### COPING WITH FINANCIAL DISTRESS IN A MORE MARKETS-ORIENTED ENVIRONMENT

#### Remarks by

#### Sir John Gieve Deputy Governor, Bank of England

#### Introduction

There has been a striking change in discussions of financial stability over the last 15 years.

I remember the recession of the early nineties, the last time the Bank of England had to intervene (or, at least, did intervene) to support some banks in order to protect the broader financial system. The mode of intervention may have been a bit unconventional but the crisis would have been immediately recognisable to Bagehot. In short, in the upswing of an economic cycle, a number of banks lent too much particularly in the UK property market; in the downswing, a spate of defaults led to a reassessment of credit risk and some marginal banks faced a withdrawal of wholesale funding. As usual the immediate problem appeared to be a liquidity mismatch between their long-term loans and their short-term deposit base rather than underlying solvency. The question the Bank faced was whether their failure could start a spiralling loss of confidence in other banks and whether that justified pre-emptive action.

We have seen other traditional banking crises since then – in the Far East and in Sweden for example. But the focus of the current concern over financial stability has moved on, as illustrated by the six prime risks we identified in our most recent Financial Stability Report:

- a) following 9/11, we now give more attention to business continuity and operational risks;
- b) with the growing integration of capital markets across the world, we now give more attention to international spillovers and to the role of the giant LCFIs; and

c) with the rapid development of new products and markets, we now pay more attention to capital markets; we talk of low risk premia and global imbalances rather than simply about bad debts in systemic commercial banks.

Today I want to discuss this last point and consider whether we are right to think that something fundamental is changing in the role and business model of banks and, if so, how that will affect the form and effects of financial stress. In particular I argue that the growth in capital markets and the shift in the business models of the biggest banks may presage a future in which there is a greater zone of stability in financial systems but where crises occur they may develop faster and be larger and more complex than they were in the past.

#### Changes in financial intermediation

I'm aware of the dangers of exaggerating the importance of recent trends and banks remain the primary intermediary between short-term savers and long-term borrowers. But I do think the long period of macroeconomic stability and rapid financial innovation has made very significant changes to the shape of the financial sector.

- Banks are earning lucrative fees without taking on large permanent credit risk exposures by distributing syndicated loans directly to institutional investors. So institutional investors (including hedge funds) now account for a 70% share of the US and European syndicated leveraged loan market compared to around 40% in 2000 (Chart A).
- And they are securitising assets already held on their balance sheets to free up funds and capital and to reduce the liquidity mismatch between assets and liabilities. Between 2000 and 2006, for example, global issuance of RMBS increased six-fold, with the growth driven mainly by the giant international complex financial institutions (**Chart B**).
- Banks are buying credit protection through the credit derivatives markets to reduce concentrations of risk in their loan portfolios. According to the BBA global credit derivatives survey, the outstanding net amount of credit protection bought by banks was \$3 trillion in 2006, of which \$2.2 trillion was attributed to hedging their loan books (Chart C).

The network supporting this activity is complex.

For example, CLOs are now important vehicles in the leveraged loan market (**Chart D**), with global CLO issuance rising to just under 9% of leveraged lending in 2006 from less than 2% in 2000. And support for CLOs and other securitisations emanates from various sources, including hedge funds, insurers, pension funds and banks.

It seems clear that, at least in the longer term, these developments should improve the stability of the financial system by pricing risk more accurately and distributing it both more widely and more appropriately.

But a switch from the "lend and hold" to "originate and distribute" business model carries some new risks, especially in the short term.

#### "Getting to know you"

First, and as Darrell Duffie has reminded us, there is a true transitional risk while the new relationships and the new products and markets are not fully understood. This is not mainly about what regulators and central banks know but what market participants understand and it need not reflect a lack of diligence but real limitations on what can be known about how these markets may behave under stress.

