Conclusions: repairing the house of credit

This book argues against the widespread extreme pessimism about the world's banks and the quality of their assets. Yes, there was an unsustainable build-up of mortgage debt in the United States, the United Kingdom and other countries over recent years. Yes, many in the banking industry failed to anticipate the ending of this consumer credit boom and so exposed their firms excessively when the bubble eventually burst. There were many poor lending decisions. Banks have lost a great deal of money on US sub-prime mortgage lending and on the 'leveraged loans' to speculative-grade private equity buyouts. But the problems that are now causing such a widespread and severe contraction of credit are the panic responses to this situation, the lack of buyers for illiquid assets, the withdrawal of short-term funds, the lack of trust in banks and the fear of how deep the current downturn can yet become.

This is a key policy issue. Every financial crisis is unique, but every crisis raises much the same questions about how governments and financial authorities should respond. Should government and the financial authorities stand aside and let private businesses and individuals suffer the consequences of their own actions? Or should public funds be used to protect borrowers and investors from the consequences of their decisions? In the case of financial panic the answer is clear. The solution is long-term financial support and in an extreme crisis only the state is in a position to do this.

Behind this argument is the important role of both psychological and cultural factors in the current credit contraction. Excessive pessimism has replaced blithe optimism. Investors now shun the new credit structured assets, assuming that they are all unsound, when, as Chapters 4 and 5 have documented, senior tranches have considerable credit protections and even in a deep economic downturn will not default. Bankers who ignored risk and aggressively pursued market share and portfolio growth in loan and securitization markets during the boom are now concerned only with reducing their exposure to credit as much as possible, selling all kinds of credit-related assets and cutting their lending to the bone.

The extent of this panic is partly a consequence of the specialized silos in which bankers, investors, journalists, civil servants and regulators work. There are many intelligent, hardworking, well-trained and skilful people working in and overseeing the financial services industry. But most of them only know one small part of the system very well, and their knowledge of the rest is often only sketchy. This does not matter when markets are working well, but it is a problem when the financial system is hit by a systemic shock.

How panic and illiquidity initiated the crisis ...

This panic has given rise to a cumulative downward spiral created by the powerful feedback loops illustrated in Figure 1.1 of Chapter 1. Understandable doubts arose about the quality of sub-prime mortgage and other loan-backed securities. This, however, was not what undid the banks. What has brought many of them to their knees were large investment and trading portfolios of the *safest* tranches of these securities, financed using short-term borrowing (the maturity mismatch described in Chapter 6).

Banks did not appreciate the substantial liquidity risks to which this investment strategy exposed them. They assumed that the market for these securities would always be liquid and hence, in the event of a withdrawal of funding, these securities could be sold and losses would be limited.

This was a crucial misperception. While individual banks were not exposed to liquidity risks from this strategy, banks could not collectively sell these securities because there no ready buyers outside the industry. A small weakening in confidence in these securities then set in train a destabilizing train of events, with absence of buyers triggering a withdrawal of the short-term funding, resulting in a freezing of the market for all these structured securities.

These tranches will not default, but fear that they might and the resulting market freeze has led to insolvency, because 'mark to market' valuations have collapsed and these securities are no longer acceptable collateral.

Chapters 4 and 5 look closely at these structures. In most cases these are fairly simple and well documented. The accusation of lack of transparency simply does not stick. The AAA senior tranches of these simple vanilla structures, accounting for around 60 per cent of the total outstanding of all loan-backed and other structured securities at the heart of the crisis, appear very sound. They are protected from default by their seniority in the structures that issued them, by the excess of assets relative to issued securities ('overcollateralization') and by the substantial excess of interest received on the underlying loans over interest due on the issued securities.

There were some serious problems with the transaction deals described in Chapter 6. These were the deals that supported the 'parallel' banking system in which the structuring departments of investment banks purchased all manner of high-yielding credit assets, packaged them within a tranched structure, and sold the resulting securities (sub-prime MBS, ABS-CDOs, CLOs and other types of CDO) to investors for a profit. Investment banks used these instruments to compete directly with commercial banks in providing household and corporate credit.

The attractiveness of these transaction deals, like many others that rely on a high level of borrowing, was based on the assumption of continued strong economic growth. As long as house prices were rising and consumer and corporate expenditures were growing, then leverage magnified the prospective profits and investor demand was strong. It was easy to structure and sell the securities at a profit. Investors in the riskier tranches did not look as closely as they perhaps should at the quality of the underlying assets. But when the market turned in the summer 2007, then leverage worked in the other direction, the deals appeared very suspect and it became almost impossible to sell them.

Parallel banking was thus very cyclical, contributing substantially to credit expansion in the upswing and then disappearing in the downturn. The focus on transaction profits also created the dubious restructured ABS-CDOs and CDO^2, excessively complex structures which were created as a way of disguising and selling riskier tranches of transaction deals, tranches that were otherwise difficult to sell. Not surprisingly these exceptionally highly leveraged transactions quickly fell apart when the housing and other credit markets turned and account for a large part of recorded bank losses.

Despite this weakness, the most senior AAA-rated tranches of these products of almost all the basic deals, both the simple tranched structures used to raise funds for bank lending described in Chapter 4 and the transaction deals described in Chapter 5, will still be little affected by default, even in the event of a steep economic downturn. That is to say, $4.8 billion of the total of $7 billion of structured securities, shown in Table 2.2 of

Chapter 2, should be regarded as extremely safe, even though their 'market prices' (something of a fiction, since there is no market for trading these securities any more) are 10–30 per cent or more below their par values.

In a worst-case scenario, a global economic slump longer and deeper than that of the 1930s would result in defaults of some of these senior AAA securities, but there is no reason for such an outcome. The world's workforce has not lost its skills. The machinery and equipment to produce are still there. The underlying drivers of growth and productivity – technological change, education, investment, scope for further globalization of trade in goods and services – have not gone away. A repeat of the 1930s will be a consequence of policy errors that fail to counter the panic, erosion of confidence and lack of trust that underlie the major falls of credit, investment and consumption. With resolute action to end the panic, restore confidence and re-establish trust, all these AAA senior structured securities will be fully repaid.

