



BANK OF ENGLAND

# Speech

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## **Recent developments in financial markets: some implications for financial stability**

Speech given by

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## Introduction

It is a pleasure to be invited here today to talk about prospects for financial stability in the light of recent developments in international banking and financial systems. The speed of change and innovation in financial markets presents a real challenge for banks and for authorities responsible for financial stability. Consolidation has certainly changed the financial landscape in the last decade. Mergers and acquisitions accelerated during the 1990s, and the global integration of capital markets proceeded apace. In his speech, Roger Ferguson set out some of the policy issues raised by this trend towards consolidation and there is little I would want to add. But I thought I might say something, first of all, about consolidation from a UK perspective. I would then like, secondly, to turn to banks' capital adequacy and the new Basel Accord and, then thirdly, turn to the related subject of liquidity. Finally I would like to talk about the implications of some recent capital market developments - in particular, alternative risk transfer mechanisms - for risk management in the financial system.

## Consolidation

So let me start with a few points on financial-sector consolidation from a London perspective.

First, it is clear that consolidation need not necessarily reduce competition, if barriers to entry are kept low or if it allows smaller firms to band together to challenge larger firms. I note that, amongst the countries covered by the Ferguson Report, the total value of financial sector mergers and acquisitions in the UK during the 1990s was second only to the value of M & A deals in the US. Yet the assets of banks operating in the UK are not particularly highly concentrated, when compared to other G10 countries, and the largest banks experienced little change in their share of total bank deposits over the decade - unlike most other countries, particularly those with relatively low concentration at the beginning of the 90s.

Second, while the potential benefits of consolidation come from cost reductions or increased diversification, these are sometimes hard to measure. As regards cost cutting, we have had one or two examples in the UK of retail banking mergers that appear to have increased returns for shareholders by cutting costs, eliminating overlaps and achieving economies of scale. But it is hard to pin these benefits down, not least because it seems that no sooner is one merger done than institutions are turning to their next acquisition, such is the pace of consolidation in recent years.

The evidence is certainly less clear cut about mergers intended to create economies of scope through cross-selling, where the most common example has been banks buying life insurance companies.

Diversification to reduce firm-wide risk is perhaps a greater potential benefit from the perspectives of central banks and of regulators. However diversification is, if anything, more difficult to measure. Clearly diversification does not reduce risk if returns from the two businesses are highly correlated. But even where risks appear less correlated, correlations are not necessarily stable. I think we all learned this lesson from LTCM and the Asian Crisis where seemingly unrelated economies were hit at the same time. Again more diversification does not automatically result in less risk in aggregate. I was interested to learn from the Ferguson report that, in the US, regional diversification has tended to lead banks to take on more risky business so that the impact on aggregate risk may not have been great. And diversification overseas can also be easier in theory than practice. Buying businesses in an unfamiliar market is always a challenge; there is a tendency for new entrants to be left with lower quality lending opportunities, and a few of our banks have made expensive mistakes over the years.

Third, I think credit ratings can also be an important driver for consolidation. Medium-sized organisations often agree to be taken over in order to obtain a credit rating that gives them access to unsecured funding at the finest rates, as well as the ability to participate fully in OTC derivative markets. Indeed, at an international level, it is in these markets that consolidation has been most evident. In the early to mid 90s, a number of commercial and investment banks with credit ratings below AA established highly capitalised and stand alone derivative-products companies in order to participate in the OTC markets. This trend now seems to have run its course, as banks have both merged and rebuilt their capital; so we now have a market with fewer, larger, more highly rated banks.

This raises a number of issues for the authorities. For example, what difficulties would arise in winding down such large and complex financial groups following a failure? The potential scale of the interbank exposures among these banks also needs careful monitoring. Banks are themselves making progress in measuring these exposures; using collateral to mitigate them and implementing bilateral netting. But the situation is complex, with dealing relationships between financial groups across different products, legal entities and jurisdictions. And consolidation adds another layer of complexity. As they struggle to cope with the web of contractual arrangements they have with other large firms, sometimes spread across a number of legal entities, we have heard risk managers at some of the large banks complain about multiple agreement disorder, occasionally referred to, appropriately enough, as MAD! Some also have concerns about whether documentation will work as expected when it comes to the crunch - especially when applied across products and jurisdictions. There may also be mismatches between the exposure as defined precisely under the terms of

the agreement and the exposure as measured and managed by the credit risk department. These areas are not the most exciting - but they may need more attention by banks, regulators and central banks. And this places responsibility on authorities, in partnership with the private sector, to seek to strengthen the financial infrastructure. The Continuous Linked Settlement Bank, for example, due to be launched October 2001, should help to address the large interbank settlement exposures which arise in the foreign exchange market. And well-designed and well-run central counterparties may be an effective means of managing interbank exposures between firms in the OTC derivatives and repo markets. But while such arrangements reduce risk for individual institutions, the more that interbank transaction flows are concentrated in such entities, so their own risk management design and implementation becomes crucial for the system as a whole.

