

**Speech by Lord Turner, Chairman, FSA
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The global financial system has suffered a huge crisis. Certainly the worst for 70 years: in some ways, in its international reach and impact, the worst in the entire history of modern capitalism. And this financial crisis – largely the product of developments within the financial system, not events imposed from without – has generated a severe global recession.

One of the striking features of this financial crisis and of the severe global recession which it has caused is how much they have surprised us, how poor we have been at foreseeing even the short-term future.

With a few noteworthy and commendable exceptions, most apparent experts – central bankers, regulators, treasury officials, academic economists and bankers themselves – did not recognise, in the boom years up to 2007, that we were heading for disaster. Indeed the record is full of expert speeches explaining how financial innovation had dispersed the holding of credit risks and increased financial resilience.

But what is perhaps more surprising is how poor was our predictive ability even once we were a year into the financial crisis, in summer and autumn 2008.

- Very few foresaw in early September 2008 that between 15 September and 10 October the global money market would seize up almost completely, forcing major banks across the world to rely on central bank liquidity support and government recapitalisation for survival. The world seemed to change in four weeks.
- Most of us have been surprised how long it has taken to restore confidence in the global banking system given the huge public interventions and the clear commitment, confirmed by action, that after Lehman Brothers no other systemically important bank or investment bank will be allowed to fail.
- And most experts did not, even in October, foresee the severity of the global recession. The IMF World Economic Outlook of October 2008 was still forecasting 3% global growth in 2009 and a return to 4.7% to 2010: the latest forecast is a global contraction of 1.3% in 2009 and global growth of 1.9% in 2010¹. In October Japan was still anticipated to grow 0.5% in 2009: the forecast is now a contraction of 6.25%². We knew that the financial crisis would hit economies with large financial sectors, but most experts did not anticipate, even six months ago, how big the impact would be on global trade and on manufacturing demand and output.

The crisis has therefore brutally illustrated two facts which we should always have known, but which were easy to ignore in what seemed like the golden years of the Great Moderation.

- First that banking systems, because they perform maturity transformation – lending long and borrowing short – depend crucially on confidence in banks and between banks, which if lost can take a long time to recover. And that the most important risks in banking are systemic not idiosyncratic: illiquidity in one bank or securitised credit market having potential impacts on the behaviour and liquidity of others, lack of confidence in one bank or securitised credit market potentially draining confidence and liquidity from others.
- And second, that if the banking system is impaired huge economic loss can result. Ben Bernanke's 'Essays on the Great Depression' illustrates the pivotal role that banking system failure played, alongside the collapse in nominal demand, in creating the Great Depression.³ Recent IMF research illustrates that recessions which followed banking crisis were on average much deeper and longer lasting than those where banking failure was absent.⁴ And the historic lessons from crises, focused on classic on-balance sheet banking, apply perhaps even more so in a system characterised by a significant role for securitised credit. The potential for irrational exuberance and then irrational despair is inherent in all financial markets, rooted in collective action problems, principal agent relationships, and human psychology. But

whereas the market economy seems able to absorb without too great harm a boom and bust in, for instance, a large element of the equity market – e.g. the internet boom of 1996 to 2001 – irrational exuberance and then reversal in the price of securitised credit held on the trading books of banks is far more disruptive.

Those lessons carry major implications for the future regulation of the banking and credit intermediation system.

The crisis faces us with two key challenges:

- how best to manage the macro economy in the short term, minimising the scale and depth of the recession; and
- how to create a more robust banking system for the future.

The answer to the first lies partly in macroeconomic policy, action to maintain nominal demand through fiscal policy, classic monetary policy and if necessary quantitative easing. It also requires action to accelerate the return to health of the banking system, where by health we mean not just the absence of failure, but the ability to extend sufficient credit to the real economy. That has required a mix of recapitalisation, funding guarantees and tail risk insurance, informed by stress tests which deliberately consider future scenarios more severe than we expect to arise. The purpose of stress tests indeed is to inform policy decisions on bank support packages which ensure that the stress scenario never in fact occurs.

But it is not on the short-term challenge that I will focus this morning, but on the regulation and possible shape of the future banking system.

Soon after I took over as the Chairman of the FSA in September last year, the UK's Chancellor of the Exchequer, Alistair Darling, asked me to produce a review which would assess the causes of the financial crisis and make recommendations for future regulatory reform.

