



The Ecology of Finance

An alternative white paper on banking and financial sector reform November 2009

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Executive summary

In July 2009, the UK Treasury released its White Paper, *Reforming Financial Markets*. It argues that 'failures of commercial judgement brought the world's financial system to its knees in October 2008'. But was that really the only significant contributory factor in what has been described as the worst financial and economic crisis in living memory? In this alternative White Paper, **nef** (the new economics foundation) sets out a vision for an alternative approach to regulating and shaping the financial system so that it produces economic, social and environmental value in a way that leads to greater stability and a more balanced economy.

The Treasury is unambiguous in naming the causes of the financial crisis. There was excessive leverage and risk-taking; i.e., banks and other organisations and institutions took on too much debt and gambled more than they could afford to lose. There was an over-reliance on wholesale funding.

Northern Rock is just one of many examples of financial institutions that turned their backs on decades of received wisdom in order to generate more profits. Instead of having close relationships with depositors and borrowers alike, banks became more like speculators churning through debt and investment, increasingly trading with each other rather than with customers.

The Treasury identifies an overdependence on particularly risky product streams. Buy-to-let mortgages are just one notorious example of an over-exuberant sector that was willing to put more and more eggs into fewer baskets. The White Paper also points to poor management decisions in respect of acquisitions. Banks went through wave after wave of consolidation, and the deal-makers received hefty bonuses for mergers and acquisitions that would ultimately destroy shareholders' investments.

The White Paper aims explicitly to restore stability to the financial sector and the wider economy. It challenges financial firms to understand that in the future how they manage risk will change, as will the quantity and quality of capital they hold. For regulators there is an equally stark message: the way firms are monitored must change.

The Treasury's proposed reforms stem from its understanding of how the crisis developed and why. It charts how the crisis unfolded. First, investors misjudged the risk of borrowers defaulting on loans made in the US subprime market. This led to banks lacking liquidity as unexpected losses showed up, but it also meant that banks did not trust each other's ability to honour commitments. Lending began to dry up, and this problem intensified as significant losses were revealed in major banks and other institutions. The Treasury identifies the failure of Lehman Brothers as the moment at which the fragility of the system became so acute that unprecedented levels of support and global regulatory coordination were needed to preserve it.

What is notable about the Treasury's analysis is what is missing: a positive vision of what the financial system should be for, and how it must

change to bring about such a vision. This 'alternative White Paper' attempts to define what the overarching purpose of the financial system should be, and what the Treasury needs to do in its follow-up to its White Paper to ensure that we all move in that direction. A key feature of our approach is to draw on lessons from corners of the financial system that are outside the mainstream, such as community and social finance. Many institutions working in these areas have weathered the crisis quite well. This is not a coincidence: it is the result of a combination of the activities they engage in and the way in which they are structured.

The vision set out here is to develop what can be described as an 'ecology of finance': an integrated infrastructure that links together the financial system from the grassroots to the towers of high finance. The system of relationships between living things and their environment is contained within an ecology which in turn is one part of a wider ecosystem. A more productive ecosystem, one that is more robust is characterised by diversity and an ability to sustain specialised and adapted life in the face of external shocks. This is what is now needed in the financial system.

Rather than permitting our financial system to weather the current storm in order to return to business more-or-less as usual, we need to acknowledge that our system itself needs to change. The question is, how?

Functions of finance

Building on the work of Nobel Prize winning economist, Robert Merton, we identify the six core functions of the financial sector in the economy.

Finance needs to provide:

- 1. A payments system for the exchange of goods and services.
- 2. A mechanism for the pooling of funds to undertake large-scale enterprise.
- **3.** A way to transfer economic resources over time and across different regions and industries.
- 4. A tool to manage uncertainty and control risk.
- **5.** A signpost providing price information, helping coordinate decision-making in various sectors of the economy.
- 6. A solution to the problems of asymmetric-information and contradictory incentives when one party to a financial transaction has information that the other party does not.

In combination, these six functions add up to the primary function of the financial system. Adapting Merton's formulation in this alternative White Paper, we describe this as follows:

To facilitate the allocation and deployment of economic resources, both spatially and temporally, to environmentally sustainable activities that maximise long-term financial and social returns under conditions of uncertainty.