## **Basel proposals**

The pace of change in the business of internationally active banks has prompted regulators and financial stability authorities to reconsider the regulatory framework. One example is the proposed new Basel Capital Accord, published in January (for consultation) by the Basel Supervisors Committee chaired by Bill McDonough, Chairman of the Federal Reserve Bank of New York. This is the second area I want to touch upon briefly.

One of the principal goals of the new Accord is, of course, greater risk sensitivity. The new proposals, to the extent that they succeed in aligning capital more closely with the underlying risk, will we hope significantly reduce incentives for pure regulatory arbitrage. But it has been argued that greater risk sensitivity will make capital charges procyclical, so that economic downturns or external shocks could potentially be amplified to some degree by the regulatory demand for higher capital.

I have touched on this concern more than once in the past, and make no apology for doing so again. Clearly there could be macro-economic implications, both domestically and internationally, conceivably on a systemic scale. However, I am not sure the answer lies in making the framework less sensitive to risk, by smoothing over bad news in some form, for example by ignoring or delaying recognition of rating changes. In fact, part of the underlying problem of procyclicality is that risks are not recognised early enough, in time to allow lenders to exert a more gradual and beneficial discipline on borrowers. The capital framework - and, equally important, bank provisioning policies - need therefore to be as forward looking and dynamic as possible. Regulators should not allow banks' internal ratings to reflect an over-optimistic view of prospects for borrowers during an economic upswing; rather, ratings need to be genuinely forward-looking. Long runs of performance records will eventually be invaluable in establishing how robust borrowers are to different economic circumstances. In this way, economic downturns when they come should not prove too much of a shock to the ratings scales. But this is some way off.

Of course, I do not wish to sound complacent regarding the avoidance of 'procyclicality'. Capital is meant to be a cushion against volatility, also referred to as 'unexpected' loss. Some of our researchers at the Bank of England recently reviewed the usefulness of various predictive models of banking problems, but unfortunately our conclusion at the moment is that banking crises are each unique in its own way. In the area of financial stability at least, there appears to be some merit in Sam Goldwyn's admonition that one should 'never make forecasts, particularly about the future'. Despite the limitations of point estimates, however, there is still merit in developing probability distribution functions to establish the possible range of future outcomes. Indeed, the new Basel Accord implicitly relies on that. Even so whilst we may be able to ensure that the banking system is protected against the normal ups and downs of a developed economy, more extreme events will continue to require tailored solutions.

## **Banking system liquidity**

The Basel proposals concentrate on banks' capital adequacy. Less attention these days seems to be paid to banking sector liquidity, and this is the third area I want to cover. Sector liquidity is of course equally important for stability. Maturity transformation, taking short-term deposits and lending long, remains a fundamental part of the business of banking. Banks protect customers against liquidity problems by taking in monetary liabilities that can be drawn on demand or at short notice and, on the other side of the balance sheet, offering committed lending facilities. The structure of banks' balance sheets - generally illiquid loans funded by highly liquid deposits and on-demand off-balance-sheet commitments - therefore leaves them unavoidably exposed to the risk of liquidity crisis. Of course, at some level the regulation of capital adequacy and liquidity are interrelated. Rationally, solvency ought to be a guarantee against funding problems, with customers happy to roll over deposits where they are confident that a bank is fundamentally sound. But reason does not always prevail, in part because solvency is sometimes hard to ascertain, more often because, swept along by animal spirits, markets can behave emotionally and perversely. Capital adequacy and liquidity regulation are thus two sides of the same coin. Just as it would be impossible or uneconomic to require banks to operate without risk to provide total certainty of solvency, so liquidity regulation is needed as a form of insurance. Indeed the more the solvency of institutions is uncertain, the more the regulation of liquidity becomes important.

The Basel Committee underlined its interest in this area last year by publishing an update of its sound practices for managing liquidity risk. This reinforced the need for banks to establish a clear strategy for the management and monitoring of liquidity and the steps that would be taken if their liquidity is threatened. The emphasis on measuring liquidity mismatches currency by currency is particularly relevant in the light of recent financial and exchange rate crises. I hope the Basel Committee will continue to do work in this area.