... and helps to explain the course of subsequent events

Panic and collapse of confidence, working through the feedback loops shown in Figure 1.1, also help us understand much of subsequent events. They explain why losses on a relatively small segment of bank lending – US sub-prime mortgages – accounting for less than 2 per cent of the worldwide bank assets, first shook and then destabilized the entire industry. They explain the successive and worsening stages of the crisis.

Chapters 7, 8, 9 and 10 document these events, from the initial losses on sub-prime lending in 2006, through the emergence of problems in global structured securities markets in July and August 2007 to the adoption by the Federal Reserve of its policy of credit easing on 16 December 2008. The course of these events was very different from that experienced in the aftermath of most other credit cycles, for example those in the United Kingdom, the north-eastern United States and Scandinavia in the early 1990s. This banking crisis has preceded rather than followed the economic downturn and, despite accounting systems that emphasize disclosure, has been characterized by continuing deterioration in the accounting valuations of bank assets, protracted emergence of loan losses, and gradual worsening of bank funding problems.

The cyclical timing of this crisis at the beginning rather than the end of an economic cycle is more like that of the Asian banking crises of 1997. Like those crises, it was triggered by a misperception of liquidity risks, and the sudden withdrawal of 'hot money' greatly exaggerated underlying fundamental credit problems. Also, like that crisis, there has been a major problem of contagion, with problems in US sub-prime affecting the markets for mortgage-backed securities worldwide, even though there are no direct economic linkages between US and European housing markets.

The gradual operation of these feedback loops explains the long delay between the first emergence of problems of illiquidity in structured credit and money markets and the global bank run of September and October 2008. Many attribute this run to the failure of the US Treasury and Federal Reserve to engineer a rescue of Lehman Brothers, forcing it to seek Chapter 11 bankruptcy protection. But the global run was an accident waiting to happen. Underlying confidence was being eroded by the continued weakening of global economic activity and further declines in the valuation of structured credits and worsening of bank funding problems.

There were, as Chapter 8 documents, very serious deficiencies in the regulation, risk management and governance of some banks and other financial institutions. Any list

of poorly managed firms would include UBS, Citigroup, Merrill Lynch, AIG, Fannie Mae and Freddie Mac in the United States together with the Royal Bank of Scotland and HBOS in the United Kingdom. Excessive risk taking by these and other large firms greatly contributed to the severity of the crisis. But they were not its root cause. The underlying source of problems was the widespread failure to prepare for the end of the consumer and housing market boom and the practice, common among both poorly run and well-run institutions alike, of borrowing short to hold long-term consumer and corporate-backed structured credit securities. It is this maturity mismatch and the triggering of the resulting feedback loops that explains why, when the consumption slowdown eventually came, there has been such a rapid collapse in financial market liquidity, traded credit prices, and the supply of bank credit.

Chapter 9 discusses central bank operations, looking in particular at role of the central bank as 'lender of last resort'. The major central banks responded robustly to the run of September and October, effectively taking on the job of intermediation between banks that had formerly been undertaken through money market interbank loans. The money markets migrated onto the books of the central banks because they offered interest rates on reserves and were willing to accept collateral for lending that was no longer acceptable for repo in a private contract between two banks.

Chapter 9 also looks at some of the limitations of central bank actions. Central banks can provide liquidity – that is, increase the balances available for circulation within the reserve accounts held by commercial banks at the central banks. If they abandon interest rate targeting and shift to unorthodox implementation of monetary policy, they can increase these balances to any level they choose, using them to purchase any available financial assets. This can increase the amount of credit in the economy, but only through bypassing the normal role of commercial banks in credit assessment (the banks hold reserves with the central bank and the central bank determines the destination of the credit). It does not provide any funding for commercial bank loans.

The continuing deterioration in credit, global output and employment in late 2008 and early 2009 is ominous. There is no reason to believe that the feedbacks in Figure 1.1 have ceased to operate and that we have reached the end of the credit contraction and the consequent contraction of spending, output and employment. The global economy will contract sharply through 2009 and the write-downs of bank assets and loan losses will continue to mount.

Some say that a sharp contraction in mortgage and personal lending is unavoidable, a necessary correction to the unsustainable borrowing and current-account deficits of many countries. This is another expression of panic. There is no need for such a damaging credit collapse to happen immediately. While it is true that the borrowing by households in the deficit countries, and the corresponding current-account surpluses in countries such as China, Japan and Germany, have been unsustainable, this imbalance does not have to be corrected immediately. Rebalancing of the global economy can and should take place gradually over a period of years, through increasing expenditure and imports into the surplus countries and increasing output and exports from the deficit countries. But this outcome requires a re-establishing of confidence in banks and a return of the short-term money that has been withdrawn from the credit markets.

Restoring confidence

The key to re-establishing confidence is to break into the feedback loops that are driving the contraction of credit and output. One frequently proposed way of doing this is to move away from strict 'mark to market' accounting rules, at least for the duration of the crisis. However, abandoning mark to market is a bad idea, because this is often the first and most reliable indicator of problems such as trading losses, and it ensures that banks respond quickly to these problems. One way forward, but one which accountancy standard-setters seem unwilling to contemplate, is to report two measures of values for illiquid markets, one based on opinions about market prices (what I have called 'hypothetical' market prices) and another based on a judgement about the likely cash flow returns from an investment. Banks could be required to use one approach for valuation of their balance sheet and income (with the requirement that they also report the alternative valuation method in notes to their accounts and produce alternative calculations of key balance sheet and income variables such as capital and trading gains and losses).