This means that resources are spread into activities in different places and sectors. The resources are invested so that they produce greater returns over time. Together, the variation and balance of resources is also a strategy to cope with the risks of losses. The financial system in the UK has not really been engaged in this task in a broad sense. When we look at the six functions, it can be argued that our financial system was not performing any of these particularly well for all its stakeholders prior to the current crisis. For some stakeholders, and some functions, it was not contributing anything of value.

We believe that part of the problem has been a dominant philosophy that has been widely shared across the financial sector, not least among regulators and policy-makers. That philosophy is one of laissez-faire permissiveness, characterised by a high level of trust in the capacity of high finance to thrive on its own free enterprise and competition while protecting the public benefit through self-regulation.

This permissiveness and trust has been underpinned by a series of assumptions from which we now need to draw lessons. These lessons demonstrate that the trust is misplaced, and that a gradual approach to reform of the sector is likely to be woefully inadequate.

The major assumption behind pre-crisis regulation is one of confidence in markets' ability to get prices right. However, from the tulip mania that afflicted Amsterdam's stock market in the seventeenth century to the dotcom and house price bubbles of the past decade, the idea that markets will unfailingly indicate the correct financial value of assets is highly questionable.

This misconception is fundamental, since it is through getting prices right – in the sense that they accurately reflect underlying economic value – that markets are supposedly able to allocate scarce economic resources to their most productive use. Getting the prices wrong, in contrast, leads to waves of finance moving in and out of various sectors, generating unsustainable asset-price bubbles in the process. The effects of this reality on the real economy are highly visible today.

Blaming the problems created by the crisis on poor management or an excessive appetite for risk obscures the importance of acknowledging what is wrong with markets themselves. It is not 'a few bad apples' but the apple tree that is the problem. The job of regulation has to be to offset and – as far as possible – to correct these tendencies. In regulatory parlance, it needs to 'lean against the wind', rather than simply adding to its force.

There were further flawed assumptions underlying the permissive philosophy of the sector. Regulators were exceedingly relaxed about competition, relying on the UK sector's international standing as proof of its competitiveness. Bolstered by the notion that the City's prominence in the global financial sector demonstrated its efficiency, policy permitted an ever more homogeneous and top-heavy sector to develop. Consolidation, takeovers and aggressive acquisitions left the UK economy with fewer banking institutions, which in turn left consumers with a less competitive financial landscape. The exception was in highly lucrative areas such as mortgage finance, where banks were falling over themselves to lend money – but often on unsustainable terms.

Ultimately, the importance attached to the success of the financial sector may have negatively affected other parts of the economy. Interest and exchange rates, for example, have been geared more towards the demands of finance than towards the needs of other sectors, such as manufacturing. Whereas manufacturers and exporters hope for a low rate of exchange for sterling, and low interest rates to encourage investment, the City benefits from the opposite.

The consolidation and growth of banks revealed another key assumption: that bigger is always better, and that complex institutions trading in many different markets should be seen as a sign of sophistication and strength. In reality, as the passing of the phrase 'too big to fail' into common language shows, big can be problematic. Many institutions have not only become too big to fail, requiring huge taxpayer bailouts when they face bankruptcy, but they have also become overly complex – in effect they became 'too big to bail'.

As the Treasury's own account of the crisis reminds us, few institutions knew or could determine the extent of the financial losses they faced when the bubble popped. Bigger is clearly not always better at delivering

the key functions described earlier. We have seen that size does not even guarantee safety.

Alternatives

In the UK, a host of alternative and innovative social or ecologically focused financial forms and approaches exists. In fact, the UK has been a hub of financial innovation for centuries. It is only in the past few decades, in which the assumption that the market always knows best has dominated, that the UK financial sector has grown to be so uniform. This report considers how the approaches of little-known but highly effective alternatives can point the way to reform of the entire sector.

The alternatives that already exist demonstrate that a more diverse and socially focused set of financial institutions can survive even in the extreme conditions that existed prior to the financial crisis. With enabling regulation and policies, the alternatives that we highlight could represent the ecology approach to finance.

These alternatives exist in many forms, some very familiar. One that we turn the spotlight on is the building society sector, which the White Paper picks out as the source of future competitions and diversity in the financial sector. The era of 'big finance' extracted a heavy toll from building societies. From 1986 onwards, building societies were encouraged to join the stampede of conversion to just one type of banking: big and complex. But none of the converted, or demutualised, societies exists any longer.