Some might suggest that the development of securities and derivative markets and improvements in the management and regulation of credit and market risks make bank liquidity management less important. I think this view is misguided. First, the liquidity of securities markets can be fickle, as the events of autumn 1998 demonstrated. Some financial markets are currently perceived as less liquid than they were before autumn 1998. That may reflect a reduction in leverage associated with greater asset price uncertainty, and possibly also the increased pace of consolidation flagged by the Ferguson Report. We should not jump to the conclusion that less asset market liquidity is inappropriate. Too much market liquidity in normal times can leave investors vulnerable to 'liquidity illusion': they may misjudge how quickly liquidity can deteriorate in the event of a shock. A high degree of market liquidity is usually associated with high levels of leverage; and highly leveraged investors can quickly change from providers to consumers of liquidity. A sudden call on liquidity may as a result impact in areas previously unforeseen. I do wonder how many investors view their direct or indirect - for example, money market mutual fund - securities holdings in a similar way to bank deposits - assets which they can sell on demand to raise liquidity if needed. If investors with such views are increasing in number, securities markets may be more vulnerable to the types of liquidity runs more typically associated with banks. Second, banks have been providing increasing amounts of liquidity insurance against the possibility of such a liquidity squeeze in securities markets. The most obvious example is the provision of back-up lines to issuers of commercial paper. These can be drawn in two types of circumstances; first where the company suffers a credit downgrading and we have seen a couple of well reported examples recently in the US, and second if the liquidity of the whole market dries up, which would signal a large scale reintermediation by banks. Banks may no longer always be lenders of first resort but they typically remain lenders of second resort. And of course central banks like ourselves are still lenders of last resort, able to provide ultimate liquidity in special circumstances when appropriate.

Sound bank liquidity management therefore remains vital, typically involving both the monitoring of a maturity ladder for assets and liabilities and the holding of a stock of liquid assets, which can be sold or repoed to raise liquidity if needed. Indeed liquidity management has become more complex with the growth in contingent cashflows, such as back-up lines and cashflows arising from derivative positions. I would encourage any banks not already doing so to consider how they can effectively use stress testing and scenario analysis to assess and manage these new challenges.

### **Credit risk transfer**

Let me turn now to the fourth and final part of my speech on recent developments in capital markets. I have talked about capital adequacy and liquidity regulation. But, in the face of financial innovation, it is not only the regulatory framework that needs to adapt. It is particularly important for institutions to ensure that infrastructure, documentation, and risk management keep pace with the traders. In recent years, there has been rapid change in the instruments and markets used for the transfer of credit risk in particular. I would like to draw attention to some of the possible risks posed by innovations in this area.

New ways have been found to securitise cashflows which could not previously be traded, to unbundle the credit risk from loans and bonds, and to re-bundle credit exposures in different ways to create securities with different pay-offs. The distinction between a loan and a bond is becoming increasingly blurred. Individual loans are sold into the secondary loan market, although some companies remain reluctant to see their debt traded in this way. And portfolios of loans and other cash flows, ranging from mortgage payments to recording royalties, are sold to special purpose vehicles for securitisation into tranches with different risk characteristics and maturities, from AAA to junk and from commercial paper to long-term bonds.

The most recent area of growth, however, is not so much in these sales of assets to remove them from the balance sheet. Rather it is in the use of unfunded credit derivatives that leave the underlying asset on the balance sheet but transfer some or all of the credit risk. The most common credit derivatives are credit default swaps, although they are not swaps in the normal sense but are more akin to guarantee or insurance arrangements. The market in credit default swaps on individual investment-grade corporate and country issuers is becoming more liquid - in some cases, we have been told, more liquid than the underlying bond market. And when investment banks price new bond issues, they can increasingly look to credit default swap premia as well as to the spread over the relevant benchmark on any existing debt. Increasingly, also, banks use derivatives to transfer some portion of the credit risk on a loan portfolio rather than selling the portfolio outright, creating so-called 'synthetic' collateralised debt obligations. One reason is that insurers and reinsurers, which are among the biggest sellers of this credit protection, prefer unfunded transactions because they do not have ready access to financing themselves - indeed, as noted, such transactions look a lot like insurance contracts. Data on the size of the market are difficult to come by. But a survey by the British Bankers' Association last year found that outstanding notional principal of all credit derivatives had increased more than three times since 1997 to around

\$600 billion. Market participants' estimates go up to a trillion. This is still small compared to the OTC interest rate derivative market, estimated by the BIS at around \$64 trillion notional principal last year. But instruments linked to the default of companies and countries clearly have very different risk characteristics to those linked to interest rates. The markets in single name credit default swaps and in collateralised debt obligations, in particular, continue to grow rapidly. A further characteristic of the market is that, to an even greater extent than the other OTC markets, it is currently dominated by a relatively small number of large international investment banks.

