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(p) refers to a page of written evidence

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ABSTRACT

The City is a major engine of economic growth and London is the world's leading financial centre. 2007 and 2008 saw the biggest financial crisis since the 1930s.

Yet the financial sector has long been more closely regulated and supervised than the rest of the economy. Successive frameworks of regulation have recognised the need to monitor financial institutions carefully in case problems in one spread to others and threaten the financial stability the regulatory system exists to protect.

There is broad agreement about the background to the banking crash. Banks looking for better yields from plentiful, cheap money made much more use of complex financial instruments, without fully understanding the risks to which they were exposing themselves and the financial system. Defaults on subprime mortgages underlying some of the instruments shattered confidence and financial markets seized up. The decision to allow Lehman Brothers to fail created a loss of trust between financial institutions. Governments and regulators took costly, emergency action to avoid collapse of the banking system and limit the impact of the financial crash on the wider economy.

Why did the framework of regulation and supervision, in Britain and elsewhere, fail to fulfil its principal purpose of avoiding or mitigating financial crisis? There are many reasons, including:

- the application of the regulations themselves contributed to the crisis and made it worse when it came because, among other things, they had a pro-cyclical bias, did not pay enough attention to liquidity, had built-in reliance on ratings agency opinions and were wide open to regulatory arbitrage;
- the tripartite authorities in the United Kingdom (Bank of England, Financial Services Authority (FSA) and Treasury) failed to maintain financial stability and were found wanting in dealing with the crisis, in part because the roles of the three parties were not well enough defined and it was not clear who was in charge;
- too little attention was paid in the United Kingdom to macro-prudential supervision (oversight of the aggregate impact on financial stability of individual banks' actions); only the Bank of England and the FSA were in a position to assess it;
- the FSA concentrated on its responsibility for conduct-of-business supervision (concerned mainly with consumer protection) and did not pay full attention to micro-prudential supervision (the solvency and sustainability of individual banks);
- the FSA had an inadequate understanding of the complexity and limitations of the risk assessment models used by the banks it was supervising.

It seems clear that the causes of the crisis were not simply management failure at some (but by no means all) banks but also commensurate failures in regulation and supervision, together with shortcomings on the part of the ratings agencies.

The lessons of the crisis are being digested around the world. In many financial jurisdictions, the balance between market forces and regulation is under scrutiny.

So is the fitness for purpose of regulatory frameworks. Outcomes may vary. But markets are global and supervision is not. Whatever changes are made, regulation at national and European level needs to remain broadly aligned to help restore international financial markets as an essential underpinning of global growth and development. National supervisors and regulators could help promote confidence by increasing the intensity of consultation and exchange of information in international advisory bodies, notably on macro-prudential supervision.

But there should be no rush to change the rules of the game. Post-shock, banks are again cautious and most are unlikely to embark on new adventures soon. The main thing is to get changes right. Decisions on some issues should be made when the dust has settled, so that the outcome of emergency stabilisation measures can be judged and the market's response to the crisis is clearer.

Nevertheless, where the need is clear early action must be taken. The Government has already remedied a gap in the legal framework exposed by the crisis. The Banking Act 2009 draws from the failure of Northern Rock the lesson that special resolution provisions are needed for banks since their failure can threaten the whole financial system. The Treasury is already planning further measures in this area.

The Committee recommends that the Government should as a matter of priority revisit the tripartite supervisory system in the United Kingdom. It should return responsibility for macro-prudential supervision to the Bank of England, with executive powers to be exercised through a broader-based Financial Stability Committee (FSC), including substantial representation from the FSA and the Treasury. This arrangement would be consistent with the Bank's enhanced statutory responsibility for financial stability. The Bank must have adequate institution-specific information to function effectively during a financial crisis. At the same time, the Government should give further thought to where responsibility for micro-prudential supervision should lie.

The Committee also recommends that:

- supervisors and regulators should subject bank risk models to much more rigorous stress-testing;
- Credit Default Swaps (CDSs) should be reported and centrally cleared;
- regulatory capital requirements for assets on banks' trading books should be substantially increased.
- branches in the United Kingdom of multinational banks should be subject to greater oversight by the British authorities.

The authorities must move rapidly to develop policies on a range of issues highlighted by the crisis to:

- counter pro-cyclicality in existing regulations;
- regulate liquidity;
- remove agency ratings from regulations;
- give ratings agencies an economic interest in the accuracy of their ratings;
- improve the governance of bank boards.

It is still early days in the aftermath of the financial crisis. Bankers, depositors, businesses, regulators and governments are all adjusting in their own ways. All concerned have a role in rebuilding confidence and a robust system. The authorities should move rapidly to establish the right framework for regulation of the financial system, including competition policy and the reach of the state safety net. But there should be no rush to all-embracing new legislation. Changes to the rules must not only strengthen the banking system but reinforce confidence and the competitive position of British banks and the City.

Banking Supervision and Regulation

CHAPTER 1: INTRODUCTION

The financial crisis of 2007–2008

1. The great financial crashes of history tend to be sudden and shocking, like the bursting of the South Sea Bubble in the 1720s, and to have disastrous effects on the wider economy, like the Wall Street Crash of 1929. The scene for the crisis of 2007–08 was set by international macroeconomic imbalances, low interest rates, rapid credit expansion and much greater use of complex financial instruments in a search for better returns, so that markets became harder to understand. But little heed was paid to the risks before the bubble burst. As Chuck Prince, the ex Chief Executive of Citibank, said: “... as long as the music is playing, you’ve got to get up and dance”¹.
2. The crisis broke when confidence was lost between banks around the world. Alan Greenspan, the former chairman of the Federal Reserve, went so far as to say of modern risk management models that “the whole intellectual edifice ... collapsed” in the summer of 2007². The effects on the global financial system were far-reaching. Interbank lending dried up. The impact on some financial institutions, notably in the US and the UK, was catastrophic. Huge government bailouts followed.
3. The crisis brought an abrupt and devastating end to an apparently benign period during which the world economy had experienced sustained growth with low inflation. The world economy is shrinking for the first time since 1945. The first priority of economic policy makers around the world has been to stabilise the financial system. Also vital are their efforts to limit the impact of the financial crash on the wider economy as the world faces the worst recession since the Great Depression of the 1930s.
4. In Britain, several large banks have turned to the state for support and some have failed altogether. Mainly as a result, Government debt is rising to levels unheard-of in peacetime. The impact on the wider British economy has been dramatic. After 15 years of sustained growth, it is expected to shrink about 4% this year. Unemployment is rising fast. There are concerns about the City’s position as a leading financial centre. The effects are likely to persist for some time. This report is concerned mainly with the regulation and supervision of the financial services sector, rather than the larger question of the role of financial services.

Financial supervision and regulation in the United Kingdom

5. **This Report examines the supervisory and regulatory framework in the United Kingdom when the crisis broke and recommends changes.**

¹ “*Bullish Citigroup is ‘still dancing’ to the beat of the buy-out boom,*” Michiyo Nakamoto and David Wighton, *Financial Times*, 10 July 2007.

² Testimony of Alan Greenspan, Committee of Government Oversight and Reform, House of Representatives, 23 October 2008.

A key role of regulation is to prevent crises or to mitigate their effects. The present system failed to do so. Inadequate regulation around the world also played a part as the crisis unfolded. There should, however, be no rush to action. The financial sector is unlikely to embark soon on risky new adventures. The main objective of policy should be to change the regulatory regime in order to make future crises on this scale less likely without stifling innovation.

6. The financial sector is subject to much closer supervision than, say, manufacturing because banks are critical to the operation of the economy. As Professor Geoffrey Wood told us, “Banks are important in a way no other kind of firm is important. No economy can function without a functioning banking system. The greatest example of this is, of course, the Great Depression of the 1930s in the United States. The greatest depression in recorded history was a consequence very largely of bank failure” (Q 66).
7. Close supervision is needed because bank failures can have wide-ranging external effects—on depositors, taxpayers, other financial institutions, businesses and the economy as a whole—not taken into account in day-to-day banking decisions. Mr John Varley, Chief Executive of Barclays, said: “My view would be that with the involvement of taxpayers’ money, whether it is in this country or in another country, of course goes a taxpayer’s agenda of some sort” (Q 443). Mr Douglas Flint, Group Finance Director of HSBC, said it would be “entirely appropriate for there to be clear accountability to the taxpayers who have put money at risk, put money up for the capital of banks” (Q 443).
8. Financial regulation is effective when it addresses these external effects or “externalities”, either by making banks and other financial firms pay for the consequences of their actions, or by restricting their actions so as to avoid the most damaging effects of financial failure, at least cost in terms of reduced competitiveness, discouragement of innovation or encouragement of avoidance.
9. We use the term “regulation” to refer to the rules that govern the behaviour of financial intermediaries, and “supervision” for monitoring and enforcement of the rules. Most financial supervision falls into three broad categories:
 - *Micro-prudential* supervision checks that individual financial firms are complying with financial regulation. It involves the collection and analysis of information about the risks that the firms take, their systems, and their personnel. Because micro-prudential supervision uses firm-specific information to generate a picture of risk and its management, it is often referred to as “bottom-up supervision”.
 - *Macro-prudential* supervision is concerned with the aggregate effect of individual firms’ actions. A lending decision which appears sensible at an individual bank may engender system-wide risk if it is taken by every bank. Because it aims to generate an overall picture of the functioning of the financial sector, macro-prudential supervision is often referred to as “top-down supervision”.
 - *Conduct-of-business* supervision is concerned with consumer protection, inter-firm transactions, insider trading, and other matters including measures against money-laundering.

Scope

10. The purpose of this report is to draw the right lessons for Britain from the crisis. In particular:
 - (a) to examine the effectiveness of British banking supervision and regulation before and during the crisis, and of policy responses since; and
 - (b) to recommend changes where appropriate.

At the same time as our inquiry, Sub-Committee A of the EU Committee of the House of Lords has been conducting an inquiry into EU aspects of the crisis and the Treasury Committee of the House of Commons one into the Banking Crisis. Our report focuses specifically on banking supervision and regulation.

CHAPTER 2: THE HISTORY AND CAUSES OF THE FINANCIAL CRISIS

11. The macroeconomic backdrop³ to the crisis was the development of imbalances between major world economies. Oil-exporting and some Asian economies had very high levels of savings, which were used to finance deficits in western economies. The United States experienced large capital inflows from Asian countries. As a consequence, interest rates were low in the West. Natural market stabilisers were weakened by a fixed Chinese exchange rate, which prevented the currency from appreciating, and by relaxed monetary policy in the West, which arose in part because cheap imports from Asian countries such as China kept standard measures of inflation low. Indeed, Mr Jacques de Larosière informed us that “The main fundamental cause of what happened was the piling up over ten or 15 years of easy—too easy—monetary policies” (Q 352).
12. These macroeconomic effects arose in a remarkably benign economic environment. Between 1992 and 2008, the UK experienced 63 quarters of uninterrupted GDP growth⁴. This fact, coupled with rising asset prices, generated a high demand for credit from both households and businesses. The same factors increased the willingness of investors to assume risk. At the same time, investors responded to the low prevailing interest rates by seeking out new investments that appeared to promise higher returns, without breaking their investment mandates. This “search for yield” resulted in increased levels of risky lending. In the United States, this was partly manifested in the market for subprime mortgages (advanced to borrowers with poor credit histories and minimal deposits, who may be unable to document assets or income). Between 2003 and 2005, the number of subprime mortgage loans in the US increased from 1.1 million to 1.9 million; subprime and near-prime borrowers accounted for 10% of mortgage originations in 2003, and for 32% in 2005.
13. Many subprime, and other, lenders financed themselves by selling bonds backed by the income streams from their mortgage loans. The process by which these bonds were created is known as *securitisation*. Securitisations have become an increasingly important source of funds for financial intermediaries in the last decade. When mortgages are securitised, they are transferred to a special company, known as a Special Purpose Vehicle, or SPV. The SPV uses the mortgages to support the issuance of several different bonds, each of which is known as a tranche. Securitisations of non-mortgage assets are also important in the financial market. For example, a *Collateralised Debt Obligation*, or CDO, is a securitisation of corporate bonds and loans.
14. Investors in securitisations earned high returns and, as investors sought yield in the pre-crisis low-interest rate environment, securitisations became attractive. Although tranching securitisations enables the SPV to create bonds with different levels of risk and different maturity profiles, it also makes securitisation deals hard to evaluate. As a result, securitisation investors rely upon assessments of creditworthiness provided by specialised

³ A summary of the facts, with some supporting statistics, appears in the *Turner Review*, FSA, March 2009, pp. 11–35.

⁴ Seasonally adjusted GDP figures can be downloaded from the Office of National Statistics website, at <http://www.statistics.gov.uk/statbase/tsdtables1.asp?vlnk=pn2>

credit rating agencies. The most important are Moody's, Standard & Poor's, and Fitch.

15. Banks and other financial institutions were exposed to the securitisation market for three reasons; each type of exposure was in part attractive because it entailed a lower regulatory capital adequacy charge than similar ways of achieving similar results. First, many banks relied upon securitisations to fund their lending activities, particularly in the mortgage markets. Second, some banks had significant holdings of risky securitised assets. Third, some banks supported conduits and Structured Investment Vehicles (SIVs).
16. Conduits and SIVs invest in a pool of long-term assets and, as with a securitisation, they finance their purchases by issuing tranches of securities backed by the cash flow from their pool of assets. The securities issued by SIVs are short-term, with an average maturity of 90 days, and are called Asset Backed Commercial Paper (ABCP). SIVs are exposed to the liquidity risk that they may be unable to issue new ABCP every 90 days to finance their long term assets.
17. The type of liquidity risk assumed by conduits and SIVs is the traditional preserve of the regulated banking sector where short-term liabilities like deposits are used to finance long term assets like mortgages which are repaid over many years. Conduits and SIVs constitute a new, unregulated, shadow banking sector. In many cases, however, banks retain much of the liquidity risk to which shadow banking vehicles are exposed, even though it does not appear on bank balance sheets. The reason is that sponsoring banks often give conduits and SIVs a credit line, known as a liquidity backstop.
18. There were minimal reporting requirements for securitised assets. Bank exposures were hard to identify. Securitisations were also extremely complex. This had two consequences. First, directors at board level, executive and non-executive alike, often had a very imperfect understanding of the risks to which their institutions were exposed. Lord Myners told us "it is quite clear in a number of our banks that understanding by the total board of directors of what was going on in the bank was not adequate" (Q 562). Second, banks, supervisors and investors were very reliant upon risk assessments provided by credit ratings agencies, or created by banks using their own mathematical risk models. These models were hard to validate and were very sensitive to critical parameter estimates. Market confidence was closely bound up in confidence in the models.
19. Subprime investors started to report losses during the second quarter of 2007. In May 2007, the credit rating agency Moody's placed 62 tranches of mortgage-backed securitisations on "downgrade review", indicating that they were likely to reduce their assessment of the creditworthiness of these tranches. Further tranches were downgraded in June and July 2007. As a result, because investors were often completely reliant upon rating agency assessments, many market participants started to express concerns about the valuation of securitised deals. On 9 August 2007, the French bank BNP Paribas temporarily halted redemptions on three of its funds, because it was unsure of the value of US subprime mortgage securitisations held by the funds.
20. In the wake of BNP Paribas' action, financial markets lost faith in the valuation of securitized assets. Many institutions started to hoard cash, both because they were no longer sure of the creditworthiness of their

counterparties, and because they were aware that they might need the cash to cover shocks experienced in their own portfolios. Overnight interest rates increased sharply, and the market for securitisations dried up. The cost of bank funding increased dramatically, and many banks found it very difficult to borrow money for more than a week. In September 2007, one of the casualties of this market change was the British bank Northern Rock, which relied upon securitisations to finance its mortgage loan portfolio⁵. The Northern Rock failure exposed problems with bank insolvency procedures in the United Kingdom, which the Banking Act 2009 is intended to address.