Northern Rock is the most visible example of their demise. Just a year before its fall, the Rock testified to an all-party parliamentary group that 'mutual status does not encourage efficiency... [our] success over eight years would not have been possible under the old mutual model'. But the report published by that very all-party group asserted that, bar the high salaries awarded to senior executives, the wave of demutualisation brought little benefit to the financial services sector and its customers.

This alternative White Paper distils lessons for the reform of the financial system from organisations that are designed to capture social and environmental value, not just profit. In doing so it showcases examples of enabling legislation and a wide range of alternative financial institutions that could help the UK to develop the kind of diversity and dynamism needed to create a healthy ecology of finance. These include:

- Credit unions, community development finance institutions and community land trusts.
- Green investment banks such as the Nordic Investment Bank.
- The Community Reinvestment Act in the United States.
- The Mondragon Cooperatives and Caja Laboral Bank in the Basque region of Spain.
- A Social Investment Wholesale Bank and innovations including social impact bonds.

Recommendations

Policy-makers must act now to prevent a repeat of the kind of crisis that has just occurred. We identify a series of interventions that we believe are essential to rebuild prosperity, to support the most disadvantaged and to ensure greater stability in the future.

Preventative measures must:

 Separate out retail banking from other forms of banking by preventing deposit-taking institutions engaging in a range of financial activities.

- Regulate financial institutions appropriately according to their functions.
- Regulate financial institutions according to the riskiness of their activities, modified by consideration of their funding structure, governance arrangements and scale (with capital requirements being an increasing function of size).
- Develop counter-cyclical macroprudential regulation to offset the pro-cyclicality of the financial sector and encourage stability rather than volatility.

To achieve the vision of a financial system that fulfils the core functions the economy requires, reform will need to go beyond a focus on preventing another crisis. The goals of the White Paper – including greater competition in financial services, greater diversity in the sector and a system that is capable of investing in the long term – will require interventions that fundamentally alter the financial landscape.

nef recommends that reforms:

- Put in place a Social Investment Bank at macro level, linked into a local network of adequately funded community development finance institutions (CDFIs) and other local financing institutions.
- Establish a Green Investment Bank to channel finance towards developing the environmental infrastructure we need, in such a way that regional inequalities are taken into account.
- Establish a national Post Bank based on the existing post office network, to address financial exclusion and provide real, fairly priced competition in local communities.
- Encourage the expansion of existing mutual institutions and the establishment of new ones, including from the remains of bankrupt, nationalised banks.
- Introduce legislation to harness the benefits of disclosure and investment obligations, based on the Community Reinvestment Act, to link large, commercial banks into an ecology of finance with local, excluded economies.

Introduction

'British citizens will be burdened for many years with either higher taxes or cuts in public services – because of an economic crisis whose origins lay in the financial system, a crisis cooked up in trading rooms where not just a few but many people earned annual bonuses equal to a lifetime's earnings of some of those now suffering the consequences. We need radical change.'

Adair Turner, Head of the Financial Services Authority, 2009

The financial sector has always been a big part of the UK economy. Partly for historical reasons, finance plays a larger role here than in most other developed countries. The financial sector employed over a million people in 2008,² and accounted for 8 per cent of 'value added' in the economy, compared to 4.2 per cent in Germany and 4.9 per cent in France.³

It is not surprising, therefore, that the global financial crisis that began in 2007 hit the UK economy harder than it hit most countries. Estimates of the cost to the UK taxpayer of supporting the banking sector vary widely, but that cost is likely to have been at least £100 billion, and it could be much more than that.

The cause of the uncertainty is the open-ended nature of the public support. The direct injection of capital, around £50 billion, is certain enough. But the guaranteeing of loans by the Government is by definition open ended. Estimates of the ultimate cost turn on varying views about the timing and speed of economic recovery.

This unprecedented financial backing has been justified on the basis of finance's vital role in the economy. There is no dispute here. For the UK, however, it goes a bit further than the fact that all complex economies need a functioning financial system to thrive. The growing importance of finance in the UK has been a matter of celebration among politicians. The growth of finance has been seen as an example of the UK remaining world class in a major economic sector, in contrast to the seemingly inexorable decline of manufacturing.

What is positive for the City has increasingly been seen as positive for the UK economy as a whole. Conversely, measures that could be argued as being negative for the City have been portrayed as damaging for the economy.

Proposed regulatory interventions have often been portrayed in a negative light. If financial innovation is always and everywhere good, then regulation can be viewed as a bad thing because it puts a brake on such innovation. The City's freewheeling reputation has often been celebrated with a sense of pride, regularly cited as an essential part of London's comparative advantage over more restrictive international financial centres such as New York and, to a lesser extent, Frankfurt.