Accounting changes will not change everything. More important is for governments to make explicit their commitment to shoulder the worst potential losses of the banks. In fact, as chapters 2 and 10 document, government policy in the United States, the United Kingdom and other countries has been shifting in this direction. These policies are politically controversial (many dislike what they perceive as a bank 'bail-out'). The detailed arrangements have been in flux. They will probably change again in coming months. But the principle is correct, providing sufficient government support to ensure that the banks can continue to lend to all creditworthy borrowers.

Why must this be the job of government? Private enterprise and financial markets have proved themselves over hundreds of years to be highly effective at wealth creation. Free markets, despite their many inefficiencies and injustices, have the great advantage of allowing individuals and companies to pursue the economic opportunities available to them. No better way has been found to harness the initiative and enterprise necessary to growth and economic prosperity. But markets do not cope well with major economic shocks. They are very good at providing protection against individual risks – for example, damage to houses and motor cars, accident, illness or veterinary bills. But no private-sector institution is big enough or powerful enough to provide insurance against a large global 'systemic' disturbance. Only governments can provide the disaster insurance necessary to restore stability to the global financial system.

Several examples of private-sector disaster insurance are described in Chapter 8. These include the credit default swap protection of senior credit instruments provided by the monoline insurance companies and by AIG, and the guarantees on mortgage default provided by Fannie and Freddie. In the face of a major credit downturn, investor confidence in the value of these guarantees collapsed and the institutions that provided them were sucked into the whirlpool of credit write-downs.

Government is different because the value of its guarantees does not depend on investor confidence. It rests instead on the coercive powers of government, which can raise taxes and command economic resources. Therefore only government can stand aside from the whirlpool and offer insurance against a systemic shock such as that underlying the global banking crisis.

Government-backed support for the banking system

The issue, then, is the practical one of how this support is best provided. One widely accepted blueprint is the response of the governments of Finland, Norway and Sweden to their banking crises (briefly examined in chapters 3 and 10). Those countries in their different ways moved to recognize bank losses, provide new funds to recapitalize their banks and sometimes take them into public ownership.

This blueprint does not exactly fit the banking problems at the beginning of 2009. In this current crisis the major concern for banks is not, as in Scandinavia, losses already incurred, but the potential for large losses yet to come. Worries about future losses underlie the illiquidity of structured credit and the resulting withdrawal of short-term 'hot money'. Worries about future losses also underlie the current unwillingness of banks to lend and the resulting sharp decline in credit, output and employment.

The reason for this is that the underlying credit impairment of bank balance sheets is a long way from having completely run its course. As economic conditions deteriorate further, almost any bank asset could eventually become impaired. This means that the Scandinavian solution is not directly applicable; it is simply not possible to decide how much new capital banks need or to isolate and value 'bad assets' and transfer them if necessary out of the banks, when we are still so far from the bottom of the recession. Any and all assets could be bad.

Even now, in March 2009, policymakers seem very confused about this point. The economic team of the Obama administration, lead by Treasury Secretary Timothy Geithner, are have very recently announced public–private partnerships for purchasing illiquid structured credit assets and loans and removing them off bank balance sheets. The main justification for this approach seems to be the unwillingness of Congress to approve any more funds for supporting banks, once the current TARP fund is exhausted. But these public–private partnerships, at least in the form that they have been reported in the media, sound unlikely to succeed. If the pricing is too low then the support will end up doing more to boost the returns of hedge funds and private equity funds than bank balance sheets. Even more importantly, even if the pricing is high enough to benefit the banks, the scale of the programme is too small.

Because the concern is about future losses, other approaches have to be adopted that avoid any artificial attempt to value illiquid assets. This is why governments have been turning to ex ante rather than ex post support (i.e. promising when and if losses are realized). For example, there have been a number of experiments with insurance rather than purchase of bad assets as a tool for strengthening bank balance sheets. Chapter 10 documents some of the initiatives of this kind adopted by the Federal Reserve and the US Treasury. More recently, on 19 January 2009, the UK government announced a very similar initiative, its 'asset protection scheme', and protection has since been agreed under this scheme for both Royal Bank of Scotland and the merged Lloyds-TSB HBOS group. Other similar deals have been use in Europe, the government of the Netherlands having insured safe but undervalued assets of ING.

These initiatives are far from perfect. One problem has been lack of transparency. At least in the case of the US and UK insurance arrangements the credit quality of the insured assets is unknown, so it is unclear whether the premiums paid in return for this insurance have been high enough to compensate for the additional risk to taxpayers. In any case, what is the additional risk to taxpayers? If these bank assets were not insured,

the taxpayer would still have absorb losses in the event that the banks became insolvent and were unable to repay depositors in full.

Still, initiatives of this kind, protecting banks from the impact of declining asset values, without removing all their ownership claims, are a promising way of restoring bank balance sheets. A particularly clever implementation of such an 'ex ante' sharing of returns was the deal between the Swiss government and UBS agreed in October 2008. As described in Chapter 8, this deal transferred problem assets from the UBS balance sheet, at something close to current market prices, into a fund in which both UBS and the Swiss government have an interest. UBS would have been reluctant to sell assets outright at these prices, because they will have perceived mark to market prices in a situation of extreme market illiquidity as an undervaluation of what these assets were really worth. The deal got around this reluctance by offering UBS a share of the 'upside' returns, in the form of an option to purchase the equity in the fund. Similar deals, offering shareholders options to acquire assets in the event of economic recovery and rising prices, could yet play a critical role in ensuring that other banks agree to further support for their balance sheets at an acceptable cost to taxpayers.

Whatever the detailed criticisms of current initiatives, it is clear that some form of government intervention is needed to break into both of the feedback loops shown in Figure 1.1. This can be achieved through a combination of support for existing bank assets (either insurance or a Swiss-style jointly owned fund) with large-scale recapitalization, so that the bank is effectively free of risk of default. It is, however, critical that these measures are taken on a very large scale. Being half-hearted and not fully protecting the banks will mean failing to stop these feedbacks.