21. Ratings agencies steadily downgraded their assessments of securitisations in late 2007 and 2008. On 30 January 2008, Standard and Poor's downgraded over 8,000 securitised assets. The effect of these and other downgrades was a widespread loss of confidence in the banking sector. Investors became concerned that banks' portfolios might be worth far less than had previously been believed, and market assessments of bank riskiness were adjusted upwards. Banks' capital resources were placed under strain, so that they worked to reduce their market exposure by lending less, and by reducing their holdings of risky assets. The aggregate effect of these actions across the market was to heighten system-wide risk, and so to make the problem worse. Some of these actions were taken in response to regulatory constraints. Their effects are often referred to as pro-cyclical. They made deteriorating macroeconomic conditions worse.
22. Financial sector stresses worsened throughout the summer of 2008. The autumn saw a number of high-profile failures. The US mortgage finance agencies Fannie Mae and Freddie Mac were taken into public control on 7 September 2007. Their failure heightened existing concerns about the quality of mortgage-backed assets, and the solvency of institutions that had a large exposure to them, or that were heavily reliant upon wholesale funding. Lehman Brothers was particularly exposed on both counts, and its holding company and European subsidiary went into administration on 15 September. The following day, the US insurance firm AIG, which was heavily exposed to the credit markets via securitisations and other structured products, accepted \$85 billion of government support in return for a 79.9% stake.
23. The decision of the US government to allow Lehman Brothers to fail on 15 September 2008 destroyed market preconceptions that no large financial institution would be allowed to fail, and caused a significant further loss of confidence in the financial sector. With hindsight, this is seen as a serious mistake on the part of the US government. Financial institutions responded to the perceived weaknesses of their peers by attempting to diminish their exposure to one another. The consequence was further restrictions in the availability of wholesale funding. This effect extended to the shadow banking sector (see paragraphs 15–17), which experienced severe funding difficulties. Although sponsoring banks had no legal obligation to do so, for reputational reasons many elected during the last quarter of 2008 to take struggling SIVs onto their already-stressed balance sheets.
24. Weakening balance sheets and tight funding markets resulted in severe financial distress in the UK banking sector. Weak institutions were taken

⁵ Northern Rock's failure is documented by the House of Commons Treasury Committee Report (26 January 2008) *The run on the Rock*, (HC 56)

over, or were forced to accept state support. Alliance & Leicester was acquired by the Spanish bank Banco Santander in July 2008; in mid-September the UK Government waived competition law to enable Lloyds TSB to acquire the troubled bank Halifax Bank of Scotland; Bradford and Bingley failed at the end of September, and was partially acquired by Abbey National. On 8 October, the UK Government announced a recapitalisation plan for UK banks and building societies. A government-owned company, UK Financial Investments Limited (UKFI), was established on 3 November to manage the Government's holdings of financial institutions. In addition to Northern Rock and Bradford and Bingley, these include 43.5% of the Lloyds Banking Group, and 70% of RBS.

CHAPTER 3: COMPLEXITY IN FINANCIAL SERVICES

Types of Complexity

25. Increased complexity in the financial services sector in the last decade has taken at least four forms. First, the scope of activities has increased significantly. The number of large universal banks, which combine commercial banking with investment banking and/or insurance business has grown throughout the decade. This trend was made possible in the United States by the passage in 1999 of the Gramm-Leach-Bliley Act. This repealed the Glass-Steagall Act of 1933, which had prevented commercial banks from underwriting securities. The impetus towards universal banking appears however to be economic and technological: universal banking has expanded in Europe, too, where it has always been legal.
26. Second, there has been an increase in the scale of financial intermediaries. Banks have merged within countries, and also across borders.
27. Third, financial innovation has been far-reaching, notably in credit-related products such as securitisations (see paragraph 13) and credit default swaps (CDSs). In a CDS one party promises in exchange for a fee to reimburse another for losses incurred on a credit-risky security for a certain period. CDS trades are economically useful for a number of reasons. They allow institutions that cannot originate loans to expose themselves to corporate loan risk; they enable banks to hedge out risks that might otherwise leave them with excessive risk concentrations on their loan portfolios; and they allow market players to assume short positions in corporate debt markets.
28. Notwithstanding their economic utility, securitisations and CDS trades are hard to evaluate. They generate a fourth complexity by separating the lending decision (“origination”) from the holding and managing of the ensuing default risk. For example, insurance companies can now assume risk on bank-originated debt to which they previously had no access. This trend has blurred the traditional lines between financial institutions.

Reasons for Increased Complexity in Financial Services

29. Increased complexity has arisen for a number of reasons. The first is technological and economic. Advances in computer science have enabled banks to embody in computer code expertise that would have relied upon manual effort less than a generation ago. As a result, the efficient scale of banks has expanded, aided by advances in financial economics that have allowed financial institutions to use computer-based models to perform risk management activities that would in the past have relied upon the judgement of individuals with limited processing power. And banks have expanded their activities in line with the international reach of their biggest corporate customers and advances in financial innovation.
30. The second reason for increased complexity was regulation, in this case an unintended consequence: bankers devote resources to the avoidance of costly regulation. This is known as “regulatory arbitrage.” Critics of existing regulation argue that its main effect is to generate regulatory arbitrage to little useful purpose. Indeed, Professor Perotti told us “I am convinced that however [derivative securities] are described as very complex, part of the

reason they are complex is that they were exactly designed to go around regulation” (Q 222).

31. Regulatory encouragement to complexity can take a number of forms. First, since large banks are now generally believed to be supported by the state when they become financially fragile, growth in size (and hence complexity) in order to reduce cost of capital has enabled very large banks to take indirect advantage of a too big to fail policy.
32. Second, partly because commercial banks in the UK have historically been financially sound, and partly because they are protected by a deposit insurance safety net, depositors in the UK believe that they are exposed to little or no risk. As a result, they are prepared to accept lower rates of return than other investors. Some commentators have argued that one reason why commercial banks expand the scope of their activities is to use this cheap source of funding in other areas. This use of depositor funding is discouraged by regulations, since, when depositors assume higher risks, these risks are ultimately borne by the deposit insurance fund, which is underwritten by the state. Nevertheless, banks have shown themselves to be remarkably adept at innovating around barriers to this type of expansion of the deposit insurance safety net. For example, rather than engage in a prescribed business themselves, they might elect instead to lend money to a company specialising in that business. In so doing, they would expose the deposit insurance fund to that business.
33. Finally, regulation also drives some financial innovation. For example, banks might securitise loans and sell them to insurance companies not because this generates diversification benefits, but because insurance companies, which are less heavily regulated, are willing to accept a lower return on bank loans than the originating bank, which is subject to stringent capital requirements. Chapter 4 discusses capital regulation and its effect upon financial innovation.

Consequences of Financial Sector Complexity

34. Complexity has altered the way banks do business. The emergence of new products has made it impossible for the large banks which trade them to manage their risk without recourse to mathematically complex and computationally intensive models. Professor William Perraudin stated “I do not think it is possible to understand risk in banks and the complexity of that risk without using models. It is necessary for senior people, for regulators, to take a view on business approaches and broad strategies but I tend to think that there are no alternative models in the way that financial firms currently operate” (Q 105).
35. Nevertheless, Dr Jon Danielsson identified a danger arising from the use of financial models, saying “In my view in a way models have replaced human intelligence in banking and that is one of the key reasons why we are in the crisis we are in” (Q 105).
36. If formal models of markets have displaced human intelligence, one reason might be that they appear more scientific than they are. Professor Goodhart told us that the problem was “too many physicists who rely on short data periods and not enough historians who look back at the longer period” (Q 212). Two aspects of this problem are:

- First, some models were calibrated using market data over relatively short periods. Professor Wood stated that “many of these financial models were fitted on large numbers of high frequency data, daily, maybe even hourly data. You get a very good statistical fit if you do that but, as I always tell my students, you get much more interesting information with 100 years of annual data than a thousand days of daily data” (Q 8). Dr Danielsson characterised the bank modelling process as follows: “You take historical data only spanning a few years. You put that into a statistical model and that model tells you your future outcomes” (Q 111). If models are calibrated using recent data then, towards the end of a boom, they paint a rosy picture likely to intensify market hubris, and so to aggravate any tendency towards speculative bubbles. An additional data problem may have arisen because the available data on subprime mortgages reflected a world in which relatively few such mortgages were extended. If the increased volume of subprime lending was achieved by lowering credit standards then the historic data would have given a misleading impression of the riskiness of new loans.
 - Second, financial models rely upon a number of parameters: the expected return on debt instruments, the volatility of their returns, and the correlation of movement between different assets. These parameters are treated like the constants in the natural sciences. Market parameters are not however constants, but are determined by the aggregate behaviour of many individuals, who act in response to the beliefs and expectations they form as they interact with other people. As a consequence, an excessively literal interpretation of model outputs may be misleading in times of crisis, when beliefs, and hence the parameters that follow from them, are subject to violent swings. Professor Perraudin noted “the problem of understanding feedback from other firms’ actions and other firms’ positions is very challenging” (Q 106).
37. Wide use of mathematical risk models suggests that they should be closely supervised, since model failure is likely to have system-wide consequences. Moreover, banks are unconcerned with the externalities that justify financial regulation. Models designed for risk assessment within banks are therefore of limited value to financial supervisors whose decisions should reflect the size of these externalities. Mr Michael Foot, formerly head of banking supervision at the Bank of England, told us “one of the issues to me is how the quants [that is, the technical specialists within the banks] managed to basically fool us all in many ways” (Q 145). Dr Danielsson told us “the regulators substituted a more detailed look at the banks with just looking at outputs from models. They got lazy” (Q 115).
38. Supervisors have attempted to test models by simulating how the models react to severe financial stresses. Professor Perraudin stated: “Certainly there is scope to [run more imaginative stress tests] and it is a sensible thing to do” (Q 108). In a recent speech, Andrew Haldane, executive director for financial stability at the Bank of England, argued that the inadequacies of stress tests performed before the crisis reflected deeper systemic malaise, market-wide disaster myopia, unanticipated network effects in financial markets, and poorly aligned incentives⁶. Although supervisors need to

⁶ Andrew Haldane, “*Why Banks Failed the Stress Test*”, 13 February 2009, which is available at <http://www.bankofengland.co.uk/publications/speeches/2009/speech374.pdf>

understand the banks' models, they are ill-equipped to create them themselves. An attempt to do so would be very costly, and its results would most likely be less sophisticated than the models produced by banks. Professor Charles Goodhart stated: "The bank ought to decide on its own risk model and it is not really for a group of regulators and supervisors and bureaucrats to decide which model is better; in fact they cannot" (Q 213).

39. **Supervisors should actively question the assumptions underlying bank risk models. They should require financial institutions to calibrate their models over long periods. They should investigate the sensitivity of model outputs to assumptions, and require extensive stress-testing of models. Bank models are proprietary, but the methods that supervisors use to evaluate them should be published so that outside ideas for better tests can be gathered and used. Supervisors should not, however, impose a particular approach to modelling, nor attempt to assume the executive role of bank officers.**
40. **Supervisors should also perform their own system-wide stress tests of bank portfolios, in order to identify aggregate effects that individual bank systems are not designed to capture.**
41. Financial sector complexity has not affected the management of banks only. It is hard for investors to evaluate complex financial instruments, because difficult risk modelling is required, and because they are often unaware of the details of the asset pool which backs financial securitisations. As a result, they have been forced to rely upon the assessments of credit ratings agencies, which, in turn, use their own mathematical models to evaluate securities. Similarly, investors in the SIVs and conduits (see paragraphs 15–17) have relied to a large extent upon the assessments of the ratings agencies.
42. As a result, the health of the financial sector has increasingly depended on the effectiveness of the ratings agencies and of their reputation for accuracy and probity. Recent events have shaken the public trust in the agencies. This is one reason for the tightening of credit market conditions. Mr Frédéric Drevon of Moody's Investors Service informed us that "there has been a loss of trust [in ratings agencies] from investors. It is concerning because it affects the good performance of the structured finance markets. The structured finance markets are important for the financing of the economy in the wider sense" (Q 248).
43. The increasing complexity of financial institutions has made it harder to manage them. Some of our witnesses suggested that this was a serious problem. For example, Mr Foot said "the thing that does worry me is the 'too difficult to manage', not so much the too big to fail—I think we have probably gone past that point. I used to look at Citibank and I wondered how any group of human beings could actually run that entity" (Q 318).
44. The factors that make it hard to manage banks also make the supervisor's job more difficult. Securitisation and credit default swap (CDS) trades are not reported. As a result, it is extremely hard for supervisors to establish where risks are concentrated. Furthermore, neither type of trade is settled centrally. Some instruments, such as futures, are settled through clearing houses; this means that exposures to futures contracts are netted, so that two separate and opposing trades cancel one another out. At the moment, this is not the case in the securitisation and CDS markets.

45. Professor Wood told us that, when financial firms such as Lehman Brothers fail, “all sorts of bilateral transactions are frozen, whereas ones taking place across exchanges are unwound in an orderly manner. So the lack of exchanges I think was actually quite important” (Q 28). Dr Danielsson told us that Lehman Brothers failed because of fears about CDS trades, and said these fears could have been more effectively countered with centralised clearing of CDS deals, which would have made the Lehman’s net exposure to these deals completely transparent (Q 113).
46. Mr Michael Foot, Mr Peter Cooke and Sir Callum McCarthy, respectively two former heads of banking supervision at the Bank of England and the former chairman of the Financial Services Authority, all agreed that the benefits of clearing CDS trades would far outweigh the costs (QQ 159–160). Sir Callum McCarthy said: “I think a movement towards a central clearing system is going to happen; it should happen; and will be highly beneficial” (Q 160).
47. **It is important not to stultify the innovative capacity of the financial sector. But the crisis has demonstrated that risks in some markets can destabilise the entire financial system. The Credit Default Swap market in particular could be made more robust. It is unnecessarily opaque. This problem requires urgent attention. One approach would be to require reporting of CDS trades, and, as far as possible, to require that CDS trades be centrally cleared. Significant changes to market practices would follow, and would require careful consultation with the industry before they were phased in. Whatever changes are adopted should not create new incentives to regulatory arbitrage. For example, there is a danger that compulsory clearing of CDS trades might cause displacement of trading activity into the securitisation market, the idiosyncracies of which probably preclude the use of clearing there: because every securitisation has different terms, it would not be possible to net trades in this market. Regulators should also address urgently the need for transparency in the securitisation market.**

CHAPTER 4: BANK CAPITAL REGULATION

Rationale for Capital Regulation

48. Several sources of funds are available to banks. For example, they can finance their activities using shareholder funds, with bond issues, using preferred stock, and with depositor funds. “Bank capital” refers to the part of the bank’s financing that comes from shareholder funds, subordinated debt, certain types of reserves, and hybrid debt/equity instruments.
49. Bank capital serves three purposes. First, by exposing shareholders directly to the risk of failure, capital requirements serve to encourage good risk management practices. Second, equity-based capital, referred to in international capital accords as tier one capital, provides a buffer against bank failure and the attendant social costs; moreover, because banks cannot legally operate without an adequate level of tier one capital, it is also represents a charge against their businesses, which can be used to provide them with broader incentives. Third, in the event of bank failure, non-equity, or tier two, capital provides a buffer against losses by depositors.
50. Bank practitioners regard capital as relatively costly. In practice, capital (equity) is a costly source of funds for two reasons. First, non-equity sources of funds can reduce tax bills. Second, in the case of banks, the risk to which investors are exposed depends upon the nature of their securities, as well as the investments that the bank makes. Depositors are protected against losses by the deposit insurance fund, and holders of troubled bank bonds are often bailed out by the state, even though legally they have no right to protection. In other words, bank officers regard capital as more expensive because some of the costs of other sources of finance are borne by third parties. Lord Burns told us: “In financial services, if people find ways of getting round the requirements for capital then they are capable of making substantial returns on their activities” (Q 172).

Capital Regulations

51. Bank capital regulations were introduced in order to redress the natural tendency of banks to hold insufficient capital. The first internationally agreed standard for bank capital regulation was established in 1988 by the Basel Committee of the Bank for International Settlements. The Basel I Accord was adopted in the EU through the Capital Adequacy Directives. Under Basel I, bank assets were assigned a risk weighting according to their category, and banks were required to hold capital equal to at least 8% of their risk-weighted assets.
52. The Basel I Accord was easy to understand. But it assigned the same risk weighting, and hence the same capital requirement, to every corporate loan. This had two unintended consequences. First, banks had a reduced incentive to make less risky loans. Second, banks devoted resources to creating trades that circumvented the regulations. Professor Enrico Perotti argued that “we created the Basel system, which built a huge industry for regulatory arbitrage” (Q 223).
53. One way to reduce capital requirements was by securitizing loans⁷. Selling the loans reduced the size of the bank’s balance sheet, and with it, the bank’s

⁷ See paragraph 13 for an explanation of securitisation.

capital adequacy requirement. For example, Lord Burns stated that “the Abbey securitisation programmes were designed in part because of the old Basel I requirements in terms of the amount of capital that was required against mortgages. People found that through the process of securitisation less capital was required” (Q 174).

54. The Basel Committee was aware of the risk-insensitivity of the Basel I Accord, and its incentive effects. A modification to the Accord to account for the riskiness of instruments priced in a marketplace was introduced in 1996⁸. Under the amended rules, banks could use internally generated risk figures to determine the capital requirements for market traded instruments. These figures relied upon Value at Risk models, which give an estimate of the maximum loss that a bank might experience in 99 fortnights out of 100. Although some banks had started to develop Value at Risk models for portfolios of non-traded, illiquid loans, the Basel Committee decided that these models were not ready for use in capital regulation⁹.
55. The Basel II Accord extends the use of models in capital regulation to non-traded credit-risky securities¹⁰. Banks that cannot use internal models to assess credit risk are able to employ data from credit ratings agencies. European Union Countries implemented the most advanced model-based approaches of Basel II on 1 January 2008, and the US is scheduled to do so in January 2010¹¹. Many banks and regulators around the world anticipated this change, and the techniques of Basel II were widely adopted before the implementation dates.