During the boom years those questioning this perspective were given a short shrift. Suggestions that financial innovation and engineering might not be an unalloyed benefit in all circumstances made little headway in the face of the apparently endless rise of the City's profitability.

From where we sit now, the problems with this thinking seem obvious. But for many people they were not at all obvious for a long time. Opinion has turned against the City in general and against bankers in particular. Remuneration packages and bonuses are headline news. There is a

sense that the greed of a few has jeopardised the livelihoods of people who would previously have seen no connection between their work in the real economy and the activities of high finance.

While the anger is understandable, it is misdirected – at least in part. It was not really individual bankers acting autonomously that created the challenges we now face. The root of the problem was the system in which they operated, a system which allowed reckless behaviour to flourish.

Some may argue that what we are dealing with is a few bad apples: all will be well when that rotten fruit is removed. But this attitude is dangerously complacent if the problem lies with the tree. Removing the bad apples will not stop the rot – they will soon be replaced by others, and we will be back to where we started.

What is needed is root-and-branch reform, but we must guard against overreaction. In the current climate, it is easy for opinion to harden against the financial system more generally. As this alternative White Paper will explain, however, the infrastructure provided by finance is an essential component of any complex society. From individuals to small businesses, from non-profit organisations to our largest publicly listed companies (PLCs), finance is the lifeblood of our economy. Without it things would rapidly grind to a halt.

There is much more to the financial system than high finance, however. Historically, the UK has seen a huge diversity in financial structures and institutions, many of them emerging from the grassroots to serve a particular need. Some of these still flourish today. In recent years, a number of new financial forms have been developed to complement these existing institutions, with the aim of meeting particular needs.

nef does not suggest that these forms of non-traditional finance, often focused at the community level, are all we need in a financial system. We do think, however, that there is huge potential here that remains unfulfilled. We believe there are important lessons that we can learn from recent innovations when thinking about what we want the financial system to do, and how it could be best reconstituted to achieve this.

In this alternative White Paper we attempt to draw out these lessons. Our aim is to demonstrate that we need a far more joined-up system – one in which national and international finance have deep roots that reach down into communities to catalyse change, facilitating real and lasting community development. We believe this should be a two-way process, however, with finance at all levels being responsive to differing needs rising up from local communities.

We have called our positive vision of an interconnected framework an 'ecology of finance', to describe a system that not only serves the real economy but also supports individuals and families in their day-to-day lives. While it is essential to introduce new constraints and controls that prevent the return of the worst excesses of the financial sector, we surely need to develop a positive agenda, too.

Before addressing these questions, it is worth spending some time considering how we got to where we are now. The crisis appeared to come as a huge shock to politicians, regulators, central bankers and many academic economists. Before we can start to think about developing a more effective system, we clearly need to understand what has gone wrong with the current one. It is government that will need to make the changes to precipitate reform, but it can only get the prescription right if its diagnosis of the problem is correct.

To consider where we stand on this, the next section of this alternative White Paper unpacks some of the assumptions that have underpinned the current crisis, and considers what lessons we can learn about the continuing validity of these. We then provide a short overview of the UK's financial system in 2009, followed by an analysis of the draft White Paper⁵

released earlier this year. We use this analysis to assess the extent to which the Government appears to have learned the lessons that we believe need to be learned.

Part 1. Some assumptions that contributed to the crisis, and lessons we can learn

Assumptions and lessons

The current size, scope and configuration of the UK's financial system have not just emerged from nowhere; they are very much the product of two main factors. First, the perceived commercial interests of the institutions concerned. Second, the regulatory environment, which has prevented, allowed or encouraged certain developments. Regulatory measures have, in turn, been informed by a set of views on which developments in the financial sector might be considered desirable and why.

We can identify some underlying assumptions, shared by governments of all political persuasions, as well as the regulatory community and many academic economists:

Assumption 1: The need for economies of scale and broad diversification in all forms of banking

The UK's financial institutions have grown enormously, reflecting expansion in the size of the financial services industry and the international reach of the City. Size brings a reduction in unit costs through economies of scale, enabling financial institutions to provide low-cost products to consumers and to the business sector.