The critical argument in favour of carrying out these measures, and doing so on a much larger scale than they have been pursued in the crisis hitherto, is that they are win-win policies. As explained at the close of Chapter 10, the feedback loops illustrated in Figure 1.1 create powerful negative economic externalities. The rational business decisions of individual institutions to sell assets or reduce lending create large costs for others. By charging banks appropriately for insuring and recapitalising, on sufficient scale to break into these feedback loops, the government can both make a profit on behalf of taxpayers and offer shareholders substantial capital gains when the value of bank shares subsequently recovers.

Insurance of senior structured credit securities

Government-backed guarantees are also a promising tool for dealing with the wholesale and money market funding problems on the liability side of bank balance sheets. One possibility is for government to provide transferable guarantees on the safe, senior AAA-rated tranches of mortgage- and other loan-backed securities – the tranches that are protected from the first 25 per cent or so of losses on the underlying mortgage pool. Again, there has to be a first loss – so investors have to carry perhaps the first 10 per cent of defaulted interest or principal repayments. The government-backed insurance then makes up any further shortfalls of principal or interest, again subject to some loss-sharing arrangement.

As for any insurance there should be a premium on all these guarantees. A premium of 40 basis points – that is, 0.4 per cent per annum – would be appropriate for the senior structured credit tranches. It does not sound like much but, because the

underlying cash flows are secure, the insurance can still make a healthy profit while again creating substantial capital gains for holders of these assets.

If the insurance is transferable then the guaranteed senior tranches of mortgage-backed or other structured securities will be marketable and hence can be sold to other banks or investment funds. With a market for these securities they can also be pledged as collateral in money markets, so that instead of selling the insured tranches to long-term investors, banks can hold them on their balance sheet and use them for short-term funding. In this respect such insurance is like the asset swaps already offered by central banks, but with the crucial difference that it is available for the life of the security, so that the bank can be sure that the underlying loan pool can be financed on a permanent basis.

An important benefit of insuring the structured securities is that their accounting valuations will take account of the government guarantees and be raised upwards to reflect the 'floor' on value created by government insurance. This in turn will provide an immediate large capital boost to banks worldwide; if the full $4.98 billion of the AAA senior securities are insured, then the benefit to bank capital could be as much as $600 billion as the liquidity losses as shown in Table 2.3 are reduced, so reinforcing the government capital injections that have already been made and putting them in a much stronger position to restart their lending (in practice, because of amended international financial reporting standards, banks might have to sell these assets to realize these gains). This is as big a boost to bank capital as the all the different programmes of recapitalization announced across the world in October 2008.

Government-backed insurance guarantees and unorthodox monetary policy

Government-backed reinsurance of extreme credit loss complements unorthodox monetary policies, such as the 'credit easing' announced by the US Federal Reserve on 16 December 2008. A central bank can shift from the 'orthodox' approach to monetary policy – of setting a target for short-term interest rates and using its monopoly power over the supply of reserves to enforce that target – to an 'unorthodox' policy where it can expand its balance sheet effectively without limit, using the new funding this creates to purchase securities or other financial assets. The Federal Reserve is now operating monetary policy this way, using its balance sheet to purchase credit-risky assets such as Fannie and Freddie MBS, ABS and commercial paper and, more recently, government bonds. The Bank of England has recently begun shifting to a similar approach. Since March 2008 it has been using its balance sheet to purchase both government bonds and corporate debt.

Central banks are still novices in the application of such unorthodox approaches to monetary policy. There is considerable debate about whether it is more effective for them to purchase government bonds or private-sector credit-risky assets. But if the central bank purchases credit risk assets (i.e. a 'credit easing') then government-backed guarantees against extreme credit losses is a useful complementary policy. Usually central banks are legally barred from exposing themselves to substantial credit default risk, so a central bank can purchase credit-risky assets only when covered by explicit insurance against credit losses. For example, because the Federal Reserve Act limits such acquisitions, the US government is using TARP funds to provide this insurance and so support the Federal Reserve policy of credit easing through purchase of ABS and other structured securities.

Unorthodox monetary policy is unlikely to be sufficient to prevent a collapse of credit and economic activity, without the substantial commitment of public funds to directly support the banking system. The reason is that central banks can only purchase tradable loans and securities. Unorthodox monetary policy can provide credit directly to large companies (through purchase of commercial paper and corporate bonds), but it does little to supply credit to smaller businesses or to households that cannot issue their own securities.

The central banks will eventually have to return to an orthodox policy of targeting interest rates as the economy recovers, in order to choke off rising inflation. This will require a reduction of bank reserves and the sale of the government bonds and the credit-risky securities acquired during the previous period of unorthodox balance sheet expansion. With the US and the global economy so weak, the central banks may not have to do this anytime soon, but they still have to plan ahead and work out how it will sell down its credit portfolios. Since investor confidence in credit-related assets is unlikely to be restored quickly, it may prove essential for any government guarantees to be transferable along with the security to the new private-sector purchaser. This is less of an issue for the Bank of England, at least to date, since its security purchases have been focused on government and good-quality corporate bonds.

Presentation and expectations

Government support for the banking system is controversial. Politicians and journalists immediately misinterpret any such measures as some form of bail-out that will protect banks from past mistakes and cost taxpayers a lot of money.

These concerns miss the point. The idea is not to give banks money (that would indeed be a bail-out) but rather to invest in banks in order to obtain a return. Government needs to do this because private investors are scared and will not provide funds. But government should not hesitate to do so because they, alone, have the deep pockets that will allow them to make good returns from these investments and stabilize the financial and economic system to boot.

In any case, the government has to protect bank depositors in the event of a macroeconomic disaster. So the ex ante arrangement where banks receive insurance protection or put illiquid assets in a separate fund, sharing the losses and returns with government when they are eventually realized, imposes little additional burden on taxpayers. In the event of a major economic slump taxpayers will have to cough up, whether or not through these schemes. So additional taxpayer exposure is limited and the objective of stopping the downward spiral of falling confidence and reduced lending is achieved with little fiscal burden. Money on the table now means much less money to be spent later on.