Models in Capital Regulation

56. The use of bank risk models for the in-house measurement and management of risk is discussed in chapter 2 above. Even though bank risk models generate bank-specific information and have their limitations, the same models have played an increasingly important role in capital regulation since the 1996 market risk amendment to the first Basel Accord.
57. **Although regulators depend in part on banks’ risk models for information that they would not otherwise have, they should draw on them selectively to make their own risk assessments.**
58. Using bank-generated data in regulation affects the banks’ incentives. For example, if the bank were to realise that its models under-estimated its exposure to default, it might be less willing to change the models if in so doing it raised its capital requirement. This is particularly important in the light of the following observation by Dr Danielsson: “The reason why the Basel II process ... looks the way it does is because it was the state of the art in 1995. It was roughly designed in those years and what we are now stuck

⁸ Basel Committee on Banking Supervision (1996), *Amendment to the Capital Accord to Incorporate Market Risk*.

⁹ Basel Committee on Banking Supervision (1999), *Credit risk modeling: current practices and applications*.

¹⁰ The most recent version of the Accord is laid out by the Basel Committee on Banking Supervision (June, 2006), *International Convergence of Capital Measurement and Capital Standards, A Revised Framework: Comprehensive Version*.

¹¹ Basel II allows for “standardised,” “intermediate,” and “advanced” approaches to capital adequacy calculation. Standard and intermediate approaches were implemented in the EU on 1 January 2007, and advanced approaches on 1 January 2008.

with is a regulatory system which was designed over ten years ago, locked in by the year 2000” (Q 115).

59. **When supervisors incorporate bank risk systems into regulation, there is some danger they may hinder innovation in risk modelling by banks. To avoid this effect, relevant rules should be updated quickly in response to advances in risk modelling.**

Operational risk

60. The range of applications of risk modelling in financial supervision has increased dramatically in the last decade. For example, statistical models are used to assign a numerical value to banks' exposure to “operational risk”. Regulatory capital requirements can be assigned using Value at Risk figures for operational risk: that is, the risk of loss because of bad systems, fraud, or human error. The fall of Barings and last year's €4.9 billion (£4.4 billion) loss at Société Générale due to alleged fraudulent trading show how important operational risk can be.
61. It is not clear that modelling techniques developed to manage portfolios of liquid financial instruments are well-suited to the management of operational risk. Dr Danielsson told us that “the problem is that you have this notion called ‘operational risk’ and it is supposed to tell you the risks of the operations. If it does not really capture the key risk categories, it provides a misleading signal to everybody involved. You believe this is the risk but the risk is elsewhere. Operational risk modelling is very dangerous” (Q 117). Professor Perraudin said “I tend to think that modelling operational risk and setting capital is in some ways hard to justify” (Q 117), although he also said that charging capital against operational risk might generate the right incentives within firms.
62. **In general, financial models designed for use in liquid markets should not be used in the supervision of illiquid markets. Supervisors should base their assessments of operational risk upon a close understanding of the banks they regulate, and not upon statistical models, which cannot substitute for judgement based on analysis.**

The Trading Book

63. Banks' trading books contain assets intended for early sale, or acquired to profit from short-term price movements. Trading book assets are held at prevailing market prices.
64. Capital requirements for trading book assets are determined using bank Value at Risk models. This approach was designed in 1996, when trading book assets were liquid instruments such as shares, traded bonds, and foreign exchange positions. The markets for this type of instrument are deep and liquid, so it is reasonable to assume that positions in these instruments can easily be unwound.
65. Trading book assets have lower capital requirements because it is assumed that they can easily be sold by a troubled bank. More recently, the trading book has included instruments such as CDO tranches created by packaging illiquid instruments (see paragraph 13). CDO tranches trade infrequently and they are often valued using model-derived prices, rather than by reference to an active marketplace; consequently, these instruments are less obviously suited to a regime that was originally designed for liquid, traded

instruments. Indeed, during the financial crisis, market participants became unwilling to price CDO tranches, so that trade in them was virtually impossible.

66. Market participants argue that increasing the regulatory capital requirement for bank trading books would increase running costs, and so would raise the costs of finance for their customers. Although Mr Eric Daniels, the Chief Executive of Lloyds Banking Group, informed us that the impact of tighter trading book capital requirements upon his bank would be minimal (Q 447), Mr Varley said “with greater capital would go wider spreads, greater cost to clients of risk management and financing activity” (Q 447), and Mr Douglas Flint of HSBC told us that the effect of tighter capital for the capital market as a whole would be “not trivial” (Q 448).
67. Tighter trading book capital requirements would certainly increase the cost of funding trading operations. But this is because banks would be less able to rely upon cheap deposits to finance these operations. Recent events indicate that the depositors assume significant risks when they finance trading operations. Raising the capital requirement will simply transfer the costs of this risk from the deposit insurance fund, and, ultimately, the state, to the bank and its clients. In short, tighter regulation would correct an important externality which has led to perhaps excessive levels of trading activity.
68. **Trading book assets currently attract a lower capital charge, because they can easily be sold by troubled banks. The experience of the financial crisis is that, when such a sale is most necessary, it may be impossible. The costs then fall upon the deposit insurance fund. Regulatory capital requirements for trading book assets should be substantially increased.**

Pro-cyclicality

69. Capital regulations sometimes amplify the effect of economic fluctuations upon regulated entities in a pro-cyclical manner. The Basel II Accord exacerbates these pro-cyclical tendencies by relating bank capital requirements to the riskiness and the quality of their banking assets. During economic downturns, assets appear riskier, and asset quality falls. As a result, capital requirements rise above their level before the downturn. This effect results in more selling of assets and a greater contraction of lending than would obtain with risk-insensitive capital requirements. Similarly, capital requirements under the Basel II Accord are reduced during a boom, and banks can increase their lending still further, and so sustain the boom for longer.
70. Several of our witnesses pointed to these effects. Professor Wood remarked that “bank lending has always been to some extent pro-cyclical. How much Basel II has added is very hard to tell, but it is clear that it has added to it” (Q 35).
71. Many of our witnesses told us that fair value accounting, sometimes referred to as mark-to-market accounting, contributes to pro-cyclicality in the banking sector. For example, Mr Varley told us “I think that the volatility of financial performance and indeed a risk management task for banks and regulators has been exacerbated by mark-to-market accounting” (Q 405). We discuss this point in chapter 8.

72. Pro-cyclicality in the banking sector can be addressed by regulation. The Governor of the Bank of England told us that a major problem with the arrangements for banking supervision prior to the crisis was the absence of a macroprudential policy tool to deal with pro-cyclicality (Q 491). Monetary policy can affect financial stability. The Governor told us that “it would have been preferable had we stayed with an [inflation] index in which house prices were still included” (Q 487). But in the Governor’s view monetary policy should not be used as a counter-cyclical policy tool, since the needs of the banking sector might run contrary to the Bank of England’s inflation target. He told us that “to set monetary policy on any basis other than trying to achieve low and stable inflation is a recipe for really making mistakes” (Q 483).
73. One way to counter pro-cyclicality in the banking sector would be to increase capital requirements in booms, and then to relax them in downturns. Another would be to restrict credit extension during booms, for example by limiting loan-to-value ratios. A further possibility would be to introduce dynamic provisioning, under which long-run estimated loss provisions are set against outstanding loans. Dynamic provisioning was employed successfully by the Spanish authorities prior to the crisis: Lord Burns noted the effectiveness of this system (Q 190). At the moment, it is impossible to say with certainty which instrument would be the most effective.
74. A new counter-cyclical policy tool should dampen the business cycle. Its use during boom times was likened by Professor Goodhart to “[taking] away the punchbowl when the party is getting going” (Q 204), and it may be resisted by interested parties, such as bankers and politicians. If market participants believe that the policy tool will never be used it will have no effect on their actions. Although a principles-based approach to regulation seems generally preferable, rules may be needed to achieve a counter-cyclical effect.
75. Use of a counter-cyclical policy instrument may be difficult in economic downturns, as the signal to financial markets of its deployment may exacerbate the problem. The main thing in a severe downturn is that restrictions imposed on banks by supervisors should not be more severe than those imposed by the financial markets themselves.
76. **A new policy lever should be introduced to counter pro-cyclicality in the banking sector. Its basis in rules should be strong enough and the institution wielding it independent enough to ensure that the lever is used in boom times. The Government should urgently identify a suitable instrument.**
77. Introducing a policy lever to dampen pro-cyclicality in the banking sector would generate international complications. One of the principles underlying the Basel Accords is that there should be an international level playing field for capital requirements in banking. As Professor Goodhart told us, “The moment you start talking about counter-cyclical operations you run into the problem that cycles are at very different stages in different countries and that, in my view, means ... that you actually have to go back somewhat and give more power to do this kind of counter-cyclical variation ... to the individual nation state.”
78. **Since counter-cyclical regulations at the national level would risk undermining the level playing field of the Basel Accord, the British authorities should consult internationally before any national implementation. The design of counter-cyclical regulations should**

involve careful consideration of their likely effect on the international competitiveness of the City of London, especially since their adoption in the UK and elsewhere would imply re-introducing a national element in capital regulation.

Liquidity Regulation

79. Banks accept depositor funds that can be withdrawn at will, and short-term loans from other banks, and they make long-term investments in loan assets which are hard or impossible to realise early. Banks therefore accomplish two economically valuable functions: they channel funds to productive uses, and they allow depositors to benefit from the superior returns that stem from long-term capital commitment without sacrificing access to their funds.
80. Because their liabilities fall due before their assets, banks are exposed to a withdrawal of funding before their assets mature. In turbulent markets where investors are unsure of the quality of bank assets, this risk may realise; if so, because the bank cannot generate sufficient returns by selling its assets, it fails. The UK credit crunch arguably started when Northern Rock was brought down by liquidity risk.
81. As currently designed, capital regulation is intended to create buffers against bank failure, and then against losses to the deposit insurance fund in the event of failure. It does not explicitly address bank liquidity risk. Moreover, because liquidity is bound up in investor confidence, it is a system-wide phenomenon: micro-prudential supervisors will not tend to account for it, and the banks themselves are not well-placed to assess it.
82. Liquidity risk does not appear to have been a significant concern of supervisors in recent years¹². Historically, banks were required to hold some carefully-defined liquid assets, but this requirement has been displaced by a concentration on capital requirements, in the apparent belief that liquidity will always be forthcoming for a sufficiently well-capitalised bank. Sir Callum McCarthy, former Chairman of the Financial Services Authority, acknowledged “an emphasis on capital as the fundamental measure and a relative neglect of liquidity” (Q 127).
83. Mr Peter Cook, former head of banking supervision at the Bank of England and chairman of the committee that produced the first Basel Accord, told us that “I recall with some nostalgia the situation in 1955 when I joined the Bank of England, when there was a 30% liquidity requirement on all the clearing banks and that was mostly held in government securities ... The current level for most major international banks is some way considerably below 5% and that, I think, has been one of the problems” (Q 128).
84. The regulatory neglect of liquidity risk is all the more important because, as Professor Perotti informed us, the risk models used to manage risk and to determine capital requirements “assumed infinite liquidity—if you were to sell someone will buy. But that is not true in credit; in credit we know that sometimes ... people will not lend at any price ... None of these models looked at this possibility” (Q 212).
85. One of the reasons that liquidity risk has been under-emphasised in regulation is the difficulty of achieving international agreement over a

¹² Although in December 2007 the FSA published *Review of the liquidity requirements for banks and building societies*, Discussion paper 07/7.

common definition for liquidity. Mr Foot told us: “It took about 20 years ... to get even a broad agreement on what constituted capital and how to look at it. I would say that if we are now going to make the same effort in liquidity, which is important internationally, then that is going to be extraordinarily difficult” (Q 128). Nevertheless, Sir Callum McCarthy agreed that, notwithstanding the complexity of liquidity, it was imperative that it be tackled by regulators (QQ 129–130).

86. Our witnesses adopted a variety of positions on the regulation of liquidity risk. One of the traditional roles of a central bank is to supply liquidity in difficult markets, by lending to liquidity-constrained banks against good collateral. Professor Wood told us that he “would not worry too much about requirements on liquidity because we have a central bank to supply liquidity and it should always supply liquidity to an institution which can supply good collateral ... Liquidity requirements are, I think, less important than some people now imply they are because we have a central bank to supply liquidity to financial institutions” (Q 44).
87. Professors Goodhart and Perotti both favour some additional regulation of liquidity, over and above that which is provided through Lender of Last Resort facilities by the central bank. Both have argued that liquidity risk can be quantified using maturity mismatch calculations¹³. Professor Goodhart and co-authors argue that liquidity risk should be penalised through the imposition of higher capital requirements. Professor Perotti and his co-author argue that banks should be forced to pay an insurance premium when they incur liquidity risk; in return, during times of heightened systemic risk, they would have guaranteed access to central bank liquidity. The insurance premium suggested by Professor Perotti and his co-author would serve to discourage excessive liquidity risk.
88. As a result of the crisis, regulators accept the need for explicit liquidity regulation. The Chairman of the Financial Services Authority told us that they were recruiting a team to examine liquidity questions (Q 519). The Governor of the Bank of England noted that he had pointed to the danger of liquidity drying up in markets for complex instruments (Q 489), and stated that the Bank of England has for a long time been very conscious of the absence of liquidity from the Basel Accords (Q 490).
89. **Regulators should make the supervision of liquidity risk an urgent priority. While liquidity risk has previously been expressed in terms of the assets on bank balance sheets, regulators could also consider rules based upon the funding mismatches to which banks are exposed. Regulation should respond to low levels of liquidity by, *inter alia*, raising capital requirements or imposing charges under an insurance scheme.**

¹³ “*The Fundamental Principles of Financial Regulation*,” cited in Perotti, E., and Suarez, J., “*Liquidity Insurance for Systemic Crises*” (p 62).

CHAPTER 5: FINANCIAL SUPERVISION IN THE UNITED KINGDOM

90. Financial stability is a central goal of financial regulation. Responsibility for financial stability in the UK is shared by HM Treasury, the Bank of England, and the Financial Services Authority (FSA), which together constitute the “tripartite authorities”. The division of responsibilities between the tripartite authorities is set out in a Memorandum of Understanding (MoU)¹⁴ as follows:
- The Bank of England is responsible for the stability of the monetary system through its monetary policy function, for the oversight of financial system infrastructure that is systemically important to the UK, in particular payments systems, and for “maintaining a broad overview of the system as a whole”¹⁵.
 - The FSA’s role is set out in the Financial Services and Markets Act (FSMA) 2000. It performs micro-prudential supervision of financial intermediaries, and it supervises financial markets, securities listing and clearing and settlements systems. It also performs conduct-of-business supervision. The FSA’s role with respect to what is now called macro-prudential supervision has been unclear. Whilst the objective defined in the FSMA of “maintaining confidence in the financial system” might be deemed to encompass macro-prudential concerns, the Memorandum of Understanding defines the FSA’s responsibilities as “the authorisation and prudential supervision of banks, building societies, investment firms, insurance companies and brokers, credit unions and friendly societies”¹⁶. It is not clear how these responsibilities were believed to relate to the Bank of England’s responsibility for “the system as a whole”.
 - The Treasury is responsible for “the overall institutional structure of financial regulation and the legislation which governs it”¹⁷. It has no responsibility for the activities of the FSA and the Bank, but, if a financial problem arises with potentially system-wide consequences, the FSA and the Bank together decide whether the Treasury needs to be alerted¹⁸.
91. The MoU states that “the authorities maintain a framework for co-ordination in the management of a financial crisis”, and it delineates responsibilities for operational crisis management¹⁹. These procedures were first invoked when Northern Rock failed, and were again required later in the financial crisis, for example when Bradford and Bingley failed.

Supervisory Roles

92. The FSA is responsible for the prudential and conduct-of-business supervision of all regulated financial institutions in the UK. Previously,

¹⁴ “*Memorandum of Understanding between HM Treasury, the Bank of England and the Financial Services Authority*”, available from <http://www.bankofengland.co.uk/financialstability/mou.pdf>

¹⁵ MoU, paragraph 2.

¹⁶ MoU, paragraph 3.

¹⁷ MoU, paragraph 4.

¹⁸ MoU, paragraph 5.

¹⁹ Paragraph 16 of the MoU discusses the framework for managing a financial crisis; paragraph 17 discusses operational crisis management.

financial supervision was organised along institutional lines, so that, for example, banks and building societies were supervised by different agencies. Nine separate agencies were combined to create the FSA.