As institutions have grown they have also diversified. Rather than specialising in a particular function (such as retail banking), or in serving a particular sector (such as agriculture or industry), or in focusing on a particular location (such as a major city or region of the UK), banks have increasingly engaged in all of these activities. Diversification is assumed to bring greater safety: the more diverse the activities that a bank takes on, the less dependent it is on the fortunes of any particular activity, and the more able it is to continue providing services to its clients regardless of the ups and downs of particular market segments.

Thus internal growth, mergers and acquisitions (M&As) and the widening of operations across the full range of financial activities have all been broadly encouraged.

Lessons

While economies of scale are important, they also bring dangers. As well as the well-documented risk of being too big to fail, as financial institutions grow they move further and further from their customers, and the knowledge of the products they are buying, selling or trading inevitably suffers. The fact that the crisis was sparked by a massive international market in subprime mortgages in the United States, about which very few had any real knowledge or great understanding, underlines this point.

Similarly, while diversification is often beneficial from an investment perspective, it stretches the connection between financial investors and intermediaries and their ultimate customers. Risks may be reduced by building a portfolio of relatively uncorrelated assets, but they may also be increased if a detailed understanding of all these assets is missing.

Assumption 2: The need for competition in all forms of banking

Competition is seen as the best way of keeping private institutions honest, and provides a counterweight to the drive for scale. Large banks may be able to provide low-cost services because of the economies of scale they can exploit, but they will only do so if under competitive pressure to maintain or expand their market share.

Thus banks have not been allowed to become too dominant. M&As that would have conferred too large a market share to any one institution have been blocked.

Lessons

Competition is generally positive in all forms of business, but only if it is genuine competition. The UK's financial institutions have been, to a greater or lesser extent, doing the same things and offering customers the same products. The reasons are not hard to discern: institutions have converged on those activities that offer the highest returns, particularly over the short time horizons against which performance is generally judged. There is little to be gained from accepting lower returns now to move into sustainable long-term sectors that may ultimately produce higher returns, if all your customers have left in the mean time for rivals posting better quarterly results.

The recent problems in the system have been compounded by the way in which traders are remunerated on a very short-term basis, creating incentives to maximise short-term returns. Similarly, the financial 'engineers' creating new products for the derivatives market are often paid immediately for the returns forecast over the whole term of the product. This creates potentially destructive incentives to develop more and more products.

The sheer profitability of the financial sector makes it clear that the system is not competitive in the usual meaning of the term. Competition is meant to ensure that the lure of high profits will attract new entrants who will offer products at a cheaper price. The fact that this has not occurred in large parts of the financial system suggests that there are major barriers to entry preventing this happening, and that incumbent institutions are operating in an 'oligopolistic' rather than in a competitive market.

Assumption 3: The need to build and retain international competitiveness in both the banking sector and the City more generally

Larger, more efficient institutions are better able to compete internationally than are smaller ones. Since the Big Bang⁷ in the 1980s, the City has been the source of numerous innovations, from the Eurodollar market to more recent developments in the financial derivatives markets. It has grown enormously as a result.

The power to develop and grow such markets is shown by the explosive growth of financial derivatives, particularly the so-called over-the-counter (OTC) market. OTC derivatives are financial contracts, usually between financial institutions, whose value is 'derived' from other financial values, such as exchange rates or interest rates. Between 1998 and 2008 such contracts grew from a market value of \$2.5 trillion to virtually \$40 trillion (£24.36 trillion). One such innovation of particular importance to the UK was the development of Residential Mortgage-Backed Securitisation (RMBS), which drove the strategies of banks such as Northern Rock who increasingly funded their lending through these innovations. Prior to the credit crunch, UK lenders were responsible for over half of the total European issuance of RMBS. The impact of this reliance is explored in Box 5.

The growth of the City has brought significant economic benefits to the UK. It has made a large contribution to GDP, employment and tax revenues. It has also helped generate large amounts of foreign exchange income. In the 20 years between 1988 and 2008, the trade surplus generated by financial services shot up from just under £5 billion to approximately £38 billion, while the sector contributed roughly 14 per cent of national taxation. The scale of the UK financial sector is a testament to its global significance, even if much of the activity involves foreign companies.

Lessons

International competitiveness in a major sector is obviously a good thing, but there are dangers in taking this too far – particularly with the financial sector. As the City has grown in size and importance, so manufacturing has declined. This is not to say that the one is the cause of the other, but the relative decline of non-financial sectors has been easier to view as non-problematic as long as the City continued to grow.

