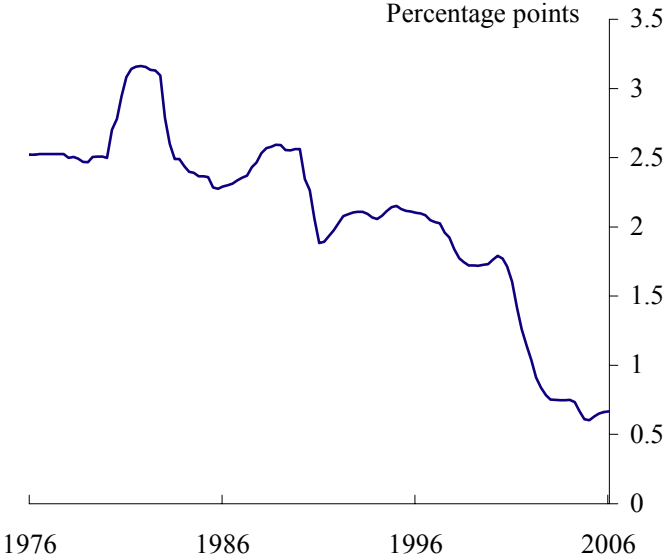
Sources: Bank of England, NIC database, Reports of Condition and Income and Board of Governors of the Federal Reserve System calculations

Chart 2
Current Concentrations in Global Financial Markets



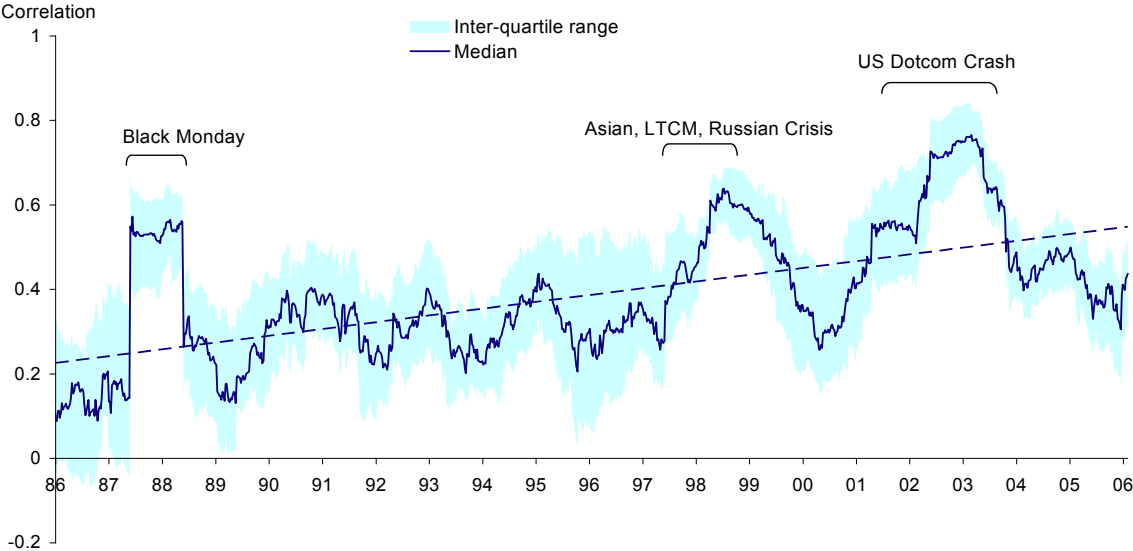
Sources: Dealogic (Syndicated loans and bonds), Bloomberg (Equities) and Bank calculations

Chart 3
Macroeconomic Volatility in the UK (1976 – 2006)



Rolling 10-year standard deviations of UK GDP growth
Sources: ONS and Bank of England

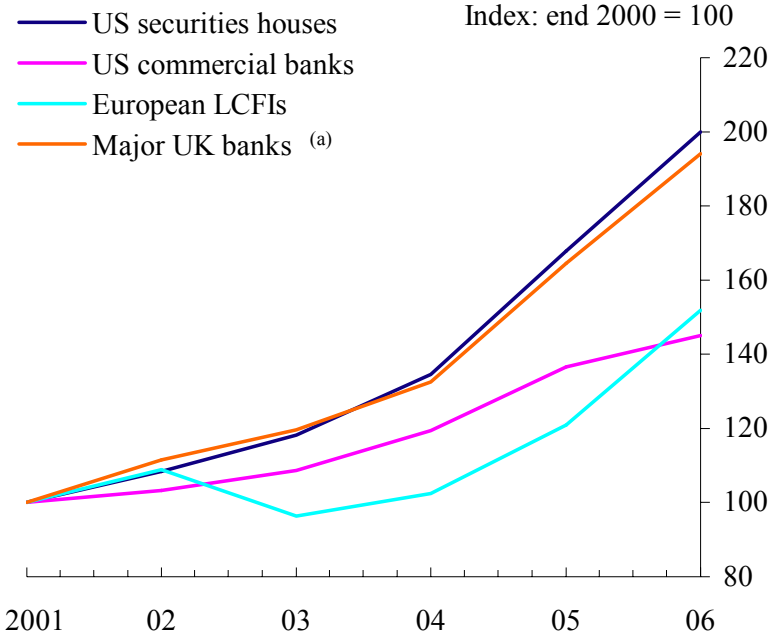
Chart 4
Correlations Between Financial Institutions' Share Prices



Sources: Bloomberg and Bank calculations.

Median determined by rolling 52-week bilateral equity correlations of the following financial institutions: Barclays, HSBC, RBS, Lloyds TSB, Bank of America, Citigroup, Merrill Lynch, Morgan Stanley, UBS, Societe Generale, Credit Suisse, Deutsche Bank.
 Zero figures have been added to weekly percentage change figures for combining series in the event of mergers.

Chart 5
Recent Balance Sheet Expansion (Total Asset Figures)



Source: Bloomberg and Bank calculations.
 (a) Due to changes introduced under IFRS, figures for 2004 and 2005 use the most comparable data possible.

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