In a wider sense, the development of these markets for the transfer of credit risk is highly desirable. The institution best placed to originate a loan is not necessarily best placed to bear the risk. Markets in credit risk allow financial institutions to diversify their exposures across different sectors and geographic regions while maintaining customer relationships. Just as important, prices from liquid markets are valuable information, which can help market participants to allocate resources and manage risk more efficiently. If they work well, markets in credit risk transfer have the potential to enhance financial stability and efficiency by ensuring that exposures to shocks are diffused throughout the system with no single player excessively exposed.

Unfortunately, however, where there is innovation, there are generally concerns - perhaps specially during the early stage of a product's development, and I have three. My first is a concern about lack of transparency. These markets mean that a bank need no longer remain exposed to its main customers but can rapidly take on large exposures to other credits without any new borrowing by the underlying entities. This could make it more difficult for creditors, shareholders and regulators to assess risk. From the point of view of financial stability, the concern is that these instruments might equally be used to concentrate risk as to disperse it. Careful monitoring and management of counterparty risk exposures by firms is an important market mechanism to limit this risk. But any individual firm does not know how much total exposure a counterparty has to a particular credit through its transactions with other market participants. These concerns underline the importance of the disclosure elements of the new Basel proposals intended to promote market discipline.

And for the financial system as a whole, the gaps in the data can be large. It is a major challenge for the authorities to keep pace with financial innovation in the collection of financial statistics. I am glad that credit derivatives will be included in this year's BIS survey of derivative positions outstanding.

My second concern is a worry that some participants in this market may not fully understand, or may have differing understandings of, the transactions into which they have entered; and that uncertainties may remain about how the courts in some countries would treat these agreements. This is always an issue in new markets, until market standards and legal precedents are clear. But some aspects of the credit transfer market make it particularly relevant. Purchasers of asset-backed securities and creditors of firms that securitise assets need to take care to assure themselves that this transfer is legally robust - a true sale. Lawyers do, of course, pay great attention to this issue and I am neither questioning their opinions nor suggesting that this is necessarily a problem. But transactions differ and investors must do their own due diligence. I do think that there is too great a tendency to rely unthinkingly on the rating agencies in this area.

The proposed new Basel Consultative package does address this question. Not only will banks need to demonstrate a clean break to earn a reduction in their capital requirements, but they will also need to consider the operational and reputational risks involved in securitisations and derivative deals.

My third concern is whether we collectively yet have a proper understanding of the way the credit transfer business is bridging the lending, securities and insurance markets. Contracts in banking, on the one hand, and insurance markets, on the other, are in some respects different animals. An insurance contract, for example, is not typically a commitment to timely payment; whilst timing is of the essence in securities markets. If firms are participating in this market in part using reinsurance-type agreements and in part using derivative agreements, there may be imperfect hedges or liquidity risks.

The relationship a borrower has with its lending banks has also traditionally been different from that with its bondholders. Any problems the borrower may have in servicing the debt are typically addressed in different ways by lenders and bondholders. This problem has surfaced recently with the debate about whether and how restructuring should be included within the definition of a credit event. ISDA, the International Swaps and Derivatives Association, is addressing the question, and it is clearly desirable that a market standard agreement and set of definitions should exist. I do think, though, that it is intrinsically more difficult to standardise the definition of a credit event compared to that of a price or interest rate - the underlying for most other derivative products - where data can be taken off screens or lifted from the pages of the Financial Times.

Market participants will therefore have to pay even greater attention to documentation, in particular to any unsigned master agreements or backlogs of confirmations. It is not a happy position if back and middle offices are struggling to keep up with the traders.

## **Conclusion**

In conclusion, we must recognise that while innovations in international banking and financial systems have the potential to reduce the cost of financial intermediation significantly, they can pose new risks too. In the banking system, capital and liquidity management are crucial to the management of these risks, and have to be adapted to new circumstances. But the attention of central banks and regulators cannot end there. Recent developments in the credit transfer markets and the concerns identified regarding risk management and documentation for credit derivatives illustrate this. It therefore remains important for the authorities to engage with market participants about how to harness financial innovation so that it helps to promote financial stability.