In order to banish the fear that is now undermining our financial system and our economy, the management of expectations is critical. Once investors, consumers and companies regain their faith in recovery, then the insurance of bank assets is not so necessary. They will see how undervalued are financial assets and the many opportunities there are for borrowing, lending and investment.

But what matters most is that governments and central banks, worldwide, express their backing for the banking industry, not just in words but in action, through both government spending and guarantees, and on a sufficient scale to reverse the cumulative erosion of confidence in the banking industry and the contraction of credit. A poker

analogy is in order. Ultimately government, with its powers of coercion, has all the money and all the cards. Like a player with a strong hand in the popular televised version of the game, *Texas Roll'em*, now is the time for the public authorities to go 'all in', putting every cent available to them on the table to force the doubters to fold. Such a forceful policy response will both make money for taxpayers and end the cumulative collapse of credit.

Without this response we will be looking at a precipitous decline in consumer spending, with savings rates in the United Kingdom, the United States and other borrowing countries jumping by more than 5 per cent. Allowing for knock-on 'multiplier' effects of contracting income, this will mean falls of global output of perhaps 10 per cent, a decline which can only be slowed, not stopped, by using fiscal stimulus, and then only a partial recovery. This will not be a recession but a permanent and damaging slump with appalling economic consequences.

Politicians and officials need to state repeatedly that the programmes of public lending and guarantees and asset purchase, which can only grow much larger in the months ahead, are made not because banks are weak but because they are misunderstood. Banks play a critical role in creating money and credit, a role that government cannot replace. In almost all cases bank and credit assets are of far better quality than market pricing and share valuations suggest. The large majority of bank assets, mortgages, personal loans, corporate loans and structured credit securities are of good quality. With a comprehensive and global effort to back these bank assets, and, where necessary, to supplement bank lending with directly provided public credit, the global credit collapse will be ended and an economic slump avoided.

This does not mean a rapid return to consumption-led growth. Even with the required support for the banking system, recovery of the global economy will be painfully slow, taking many years if not decades. But without support for the banking system we face a very much worse outcome.

Such policies may sound extreme, but even a cursory examination of previous banking crises, such as that provided by Chapter 3, shows that this is what the public authorities do in a crisis, providing massive support to restore confidence in the banking system (so, for example, the Thai government provided explicit guarantees to banks amounting to 40 per cent of national income, and the Swedish and Finnish governments provided legal guarantees of bank liabilities on an even bigger scale).

Political obstacles to support of the banking system

Limiting the impact of the credit crisis requires substantial government support for the banks. But there are major political barriers to providing this support. One barrier is a lack of political consensus about what needs to be done. The idea of providing taxpayer support to the banks is attacked as rewarding bankers for failure and as a bail-out of bank bond holders and shareholders. There is also concern about the impact of bank support on public-sector finances (a serious barrier to both the insurance of bank assets and the nationalization of banks, because these measures greatly increase public-sector accounting sector liabilities).

When capital markets and banks are in disarray, politicians seek to take the place of the market, for example providing emergency loans to keep troubled companies going in the face of a steep economic downturn. This is an understandable short-term response, but politicians and civil servants are no better than bankers at assessing risks and deciding

which businesses are commercially viable and which are not. And, unlike bankers, their decisions to provide public-sector loans are often made on political rather than commercial grounds, for example to support employment among voters in a particular, electorally critical district. Anything other than short-term public sector loans to industry should be avoided.

Politicians are skilful at criticism and passing blame, but impatient with the nitty-gritty details of policy measures. Congressional committees in the United States and parliamentary committees in the United Kingdom have devoted many hours to hostile interrogation both of bankers and of the officials responsible for dealing with the crisis. These committees have expressed extreme scepticism about the quality of bank assets and suspicion of most of the policy measures used to address the crisis. This is healthy democratic debate, but it is also a startling contrast to the way in which Norway, Sweden and Finland handled their banking crises. In those countries there was from an early stage cross-party political agreement on the broad thrust of policy, and both government and opposition politicians were involved in the oversight of public support of the banking system.

Politicians are right to be concerned about the impact of bank support on public-sector finances. But this concern often translates into an unhelpful 'wait and see' attitude. Politicians would generally rather wait until banks have fallen into deep trouble and support is unavoidable before committing public funds. This is a sensible approach to most elements of public expenditure. It is right to delay a decision in order to establish whether an expense is really necessary. But this approach is most unhelpful when dealing with the kind of feedback loops illustrated in Figure 1.1. Breaking these feedback loops depends on early rather than late intervention, and on providing support to banks in an unstinting rather than niggardly manner. Paradoxically, the caution of politicians about the use of public-sector funds to support banks will likely lead to a much greater level of support being required when they finally agree to do so.

A further political barrier has been the controversy created by bonus payments to executives of those banks receiving large sums of public money. These bonus payments are distasteful but, as discussed in chapter 8 in the context of the AIG support, the issue of bonuses is not central to restoring stability to the financial system and the economy. The sooner this is put to one side the better (my own preference would be to insist that a substantial share of bonuses, say 60 per cent, being used for charitable purposes rather than being stopped altogether.)

If the barriers to obtaining a domestic political consensus on dealing with the crisis are large, then the barriers to achieving a similar consensus at international level are formidable. One outcome of the global run on the banks of September and October 2008 has been the establishment of the 'G20' group as a forum for discussion and decision-making among the world's leading economies, both developed and emerging. The G20 (actually nineteen countries plus representation from the European Union to reflect the views of the twenty EU countries that are not directly represented – a total of 39 countries in total) covers a huge diversity of political and economic interests. The second meeting of the G20 leaders has been scheduled for 2 April 2009, after this book goes to press. But the early indications are that this meeting will do only a small amount to improve the global response to the current crisis.