The inability of the UK to develop world class capability in some other sectors is related to the dominance of finance. First, it can be argued that economic policy has been skewed towards the needs of finance. Interest rates, for example, have often been kept higher than manufacturing exporters would like. At least part of the reason for this has been the need to keep interest rates relatively high to attract international capital flows. 11 These inflows have then kept the value of sterling high, with negative consequences for exporters.

Finally, the sheer scale of the current crisis and near meltdown in the global financial system has underlined the inherent fragility of international finance as the dominant national economic sector. Clearly, the UK needs to diversify its economic portfolio.

Assumption 4: A belief that the form and nationality of ownership associated with financial institutions is irrelevant

Large-scale financial institutions in the UK are generally either privately owned or are public companies, with shares listed on the London Stock Exchange. Some are part of international financial conglomerates, which may also be listed in other major financial centres, such as New York. Privately owned companies used to be commonplace – particularly with the UK's merchant banks. Publicly floated institutions are now the norm. While not reflecting a regulatory preference for any particular form of ownership, the rise of publicly floated institutions has certainly not been opposed by government. What we have seen is an evolutionary process in which institutions have been taken over by more profitable – and hence more efficient – forms; i.e., survival of the fittest.

The UK has traditionally been far more relaxed than other countries about whether august national companies are owned by foreign companies or not. All of the major UK merchant banks have been bought by foreign financial institutions over the past 20 years or so, but this is generally seen as unimportant: the benefits in terms of GDP, tax and employment still accrue to the UK.

Openness to foreign buyouts is also seen as an essential means of retaining international competitiveness. If the most successful institutions in the world buy UK companies, then they, too, will see their competitiveness rise. The Treasury estimates that over £10 trillion worth of investment comes into and goes out of the UK each year, with more than 600 foreign financial institutions authorised to conduct business in the UK. This has often been justified by a metaphor known as the 'Wimbledon effect'. The idea is that the lack of a British Wimbledon champion for over 70 years has not impeded the growth and success of the tennis tournament itself.

Lessons

Publicly listed institutions make quarterly profit announcements as part of their listing requirements. Share prices can be highly sensitive to these announcements, particularly when they reveal how these institutions are faring relative to their competitors. Furthermore, the widespread practice of incentivising senior management with shares and share options ¹³ encourages a focus on measures to boost the institution's share price. This is best achieved by exceeding market expectations of quarterly performance, creating an incentive to maximise short-term performance or even to use accounting techniques to manipulate profitability ahead of quarterly announcements.

It would not make sense for all financial institutions – or companies – to be domestically owned, but most other countries have decided that some national ownership makes sense. In some sectors, there are strategic reasons for this. In economic terms, however, it also makes the implementation of national economic priorities easier, as domestic institutions are less likely to have other strategic interests that may run counter to these.

Assumption 5: A belief in the inherent efficiency of markets and the rationality of market actors

The 'efficient market' hypothesis has been at the core of policy-making regarding financial markets. It has a variety of versions from the 'weak' to the 'strong', but essentially assumes that market prices contain all available information on the fair value of an asset, and so are at or close to equilibrium prices at all times.

Furthermore, private sector actors in the financial markets are assumed to pursue their own self-interests in a rational way. This assumption feeds another – that private-sector decisions are broadly correct, and cannot be improved upon by government intervention.

As a consequence, sharp rises in asset prices may be justified by changes in underlying economic fundamentals. If they were not, market actors would not buy the assets. It does not help that government and regulators are in no position to assess what is the 'right' level of prices.

Lessons

This, perhaps, is where the most glaring problems can be located. The idea that asset prices are always accurate reflections of underlying economic value is clearly incorrect. As well as the current financial crisis, we can look back to the dot-com bubble as evidence that prices can and do deviate enormously from any conceivably justifiable sense of fair value.

However, the fact that financial market participants continue to buy overpriced assets is not necessarily evidence of irrational behaviour. In many ways it matters little what an asset is actually worth over the longer term. What matters is the price it can fetch in the market today, and whether it will fetch a higher price tomorrow. Thus investors may know full well that an asset's price is too high, but if they conclude that it will continue to rise in any event, then it is 'rational' to buy. Aggregated across the financial system, this contributes to repeated waves of boom and bust.