That review ('The Turner Review: A regulatory response to the global banking crisis' was published on 18 March). It begins with an analysis of what went wrong. The factors include:

- the rapid growth since the mid 1990s of a complex variant of the securitised credit intermediation model, with much of the risk retained on the trading books of banks and bank-like institutions, rather than truly distributed to end investors;
- the growth of leverage in institutions and embedded in products;
- the growth of a shadow banking system – investment banks, mutual funds and off balance sheet vehicles – performing credit intermediation and maturity transformation functions but not subject to adequate capital and liquidity constraints;
- over reliance on apparently sophisticated mathematical techniques for analysing and controlling risk; and
- a classic cycle of irrational exuberance and then reversal.

Those factors help define what we need to put right for the future. But it is also important, in designing a future approach, to recognise two underlying lessons:

- first, that not all innovation is equally socially useful and that financial innovation can be used, and was extensively used in the run-up to the crisis, to extract economic rents rather than to deliver services of real value to the real economy; and
- second, that market discipline failed, with neither bank equity nor bank CDS prices providing any indication of approaching disaster, and with shareholders providing little effective restraint on excessive risk-taking.

Looking forward this implies that a major objective must be to return banking to its basic functions – providing vital services of real value to the real economy. And that we cannot rely

on market discipline alone or even primarily to achieve this, or to ensure that financial instability risks are contained, but must use robust regulation.

The required reform is multifaceted, and I have limited time this morning. But three elements of reform are particularly important: a macro-prudential approach, major changes to capital adequacy regulation, and major changes in the regulation of liquidity.

So I will comment on these, and then consider three issues arising where, while we know the direction of travel, there are complex issues to be considered and important trade-offs to be made.

A macro-prudential approach

First then, the need for a macro-prudential approach, focusing on whole system risks, rather than only on risks at the individual institution level. It has now been said by so many people, in so many speeches and reports, that it's in danger of becoming a cliché. But it is vital. The FSA has been criticised for having failed to spot emerging problems in specific institutions, and in particular in the mortgage bank Northern Rock, in the years running up to 2007. And we have recognised that some criticism was valid and taken steps to reform our supervisory process. But the blunt fact is that even if we had had a better supervisory process in place, it would have made only a small difference to the evolution of the financial crisis in the UK. The far bigger failure, shared with regulators and central banks across the world, was our inability to see that the growth of the system of complex securitised credit intermediation, changing patterns of maturity transformation, and rapid cross-economy credit growth, in the UK and globally, had created huge systemic risk.

We need in future, at national and global level, to analyse trends in credit growth, in whole system maturity transformation, in institutional and product embedded leverage, and in the inter-linkages between different parts of the financial system, bank and near bank. We need to identify emerging risks and ensure that these are addressed by system-wide prudential tools which can help 'take away the punch bowl before the party gets out of hand' rather than relying solely on monetary policy to achieve that end.

Countercyclical capital and accounting

There are several such potential tools. But a clear priority is a countercyclical capital adequacy regime, requiring banks to build up capital in good times, both in order to constrain excessive growth in the upswing and to provide buffers which can be drawn on in the downswing. Two key issues then arise:

- Should that countercyclical requirement be discretionary, reflecting evolving macro-prudential analysis, or should it be hardwired through some formula, such as in the Spanish dynamic provisioning system? The FSA believes that there may be a role for a discretionary element, but that it needs to be underpinned by the discipline of an automatic formula. Once the memory of this crisis has faded, there will again come times when the judgements of regulators are seen as tiresome impediments to innovation and growth and when financial institutions will argue and lobby against what they see as unnecessary constraints. We cannot rely solely on our permanent ability to resist such arguments and to stand against the conventional wisdom of the time: we need to hardwire some countercyclicality.
- And should countercyclicality be reflected also in published accounts? We believe it should: that alongside but separate from the accounting lines we have now – the fair value lines for trading books, and the impairment provisions for banking books – we need a forward-looking Economic Cycle Reserve, concentrating management and investors' attention on the inherently cyclical nature of banking risks. Banks are different: and accounting for banks needs to reflect that fact.