#### **Incentives and information**

Second, while banks now have greater capacity to manage their risks more efficiently, balance sheet management has also become unbundled from borrower relationship management. So the incentives to assess credit risks and to monitor and foster relationships may be reduced, and at a time when borrowing constraints have been relaxed. Recent events in the sub-prime housing market illustrate these dangers. The longer the chain from originator, through securitiser and CDO designer, to the final holder of the risk, the greater the dangers of loss of information and misaligned incentives.

Third, the lucrative fees that can be earned by banks by participating in the structured credit business may have led to a relaxation of credit standards. Fuelled by competitive

pressures, credit risk may not be adequately reflected in the pricing of instruments. In essence, firms may be placing concerns over income foregone ahead of the potential losses arising from a downturn in the credit cycle, reflecting a reluctance to rein in risk-taking activity before competitors.

#### Connections between banks and other financial institutions

When financial institutions are linked together by their claims on each other – whether through the interbank market, the payments system, or the sale of credit protection – greater connectivity clearly makes for wider distribution of risks and lowers the probability of individual default. The wider and deeper is financial integration, the greater this effect and the lower is systemic risk. Frankin Allen will be addressing this issue in much greater detail tomorrow.

But risk sharing can also become risk spreading. Greater interconnectedness increases the potential for contagion to spread because it increases the chance that institutions withstanding the effects of an initial problem will be exposed to defaulting counterparties, making them vulnerable to a second-round default. Such network interactions are likely to be non-linear and, if so, the impact on system losses may be substantial.

Speed is of the essence in such circumstances. If there is time, large shocks to the financial system can be accommodated. Reactions to the recent Argentine default illustrate this point in an international setting. But when shocks arrive in rapid succession, forcing decisions to be made with increasingly inadequate information, the normal mechanisms for redistributing losses could be overwhelmed.

#### Reliance on liquidity

Hyun Shin's paper this afternoon showed nicely that when the assets of financial institutions are marked-to-market, balance sheet changes affect asset prices and vice versa. This well documented loop can amplify shocks to the financial system. To an increasing extent banks and other financial players are managing risk by hedging cash exposures in the derivatives markets. Since few of these hedges are perfect, they rely on being able to change positions as

markets move and they depend therefore on the continuing liquidity of new as well as established markets.

Gauging the extent of market liquidity is, therefore, critical to assessing the likely scale of future financial distress. Recent work at the Bank suggests that, overall, financial markets are very liquid at the moment (**Chart E**). But the degree of liquidity in some key markets, notably those for credit risk transfer has yet to be tested under stress, and perceptions of their liquidity may prove unfounded.

What might determine liquidity in the credit risk transfer markets? At root, it hinges on the opportunity cost to the banks of carrying loans and information about the quality of these loans. Banks could be shedding risk because the information they have about their projects is negative. Or they may be seeking more preferable outside opportunities, shedding risk despite having positive information about their projects. Clearly, credit transfer markets are more likely to be liquid the greater confidence participants have in them as an efficient form of price discovery.

#### Role of ratings agencies

The commoditisation of credit has, in large part, been facilitated by the availability of rating agency assessments.

Problems may be stored up for the future, however, if the models used by rating agencies are found to be unreliable during times of stress. Many of these models – particularly for more complex products, such as CDOs of CDOs – have not been tested in a downturn. Moreover the growing reliance of the agencies on income from product designers may complicate the incentives they face.

Understanding what the assessments mean is also not easy. Different products with the same credit rating can have very different risk characteristics as the range of credit spreads illustrates. The credit spread on a AAA-rated corporate bond, for example, is less than 10 basis points, compared to around 200 basis points for a constant proportion debt obligation. (**Chart F**). It is not clear that these different risk characteristics are well understood by the less sophisticated investors in the market.

#### **Conclusion**

The rapid financial innovation experienced in recent years is changing the way in which funds are intermediated between borrowers and savers and the nature of the risks facing the financial system. We shouldn't lose sight of the risk of traditional runs on banks as defaults follow overlending at the top of the cycle but in the emerging system disruption of liquidity in capital and derivative markets and the behaviour of non bank financial institutions are more likely to be important factors in determining whether or not shocks turn into systemic events.