The idea that government can do nothing about this is incorrect. In the case of recent asset price bubbles, it was widely argued that price rises could not be justified by changes to economic fundamentals. The belief that market actors, almost by definition, make rational decisions was a key obstacle to official action to puncture bubbles or to prevent them inflating in the first place.

An important component of this is the survival-of-the-fittest aspect of private commercial activity. Private actors cannot persist in making 'irrational' decisions since they will soon go out of business, so rational decisions come to dominate overall. As we have seen, however, individually rational behaviour can bear no relation to underlying economic fundamentals for long periods of time, and yet still be profitable. Also, even when bubbles burst, the financial system is so important to the health of the real economy that market actors are often saved, rather than being allowed to fail as would be common in all other forms of private enterprise. Banks are therefore not 'normal' commercial entities at all, but institutions that are able to take risk while cushioned by the knowledge that they may not have to bear the consequences if things go wrong – a phenomenon known as 'moral hazard'.

Assumption 6: A belief that financial innovation is an inherent good, and that regulation which restricts such innovation is thus bad

Financial innovations are seen as valuable in that they lower transaction costs, increase market efficiency and allow the better matching of products with the needs of market participants. As private-sector actors pursue their own rational self-interest, it is thus for them to choose whether new products have value or not, and public agencies are in no position to take a view on this.

As financial institutions and activities have become ever more complex and opaque, this view has encouraged a shift towards self-regulation – particularly for banks. Regulators have increasingly looked to banks' assessments of risk as the basis for their own assessments. Banks have a strong incentive to measure the risks they face accurately. They also have the data, resources and expertise to do this more effectively than regulators can. This thinking is at the core of the Basel II international banking regulations that are currently being implemented. These are discussed in some detail later.

Lessons

Much of the earlier lessons also apply here. Most importantly, the idea that financial innovations might be an end in themselves, designed to create returns for different market actors rather than serving a useful economic purpose, seems never to have occurred to regulators. With the benefit of hindsight, this looks like a serious error.

Similarly, the notion that self-regulation is the best way to develop banking supervision and regulation now looks misguided to say the least. There are a number of reasons for this. First, while banks' internal risk management models are certainly complex in mathematical terms, this does not mean that they reflect reality. Second, even to the extent that this is the case, assessing risk at system level is not just a matter of adding up the internal risk assessments of individual banks. All risk models effectively assume that the institution is acting alone, but if different types of institution have the same models and use the same data – which they do – then they are likely to be led towards the same sort of behaviours.

If assets look safe and uncorrelated, this would encourage banks to hold them. But if all banks do this then they will no longer be uncorrelated. Instead, they will become highly correlated. Individually rational behaviour does not necessarily lead to collectively rational results. In the financial system, it is the job of regulators to take a systemic perspective. This is a lesson that needs to be rapidly relearned.

Lessons from the past

While there was some truth in all of these assumptions, each was pushed way beyond its limits during the recent crisis. One reason for this is the gap between theory and practice in the financial sector. Financial economics has developed a large and powerful body of theory over the past quarter of a century. Where events have not accorded with the theory, apologists for the sector have tried to explain this away by apportioning blame to excessive interference in the working of markets. The markets would behave as theory suggests, it is argued, if only governments would stop meddling in their free working.

The current crisis has made this line of thinking untenable, but the warning signs have been there for all to see for many years. It has long been clear that the financial system has been failing to deliver for many. This is especially the case for less affluent individuals and their families. It also applies to smaller businesses, particularly – but not exclusively – those located in less affluent areas.

These problems are not distinct from the lessons we can learn from the crisis, however. They result from some of the same characteristics. For example, many of the UK's banks have become hugely exposed to the US subprime sector in recent years. Why is this? The answer is alarmingly simple: they thought they could get the inflated returns associated with higher-risk assets, but without being exposed to the actual risk. This was understandably very alluring.

Banks therefore 'herded' into this lucrative sector. Given that they have finite resources, this meant scaling back or not participating in other sectors. It is here that the connection with financial exclusion and the paucity of finance available to small businesses can be found. Simply, these activities were not as profitable as alternatives – at least over the short term.

While banks would not necessarily lose money by providing banking services to the less affluent, they could make a lot more elsewhere. Similarly, lending to small businesses is a profitable activity when done well, but involves developing relationships with clients and investing time and effort into managing these relationships. In both cases, transaction costs amount to a larger slice of revenues than with larger-scale activities. It may cost a similar amount to monitor a loan of £1,000 or one of £1,000,000, but the profit margin for the latter will be higher.