93. Integrated supervision was a response to a blurring of the boundaries between different financial activities. For example, banks are increasingly involved in securities markets, and, through the securitisation market, insurance companies have started to invest in banking assets. A system that regulates institutions according to their legal status is therefore likely to treat the same activity in different ways, which could result in wasteful regulatory arbitrage. Integrated supervision avoids this problem: activities are supervised on functional, rather than institutional, lines; at the same time, costly communication between agencies is unnecessary when there is one institutional supervisor, and regulated entities need only manage one supervisory relationship.
94. The setting up of the FSA in 1997 set a trend for the adoption of integrated supervision. Canada, Germany, Japan, Singapore, and Switzerland all have integrated supervision of the financial sector.
95. The FSA's performance before and during the financial crisis has nevertheless been criticised on three grounds. First, the effectiveness of communication between the FSA and other tripartite members during the financial crisis has been questioned; second, the FSA has been accused of neglecting macro-prudential supervision before the crisis; third, some critics have suggested that the FSA over-emphasised conduct-of-business supervision at the expense of micro-prudential supervision. We address these points below.

The Tripartite System: Communication and Coordination

96. The Governor of the Bank of England characterised the tripartite committee as "a vehicle for communication and exchange of views". He argued that assignment of responsibilities was without ambiguity (Q 490). Lord Myners thought that the tripartite system worked very well (Q 556).
97. These perspectives were not shared by all of our witnesses. Professor Geoffrey Wood told us: "On occasions [the tripartite system] functioned with jaw-dropping incompetence and chaos" (Q 48). He went on to argue that no agreement, including the tripartite arrangement, can foresee every contingency, so that ambiguity is inevitable when surprises occur (Q 58). It was impossible rapidly to resolve this type of ambiguity when no one is assigned residual decision rights. Unanticipated ambiguity arose when Northern Rock failed. Professor Wood told us that "in the present tripartite structure it is clear that nobody was actually in charge ... So we do need to have a modification to the tripartite system where someone is clearly in charge from the beginning" (Q 56). Similarly, Lord Burns told us that "it did take a while before the Treasury really got itself in charge of this process. I think that was one of the possible effects of learning how to use for the first time this Tripartite System in a crisis; just what the respective responsibilities were and what the Treasury's powers were" (Q 169).
98. **Financial crises are always unexpected, and it is hard to plan for them. For crisis management to be effective, it needs to be clear who is in charge. The Memorandum of Understanding (MoU) governing the relationship between the Bank of England, the FSA and the Treasury**

should be modified so as explicitly to give decision-making powers to one of the tripartite authorities whenever they are not clearly assigned in the MoU, in such a way as to avoid ambivalence or dispute.

99. Effective communication between tripartite members is clearly important during a crisis. It is also important during normal business times. If the Bank of England does not know details of troubled banks before a crisis is triggered, it cannot function effectively during a crisis.
100. The Governor pointed to the importance of institution-specific information: the FSA would share information with the Bank when it was asked to do so, but the Bank needed the ability to gather information for itself: “I am still a bit surprised to find that a Banking Act which gives the Bank of England the explicit statutory responsibility for financial stability has not seen fit to include in it the Bank of England’s statutory right to obtain information and data that it thinks it needs” (Q 503). Mr Paul Tucker, Deputy Governor, Financial Stability, at the Bank of England, agreed that institutional information was critical for the Bank’s financial stability responsibilities (Q 505).
101. Mr Alastair Clark, formerly Adviser to the Governor of the Bank of England, told us that institution-specific information was essential both for assessing systemic risk and for providing “local colour”, that is, “having a view about why business is evolving in a particular way, what factors are driving it, what the perceptions of risk on the part of practitioners are in doing that business”. He added that, after the FSA assumed responsibility for bank supervision, “the habit of mind which perhaps existed in the Bank for the supervisors, at least at the senior level, to talk to others became less part of the environment”. Although the FSA was willing to share information with the Bank, “knowing what questions to ask is partly a function of being at some level involved with the raw material as it comes in and that became more difficult”, so that “it may have been that people in the Bank were less clear about what questions they should be asking” (Q 643).
102. Commentators in other countries have stressed the importance of market knowledge and of institution-specific information in a central bank’s role in crisis management and as Lender of Last Resort. For example, the Chairman of the US Federal Reserve Bank recently stated: “The information, expertise, and powers that the Fed derives from its supervisory authority enhance its ability to contribute to efforts to prevent financial crises; and, when financial stresses emerge and public action is warranted, the Fed is able to respond more quickly, more effectively, and in a more informed way than would otherwise be possible”²⁰.
103. **The Bank of England needs institution-specific information and a close understanding of the daily operations of the financial markets in order to function effectively during a financial crisis. We recommend that the Government should make changes to ensure that the Bank has access to the necessary information.**

Macro-prudential supervision

104. Sir Callum McCarthy, formerly Chairman of the FSA, told us that it adopted an institution-by-institution approach to supervision: in other words,

²⁰ See Ben Bernanke’s speech “*Central Banking and Bank Supervision in the United States*”, at the 2007 Allied Social Sciences Association Annual Meeting, Chicago, which is available at <http://www.federalreserve.gov/newsevents/speech/bernanke20070105a.htm>

that it had concentrated on micro-prudential regulation, rather than macro-prudential supervision (Q 127). Many of our witnesses agreed: for example Lord Burns (Q 167), Professor Perotti (Q 195), and Professor Goodhart, who argued that the problem arose because supervisory frameworks were designed by non-economists, who paid insufficient attention to the fundamental rationale for regulation (Q 194).

105. The Bank of England appears to have devoted fewer resources to macro-prudential matters relating to financial stability in the period leading up to the financial crisis. Mr Alastair Clark told us that about 100 people worked on financial stability in 1997, between 150 and 160 by 2003 and that it was subsequently reduced to between 110 and 120 (Q 649). The change arose because “Eddie [George] stood down and Mervyn [King] became Governor and they took different views on a number of things ... including the proper extent of the Bank’s involvement in financial market, financial stability issues” (Q 658).
106. The Governor of the Bank of England argued that the Bank had some *de facto*, if not *de jure*, responsibility for macro-prudential supervision: “I learnt from the experience after Northern Rock, that even if the legislation says that you do not have responsibility for supervision, people out there, including in Parliament, obviously feel the Bank of England must have something to do with banks and therefore they hold us accountable”. Although “I do not hanker for any extra jobs to be given to me ... if Parliament expects us to be responsible in some way for financial stability, I do want it to be very clear that all we can do is to use the instruments which are given to us. If the only instrument given to us is that of voice, then it is wrong to hold us accountable for anything other than how we use that voice” (QQ 505–506).
107. **Without a clear executive role, the Bank can do no more than talk about financial stability. This exposes it to reputational risk, without generating any clear benefit.**
108. One way to resolve the ambiguities surrounding macro-prudential supervision would be to give the Bank of England complete responsibility for it. This is the approach favoured by Professor Goodhart, who believed that “the macro-prudential controls ought to be given to the Central Bank because they are macro; they concern interrelationships between markets and between banks and institutions, and that kind of study of interrelationships and study of markets is really the function of the economists and the economists are much more prevalent and have an influence in central banks—some people would say too much influence nowadays—whereas the micro-prudential and conduct of business work should continue at the FSA level” (Q 197).
109. Responsibility for macro-prudential supervision would play to the Bank’s expertise in macroeconomics. Since macro-prudential problems occur largely in the banking sector, it would not move the Bank too far from historically familiar territory. Moreover, if, as Sir Callum McCarthy and other witnesses suggested (see paragraph 104), the FSA has performed very little macro-prudential supervision since its creation, this option would involve little in the way of changes to the FSA.
110. **A clear lesson to be drawn from the recent financial crisis is that the current arrangements failed to recognise the natural affinity between responsibility for financial stability and for macro-prudential**

supervision of the banking and shadow banking sectors. The Government should allocate responsibility for macro-prudential supervision to the Bank of England, which already has macroeconomic expertise. Adjustment costs would be low, although there would be some overlap with the FSA's responsibility for micro-prudential supervision.

111. Macro-prudential supervision is concerned with the financial stability of the economy while micro-prudential supervision takes a view of individual companies. To be effective, macro-prudential supervision, will require a new policy instrument (just as the setting of interest rates is the policy instrument for the control of inflation). Deploying such an instrument, for example to dampen a housing price boom, may on occasion bring the supervisor into conflict with government.
112. **Effective macro-prudential supervision may conflict with the goals of political and business groups, so needs to be exercised by transparent and accountable institutions with the appropriate authority to take action.** The Banking Act 2009 gave the Bank of England a statutory responsibility for financial stability. The Act creates a new Financial Stability Committee (FSC), which will be a sub-committee of the Court of Directors of the Bank. The Act states that the FSC will make recommendations to the Court about the Bank's financial stability strategy. **As currently envisaged, (in contrast to the Monetary Policy Committee) the Financial Stability Committee will have no executive role. There is thus a danger that it will lack focus and be ineffective.**
113. The *Turner Review*²¹ suggested that the FSC might be more effective if it were to be designated as a joint committee of the Bank of England and the FSA, which had responsibility for making the final judgement over macro-prudential conditions, and for selecting policy responses. The Governor acknowledged the wide range of opinions on the composition of the FSC: "There are as many different views on what the ideal Financial Stability Committee would be as there are people" (Q 497). It is clear, however, that the Financial Stability Committee should be able to draw upon as much expertise and information as possible. Some of this expertise resides in the Financial Services Authority.
114. **The Financial Stability Committee should remain a Bank of England Committee, chaired by the Governor, but should include senior FSA representation in sufficient numbers. The re-constituted FSC should be the central institution for macro-prudential supervision, with executive responsibility for a macro-prudential policy instrument.**
115. The FSC's use of a macro-prudential policy tool will have an inevitable impact upon the conduct of macro-economic policy by the Treasury. For example, quantitative limitations on the supply of credit via a pro-cyclical charge would have a direct impact upon firm and household expenditure similar to that of fiscal policies. The accountability of the FSC therefore raises quite different questions from those posed by an independent Monetary Policy Committee. As currently constituted, the FSC has a non-voting Treasury representative. **The executive FSC recommended in this**

²¹ *Turner Review*, FSA. March 2009, p. 84

report should have senior Treasury representation, at or close to the level of the permanent secretary.

116. The question of whether the Bank of England should have responsibility for macro-prudential supervision is closely related to, but distinct from, the question of whether it should also assume responsibility for micro-prudential supervision. First, we turn to the relationship between micro-prudential supervision and conduct-of-business supervision.

Conduct-of-business and micro-prudential supervision

117. There is a widely held perception that, in recent years, the FSA has emphasised conduct-of-business supervision at the expense of prudential supervision. Lord Turner acknowledged this: “It is broadly speaking true to say that in retrospect we focused too much on the conduct of business and not enough on prudential” (Q 518). Dividing macro-prudential and micro-prudential supervision between the Bank of England and the FSA as suggested in paragraph 110 would do nothing to counter this problem.
118. If the FSA did over-emphasise conduct-of-business supervision, it may have done so as a rational response to the institutional framework within which it operated. Conduct-of-business is important and politically sensitive, and its results are easy to measure. In contrast, prudential supervision, while arguably more important, is conducted privately; its success is less easily measured, and, most of the time, it has a lower political impact than conduct-of-business supervision though in times of crisis such as the present its political impact, its effect on businesses, individuals and the economy, is very much greater than conduct-of-business supervision. It is natural and rational for a supervisor with responsibility for both activities to concentrate on the one with the greater immediate political sensitivity. As Professor Wood told us, “Consumers do not write to the FSA or the Member of Parliament saying, ‘I think Royal Bank is running an excessively risky business overseas.’ They write and say—and do it daily or more frequently—‘The Royal Bank’, or whatever bank, ‘has treated me badly’. That inevitably distracts attention” (Q 52).
119. Notwithstanding its emphasis on conduct-of-business supervision, the quality of the FSA’s work in this area was criticised by Doug Taylor, personal finance campaign manager at *Which?*, who said: “We are not always convinced that [regulation and supervision] has been effective in terms of consumer protection, and where that is the case we make our views well-known to the Financial Services Authority” (Q 239). Because of these concerns Mr Taylor called for “explicit consumer representation” at the FSA (Q 238). These concerns were not the focus of our inquiry.
120. There is also a cultural difference between conduct-of-business and prudential supervision. Conduct-of-business supervision is often performed by lawyers. Prudential supervision is largely an economic activity, particularly at the macro level. It seems likely that either a lawyerly or an economic approach would dominate in a supervisory body that performed both prudential and conduct of business supervision, and that this dominance would reduce the effectiveness of the dominated half of the organisation²².

²² For a discussion of this point, see Goodhart, C.A.E. (2000) “*The Organisational Structure of Banking Supervision*” Financial Stability Institute Occasional Paper 1, Bank for International Settlements

121. **Regulatory bodies are subject to conflicting political pressures. There is a danger that, when a single institution has responsibility for conduct-of-business and prudential supervision, one will be emphasised at the expense of the latter. Institutional arrangements in the future must be designed so as to minimise this danger.**

Division of supervisory responsibilities in the United Kingdom

122. One way to avoid conflicts of interest between the conduct of prudential and conduct-of-business supervision would be to move micro-prudential supervision from the FSA to the Bank of England. The Bank would then perform prudential supervision of all financial institutions, both bank and non-bank, and the FSA would retain conduct-of-business supervision. This arrangement of responsibilities is known as the “twin peaks” approach: it would give the Bank access to necessary institution-specific information through on-site bank inspections, while avoiding overlapping responsibilities with the FSA.
123. This approach would avoid the danger identified by Mr Tucker, if the Bank and the FSA were both to gather institution-specific information for the purposes of financial supervision, that the Bank would be seen to be usurping some of the FSA’s responsibilities, or as a “shadow supervisor”, so that regulated firms saw themselves as facing “double jeopardy” (Q 505).
124. The twin peaks approach has been adopted by two countries: the Netherlands and Australia. In the Netherlands, the prudential supervisor also has responsibility for central banking; in Australia, it does not²³.
125. Lord Turner identified three problems with twin-peaks supervision: that it duplicates effort, that it is sometimes hard to distinguish between prudential and conduct-of-business supervision, and that it would involve significant adjustment costs in the UK (Q 518). Lord Myners argued that the twin peaks model would not be effective in the UK, also noting that increasing the number of supervisory agencies could raise costs, and observed that the Bank’s record as a banking supervisor was not without blemish (Q 552).
126. Combining the Bank’s responsibility for monetary policy with responsibility for bank supervision could create two further problems. First, the Bank’s reputation would be at risk from failures in either activity. Errors in prudential supervision might damage its credibility in monetary policy. Second, the Bank’s two responsibilities might create a conflict of interest: for example, it might be unwilling to tighten interest rates when doing so would harm the banks it supervised. Banks that appreciated this problem might be inclined to extend credit recklessly. In short, a twin peaks approach to financial regulation runs the risk that one conflict of interest, between conduct-of-business and prudential supervision, is replaced by another, between prudential supervision and the conduct of monetary policy. Nevertheless, the latter conflicts do not appear to have been a major concern

²³ In the Netherlands, the central bank (De Nederlandse Bank) performs prudential supervision and the market authority (Autoriteit Financiële Markten, or AFM) looks after conduct of business rules. In Australia the Australian Prudential Regulation Authority (APRA) performs prudential supervision, the Australian Securities and Investments Commission (ASIC) is responsible for conduct of business supervision, and the Reserve Bank of Australia acts as the central bank, in particular acting as lender of last resort. Because three bodies are concerned with the Australian system, it is sometimes characterised as “triple peaked”.

in the US, where the Federal Reserve has responsibility for monetary policy and the supervision of US banks²⁴.

127. **The Government should carefully consider the case for and against a “twin peaks” system of financial supervision in the UK. It would involve giving the Bank of England responsibility for micro-prudential as well as macro-prudential supervision of the financial sector, in addition to its monetary policy role, leaving responsibility for conduct-of-business supervision with the FSA. A twin peaks approach would ensure that the Bank had the information needed to manage financial crises, and would obviate the need identified in paragraph 114 for FSA representation on the Financial Stability Committee. It would also reduce the potential for conflict between conduct-of-business and prudential supervision. However, the case for a twin peaks system of regulation is by no means as clear-cut as that for locating an executive FSC with responsibility for macro-prudential supervision within the Bank. The Government would need to consider whether giving the Bank responsibility for micro-prudential supervision would create countervailing organisational problems concerning the governance of the Bank and the role of the FSA.**

International Supervision

128. International coordination occurs via the Basel Committee on Banking Supervision. It was established by the Central Bank Governors of the G10 countries in 1974; its members are now drawn from 13 countries²⁵. It serves as a forum for information exchange between national supervisors, and it develops guidelines and supervisory standards. It is best-known for its work on capital regulation. More recently, it has started aggressively to promote sound supervisory standards. The Basel Committee meets at the Bank for International Settlements, which also provides the Basel Committee’s secretariat, but the two organisations are distinct.
129. The Basel Committee’s recommendations have no legal force. Financial regulations in Europe are created in EU directives. For example, the Basel II Accord is implemented in the European Union by the Capital Requirements Directive (CRD). The CRD is part of a wider effort to achieve an integrated European market for banks and financial conglomerates, by the mutual recognition of one country’s rules in all of the others, and through the “single banking passport”.
130. The single banking passport was introduced by the Second Banking Directive of 1989, which was implemented in 1993. The single banking passport entitles a bank entitled to do business in an EEA state to open a branch in any other state; under the second banking Directive, the branch bank is supervised by the authorities in its home country.