More capital – especially against trading books

In addition to countercyclical capital, however, we also need more capital in total across the banking system, and in particular more capital against trading book risk, where the existing regime has proved wholly inadequate. The Basel Committee has already proposed changes which by the end of 2010 will very significantly increase trading book capital requirements – the impact on some categories of activity could be as much as three times as much capital required as today. But we also need a fundamental review of how we think about trading risk. We know that Value at Risk (VAR) measures, widely applied and praised as mathematically precise measures of risk, are potentially pro-cyclical and at times deeply inadequate, particularly in periods of systemic stress. But we have a lot of work to define a better technique, or most likely techniques (plural), for I suspect that the key to progress will be to recognise the different risks which arise in different categories of trading activity, and the way in which risks depend on the inter-relationship between the characteristics of the assets and the characteristics of the funding.

Major reforms to liquidity policy

Thirdly, we need major changes and a dramatically increased focus on liquidity. Changing techniques and patterns of maturity transformation played a key role in the origins of the crisis. Many banks, particularly some in the UK, placed increased reliance on funding via wholesale interbank markets. But in addition, maturity transformation was increasingly performed not on bank balance sheets, but by non-banks and off-balance-sheet vehicles – investment banks, mutual funds, SIVs. And hugely increased reliance was placed on liquidity through marketability – the idea that it was safe to fund contractually long-term assets with short term repo finance, because the assets could always be sold when needed.

These changes were profound, but regulators and central banks across the world failed to appreciate that fact. Bluntly we took our eye off the ball on liquidity, while directing a huge intellectual effort to the complexity of Basel 2 banking book capital reform. Liquidity regulation needs to return to centre stage, a key focus both of individual firm supervision and of macro-prudential analytical attention.

The FSA is therefore already committed to introducing new liquidity regulations which will require larger buffers of high quality clearly liquid assets, and which will create incentives for banks to extend the tenor of their liabilities, placing less reliance on short term wholesale deposits. The result will be less maturity transformation in each individual bank and less maturity transformation across the whole system, and thus lower total system liquidity risks.

So three core changes: a macro-prudential approach, more capital and countercyclical capital, and more effective liquidity regulation. There is very significant global agreement on this agenda. But there are many details of implementation to be worked out, and some areas where we don't yet have clear answers, where more reflection is required.

I'd like to highlight three in particular:

- How much more capital; how tight liquidity constraints?
- How to deal with large complex banks?
- How to deal with large cross-border banks?

How much more capital; how tight liquidity constraints?

It is generally agreed that we need more capital across the global banking system and higher quality capital, in particular more common equity. But the question then is how much more? What are optimal banking system capital ratios? What is perhaps surprising is how little that has been debated over the last ten to fifteen years of intense global debate about the details of bank capital adequacy regimes. In designing the Basel 2 regime we have considered in

detail the relative capital treatment of different categories of risk, but we have proceeded on the assumption that total aggregate capital across the banking system should remain roughly what it was before.

We now need, as we design a new long-term system, to address the fundamental issue we have previously avoided. That requires addressing some complex theoretical issues:

- the advantage of more capital is that it will increase the resilience of the system, thereby reducing the likelihood of banking crises and the harm that they cause⁵;
- the apparent disadvantage, at first sight, is that higher capital requirements will increase the costs of the banking system and thus the costs to the real economy of credits intermediation. But if the Modigliani and Miller theorem holds, the required additional quantity of capital is offset, at least partially, by the lower risk and thus lower cost of equity capital.

A crucial issue to consider is therefore whether higher capital requirements do impose a long-term macroeconomic cost, and if so how large. Any such impact would then need to be traded off versus the stability benefits of a more highly capitalised banking system: a trade-off between a slight decrease in the long-term sustainable growth rate, and the harm done by periodic setbacks to growth of the sort we are now suffering.

Having just learned how harmful instability can be, we should rationally shift the trade-off towards greater stability. The direction of change should therefore clearly be towards a banking system which has higher equity capital, lower returns on equity capital, but also lower risk: a more boring investment, but the safer one. But how far we need to go in that direction needs careful thought.

Similarly in relation to liquidity. If in order to have a more stable system we need, both at the individual bank level and the total system level, to limit the degree of maturity transformation, i.e. to limit more than in the recent past the extent to which individual banks and total system are able to lend long but borrow short, there must in theory be an economic cost. This cost would arise from a change in the term structure of interest rates. If the banks have to hold more short-term assets, and fund with somewhat longer tenor liabilities, than long-term interest rates should marginally increase relative to short term in order to induce the non-bank sector to hold the converse position. This slight rise in long-term interest rates would in theory be marginally less favourable to long-term investment.