There are deep differences as to the appropriate extent of fiscal stimulus in response to the crisis. There is justified scepticism about whether fiscal expansion will deal with the longer-term problems of the financial system and excessive household indebtedness. In any case most countries would prefer that the larger share of stimulus (and hence taxpayer burden) is carried by others, not themselves. There is greater consensus on the need to introduce much stricter regulation of financial markets and institutions, but this is a classic example of shutting the stable door after the horse has bolted. While improved regulation may help a little to re-establish confidence, it will do relatively little to deal with the current credit market downturn, and introducing new financial regulation in a hurry without adequate thought and consultation could well damage rather than support bank lending and credit.

The one form of concerted action that is clearly and urgently needed is substantial public support for banks in the form of both asset protection and recapitalization. Such co-ordinated support for banks in many countries will be essential to limiting the contraction of world demand, without creating unmanageably large fiscal deficits. But as I write, in mid-March 2009, it is unclear whether the G20 meeting in London of 2 April will consider even discussing this issue.

The future of banking

The priority goals of government response to the credit crisis are to maintain the supply of credit to households and corporations and to restore bank access to wholesale funding. This can happen eventually with the commitment of government and central bank balance sheets to support of the banking system. But once the banking system and credit market are revived there will be not be a return to business as usual.

What, then, will the future of banking be like? One vision – which really would ensure that banking becomes boring again – is of a return to ‘utility banking’. According to this view, banks should focus on basic services such as payments, deposit and the safer forms of lending. It is also argued that banks should be under much stricter regulation and supervision.

It is both unlikely and undesirable that all banks switch to such a utility business model. It is unlikely because most of the world’s larger banks are now involved in investment banking, and it is not possible to run investment banks as providers of basic utility services. As we saw in Chapter 10, one dramatic consequence of the banking crisis has been the end of the specialized investment bank, with all the US broker dealers either acquired (Bear Sterns, Merrill Lynch), failed (Lehman) or converted into commercial bank holding companies (Morgan Stanley, Goldman Sachs). Now all large investment banking is pursued on the European model, by subsidiaries of larger conglomerate banks that also offer corporate and retail banking services. There are only a few relatively small independent investment banks left, focused mostly on advisory work.

A return to utility banking is also undesirable because we need, more than ever, financial intermediaries that are prepared to take risks, to lend to the entrepreneurs who will create future wealth or to provide financial services to those with relatively little wealth or uncertain incomes. Utility banking could mean going back to a stagnant economy with far fewer economic choices for the less well-off.

But there is still an essential insight to be gained from the proposals for utility banking. The purest form of this proposal is that known as ‘narrow banking’ or limited purpose banking, an idea promoted in the 1930s by leading US economists Irving Fisher

and Frank Knight and supported since by many others, including Milton Friedman. The idea is that in order to make bank deposits and banks entirely safe, deposits should be secured only against very low-risk assets, such as short-term Treasury bills and central bank reserves. There is then no need for government-backed insurance of bank assets or liabilities.

Risky bank assets such as mortgages, credit cards, small business and corporate lending can be separately financed though mutual funds. Banks can originate these loans, manage the mutual funds, and earn a management fee, but the risk is not on their balance sheets. Banks that are too small to operate their own mutual funds can originate and sell loans to larger funds.

The merit of narrow banking is that it highlights the need for the systemic risk inherent in illiquid bank lending to be mutualized and held directly by household investors, either directly or in their pension and insurance plans. But the best way to promote this vision is not necessarily to ban deposit-taking banks from holding illiquid loan assets altogether. The experience of intervention in other markets is that altering relative prices is a more effective form of intervention than imposing quantity controls or banning certain activities altogether.

So, instead, it is appropriate to introduce a relatively expensive charge for systemic risk insurance, not just in response to the current crisis but as a permanent measure. This charge should be compulsory whenever such assets back transaction deposits or other short-term funding, but voluntary whenever such assets are held in mutual funds or are backed by long-term bonds. The charge could be varied over time to ensure that the aggregate quantity of deposits and other short-term bank funding does not grow to a level that threatens financial stability.

This is a more appropriate vision of the future of our banks. At root, in case we have forgotten, all banks are social institutions, a voluntary arrangement by a group of individuals to pursue their mutual interest. Even if their equity is owned by a small group of shareholders or traded on public markets, a bank would not exist without the commitment of funds by retail and wholesale depositors. Banks, in order to be stable, must protect these depositors, whether, as in the extreme circumstances such as we now face today, turning to the state for depositor protection or, more appropriately, ensuring that risks are mutualized and shared by all investors.

In short, all banking, whatever its legal form of ownership, is mutual banking and has wide social responsibilities to fulfil. The suggestion that bank decisions should be driven by high salaries and the pursuit of short-term profit is fundamentally inconsistent with the nature of banking as an activity.

This is not to say that bankers should not be well paid or, when they have created wealth, receive good bonuses on top of their salaries. But it is to say that bankers, unlike professionals in other industries, have much wider responsibilities than to their shareholders and management alone.

Banks should, and hopefully will, get unstinting support from government to see them through the present crisis. The quid pro quo is that banks will have to recognize that they are fundamentally different from other industries. That stability and the interests of both retail and wholesale depositors are as important as profit. That serving customers and ensuring that they operate a long-term viable business is more important than a short-

term increase in their share price. And that there will be major changes in the both the conduct and regulation of banking in the years to come.

What does this mean in practice? Within the investment banking divisions of the large global banking institutions, there will be a return to core activities: securities issuance where banks bring new issues of corporate bonds and equities to the market, advisory work on mergers and acquisitions, and brokerage and trading, where they conduct financial trades both for clients and on their own behalf.

Credit structuring activities will eventually revive, although these will be focused on the simplest balance sheet securitizations described in Chapter 4, executed on a fee basis to raise funds for commercial banks. Banks will need to control risk taking, avoiding the excessively risky structures such as the ABS-CDOs and not acting like investment funds, holding large amounts of structured credit assets financed out of short-term borrowing.