²⁴ The Federal Reserve has responsibility for national banks in the US, and for state banks that have chosen to join the Federal Reserve System, as well as for bank holding companies and foreign banks in the US. See <http://www.federalreserve.gov/pf/pf.htm>.

²⁵ The Basel Committee members come from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, United Kingdom and United States. Each country is represented by its central bank and also by its banking prudential supervisor when this is a different institution.

131. Lord Turner noted that when a multinational bank fails, its losses can overwhelm the country that licensed it. This happened in the case of the Icelandic bank Landsbanki, whose UK subsidiary was the internet bank Icesave. The FSA had only “very mild influence over some aspects of liquidity and no influence at all over aspects of capital” for Icesave despite the fact that, when it failed, the UK taxpayer “effectively picked up the bill for the UK side of that failure” (Q 527).
132. Problems with supervision of multinational banks could be addressed in two ways. First, a stronger international framework could be created, including multinational regulatory and supervisory bodies with the ability to impose solutions upon nation states. Second, national supervisors could assert themselves more strongly, to ensure that banks taking local deposits were safe and sound.
133. Large banks operate internationally. The current crisis, which was triggered by problems in the US subprime mortgage market, provides ample evidence that systemic problems do not respect national boundaries. There is clearly a strong argument for stronger international cooperation on regulation and supervision.
134. But supra-national supervision of financial markets is a remote prospect fraught with practical difficulty and political sensitivity. Even if it were achieved, international judgements on macro-prudential supervision would sometimes conflict with the judgements of national governments. Mr de Larosière stated: “When you exercise macro-prudential regulation you are bound to ask yourself questions of economic policy. Let us not hide ourselves from that reality. Often, as I have explained, official policies, fiscal policies can be part of the systemic risk” (Q 354).
135. An effective international supervisor would need the power to resolve conflicts with national governments, which they would not easily yield. International agreement would be difficult, slow, and costly. Even if an international supervisory body were created, it would be impossible to guarantee that national governments would abide by its decisions.
136. The experience of the Basel Committee illustrates the difficulties of reaching consensus on global financial regulations. Agreement on the relatively simple question of capital definition and regulation was difficult and time-consuming. As Dr Danielsson noted (Q 115), the reason the Basel II Accord looks the way it does is that it uses techniques that were state-of-the art in 1995.
137. There are conflicting views about the scope for regulation in Europe. Mr de Larosière favoured a European Systemic Risk Council, which would formulate macro-prudential policy for onward dissemination to national central banks for action, and a new European System of Financial Supervision, which would be able to apply “graduated sanctions” if national supervisors performed inadequately²⁶. The *Turner Review* proposes the creation of a new European Union Institutional structure, which “would be an independent authority with regulatory powers, a standard setter and overseer in the area of supervision, and would be involved, alongside central

²⁶ Report of the de Larosière Group, February 2009. The European Systemic Risk Council is discussed in paragraphs 167–182; the graduated sanctions of the European System of Financial Supervision are discussed in paragraph 208.

- banks, in macro-prudential analysis”²⁷. However, in contrast to Mr de Larosière, the Turner Review takes the view that European regulators should have “no powers over national supervisors to change individual regulatory decisions, nor to prescribe detailed supervisory practice”²⁸. Lord Myners told us that the Treasury rejects the proposal that there be a European-wide regulator (Q 570). He explained to us later that, although the Government does not support any proposals for a single European supervisor for financial services, the Government agrees that on the macro-prudential side an EU body is needed to act as an effective early warning system, complementing the international role proposed for the IMF/Financial Stability Forum (FSF) (pp 194–5).
138. Even when an international body has only advisory powers, it should seem disinterested. Lord Turner argued “crucially, we do need institutions like IMF to write reports which are in no way watered down by the influence of large powerful governments” (Q 526).
139. **Primary responsibility for banking regulation and supervision should remain with national authorities. Notwithstanding the difficulties at the international, or even European level, international macro-prudential financial supervision should be encouraged. A purely advisory international body with a remit for surveillance of the financial system and identification of nascent systemic problems could serve a valuable purpose and help national governments and regulators to identify critical stresses in the financial sector. Such a body should be sufficiently independent to avoid the suspicion that its objectives were subservient to the national interests of one or more of its members.**
140. An independent international body capable of international monitoring of systemic risks may be the Financial Stability Board (FSB) announced in the London G20 communiqué²⁹ as an expanded and stronger replacement for the Financial Stability Forum³⁰. **The British authorities should work to ensure that the Financial Stability Board announced in the G20 London communiqué is sufficiently independent and well-resourced to provide international monitoring of financial stability, and to disseminate credible recommendations to national governments and regulatory bodies.**
141. **Financial markets are global not regional. Where European-level coordination on macro-prudential supervision is contemplated, it should be aligned with the broader international coordination contemplated under the Financial Stability Board.**
142. Even if international surveillance develops on these lines the problems identified in paragraph 131 with the European bank passport scheme will remain: namely, that UK taxpayers may bear the costs of the failure of an EU or EEA bank with branches in the UK. Lord Turner argued that the scheme

²⁷ *Turner Review*, pg 102.

²⁸ *Turner Review*, pg 103.

²⁹ Declaration on Strengthening the Financial System, 2 April 2009: available at www.g20.org/Documents/Fin_Deps_Fin_Reg_Annex_020409_-_1615_final.pdf

³⁰ The Financial Stability Forum was created in 1999 to coordinate efforts by national and international bodies to assess the stability of the international financial system and to take the actions needed to resolve vulnerabilities. See <http://www.fsforum.org>

requires reform (Q 527). More generally, branch banks present a problem to national supervisors. The experience of this crisis has been that, when a home bank experiences problems, it repatriates capital from branch banks in order to protect its home depositors. This action is unlikely to be criticised by the home regulator, which is naturally more concerned with stability and consumer protection at home than in foreign countries.

143. **The Government should work towards acceptance that branches of foreign multinational banks in the UK, whether European or not, should be subject to a greater degree of oversight by the British authorities and that local capital requirements should be introduced for these banks, under which repatriation would need those authorities' permission, bearing in mind that reciprocal requirements might be sought by countries in which British banks operate and that this type of capital requirement would increase the costs to multinational banks domiciled overseas of doing business in the UK.**

Deposit Insurance

144. Deposit insurance schemes provide depositors in regulated banks with full or partial protection against the loss of their funds in the event that their bank fails. They make less likely runs on banks, which might trigger wider problems. They also acknowledge that, since consumers cannot monitor banks, the state does so on their behalf.
145. Deposit insurance in the UK is provided by the Financial Services Compensation Scheme (FSCS). It was insufficient to prevent a run on Northern Rock after its problems were revealed, perhaps because bank insolvency procedures in the UK were unclear at the time, and because the level of compensation for depositors was inadequate. Both these problems have now been resolved.
146. There are problems with the financing of the FSCS. The FSA authorises levies on financial firms in proportion to their size, up to a maximum amount³¹. Because the scheme is funded on a “pay-as-you-go” basis, levies are highest when the cost of failure is greatest, which is likely to be when banking firms are most fragile and can least afford to pay them. The Banking Act 2009 gives the Government the power to switch to a pre-funded scheme. Such a scheme operates in the US, where the Federal Deposit Insurance Corporation’s fund stood at \$45 billion in September 2008³².
147. **A pre-funded deposit insurance scheme would have a counter-cyclical effect: money levied in boom times would be returned to the banking sector during times of financial fragility. It would also increase depositor confidence. The Government should move towards pre-funding of the Financial Services Compensation Scheme as soon as practicable.**
148. Levies to the FSCS depend upon the size of the contributing institution, not the riskiness of its business. This is an obvious source of moral hazard: deposit insurance makes depositors risk-insensitive, and so lowers the cost of depositor finance. This weakens market discipline for firms with insured

³¹ <http://www.fscs.org.uk/industry/funding/>

³² <http://www.fdic.gov/news/news/press/2008/pr08084.html>

depositors. If deposit insurance premia do not reflect bank riskiness, banks will naturally assume higher risks, because they are not charged for doing so.

149. Some of our witnesses also argued that such a scheme is unfair. Levies on building societies are calculated on the same basis as those of banks, but, partly because of regulatory restrictions on their sources of funding and the assets in which they invest, building societies have a different risk profile to banks. The Building Societies Association argued that FSCS levies represent an unfair tax on their saving members, which is used to underwrite the riskier businesses of non-building societies (p 118).
150. Mr Graham Beale, the chief executive of the Nationwide Building Society, told us: “The cost to Nationwide of [non-building society failures] so far is going to be around about a quarter of a billion pounds, that is quarter of a billion pounds of costs that our membership is having to bear for the failure of Bradford and Bingley and the Icelandic banks. That is not right” (Q 463). Mr Matthew Bullock, chief executive of the Norwich and Peterborough Building Society, told us: “In our case over 50% of last year’s profit went to pay the FSCS. [My members] cannot believe that the building societies are having to pay this kind of money to someone who de-mutualised and left the building society camp and took their business elsewhere” (Q 466).
151. **In practice, it is impossible accurately to measure the riskiness of bank portfolios. It is in the nature of banks to take hard-to-evaluate positions and to run opaque loan portfolios. Some inequity in the levies charged by the Financial Services Compensation Scheme (FSCS) is inevitable. The current scheme is nevertheless clearly unfair to institutions which, like the building societies, are constrained from the riskiest business. It is also a potential source of destabilising moral hazard. The Government should promote changes to ensure that contributions to the FSCS should be at least broadly related to the riskiness of the business in which regulated firms engage. In particular, it should consider the introduction of a different basis for calculation of the levy on mutual building societies, or the creation of a separate depositor protection scheme for building societies.**

CHAPTER 6: RATINGS AGENCIES

Growing Importance of Ratings

152. Financial markets became more complicated in the last decade. Banking assets that traditionally were held to maturity by the banks that originated them are now often bought by other institutions, including pension funds and insurance companies. One of the most important vehicles for transferring credit risk away from originating banks was securitisation (see paragraph 13).
153. Because of their complexity, and also because the contents of the underlying asset pool were frequently not revealed, investors relied on third party assessments of the riskiness of securitisation products. These assessments were provided by credit rating agencies.

Rating Agency Business Models

154. Credit rating agencies (CRAs) have existed at least since the foundation in 1909 of John Moody's railroad bond-rating business. They provide an assessment of the likelihood that an interest-bearing security will default on its obligations, taking account of the likely recovery rate after a default. They serve an important economic function by gathering default information which individual investors cannot readily find for themselves. The three most important CRAs are Moody's, Standard & Poor's, and Fitch.
155. Before 1970, investors paid for ratings agency assessments. This system was subject to abuse: since ratings were easy to transmit, investors could often learn about ratings without paying for them and relied on free ratings so that some issues were never rated. Mr Ian Bell of Standard & Poor's drew attention to this problem, and also noted that the investor-pays model creates asymmetries of information amongst investors, with some "insiders" who can pay while other investors become "outsiders" (Q 257).
156. After 1970, ratings were increasingly paid for by bond issuers, then made publicly available for investors. Today this system is the norm. Provided ratings are accurate, it is in the interests of investors, who can make informed investment decisions, and of issuers, who can access more investors. But there is an inbuilt conflict of interest: ratings agencies are paid by borrowers, who want the highest ratings so as to reduce their cost of borrowing.
157. If investors suspected rating inflation (that is, a reduction in the quality hurdle required for a given rating) by the agencies they would cease to trust their assessments, and, as a result, borrowers would no longer be prepared to pay for ratings.
158. For many years fear of loss of reputation seemed effective in restraining rating inflation arising from conflict of interest. But recent dramatic falls in ratings of securitisations, and the perception that the ratings were wrong in the first place, have harmed the reputations of CRAs. Mr Frédéric Drevon of Moody's said there had been a loss of trust in rating agencies so that investors were less confident and "certain segments of the markets have closed down for many, many months and it is quite difficult to see when these markets will reopen for normal activity" (QQ 248–249).

159. Stricter licensing of CRAs seems unlikely to be sufficient on its own to restore trust. And failures on the part of CRAs could damage their regulator's reputation with possible systemic consequences. A legally imposed change from an issuer-pays to an investor-pays business model for rating agencies could face the problems identified in paragraph 155 above.
160. **Credit ratings agencies have lost the confidence of market participants. Urgent action is required to restore market confidence. Although we have not heard evidence on this point, we have identified two ways in which this could be accomplished, both of which would require a significant level of additional detailed study before implementation was possible. First, regulators could consider imposing on CRAs an economic interest in the accuracy of their ratings, by requiring them to make a modest investment in the assets that they assess. Second, CRAs could be required to establish a self-regulatory organisation, with published rules of conduct open to public scrutiny³³.**

Ratings and Regulations

161. Ratings of securitisation tranches were downgraded significantly in late 2007 and early 2008.
162. Mr Paul Taylor of Fitch argued that the ratings agency approach to structured products was sound, but that they operated with inadequate data. The agencies assumed a 25–30% default rate for subprime mortgages, but default levels were reaching an unprecedented 40–50%. So Fitch's problems were related to its analysis, not to its governance (Q 258). Mr Drevon said that Moody's carefully analysed loans in the subprime market. He argued that the problem in recent years was one of data quality, pointing to the possibility of fraud and of inaccurate reporting. He concluded that "there is certainly ... scope for improvement in terms of the data standards not only being made available for Moody's but for the market as a whole" (Q 255).
163. If the CRAs experienced problems analysing securitisations and obtaining accurate information about the underlying asset pools, it is perhaps surprising they did not dedicate more resources to analysis and data quality, or give lower ratings with an explanation of the difficulties. One reason was perhaps that resources were absorbed by the dramatic increase in business as a result of securitisations. In 2003, Moody's structured finance (that is, securitisation) revenue was \$474 million, more than twice the 2000 figure, and in 2005, it was \$715 million, 41% of total revenue. The fast-growing securitisation business was very profitable. Between 2000 and 2007, Moody's operating margins averaged 53%. There is some evidence that corners were cut during this period. Moody's reported in July 2008 that it was beginning disciplinary action against some of its staff after learning that a computer error had caused it to rate around \$1 billion in complex securities incorrectly³⁴.
164. **There is a danger of rating inflation when rapid expansion of business reduces the long-term value to CRAs of their reputation and creates a**

³³ See, for example, European Parliament Study, "Financial Supervision and Crisis Management in the EU" (IP/A/ECON/C/2007-069), section 7.22

³⁴ "Moody's to investigate staff over rating bug," Sam Jones and Gillian Tett, *Financial Times*, 1 July 2008.

conflict of interest by encouraging corner-cutting to attract business from issuers. It follows that supervisors and regulators should be particularly conservative in their use of ratings in times of rapid expansion.