In theory therefore we have the same trade-off as with capital. Tighter control of liquidity may have a marginal negative impact on long-term investment and thus growth, but deliver the benefit of reduced instability, and thus a reduced likelihood of the major harm to medium-term growth and human welfare which we are now seeing. And, as I argued above in relation to capital requirements, the events of the last two years, which have revealed how huge the costs of instability can be, should logically lead us to put more weight on the avoidance of instability, even at some slight long-term cost. But how much we shift the trade-off deserves careful thought. And in our macro-prudential analysis, we need to develop much better understanding than we have had in the past, of the overall degree and nature of maturity transformation in the banking and near banking system, and how the aggregate extent of maturity transformation, and the mechanisms through which it is being achieved, are evolving over time.

How to deal with large complex banks?

The second open issue is how to deal with large complex banks. The problem is clear. In the run-up to this crisis, several large commercial banks, which perform basic banking functions for companies and households, and whose retail deposits are insured, were extensively involved in risky propriety trading, which generated large bonuses for individual bankers but produced large losses which taxpayers have had to underwrite. How then should we deal with 'too-big-to-fail' banks? And with banks which span classic banking and investment banking activities?

One proposition sometimes out forward is that we should make it clear that there is no ‘too-big-to-fail’ category, and that if we define well in advance how we would resolve rather than support even the very largest banks, imposing suitable haircuts on non-insured bondholders and creditors, we could usefully reintroduce market discipline into the system. But there would be huge problems with such an approach: resolution rather than support of a large complex bank will always be incredibly difficult to achieve without serious knock-on effects. And, as I describe in my Review, market discipline is often ineffective: after all, equity shareholders, who quite rightly can suffer huge losses if a bank gets into trouble and who knew that in advance of the crisis, were not at all effective in disciplining management action prior to 2007. I suspect we simply have to accept that there is a ‘too-big-to-fail’ and ‘too-connected-to-fail’ category, and accept that the primary discipline on excessive risk-taking by this category comes through regulation rather than market discipline. A crucial objective of effective regulation is therefore to protect taxpayers against the costs that they will inevitably have to bear if a large systemically important bank does get into trouble.

Another proposed way forward is to force a separation of classic narrow banking from risky investment banking activities (or as some would have it ‘casino banking’ activities) reimposing a Glass-Steagall type distinction, and to make it clear that institutions on the risky side of the fence are on their own when in trouble. The objective is in principle attractive, but for reasons set out in my Review, it is not clear that it would effectively address the problem, or that a clear and appropriate division of functions is practical in today’s complex and global economy. It is certainly not the case that we can simply leave to market discipline institutions on the risky side of the fence: Bear Stearns and Lehman Brothers were not banks and did not enjoy the benefit of insured deposit funding, but they turned out to be systemically important. And narrow banks doing classic commercial banking can get into trouble as much as universal or investment banks doing risky trading – Indy Mac, Washington Mutual, and Northern Rock were all narrow banks: HBOS’s problems almost entirely stemmed from classic banking activities.

For those reasons my Review did not suggest a new Glass-Steagall type legal distinction, but rather the imposition of new capital and liquidity regimes for trading activity. The clear objective and likely impact of such regimes would, however, be very similar to those which a Glass Steagall type separation would attempt to achieve:

- it would almost certainly result in an increasing number of banks choosing to focus entirely on classic commercial banking activities; and
- it would help ensure that where commercial banks are significantly involved in trading and market making activities, they should and will be doing so as a means of providing necessary services to commercial customers, rather than a standalone activity.

My judgment is that that should be the way forward, and that in a world where many countries never had a Glass-Steagall divide, it will be. But if we are to go down this route, rather than a more hard and fast legal divide, we certainly need to make sure that those trading book capital and liquidity regimes are effective and effectively applied.

And we should I believe be open minded to a third potential way forward, which I did not address in The Turner Review, but which has been proposed by others, which is that large systemically important ‘too-big-to-fail’ banks should have to maintain higher capital ratios than applied on average. There would of course be implementation difficulties in such a strategy. It would require the definition of which banks are systemically important and too-big-to-fail, somewhat reducing the flexibility of the authorities to respond to the particular circumstances which might pertain in future periods of financial stress. But is certainly a possible way forward and should be evaluated alongside work on the details of the capital and liquidity regimes.