Government and regulators will want to impose a good deal of quality control on these structuring activities, especially if the relatively risky transaction deals reappear. One framework for imposing control may be to impose a similar compulsory government-backed insurance as that which might be used to encourage narrow banking. Again, this is a permanent extension of one of the insurance measures that can be used to address the current crisis. It might be compulsory for all financial institutions to insure tranches of structured securities or other medium- and long-term securities, whenever they are financed using short term funding. The premia could be based on ratings of the underlying assets, and the ratings themselves might be subject to a quality check either by supervisors or by an appointed independent assessor. This may prove helpful in discouraging maturity mismatch and restoring bank access to wholesale funding on a permanent and stable basis.

Opportunities for investment banks in emerging markets will also re-emerge after the crisis, and there could turn out to be a considerable demand for their services. There will be ongoing and large-scale structural change in many of these economies as they adjust to the changes in the world economy, and therefore a lot of work on mergers and acquisitions corporate advisory and securities issuance as well as in the development of asset management services for the growing investment and pension funds in these countries.

Many of the major international banks have large and profitable corporate banking operations, providing payments, cash management and a range of other services to larger companies. There is no obvious reasons why these activities should be greatly different after the crisis.

The biggest question marks are not about these investment or corporate banking activities, but about the future of conventional retail banking. This is because we have reached the limits of the policy of the past twenty-five years of maintaining growth of demand through increased consumer borrowing in the United States and other countries. Chapter 2 notes the link between the world's current-account imbalances, the high levels of consumer borrowing, especially mortgage debt, in the deficit countries and the reliance on wholesale funding of the banks that supplied these mortgages and consumer loans, as their lending outstripped their retail deposit base. Going forward, the best that banks can hope for in the deficit countries is stability in the stock of household debt in relation to income, not a further increase in borrowing at much faster rate than incomes.

One old problem has emerged with a vengeance in this crisis, and it will not go away even when the banking industry recovers. This is the regrettable tendency for banks operating in mature markets to seek growth through acquisition, especially overseas in markets that they do not fully understand. The extreme UK example is RBS, a well-run, efficient and profitable domestic operation and one of the largest banks in the United Kingdom since the smaller Royal Bank of Scotland conducted a very successful takeover of the much larger NatWest bank. Had RBS stuck with domestic corporate and retail banking it would still be celebrated as a success and would not now be in majority government ownership.

What undid RBS was its overseas acquisitions, especially its purchase of a large part of the Netherlands bank ABN-AMRO (with the Belgian-French bank Fortis and the Spanish bank Santander acquiring other parts of the bank). RBS paid far too much in a cash-only deal, and the strain this put on the RBS balance sheet is the main reason why it eventually ended up with the UK government holding the majority of its shares.

The fate of RBS is a salutary warning for other banks, once the credit crisis is over. The drive to increase earnings, through acquisition and merger, is very seductive, but – because of the complexity of banks and the importance of internal culture to their operations – few such deals are totally successful and too many are disasters. Retail banks in sluggish domestic markets may be tempted to push once again for growth through overseas acquisitions.

The problem that led to the downfall of RBS is all too common in banking – a lack of checks and balances on the decisions of a headstrong executive and excessive pressure from banking analysts and shareholders for growth of balance sheet, revenue and profits. The consequence is a downplaying of the risks to which banks expose themselves as they try to meet investor expectations.

Investors and senior management will have to adjust to more realistic expectations of the future growth and revenues in retail banking. Chief executives will have to accept that they are democratic leaders who have to build a consensus among senior management for strategy and change, and not despots who wield unlimited power. This does not mean there are no opportunities for expansion. There may be considerable further development of consumer credit and mortgage markets in the current-account surplus countries such as Germany, Japan and many emerging markets (a development that would be very welcome for correcting the global current-account imbalances). This requires many institutional changes (for example the development of credit referencing agencies who keep track of the individual repayment histories on previous borrowing) and will face substantial cultural and other barriers. But if such a development does take place there will be considerable demand for the international transfer of banking skills from the mortgage and consumer credit banks in the deficit countries such as the United States and the United Kingdom.

These deficit countries are now going to have to grow their output and incomes instead of their expenditure. Banks will play a role here, but it will be a very different kind of banking, perhaps with much greater focus on the provision of credit to small and medium-sized companies. This is a challenging area of business, this form of business credit being much riskier than mortgage lending, and banks in the United Kingdom, for example, with relatively easy pickings in consumer lending, have not always paid such attention to these customers as they might. They may dispute this conclusion, but my

impression is that they can do much more to develop the range of services and loan facilities to the smaller businesses and entrepreneurs on which many of the hopes for future growth of income and employment will be pinned.

Another key role of banks will be in the development of invoicing, transaction and payment technologies, at both national and international level. It is a reflection on the barriers to change and the inertia of the industry that banks have done relatively little to exploit the opportunities of applying information technologies to making these processes as low-cost, convenient and global as possible. Reductions in transaction costs, including costs of payments, make a considerable contribution to growth. So banks can be expected to fulfil to a much greater degree than in the past their social obligation to do everything they reasonably can to promote improved use of information technology across all of the industry.

Finally, reflecting the need for banks to fulfil their wider responsibilities to customers and society as well as to shareholders, there will be major changes in bank governance, disclosure and regulation. There is a broad consensus on the need to improve oversight and regulation, but this must be thought through carefully. The majority of financial institutions have not been so badly run. It would be a mistake to burden the entire industry with intrusive oversight and a costly burden of regulatory compliance, such as were introduced by the US Sarbanes-Oxley Act. It would be a still greater mistake if new regulations inhibit bank risk-taking and reduce the availability of credit, especially to the enterprises that will be the source of future income growth.

One change, recognizing that the banks are in effect public–private partnerships, will be to require government-appointed representation on the boards of banks, with responsibility for ensuring that banks do not put taxpayer funds at excessive risk.