165. Regulation also affected the ratings agencies when ratings were incorporated into capital requirements and into investment mandates.
166. We have already drawn attention in Chapter 3 to the dangers of regulatory arbitrage. The Basel II Capital Accord allows banks to determine risk-sensitive capital requirements with reference to ratings agency assessments of their assets. As Professor Wood noted, it is sensible for regulators to examine ratings, since they include valuable information that otherwise could not be used in supervision (Q 7). But incorporation of ratings into regulations gives the agencies two roles: certification of quality, and determination of capital requirements. If higher-rated assets attract lower capital requirements then, like issuers, investors who are subject to capital regulation will welcome ratings inflation. Moody's argued that the regulatory use of ratings is damaging. For example, it "encourages regulated entities to treat ratings from recognised rating agencies as interchangeable for regulatory purposes" (p 77). When ratings are viewed as interchangeable, agencies may have less incentive to differentiate themselves through more accurate analysis, and instead to compete on price. This change of emphasis is likely to reduce the quality of market information.
167. Many investors are subject to ratings-based investment criteria. Mr Robert Reoch of New College Capital Ltd informed us that "many of the investing community have mandates that limit them to what they can invest in, and those mandates are normally linked to ratings, so they will have a bucket allocated to triple-A securities, to double-A and so on. If they cannot fill those buckets, then they cannot fulfil their mandate" (Q 251).
168. Like ratings-based capital regulations, ratings-based investment mandates give the ratings agencies an additional role, ancillary to their risk-assessment activities: they provide legitimacy to investment choices, sometimes referred to as "gate keeping". Moody's stated: "The regulatory use of ratings introduces a new attribute into the rating agency industry that market participants find valuable: official recognition" (p 77). When investment managers are rewarded for achieving yield within their investment mandates, they will welcome any relaxation of ratings agency standards. Like incorporation of ratings into regulations, ratings-based investment mandates diminish the effectiveness of reputational sanctions upon ratings agency behaviour.
169. It is impossible to legislate against ratings-based mandates, but there is no reason why ratings agency assessments should have a formal role in capital regulation. Changing the system would take time, since it would require banks and their regulators to find alternative risk assessment regimes. Moody's argued it "has historically supported the wholesale abandonment of the use of ratings in prudential and securities regulation. However, it is possible that implementing a reduction in the regulatory use of ratings now may inadvertently lead to negative consequences in an already fragile market" (p 78). **Ratings should be eased out of capital regulations as soon as practicable. The investment community should be encouraged to find alternatives to ratings-based investment mandates.**

Ratings Process

170. Our inquiry examined how complex securities are rated. There is a high degree of uniformity in the design of loan-backed securitisations (“collateralised loan obligations”). This suggests strongly that securitisations are constructed to fit a ratings agency template.
171. Mr Drevon told us that ratings agencies had responded to criticism about the “black box” nature of the ratings process, entirely hidden from the marketplace, by being more transparent about their methodologies. As he acknowledged, issuers can structure their securitisations to obtain the highest possible ratings: that is, to “game the model” (Q 288).
172. Mr Drevon and Mr Bell denied that Moody’s or Standard & Poor’s provided ratings consultancy (QQ 286–287), meaning, we think, that CRAs do not help securitisation issuers to achieve the highest possible rating in exchange for a fee. Nevertheless, Mr de Larosière stated that “there is in my view a conflict of interest when you are a rating agency and not only do you rate some of the products but you participate in the manufacturing and engineering of the products. Of course it is an iterative process: the issuer calls on the credit rating agencies and asks whether that would call for Triple A and the rating agency says no you have to restructure it in another way and you get into that sort of relationship where the agency is paid for two parts of its intervention. That is wrong” (Q 360).
173. If issuers are structuring securitisations in line with the models of the three rating agencies, a systemic risk is being created. If the models are incorrect all securitised bonds are at risk: if a problem is uncovered with one bond, it may affect them all. This happened in early autumn 2007, when the market lost confidence in the valuation of every securitised note.
174. The market’s reliance on a small number of very similar ratings models presents a thorny policy problem. Issuers might be prevented from gaming models if CRAs revealed no details. But the result would be more uncertainty. It seems better to increase the flow of information in the securitisation market.
175. **Securitisation issuers will inevitably attempt to use rating agency models to generate the highest possible ratings. This practice is unlikely to be containable by regulatory constraints. Instead, regulations could require ratings agencies to publish details of the process by which they arrived at their assessment of a new securitisation. The market could then make an informed assessment, and other rating agencies could criticise. However, it should be recognised that transparency in the ratings market runs the risk that securitisations are built to satisfy ratings criteria, which could expose the system to significant instability in the event of a severe market shock.**

CHAPTER 7: BANK GOVERNANCE

176. In most sectors of the economy, corporate governance is primarily concerned with protecting shareholder rights, and maximising shareholder value. If a non-financial firm collapses its shareholders and bondholders lose money, employees' jobs are lost and customers need to find another supplier. But there are few external effects. Bank failures on the other hand tend to have far-reaching external effects. The special nature of banks makes their corporate governance more complex because:
- depositors are protected by the deposit insurance fund. Because depositor losses after bank failure are made good by the insurance fund, depositors are insensitive to the riskiness of the bank. As a result, banks have an incentive to take excessive risks to boost their profits;
 - many banks are too important to be allowed to fail, and hence shareholders may believe that they have a tacit government guarantee. As a result, shareholders may tolerate excessive risk;
 - bank assets are hard to evaluate. Even when shareholder rights are protected, investors may struggle to understand precisely how their capital is deployed and the bank may be taking on more risk than they realise.
177. Dr Kern Alexander said that bank corporate governance should reflect the costs that bank collapse inflicts on third parties: it should “incentivise bank management to price financial risk in a way that covers its social costs. The latter objective is what distinguishes bank corporate governance from other areas of corporate governance because of the potential social costs that banking can have on the broader economy” (p 218). It may not be practical or desirable to expose bank directors to the full costs of their mistakes, but, in general, good governance should, like good regulations, oblige bankers to consider the wider, external, costs that their risk-taking could inflict upon third parties.
178. **Maximising shareholder value gives bankers a clear objective, and ensures that they are accountable for their actions. But since bank shareholders, boards and management are not exposed to all of the costs of their decisions, corporate governance legislation as it relates to banks should recognise this fact by modifying shareholder rights as necessary, for example through the introduction of rigorous procedures for shareholder approval of senior bankers' remuneration, of the appointment of directors and of arrangements for assessing risk.**
179. We did not attempt a comprehensive treatment of corporate governance in the financial sector. We touch on three aspects of bank corporate governance: the role of non-executive directors in banks, the remuneration of bank officers and the implications of the Government's shareholdings.

Non-executive directors

180. Non-executive directors should provide independent monitoring and constructive criticism of their firm's strategy, performance, risk, and

- personnel³⁵. This is a hard role to play in any firm. It is particularly difficult in financial institutions, which are complex and hard to understand.
181. Mr Peter Montagnon, Director of Investment Affairs at the Association of British Insurers, identified the special qualities non-executive directors of banks need: “You need expertise because [banks] are complex businesses. Expertise on its own is not sufficient because what you do need is sufficient character to say no to the management from time to time. If you do not have that character, all the expertise in the world will not help” (Q 88).
182. Bank executives argued that non-executives had challenged management on a range of issues (Q 427). Mr Varley said: “All non-executives when they join the board, whether they have banking experience or whether they do not, are schooled in a way that enables them to challenge” (Q 425). He cited Barclays’ risk committee—all members are non-executives—calling for a review of sub-prime exposure at the end of 2006, before the financial crisis started. He added: “We certainly were very active in the first part of 2007 in reducing our exposure as a result of that governance structure” (Q 412).
183. But many witnesses disagreed. Ms Angela Knight of the British Bankers’ Association said: “I ... am surprised at what seems to be an absence in some instances of asking the right questions and assumptions that maybe were made which should not have been made” (Q 373). Peter Hahn of Cass Business School believed this stemmed from a lack of expertise. Few banks had any non-executive directors with banking experience, which he described as “inexcusable and a legacy of another age” (p 237).
184. Mr Alexander argued the supervisory authorities “should exercise the power to approve bank director appointments and ensure that bank directors have the knowledge and training to understand the bank’s business and risk models and its financial implications not only for the bank’s shareholders, but for the broader economy” (p 218). To encourage boards to have sufficient financial expertise Mr Hahn believes “failures or deficiencies in such knowledge should require greater supervision and higher capital levels from regulators” (p 237).
185. **Non-executive directors need experience at high level in business, public affairs and other relevant fields, the personal qualities to obtain clear and full answers from management, and the ability to understand the bank’s businesses and the risks being undertaken. Selection procedures should stress these requirements, and directors should be drawn from a diverse range of backgrounds so as to minimise the danger of ‘group think’.**
186. **There is also a case for a risk committee comprising non-executive directors with relevant expertise, able to devote significantly more time than a conventional non-executive, to the assessment of the bank’s risk profile, independently of the bank’s executives. They would need to be remunerated accordingly and be provided with suitable support.**
187. Some institutions are so complex that it is very difficult for anyone to understand every aspect of their activities. Mr Montagnon said: “At the end of the day such a bank becomes ungovernable and unregulatable and there is

³⁵ Non-executive directors are discussed in the Higgs Report, *Review of the role and effectiveness of non-executive directors*, January 2003.

a question we need to think about very carefully there” (Q 95). We discuss regulatory responses to this problem in chapter 10.

188. Even very able non-executives can be ineffective. Sir Callum McCarthy told us that the Assets and Liability Committee of Northern Rock “was chaired by somebody who had a long and distinguished career as a commercial banker in this country; it had an ex-member of the Court of the Bank of England as a senior director; it had a very well known fund member as a non-executive; and so on. That was not obviously in any way a poor set of non-executives” (Q 154). The framework within which non-executives operate is important, as are the incentives they face.
189. Witnesses also stressed the importance of non-executives having adequate access to information. Mr Montagnon said: “Boards and independent directors must have the right to seek and obtain information” (Q 88). Professor Julian Franks argued it was important that, if necessary, non-executives feel able to go outside the firm for advice and expertise (Q 89). Ms Knight stated that this is already possible (Q 375). Mr Varley said Barclays’ audit and remuneration committees, both of which are made up of non-executive directors, already get outside advice (Q 426). However, even where bank directors can request external support, institutionalising such arrangements might reduce the danger of those requests being seen as undermining the executive.
190. One suggestion to help adequately inform non-executives about their institutions is to give them a standing independent staff to help gather the information needed to challenge executive decisions. This might improve the quality of boardroom debate, but it would run the danger of damaging the unitary board. In smaller firms establishing this type of staff would be prohibitively expensive: Mr Adrian Coles of the Building Societies Association made this point in the context of building societies (Q 372).
191. **Once appointed, non-executive directors should have adequate access to information and advice, from experts inside and outside the firm. Formal mechanisms to acquire this information are desirable. Larger firms should consider establishing a permanent support staff for their non-executive directors.**
192. We discussed with some witnesses the tenure of non-executives. It is short in some financial institutions. This may reduce the level of institutional memory so that, for example, no one in the boardroom has sufficient experience to sound a warning bell if management throw caution to the wind during a boom. It may therefore be desirable for bank non-executives to remain in place for longer than is usual in non-financial firms. Mr Coles argued that a period of service of between 9 and 12 years would be appropriate (Q 372). **Bank non-executives need sufficient experience, and a broad enough perspective, to enable them better to challenge the bank’s management. To accomplish this, there is a strong case for relaxing term limits on non-executive appointments, and for lifting age restrictions on non-executives.**
193. Non-executives must have the right incentives. Professor Goodhart (QQ 220–221) noted that non-executives of New Zealand banks are required to sign the audited reports and a statement that the bank’s internal control systems are operating well, so that they are subject to a civil suit if their certification proves incorrect. Professor Goodhart noted when this legislation

was enacted in New Zealand “one of the issues raised was whether this requirement would have the effect of lowering the quality and the willingness of outsiders to serve as non-executive directors and to the best of my understanding it has not done so” (Q 221). **The possibility that non-executives in financial firms be required explicitly to sign off on their fields of competence should be considered by the firms themselves and, if necessary, by the Government.**

Remuneration of Bankers

194. A very substantial part of senior banker remuneration, particularly in investment banks, is variable, paid as a performance-related bonus. There is recent evidence that the link between bonuses and performance is sometimes extremely slight. Dr Alexander said “irresponsible compensation packages” incentivised bankers to “book short-term profits based on excessively risky behaviour which increased systemic risk in the financial system and weakened the medium and long-term prospects and profitability of the bank” (p 218). Two questions arise. First, if compensation policies were inappropriate before the crisis, why did shareholders not insist that remuneration committees change them? Second, is there a case for regulating remuneration in banks?
195. There are a number of possible reasons for the lack of shareholder influence on bank remuneration. First, when there are many small shareholders, they may find it hard to take any coordinated action on pay. Mr Montagnon noted when shareholders have small stakes, it may be easy for banks to divide and rule their investors (Q 80).
196. Second, shareholders may not have the right incentives to address remuneration problems: when investment managers control small stakes in companies and their compensation is relatively insensitive to their performance, it may not be worth their while to agitate for change. Professor Franks said: “If you only have 1%, it is not easy to engage with the board unless they want to be engaged. Activism ... has some way to go” (Q 78).
197. Third, amongst institutional shareholders, the fund managers themselves are remunerated substantially by way of performance-related bonuses and may be reluctant to criticise similar arrangements for bank executives.
198. Dr Alexander said “new corporate governance standards” should be introduced, including “controls on remuneration that are linked to the long term profitability of the bank, while forgoing short term bonuses” (p 218). But most witnesses were not convinced that, to the extent that remuneration practices were inappropriate, regulations could correct them. Mr Montagnon argued that the critical point is to get the framework right within which remuneration is decided, and to ensure that firms are transparent about this framework (Q 99); Professor Franks emphasised that “we should not regulate in haste”, but thought that there might be a case for regulation that made it easier for shareholders to nominate directors (Q 99). Mr Montagnon expressed some reservations about this position, arguing that “If you make it too easy for the shareholders to put up a slate and nominate, then you will very quickly undermine the unitary board” (Q 99).
199. Mr Hahn argued regulators should not be required to approve pay structures. But if executive pay at a bank increased systemic risk the bank

should be penalised by being required to hold more capital (p 237). Mr Brian Quinn, a former executive director of the Bank of England, proposed that every authorised financial institution should have a remuneration committee which made recommendations on pay to the board twice a year: “Shareholders are the biggest losers from excessive compensation schemes, so their representatives should exercise judgement and apply sanctions before any regulatory input” (p 259).

200. **Supervisors cannot act as shadow remuneration committees and should not intervene in individual remuneration cases. Any regulatory intervention on banker remuneration should focus on its structure, the procedures by which it is determined, and the ability of shareholders to challenge it, with a view to reducing incentives to excessive risk taking.**

Government shareholdings in banks

201. The Government’s stakes in a number of banks has implications for corporate governance. Mr Varley said: “My view would be that with the involvement of taxpayers’ money, whether it is in this country or in another country, of course goes a taxpayer’s agenda of some sort” (Q 443). However, Mr Varley also said it was a fiduciary obligation to shareholders that taxes were managed “in an efficient way” (Q 442). Mr Flint said it would be “entirely appropriate for there to be clear accountability to the taxpayers who have put money at risk, put money up for the capital of banks” (Q 443).
202. UK Financial Investments (UKFI), which manages the Government’s holdings in British banks, has been set an “overarching objective” which includes both “maximising sustainable value for the taxpayer” and “promoting competition”³⁶. These two goals could come into conflict as limiting competition could boost profits for the banks in which they own shares. UKFI’s chief operating officer, Mr Sam Woods, said: “If our sole objective was to protect and create value for the shareholder, then obviously a narrow reading of that could lead you to behave in a way that was not good for competition. So it was very important both for us because clearly that will be contrary to the Government’s interest, but also for the competition bodies, the Office of Fair Trading, etc., that there was some offsetting element in there to make sure that we had that balance in terms of our activities” (Q 576).
203. **The Committee remains concerned that UKFI has been set inconsistent goals of maximising value for the taxpayer from the stakes held in various banks, and promoting competition. UKFI and the Government should explain how any conflict between these goals will be managed and resolved.**

³⁶ UK Financial Investments, *An introduction: who we are, what we do, and the framework document which governs the relationship between UKFI and HM Treasury*, 2009, pg 13

CHAPTER 8: AUDITORS

204. The financial crisis was exacerbated in the UK by a credit crunch that arose in part because banks and other financial intermediaries were unsure of the quality of one another's assets. The problem would have been less severe if this lack of information had been rapidly remedied. In this chapter, we ask whether auditing firms, which know their clients' businesses well, could have done more to fill the information gap in the financial sector. We also discuss the desirability of fair value, or mark-to-market, accounting.

Audit-Generated Information in Regulation and Supervision

205. Beyond the requirement to certify the going-concern status of businesses, auditing firms have no statutory duty to give an opinion about their clients' future prospects: they are required simply to satisfy themselves that company accounts represent a true and fair picture of the company's operations when they were prepared.
206. Mr John Hitchins of PricewaterhouseCoopers told us that the going concern judgement is particularly hard to make for banks, because they have a permanent maturity mismatch between their assets, which are long-dated, and their liabilities, which have short maturities (Q 294). This judgement therefore has to take account of market liquidity. Mr Hitchins stated that "at the end of 2007, the issue was the valuations and how you could get consistency of valuation across institutions. As we moved through 2008, the issue became liquidity" (Q 310).
207. The auditing profession argues that its provision of a fair and complete picture of its clients' financial position enables decisions to be made on an informed basis. The International Accounting Standards Board told us that "the purpose of financial reporting ... is to provide an informed decision maker with the necessary information to make a rational judgement regarding the allocation of capital" (p 250).
208. Although auditors influence decision-making, beyond confirming the veracity of the financial reports, they do not report their opinions about their client firms. This point was made by our witnesses in discussion of the rapid alteration of British bank capital structures after 2000, when loan-to-deposit ratios started to increase rapidly. Mr Brendan Nelson of KPMG noted that this change was not hidden, and that sources of funds were disclosed in financial statements (Q 313). Mr Hitchins told us explicitly that "it is not up to us to determine what the appropriate level of capital is" (Q 311).
209. Two questions arise. First, did auditing firms fail to pick up on systematically important trends in the financial sector, and make the wrong going-concern judgements for banks? And second, should auditing firms have a wider statutory responsibility, to include judgements on audited firms' business strategies?
210. As noted above, our witnesses contend that their judgements, based on historical information, as required by statute, were reasonable, while supervisory authorities, charged with understanding market conditions, failed to appreciate the extent of systemic risk at the start of the financial crisis; it is perhaps unlikely that auditing firms could fare better.