How to deal with large cross-border banks?

That evaluation also needs to cover the specific issues of large cross-border banks, banks with large operations in many countries and which in some cases are very large relative to the

size of their home country. The crisis and in particular the failure of Lehman Brothers has revealed what in the Review I describe as fault lines in the regulation and supervision of cross-border banks. The essence of the problem, as Mervyn King has elegantly put it, is that global banks are global in life, but in death or rescue from death they are national. Decisions about fiscal and central bank support are ultimately made by home country national authorities focusing on national rather than global considerations, and in failure specific legal entities and national specific bankruptcy procedures have major implications for creditors.

We should offset these problems as much as possible via increase global coordination – through the effective operation of global colleges of supervisors, and through the development of cross-border crisis coordination plans – both major priorities of the Financial Stability Forum (now the Financial Stability Board) and strongly supported by the FSA. But we must recognise the limitations of what we can achieve by improved coordination. Until and unless we have a global government deploying global fiscal resources to support banks if global supervision is ineffective – something I do not anticipate seeing in my lifetime – the solvency and liquidity of specific national legal entities will matter. The direction of change is therefore inevitably going to be towards national authorities demanding that the local operations of global banks are separately and strongly capitalised, and that ring-fenced liquidity is held at individual national entity level. Pursued to the limit, this would make global banks increasingly like holding groups of individual national banks, rather than single integrated businesses.

That of course raises concerns among major international banks. They would like to be able to manage their capital and liquidity on as global a basis as possible, and argue that national ring fencing of capital and liquidity increases total cost of operation. That in turn, it may be argued, might have consequences for the ability of global banks to play their role in lubricating the flows of capital and trade which are vital to a successful global economy. We need to understand whether and to what extent and in what circumstances this is a valid argument.

This is of course a subset of the theoretical issue I posed above: when we require the banking system to hold more capital, or more liquidity, what consequences follow for macroeconomic performance, for long-term investment and growth. We need to answer that in general and specifically as it relates to cross-border banks required to hold capital and liquidity at local level. I don't think that today we have certain answers to either question; detailed reflection and analysis is required.

But it is important to be clear what the question is: it cannot be simply, 'would tighter capital and liquidity constraints, imposed at group level as well as a national entity level have hassle factor consequences and cost base consequences for individual global banks?': obviously they would. It has to be 'what are the macroeconomic consequences of these constraints and how should any implications for long-term investment and growth be traded-off against the benefits of greater stability?'.

And, overall, the value of financial stability needs to be central to our deliberations. The cost of the recession we now face – in lost output, in postponed investment, and in the human welfare of individuals affected by unemployment and sudden losses in wealth – will be huge. Any benefits of the wave of complex financial innovation we have been through would have had to be very large to outweigh these costs. But it is unclear that that wave of financial innovation could ever have delivered significant benefits even if it had not also created major instability. Looking forward, as Ben Bernanke recently argued, we must not assume that all financial innovation is valueless: clearly it can sometimes deliver real economic benefit. But we need to recognise that not all innovation is useful: and we need to recognise that financial stability is hugely important. We need to design a banking system and credit intermediation system focused on its core and essential functions in the real economy and better able to be a shock absorber rather than itself a source of instability.

Footnotes

¹ IMF World Economic Outlook, Crisis and Recovery, April 2009

² IMF World Economic Outlook, Crisis and Recovery, April 2009

³ Ben Bernanke 'Essays on the Great Depression', Chapter 2 'Non monetary effects of the financial crisis'

⁴ IMF World Economic Outlook , October 2008

⁵ A key insight of the Modigliani and Miller theorem is that the average cost of capital (meaning in this sense all equity and debt finance and not simply 'capital' as we define it in the context of bank regulation) should be unaffected by leverage in the absence of corporate taxes, but that corporate taxes can introduce an incentive for a firm (whether a non-bank or a bank) to increase leverage and minimise equity funding. It should be noted, however, that since taxes are received by the government, increased bank equity requirements might not have a social cost even if they have a private cost of capital impact. And it would be possible to combine increased capital requirements on banks with changes to taxation approaches which brought social optimality and private incentive into closer alignment.