There will also be a shift to more qualitative risk management, with an emphasis on business plans and scenarios that can be understood and discussed by generalists, with less emphasis on quantitative models. The newer capital regulations, such as the Basel II international agreement on bank capital regulation with its emphasis on quantitative modelling of risks, now look misplaced. While banks will undoubtedly continue to use quantitative models for assessing risks and return and making business decisions, these models are ill suited to identifying and managing systemic risk. An obvious point, although one that is often overlooked, is that systemic risk cannot be quantified. Regulators will have to ask banks to hold considerable more capital than they have been used to doing in the past.

The goal must be not to reduce risk but to ensure that banks are aware of the risks they are taking, that the decision to take these risks is broadly supported by the institution and by shareholders, and that they hold enough capital and obtain sufficient return on these risks. There will be much debate over how to achieve this goal. One approach that may be worth pursuing is setting common accepted standards for simplifying and communicating financial positions and risk exposures – that is, the positions of every institution should be made very transparent to the outside world. Market shares should be tracked and widely publicized on a product-by-product basis, so that everyone is aware, perhaps with some delay, when an institution takes an extreme position. That way there would be an alert to the dependence of banks worldwide on the insurance written by, say, AIG or the extreme positions in restructured CDOs of both Merrill Lynch and UBS.

The biggest change of all will be a transformation of the culture of both investment and commercial bank management, from a preoccupation with short-term growth and meeting the numbers to instead placing greater emphasis on long-term development and customer needs. This is another example, perhaps the most important example, of where there is an absence of trust in the industry. Banks have turned to short-term finance because long-term equity and bond investors neither understand nor trust banks. They have been reluctant to provide them with long-term funds and have become used to assessing their performance using inadequate short-term measures of returns and revenue growth, with inadequate allowance for risks or any attention to the long-term sustainability for these returns.

We need a better relationship of trust and understanding between investment management professionals and the banking industry. One simple change that would help would be a rearrangement of the desks in investment management, so that a single banking desk holds all bank-issued securities, whether these are equity, hybrid debt (bonds with an option to convert into equity), long-term bonds or structured securities. These desks would then be focused on the quality of underlying bank assets rather than on short-term measures such as return on equity. Banks would no longer be incentivized to reduce capital, increase leverage, in order simply to increase return on equity. The desk would see this for what it is, a meaningless rearrangement of bank liabilities that does not change the underlying assets or risk exposures.

More idealistically, one can envisage a relationship where investment managers listen to the bank and understand its business model, its longer-term goals and how it can achieve them. The role of the chief executive would be to persuade investors to accept an analysis of what opportunities are realistically available and to support expansion where this is warranted, but to accept low growth with high dividends if there are few opportunities for expansion, and not pressurize for expansion when the opportunities to do so are really not there. This is idealistic; in the real world expansion and revenue growth are always what create the big pay-offs for management, regardless of the risks involved. But we can at least hope to lower the expectations of investors for revenue growth and persuade them to take a reasonably long-term view of banks, looking through the next credit cycle and focusing on long-term, sustainable revenues, wherever those may be found.

Further reading

There is a lively debate on many blogs and web pages about the appropriate way of handling the current crisis. The Economists' Forum (http://blogs.ft.com/economistsforum/) is the best single source for these discussions. A number of contributions have already been referred to in the notes on further reading to the introduction and chapters 1 and 10. My own analyses can be found there and on the Cass web pages www.cass.city.ac.uk/cbs/activities/bankingcrisis.html.

Willem Buiters's blog is a further source of inventive and resourceful ideas. I have not discussed the 'good bank' proposal he describes on that blog (see http://blogs.ft.com/maverecon/2009/01/the-good-bank-solution/ and other postings) because, attractive as that proposal is, I believe that it is not operational. This is because of the European Convention on Human Rights and equivalent US statutes. The removal of good assets would force a fire sale of remaining bad assets, and shareholders and bond holders would then have to be compensated for the resulting loss below their

'fundamental' value. So the 'good bank' proposal founders for exactly the same reasons as the earlier proposals for purchasing bad assets from the banks, the problem that it is simply not possible to establish a fair value for the bad assets in illiquid markets.

There is also a great deal now being written about what the new financial architecture will look like once the crisis is over. One important policy proposal widely debated among policymakers is having arrangements for so-called contingent capital – money kept aside in some form of lock box, off balance sheet – that can be called on to replenish bank capital in the event of a systemic crisis. This proposal is developed in the 2008 Jackson Hole paper of Anil Kashyap, Raghuram Rajan and Jeremy Stein, 'Rethinking capital regulation', at www.kc.frb.org/home/subwebillionav.cfm?level=3&theID=10697&SubWeb=10660. The biggest drawback is that it is unclear how easy it will be to persuade other institutions to provide the contingent capital. It could be that this capital is government-provided, in which case the proposal is, in effect, rather like having a permanent system of government-backed insurance against extreme disaster losses.

A lot of attention will continue to be paid to bank capital regulations. One promising idea is put forward by Charles Goodhart and Avinash Persaud, 'A proposal for how to avoid the next crash', *Financial Times*, 31 January 2008, at www.ft.com/cms/s/0/dd1e1132-cf9f-11dc-854a-0000779fd2ac.html, who suggest making capital requirements countercyclical, by relating them to the growth of lending. This suggestion and a number of other ideas for improving financial regulation are developed in the 2009 ICMB-Geneva report on the World Economy, 'The Fundamental Principles of Financial Regulation', by Markus Brunnermeier, Andrew Crockett, Charles Goodhart, Avinash D. Persaud and Hyun Shin (downloadable from http://www.voxeu.org/reports/Geneva11.pdf). A number of other papers and analyses are being published at the time of the spring 2009 meeting of the G20 in London on 2 April; for example the chairman of the UK regulator, the Financial Services Authority, is publishing his own report on the future of financial regulation on 18 March and reportedly recommending a much tougher approach to the regulation of financial activities in London.

A lively argument in favour of limited purpose banking is given by Chamley and Kotlikoff on the Economists' Forum (http://blogs.ft.com/economistsforum/2009/01/putting-an-end-to-financial-crises/).