211. **We have seen no evidence that bank auditors failed in their statutory duty to make a going-concern judgement on their clients. Bank auditors should not be required to make a more general judgement on the quality of their clients' strategies. In any event, it is unlikely that auditors would be more able than financial supervisors to identify structural problems in the financial sector.**
212. Although auditor judgement cannot substitute for that of the supervisor, there is still a strong case for using auditors in the supervisory process. Lord Turner described their use for “a particular thing called section 166 where we do a deep dive on an institution where we have particular issues that we are worried about” (Q 520). He argued that the FSA has in-house capability to deal with normal risk assessments, and stated that more extensive use of auditing firms would be expensive.
213. The auditing firms believe that information sharing between supervisors and auditors has become less effective since the FSA assumed responsibility for bank supervision. Mr Nelson said: “We certainly believe there is scope for a better and more formal relationship with the regulator in the sense that the audit firms and the audit process can support the regulatory process better than it has been used in the past. It is not through lack of will on our part, it is just that the way that regulation was performed in the UK following the introduction of the Financial Services and Markets Act changed, and the auditor had a very limited role to play in that, extremely limited. We would welcome, and we have made it very clear publicly, a constructive dialogue with the regulator to explore ways in which we can support the regulatory process” (Q 334).
214. Mr Hitchins said: “We can only trigger [a meeting with the supervisor] if there is a problem” (Q 301), and “I think it would be an extremely good idea if we did have regular meetings with [the supervisors] on all banks, which we used to” (Q 302). Mr Oliver Grundy of Deloitte remarked that the practice of regular supervisor meetings did not stop, “it just simply began to fade away, I would say, and there were less meetings asked for by supervisors” (Q 303). Mr Hitchins and Mr Grundy emphasised that there was no resistance to these meetings from the banks; they stopped because supervisors no longer requested them (QQ 304–305).
215. **It is regrettable that supervisors no longer meet auditors regularly. The auditors could provide useful information and the banks would not object. We recommend that the FSA should take the initiative to resume regular meetings with bank auditors, even when there are no obvious problems in the banks.**

Mark-to-market accounting

216. Mark-to-market accounting is the practice of valuing bank assets at prevailing market prices. This approach is employed for “trading book” assets which banks hold for short-term profit, or for early onward sale. Some commentators have suggested that mark-to-market accounting may have contributed to the financial crisis, because mark-to-market losses on a bank's assets reduce the size of its capital base, so that it has to sell assets or restrict its lending in order to satisfy regulatory capital requirements.
217. There are alternatives to mark-to-market accounting that might reduce the volatility of bank asset values. For example, Professor Charles Goodhart and

co-authors suggest that assets should be valued on a “mark-to-funding” basis³⁷. This would base asset valuations upon an assessment of the cashflows that they would generate over the period for which their funding is guaranteed, and hence would place less emphasis upon market prices for assets that were not subject to liquidity risk.

218. However, alternatives to mark-to-market accounting might obscure asset values in some circumstances. For example, under a mark-to-funding regime, it is difficult to envisage a satisfactory mechanism for arriving at a disinterested estimate of the cash flows that an opaque banking asset would generate. The events of 2007 demonstrated that denying market participants accurate information destabilises capital markets, with potentially serious consequences for the real economy.
219. The International Accounting Standards Board (IASB) sees mark to market accounting as the most effective way of creating an independent and verifiable assessment of the value of assets and liabilities. They also stated that “fair value provides much needed transparency and enables markets to adjust in a necessary, even if painful manner”. The IASB argued that failure to acknowledge losses, and imperfections in valuation techniques, delayed the resolution of the 1980s Savings and Loans crisis in the US, and the 1990s Japanese banking crisis (p 250).
220. Notwithstanding the importance of market confidence in the quality and completeness of valuation data, the combination of mark-to-market accounting with existing financial regulations could have had pro-cyclical consequences. Professor Perotti told us that “there are no good alternatives to mark to market but mark to market is an explosive mechanism when there are vulnerable situations” (Q 209). It is important that the macro-prudential supervisor has a policy lever that it can use to counter any pro-cyclicality arising from mark-to-market accounting. Professor Goodhart said: “I now agree with [Professor Perotti] that actually mark to market is probably the only defensible system; but since we know that it amplifies the cycle, both on the upside and the downside, it makes it all the more important that we introduce these other requirements and mechanisms which provide the countervailing, countercyclical impact” (Q 211).
221. **Mark-to-market accounting generates verifiable information about banks. Without it investors would be less well-informed, and confidence would suffer in downturns. Regulators should not abandon mark-to-market accounting, but supervisors must identify ways to ensure that it does not amplify the economic cycle.**

³⁷ See M. Brunnermeier, A. Crockett, C.A.E. Goodhart, A. D. Persaud, H. Shin (2009), “*The Fundamental Principles of Financial Regulation*”, Geneva reports on the World Economy 11.

CHAPTER 9: INSOLVENCY REGIMES

222. Until this year, British legal provisions governing insolvency did not distinguish banks from other failing companies. For example, insolvency proceedings were to be triggered by default. Dr Oren Sussman noted that this is not a practical approach for bank insolvencies, since a bank default is likely to trigger a crisis, with damaging system-wide consequences (p 72). Other rule-based approaches are also inappropriate, because of the social value that is derived from a bank. As Dr Sussman said, market-based insolvency tests are ineffective in the banking sector: “In the case of a bank, because part of the value that the bank is creating or destroying does not have a market test, a bank insolvency is bound to be more discretionary” (Q 226). Dr Sussman noted that bank asset value must be established via an administrative procedure, since selling assets to establish their value would engender a systemic panic (p 72).
223. The tripartite authorities did not allow Northern Rock, RBS, or Lloyds to enter formal insolvency proceedings. This fact limited the options available to the authorities. For example, as Professor John Armour noted, “The banks that are government-supported are not in administration so there is no power under the existing framework for their service contracts to be altered and the position is that the banks must stand by these service contracts” (Q 235).
224. The Banking Act 2009 institutes a Special Resolution Regime (SRR) for failing banks, which addresses the problems raised above. Responsibility for administering the SRR is divided amongst the tripartite authorities as follows. The SRR is triggered by the FSA when a bank has failed or is likely to fail to meet FSA-defined “threshold conditions”. Once a bank has entered the SRR, the Bank of England manages the resolution process. The Treasury is responsible for financing the SRR, and for taking decisions on nationalisation. In addition, the Financial Services Compensation Scheme is responsible for ensuring rapid payout to affected depositors.
225. The Bank of England has three options under the SRR: it can direct and accelerate part or all of a failed bank’s business to a private sector purchaser; it has the power to control all or part of a bank’s business through a bridge bank, before onward sale; and it has access to a bank insolvency procedure to close the bank and to facilitate a fast and orderly payout of depositors’ funds. As a last resort, a failed bank can be temporarily nationalised.
226. **We welcome the Special Resolution Regime under the Banking Act 2009, which puts in place special insolvency procedures for banks.**
227. The SRR applies to UK-incorporated banks and building societies, including the UK subsidiaries of foreign banks, as well as the overseas branches of UK-incorporated banks and building societies. It does not apply to the UK branches of non-UK incorporated banks. Professor Armour said: “Lehman’s UK subsidiary would not be a bank under the Banking Act. I understand that the application of the standard administration procedure to Lehman’s UK subsidiary brought about the very rapid termination of a number of positions in the market which caused considerable systemic difficulties” (Q 226). It is important that the systemic importance of non-commercial banks be recognised in insolvency law. On 11 May 2009, the government

announced initial plans to address this type of problem in the investment banking sector³⁸.

228. **We welcome the Government's recent statement of its intent to strengthen resolution arrangements for investment banks. The Government should give serious consideration to extending the scope of the Special Resolution Regime of the Banking Act 2009 to other financial institutions.**
229. The Governor said he had argued that the Bank of England should have the ability to place a bank into the SRR, but had lost this argument (Q 503).
230. It seems clear that, if the Bank is to act as an effective Lender of Last Resort it should be able to gather detailed information about troubled banks. Decisions about last-resort lending and the triggering of the Special Resolution Regime would in practice be closely linked. Handling both in one institution would minimise the danger that either decision was mis-handled due to poor communication. Mr Tucker said: "One of the painful lessons of Northern Rock was that the Bank was not able to engage directly with Northern Rock about lender of last resort until very late in the day and then they were surprised about the granularity of the information that the Bank wanted" (Q 505). **We recommend that the Government should revisit the question of how the SRR is triggered and give serious consideration to allowing the Bank of England to trigger it. This recommendation will be rendered obsolete if the government adopts the "twin peaks" system outlined in paragraph 122.**

³⁸ See http://www.hm-treasury.gov.uk/press_48_09.htm

CHAPTER 10: FINANCIAL INSTITUTION SCALE AND SCOPE

231. Some of our witnesses, such as Michael Foot, formerly head of banking supervision at the Bank of England, argued that some banks are now too complex to manage (Q 138). The Governor of the Bank of England noted that Citibank had had difficulties even though its senior management included “some of the brightest and best people you could imagine” (Q 507).
232. As noted in Chapter 3, increased bank complexity has the consequence of extending the reach of the deposit insurance scheme, and so of reducing the cost of capital deployed in complex securities businesses. Banks will then naturally underestimate the true costs of security market activity, and hence, they will perform more securities business than is desirable.
233. One possible response to the problem of increasing complexity would be to institute a legal separation of commercial banking from more risky and complex security market business. This type of separation existed in the US as a consequence of the 1933 Glass-Steagall Act, until it was repealed by the 1999 Gramm-Leach-Bliley Act.
234. Many of our witnesses dismissed the idea of separating commercial banking from the securities market, arguing that financial markets are now so integrated that such a separation would be impossible. For example, Professor Perraudin said: “Given the complexity of the credit world we now face, it is not sensible to try to return to that kind of situation” (Q 118). Sir Callum McCarthy and Mr Foot both opposed separation of commercial from investment banking (Q 144). Lord Turner noted that Lehman Brothers and Bear Stearns, both systemically important institutions, would have been treated as securities businesses under Glass-Steagall-like legislation, and that, arguably, both should have been bailed out. HBOS, on the other hand, was a narrow commercial bank. He also argued that customers are well-served by integrated financial institutions, and that dividing financial institutions would therefore reduce the quality of the service provided (Q 524).
235. Some witnesses were more sympathetic to a Glass-Steagall-like separation of commercial banking from more complex market-oriented business. Professor Wood argued that Glass-Steagall was good legislation, though passed for the wrong reasons. But for the future he preferred market competition to legislation to bring about the most effective business structures (Q 38). Professor Perotti suggested that legislation should move in the direction of Glass-Steagall by preventing institutions with access to the deposit insurance safety net from dealing in securities not traded on an exchange, and which therefore are very hard for regulators to assess (Q 222).
236. The Governor said that there was a strong argument for legislation that would ensure a diversity of banking institutions (QQ 507–508), and he noted that there were strong arguments both for and against separating commercial banking from the securities business: “what I would encourage everyone to do, this Committee and other committees, is to take some time now to think our way through these issues. They are immensely important, we will not get another opportunity to restructure our banking and financial system in a hurry and it is very important that we take this opportunity”. He added that there was time to think things through, since “banks are not going to rush out and take wild risks for quite a while” (Q 507).

237. Even when banks are narrow, they can grow too big to fail: in 1984, the purely commercial US bank Continental Illinois was the first bank to be identified as too big to fail. Strict competition policy would prevent this from occurring, and so might increase the resilience of the banking system to a systemic shock. The Governor argued that, like the legal separation of commercial banking from the securities business, this idea should not be dismissed out of hand (QQ 507–508). Lord Myners observed that “scale brings with it risk and issues around prudential supervision, too big to fail. I think George Osborne has said too big to fail or too big to bail out. I think there is an issue there” (Q 547).
238. **The financial crisis presents a unique opportunity to take stock of the financial system. Policy-makers should grasp the chance to consider the appropriate structure of the financial system, and how financial institutions are regulated. However, there should be no rush to write the legislation required to support new structures: it is more important to get the details right than to resolve them quickly. Competition in the banking sector understandably took second place to stability considerations during the crisis. The Government should now look again at competition policy and at the same time should explicitly address the breadth of the state safety net for financial firms.**

CHAPTER 11: CONCLUSIONS AND RECOMMENDATIONS

239. This Report examines the supervisory and regulatory framework in the United Kingdom when the crisis broke and recommends changes. A key role of regulation is to prevent crises or to mitigate their effects. The present system failed to do so. Inadequate regulation around the world also played a part as the crisis unfolded. There should, however, be no rush to action. The financial sector is unlikely to embark soon on risky new adventures. The main objective of policy should be to change the regulatory regime in order to make future crises on this scale less likely without stifling innovation. (Paragraph 5)
240. Supervisors should actively question the assumptions underlying bank risk models. They should require financial institutions to calibrate their models over long periods. They should investigate the sensitivity of model outputs to assumptions, and require extensive stress-testing of models. Bank models are proprietary, but the methods that supervisors use to evaluate them should be published so that outside ideas for better tests can be gathered and used. Supervisors should not, however, impose a particular approach to modelling, nor attempt to assume the executive role of bank officers. (Paragraph 39)
241. Supervisors should also perform their own system-wide stress tests of bank portfolios, in order to identify aggregate effects that individual bank systems are not designed to capture. (Paragraph 40)
242. It is important not to stultify the innovative capacity of the financial sector. But the crisis has demonstrated that risks in some markets can destabilise the entire financial system. The Credit Default Swap market in particular could be made more robust. It is unnecessarily opaque. This problem requires urgent attention. One approach would be to require reporting of CDS trades, and, as far as possible, to require that CDS trades be centrally cleared. Significant changes to market practices would follow, and would require careful consultation with the industry before they were phased in. Whatever changes are adopted should not create new incentives to regulatory arbitrage. For example, there is a danger that compulsory clearing of CDS trades might cause displacement of trading activity into the securitisation market, the idiosyncracies of which probably preclude the use of clearing there: because every securitisation has different terms, it would not be possible to net trades in this market. Regulators should also address urgently the need for transparency in the securitisation market. (Paragraph 47)
243. Although regulators depend in part on banks' risk models for information that they would not otherwise have, they should draw on them selectively to make their own risk assessments. (Paragraph 57)
244. When supervisors incorporate bank risk systems into regulation, there is some danger they may hinder innovation in risk modelling by banks. To avoid this effect, relevant rules should be updated quickly in response to advances in risk modelling. (Paragraph 59)
245. In general, financial models designed for use in liquid markets should not be used in the supervision of illiquid markets. Supervisors should base their assessments of operational risk upon a close understanding of the banks they regulate, and not upon statistical models, which cannot substitute for judgement based on analysis. (Paragraph 62)

246. Trading book assets currently attract a lower capital charge, because they can easily be sold by troubled banks. The experience of the financial crisis is that, when such a sale is most necessary, it may be impossible. The costs then fall upon the deposit insurance fund. Regulatory capital requirements for trading book assets should be substantially increased. (Paragraph 68)
247. A new policy lever should be introduced to counter pro-cyclicality in the banking sector. Its basis in rules should be strong enough and the institution wielding it independent enough to ensure that the lever is used in boom times. The Government should urgently identify a suitable instrument. (Paragraph 76)
248. Since counter-cyclical regulations at the national level would risk undermining the level playing field of the Basel Accord, the United Kingdom authorities should consult internationally before any national implementation. The design of counter-cyclical regulations should involve careful consideration of their likely effect on the international competitiveness of the City of London, especially since their adoption in the United Kingdom and elsewhere would imply re-introducing a national element in capital regulation. (Paragraph 78)
249. Regulators should make the supervision of liquidity risk an urgent priority. While liquidity risk has previously been expressed in terms of the assets on bank balance sheets, regulators could also consider rules based upon the funding mismatches to which banks are exposed. Regulation should respond to low levels of liquidity by, *inter alia*, raising capital requirements or imposing charges under an insurance scheme. (Paragraph 89)
250. Financial crises are always unexpected, and it is hard to plan for them. For crisis management to be effective, it needs to be clear who is in charge. The Memorandum of Understanding (MoU) governing the relationship between the Bank of England, the FSA and the Treasury should be modified so as explicitly to give decision-making powers to one of the tripartite authorities whenever they are not clearly assigned in the MoU, in such a way as to avoid ambivalence or dispute. (Paragraph 98)
251. The Bank of England needs institution-specific information and a close understanding of the daily operations of the financial markets in order to function effectively during a financial crisis. We recommend that the Government should make changes to ensure that the Bank has access to the necessary information. (Paragraph 103)
252. Without a clear executive role, the Bank can do no more than talk about financial stability. This exposes it to reputational risk, without generating any clear benefit. (Paragraph 107)
253. A clear lesson to be drawn from the recent financial crisis is that the current arrangements failed to recognise the natural affinity between responsibility for financial stability and for macro-prudential supervision of the banking and shadow banking sectors. The Government should allocate responsibility for macro-prudential supervision to the Bank of England, which already has macroeconomic expertise. Adjustment costs would be low, although there would be some overlap with the FSA's responsibility for micro-prudential supervision. (Paragraph 110)
254. Effective macro-prudential supervision may conflict with the goals of political and business groups, so needs to be exercised by transparent and

accountable institutions with the appropriate authority to take action. As currently envisaged, (in contrast to the Monetary Policy Committee) the Financial Stability Committee will have no executive role. There is thus a danger that it will lack focus and be ineffective. (Paragraph 112)