We should welcome the innovation in capital markets which allows the greater dispersion of credit risk away from the heart of the banking sector to a wide range of other institutions which play a less pivotal role in the financial system. That should enable the system to handle a greater range of shocks and should provide a greater zone of stability.

However, as new markets and products are developed we are likely to face some transitional problems because their behaviour under stress cannot be known.

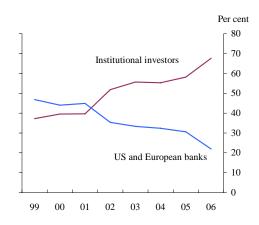
In a world where banks and financial institutions are more dependent on trading and hedging where they need to mark to market, financial crises that do develop are also likely to develop more quickly than in a world in which a bank facing bad debts had time to consult its regulator and auditors about the appropriate provisions.

And in a world of greater interconnections, a crisis is likely to be bigger and more complex and international than in the past.

Finally the speed of innovation and globalisation still seems to be accelerating. This is bound to bring greater uncertainties. This places a higher premium than ever on effective international coordination of contingency planning and crisis management.

#### ANNEX 1.

Chart A: Investor shares of US and European leveraged loan markets (a)

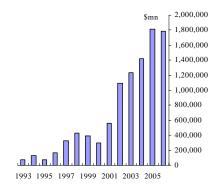


Sources: Standards & Poor's Leverage Commentary and Data, and Bank calculations. (a) Shares weighted by European and US leverage loan market volumes.

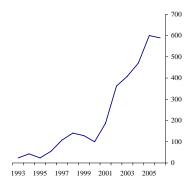
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### Chart B: Global issuance of RMBS

## Global issuance of RMBS indexed to 2000

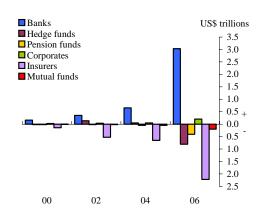


Source: Dealogic.



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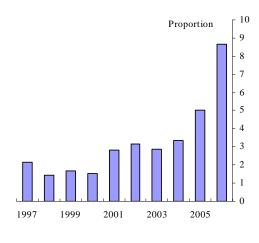
# Chart C: Outstanding global amounts of credit protection bought by institution (a)



Sources: BBA and Bank calculations.

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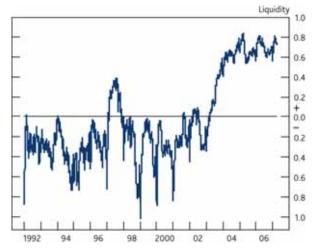
## Chart D: CLO issuance as a proportion of leveraged lending



Source: Dealogic

<sup>(</sup>a) Amounts netted across long and short positions.

### Chart E: Measuring Financial Market Liquidity<sup>(a)</sup>



Sources: Bank of England, Bloomberg, Chicago Board Options Exchange, Debt Management Office, London Stock Exchange, Merrill Lynch, Moody's Investors Service, Thomson Datastream and Bank calculations.

Simple, unweighted mean of the liquidity measures, normalised on the period 1999–2004. Data shown are an exponentially weighted moving average. The indicator is more reliable after 1997 as it is based on a greater number of underlying measures.

Chart F: Ratings properly understood?

#### Spread-for-rating comparison(a)

Ratings	Underlying	Indicative spread (basis points)
AAA	Corporate bonds	<5
AAA	UK credit card asset-backed security (ABS)	15
AAA	iTraxx series 6, 6% to 9% standard tranche(b)	22
AAA	Commercial mortgage-backed security	25
AAA	Cash-flow collateralised debt obligation of mezzanine ABS (average life seven to nine years)	32
AAA	Constant proportion debt obligation (CPDO)	200

Source: JPMorgan Chase & Co. (a) From JPMorgan Chase & Co. (2006), *Understanding CPDOs* and *Credit Derivatives Handbook*, December. (b) Under typical assumptions. iTraxx is the name of a family of credit default swap index products covering

regions of Europe, Japan and non-Japan Asia. The constituents of the indices are changed every six months. The series referred to in this table is the European investment-grade series.