255. The Financial Stability Committee should remain a Bank of England Committee, chaired by the Governor, but should include senior FSA representation in sufficient numbers. The re-constituted FSC should be the central institution for macro-prudential supervision, with executive responsibility for a macro-prudential policy instrument. (Paragraph 114)
256. The executive FSC recommended in this report should have senior Treasury representation, at or close to the level of the permanent secretary. (Paragraph 115)
257. Regulatory bodies are subject to conflicting political pressures. There is a danger that, when a single institution has responsibility for conduct-of-business and prudential supervision, one will be emphasised at the expense of the latter. Institutional arrangements in the future must be designed so as to minimise this danger. (Paragraph 121)
258. The Government should carefully consider the case for and against a “twin peaks” system of financial supervision in the UK. It would involve giving the Bank of England responsibility for micro-prudential as well as macro-prudential supervision of the financial sector, in addition to its monetary policy role, leaving responsibility for conduct-of-business supervision with the FSA. A twin peaks approach would ensure that the Bank had the information needed to manage financial crises, and would obviate the need identified in paragraph 114 for FSA representation on the Financial Stability Committee. It would also reduce the potential for conflict between conduct-of-business and prudential supervision. However, the case for a twin peaks system of regulation is by no means as clear-cut as that for locating an executive FSC with responsibility for macro-prudential supervision within the Bank. The Government would need to consider whether giving the Bank responsibility for micro-prudential supervision would create countervailing organisational problems, including governance of the Bank and the role of the FSA. (Paragraph 127)
259. Primary responsibility for banking regulation and supervision should remain with national authorities. Notwithstanding the difficulties at the international, or even European level, international macro-prudential financial supervision should be encouraged. A purely advisory international body with a remit for surveillance of the financial system and identification of nascent systemic problems could serve a valuable purpose and help national governments and regulators to identify critical stresses in the financial sector. Such a body should be sufficiently independent to avoid the suspicion that its objectives were subservient to the national interests of one or more of its members. (Paragraph 139)
260. The British authorities should work to ensure that the Financial Stability Board announced in the G20 London communiqué is sufficiently independent and well-resourced to provide international monitoring of financial stability, and to disseminate credible recommendations to national governments and regulatory bodies. (Paragraph 140)
261. Financial markets are global not regional. Where European-level coordination on macro-prudential supervision is contemplated, it should be

aligned with the broader international coordination contemplated under the Financial Stability Board. (Paragraph 141)

262. The Government should work towards acceptance that branches of foreign multinational banks in the UK, whether European or not, should be subject to a greater degree of oversight by the British authorities and that local capital requirements should be introduced for these banks, under which repatriation would need those authorities' permission, bearing in mind that reciprocal requirements might be sought by countries in which British banks operate and that this type of capital requirement would increase the costs to multinational banks domiciled overseas of doing business in the UK. (Paragraph 143)
263. A pre-funded deposit insurance scheme would have a counter-cyclical effect: money levied in boom times would be returned to the banking sector during times of financial fragility. It would also increase depositor confidence. The Government should move towards pre-funding of the Financial Services Compensation Scheme as soon as practicable. (Paragraph 147)
264. In practice, it is impossible accurately to measure the riskiness of bank portfolios. It is in the nature of banks to take hard-to-evaluate positions and to run opaque loan portfolios. Some inequity in the levies charged by the Financial Services Compensation Scheme (FSCS) is inevitable. The current scheme is nevertheless clearly unfair to institutions which, like the building societies, are constrained from the riskiest business. It is also a potential source of destabilising moral hazard. The Government should promote changes to ensure that contributions to the FSCS should be at least broadly related to the riskiness of the business in which regulated firms engage. In particular, it should consider the introduction of a different basis for calculation of the levy on mutual building societies, or the creation of a separate depositor protection scheme for building societies. (Paragraph 151)
265. Credit ratings agencies have lost the confidence of market participants. Urgent action is required to restore market confidence. Although we have not heard evidence on this point, we have identified two ways in which this could be accomplished, both of which would require a significant level of additional detailed study before implementation was possible. First, regulators could consider imposing on CRAs an economic interest in the accuracy of their ratings, by requiring them to make a modest investment in the assets that they assess. Second, CRAs could be required to establish a self-regulatory organisation, with published rules of conduct open to public scrutiny. (Paragraph 160)
266. There is a danger of rating inflation when rapid expansion of business reduces the long-term value to CRAs of their reputation and creates a conflict of interest by encouraging corner-cutting to attract business from issuers. It follows that supervisors and regulators should be particularly conservative in their use of ratings in times of rapid expansion. (Paragraph 164)
267. Ratings should be eased out of capital regulations as soon as practicable. The investment community should be encouraged to find alternatives to ratings-based investment mandates. (Paragraph 169)
268. Securitisation issuers will inevitably attempt to use rating agency models to generate the highest possible ratings. This practice is unlikely to be containable by regulatory constraints. Instead, regulations could require ratings agencies to publish details of the process by which they arrived at

their assessment of a new securitisation. The market could then make an informed assessment, and other rating agencies could criticise. However, it should be recognised that transparency in the ratings market runs the risk that securitisations are built to satisfy ratings criteria, which could expose the system to significant instability in the event of a severe market shock. (Paragraph 175)

269. Maximising shareholder value gives bankers a clear objective, and ensures that they are accountable for their actions. But since bank shareholders, boards and management are not exposed to all of the costs of their decisions, corporate governance legislation as it relates to banks should recognise this fact by modifying shareholder rights as necessary, for example through the introduction of rigorous procedures for shareholder approval of senior bankers' remuneration, of the appointment of directors and of arrangements for assessing risk. (Paragraph 178)
270. Non-executive directors need experience at high level in business, public affairs and other relevant fields, the personal qualities to obtain clear and full answers from management, and the ability to understand the bank's businesses and the risks being undertaken. Selection procedures should stress these requirements, and directors should be drawn from a diverse range of backgrounds so as to minimise the danger of 'group think'. (Paragraph 185)
271. There is also a case for a risk committee of non-executive directors with relevant expertise, able to devote significantly more time than a conventional non-executive, to the assessment of the bank's risk profile, independently of the bank's executives. They would need to be remunerated accordingly and be provided with suitable support. All non-executives should have access to outside advice. (Paragraph 186)
272. Once appointed, non-executive directors should have adequate access to information and advice, from experts inside and outside the firm. Formal mechanisms to acquire this information are desirable. Larger firms should consider establishing a permanent support staff for their non-executive directors. (Paragraph 191)
273. Bank non-executives need sufficient experience, and a broad enough perspective, to enable them better to challenge the bank's management. To accomplish this, there is a strong case for relaxing term limits on non-executive appointments, and for lifting age restrictions on non-executives. (Paragraph 192)
274. The possibility that non-executives in financial firms be required explicitly to sign off on their fields of competence should be considered by the firms themselves and, if necessary, by the Government. (Paragraph 193)
275. Supervisors cannot act as shadow remuneration committees and should not intervene in individual remuneration cases. Any regulatory intervention on banker remuneration should focus on its structure, the procedures by which it is determined, and the ability of shareholders to challenge it with a view to reducing incentives to excessive risk taking. (Paragraph 200)
276. The Committee remains concerned that UKFI has been set inconsistent goals of maximising value for the taxpayer from the stakes held in various banks, and promoting competition. UKFI and the Government should explain how any conflict between these goals will be managed and resolved. (Paragraph 203)

277. We have seen no evidence that bank auditors failed in their statutory duty to make a going-concern judgement on their clients. Bank auditors should not be required to make a more general judgement on the quality of their clients' strategies. In any event, it is unlikely that auditors would be more able than financial supervisors to identify structural problems in the financial sector. (Paragraph 211)
278. It is regrettable that supervisors no longer meet auditors regularly. The auditors could provide useful information and the banks would not object. We recommend that the FSA should take the initiative to resume regular meetings with bank auditors, even when there are no obvious problems in the banks. (Paragraph 215)
279. Mark-to-market accounting generates verifiable information about banks. Without it investors would be less well-informed, and confidence would suffer in downturns. Regulators should not abandon mark-to-market accounting, but supervisors must identify ways to ensure that it does not amplify the economic cycle. (Paragraph 221)
280. We welcome the Special Resolution Regime under the Banking Act 2009, which puts in place special insolvency procedures for banks. (Paragraph 226)
281. We welcome the Government's recent statement of its intent to strengthen resolution arrangements for investment banks. The Government should give serious consideration to extending the scope of the Special Resolution Regime of the Banking Act 2009 to other financial institutions. (Paragraph 228)
282. We recommend that the Government should revisit the question of how the SRR is triggered and give serious consideration to allowing the Bank of England to trigger it. This recommendation will be rendered obsolete if the government adopts the "twin peaks" system outlined in paragraph 122. (Paragraph 230)
283. The financial crisis presents a unique opportunity to take stock of the financial system. Policy-makers should grasp the chance to consider the appropriate structure of the financial system, and how financial institutions are regulated. However, there should be no rush to write the legislation required to support new structures: it is more important to get the details right than to resolve them quickly. Competition in the banking sector understandably took second place to stability considerations during the crisis. The Government should now look again at competition policy and at the same time should explicitly address the breadth of the state safety net for financial firms. (Paragraph 238)

APPENDIX 1: ECONOMIC AFFAIRS COMMITTEE

The members of the Select Committee which conducted this inquiry were:

Lord Best
 Lord Currie of Marylebone
 Lord Eatwell
 Lord Forsyth of Drumlean
 Lord Griffiths of Fforestfach
 Baroness Hamwee
 Baroness Kingsmill
 Lord Levene of Portsoken
 Lord MacGregor of Pulham Market
 Lord Moonie
 Lord Paul
 Lord Tugendhat
 Lord Vallance of Tummel

Professor Alan Morrison, Professor of Finance, Saïd Business School, Oxford University was the Committee's Specialist Adviser.

Declaration of Interests

Members made declarations of interests relevant to the inquiry as follows:

Lord Best
15(d) Office-holder in voluntary organisations
Chairman, Hanover Housing Assciaton (remunerated but all remuneration donated to charity)

Lord Eatwell
**12(e) Remunerated directorships*
Director, SAV Credit Ltd
**12(f) Regular remunerated employment*
Advisor, Warburg Pincus International Ltd
Advisor, Palamon Capital Partners, LLP

Lord Griffiths of Fforestfach
**12(d) Non-parliamentary consultant*
Vice Chairman, Goldman-Sachs International

Lord Levene of Portsoken
**12(e) Remunerated directorships*
Chairman, Lloyd's
Director, China Construction Bank

Lord MacGregor of Pulham Market
**12(f) Regulated remunerated employment*
Chairman, Slough Estate Pension Fund Trustees
Chairman, British Energy Pension Fund Trustees

Lord Paul
**12(e) Remunerated directorships*
Chairman and Director, Caparo Group Ltd

Lord Vallance of Tummel
**12(f) Regular remunerated employment*
International Advisory Board, Allianz AG (insurance)
European Advisory Council, Rothschild et cie (investment banking)

Full lists of Members' interests are recorded in the Lords Register of Interests:
<http://www.publications.parliament.uk/pa/ld/ldreg.htm>

APPENDIX 2: LIST OF WITNESSES

The following witnesses gave evidence. Those marked * gave oral evidence.

- Dr Kern Alexander, Cambridge University
- * Professor John Armour, Oxford University
- * Association of British Insurers
- Association of Chartered Certified Accountants
- * Bank of England (Mr Mervyn King (Governor), Mr Paul Tucker and Mr Spencer Dale)
- * Barclays
- * British Bankers' Association
- * Building Societies Association
- * Lord Burns, a Member of the House of Lords, and Chairman of Abbey National
- The City of London Corporation
- * Mr Alastair Clark
- Confederation of British Industry
- * Mr Peter Cooke
- Council of Mortgage Lenders
- * Dr Jon Danielsson, London School of Economics
- * Mr Jacques de Larosière
- * Deloitte
- Experian
- * Fitch Ratings
- * Mr Michael Foot
- * Professor Julian Franks, London Business School
- * Professor Charles Goodhart, London School of Economics
- Guernsey Financial Services
- Mr Peter Hahn
- * Ms Mridul Hegde, HM Treasury
- * HSBC
- Institute of Chartered Accountants of England and Wales
- International Accounting Standards Board
- Investment Management Association
- * KPMG
- * Lloyds Banking Group
- * Sir Callum McCarthy
- * Moody's Investors Service

- * Lord Myners, a Member of the House of Lords, Financial Services Secretary, HM Treasury
- * Nationwide Building Society
- * New College Capital Ltd
- * Norwich and Peterborough
- * Professor Enrico Perotti, University of Amsterdam
- * Professor William Perraudin, Imperial College, London
- * PricewaterhouseCoopers
- Mr Brian Quinn
- Shelter
- * Standard and Poor's
- * Dr Oren Sussman, Oxford Univeristy
- * Lord Turner of Ecchinswell, a Member of the House of Lords, and Chairman of the Financial Services Authority
- * UKFI
- * Which?
- Mr Julian Wiseman
- * Professor Geoffrey Wood, Cass Business School

APPENDIX 3: CALL FOR EVIDENCE

Banking Supervision and Regulation

Following recent turmoil in the banking system, the Economic Affairs Committee has decided to conduct an inquiry into 'Banking Supervision and Regulation'.

Evidence is invited by 10 February 2009. The Committee will welcome written submissions on any or all of the issues set out below.

The inquiry will examine what improvements may be needed in banking supervision and regulation and related areas and seek to answer questions such as:

- (1) Can the regulatory authorities effectively control the risks taken by banks, especially in today's globalised markets? How can the international dimension be addressed?
- (2) Has the supervision of individual banks been handled effectively under the Tripartite System of the Treasury, the Financial Services Authority and the Bank of England? Should banking supervision remain with the FSA or be returned to the Bank of England?
- (3) How is responsibility for stability of the financial system divided in the Tripartite System? Has oversight of the banking system been lost due to a focus on individual banks? What has been the nature of coordination between the different regulators before, and since, the Northern Rock crisis in the summer of last year?
- (4) How can regulators employ people of the right calibre to regulate the banking system effectively?
- (5) Could the regulatory authorities have foreseen the banking crisis? What changes might help the authorities predict such a crisis in future? What could then be done to avoid a repeat?
- (6) What changes should be made to banking regulations?
- (7) For example, should capital adequacy regulations be tightened? Should they take account of the quality and liquidity of the assets held by the banks? If so, how? Do regulators need to create different sets of rules for different assets held by banks? Should fair value accounting rules be adjusted?
- (8) Do Basel banking standards and guidelines need to be changed? Did the FSA ensure that banks followed the Basel standards and guidelines?
- (9) Is better testing and regulation needed of new financial products, especially complex securities? If so, how? Should complex financial instruments, such as credit default swaps, be traded through clearing houses?
- (10) Should there be tighter regulation of off-balance sheet vehicles in which some banks held 'toxic' assets associated with US sub-prime mortgages? Is there a case for requiring greater public disclosure of banks' balance sheets?
- (11) Are bank directors, especially the independent non-executives, in a position to exercise effective oversight? In particular, do they have sufficient understanding of the complex assets held by banks? If not, can

any changes be made which will ensure effective oversight? Do any other governance issues need to be addressed?

- (12) To what extent has the financial crisis been caused by the failure of banks' business models rather than by that of banking supervision? Did the remuneration structure of banks contribute to the crisis and, if so, how should remuneration structures be changed?
- (13) How should the regulatory system take account of the Government's position as a majority shareholder in a number of banks?
- (14) Where should the boundary be drawn between the institutions that are covered by banking regulations and those that are not? For example, does there need to be a clear division between commercial banks, with relatively strict supervision, and investment banks? Should banking regulations address the role of credit rating agencies?
- (15) How far can banks circumvent UK regulations by, for example, setting up offshore operations? How far should changes be made at the UK-level and how far through international agreements? What is the impact of EU banking regulations and how do they interact with UK regulations?
- (16) Are there lessons Britain can learn from the experience of other countries' banking systems during the financial crisis, such as Spain and the US?
- (17) Should other aspects of the system of banking regulation be changed?

APPENDIX 4: GLOSSARY

ABCP	Asset Backed Commercial Paper
CDO	Collateralised Debt Obligation
CDS	Credit Default Swap
CRA	Credit Rating Agency
CRD	Capital Requirements Directive
EEA	European Economic Area
EU	European Union
FSA	Financial Services Authority
FSB	Financial Stability Board
FSC	Financial Stability Committee
FSCS	Financial Services Compensation Scheme
FSF	Financial Stability Forum
GDP	Gross Domestic Product
HBOS	Halifax Bank of Scotland
HSBC	Hong Kong and Shanghai Banking Corporation
IASB	International Accounting Standards Board
MoU	Memorandum of Understanding
RBS	Royal Bank of Scotland
SIV	Structured Investment Vehicle
SPV	Special Purpose Vehicle
SRR	Special Resolution Regime
UKFI	UK Financial Investments