Activities such as providing a branch network across the country are expensive, and tie up capital that could be used to make higher returns in other areas. The current crisis is a particularly extreme example of a long-standing trend: banks moving out of less profitable activities.

The next section provides a brief overview of the system as it currently stands, and then considers the Government's recent White Paper. We examine what lessons our policy-makers have drawn from the crisis, and whether the assumptions we have described have survived intact.

Part 2. The UK's financial system and the White Paper: what lessons has the Government taken from the crisis?

The UK's financial system

Broadly speaking, the UK's financial system – or the parts of it that are of most relevance to this alternative White Paper – can be described in terms of five broad categories:

- Retail banking the deposit-taking institutions, more commonly known as the high-street banks – is the part of the financial system that most of us have most contact with, and with which we are most familiar. Retail banks take deposits and make loans to individuals and corporate customers.
- 2. Investment banks have two major roles. First, they raise capital for corporations (and for the Government) by issuing and underwriting shares and bonds in the international capital markets. Second, they maintain markets in these securities through 'broking' activities that enable the shares and bonds, or their financial derivatives, to be traded. Investment banks (formerly merchant banks in the UK) also invest directly using their own funds, and engage in large-scale trading activities.
- Wholesale banking is the aspect of banking that deals directly with large financial institutions and large corporations, rather than the general public. Wholesale banking offers large-scale financial services for both domestic and international customers.
- 4. Capital markets are where different financial institutions, companies, public sector agencies and individuals interact to buy and sell financial products. Other active participants in the capital markets are institutional investors, such as pension funds and insurance companies, and asset management companies that trade on behalf of individuals and commercial organisations.

An important point to make is that these different activities are often undertaken by the same companies. The strategy of diversification has led to 'universal' financial institutions – particularly the largest international banks – that engage in retail, investment and wholesale banking. They may also offer insurance and pension funds, as well as providing direct asset management services on behalf of retail investors or companies.

Next we give a brief overview of these overlapping configurations in the UK.

Retail banking

Retail banking entails gathering and investing people's individual deposits, often in the form of current and savings accounts, as well as managing local accounts of businesses. The other important aspect of retail banking is small-scale lending. Lending to individuals and to small and medium-

sized enterprises (SMEs) is critical to the overall economy. The most significant component of retail lending is mortgage credit. Bank of England data reveals that in the last 20 years the total amount of mortgage debt rose from under 40 per cent to over 80 per cent of UK GDP.

The pattern of retail banking in the UK has been one of steadily reduced competition and increased uniformity on the high street. This process received a significant push from Big Bang reforms in the 1980s that drove consolidation. In the wake of the credit crunch, this consolidation has accelerated once again. The sector is yet more concentrated as a result of mergers between Lloyds-TSB and HBOS, and takeovers such as those by Santander of Alliance & Leicester, Abbey and parts of Bradford & Bingley. Several building societies have merged with larger competitors.

Liberalisation of the banking sector led to greater freedom to set interest rates and to engage in more esoteric financial activities, including the wholesale market. Banks also turned to households that increasingly had to use credit to meet everyday needs, and banks' revenues reflected this change. The proportion of banks' total lending going to individuals grew from 11.6 per cent in 1976 to 40.7 per cent in 2006.

By December 2006, loans to individuals were 40.5 per cent of HSBC's total portfolio. ¹⁷ In 2007 overdraft and related bank fees earned RBS \$10 billion and Barclays over \$12 billion. ¹⁸ HSBC's Personal Financial Services Unit, which focuses on lending for personal consumption and mortgage credit, generated \$9.5 billion in profit. Banking services for individuals earned more than commercial and investment banking representing over 40 per cent of all profits. ¹⁹

Banks increasingly found themselves able to operate at a profitable distance from their customers, thanks to new techniques such as credit scoring. They could shed staff that had direct knowledge of borrowers and operate at arm's length from their customer base, greatly reducing costs. This evolution has not been an unalloyed success.

According to figures from the Campaign for Community Banking, the number of bank branches across the UK is now just 10,080 – 19 per cent fewer than a decade ago. Including building societies, the UK has 203 branches per million inhabitants. This compares with over 500 branches per million inhabitants in Germany and over 1,000 in Spain, where the distribution of banks is also more geographically dispersed. In the UK, the four major banks still operate 97 per cent of the branches located in rural and suburban communities that have only one bank branch present.²⁰

Investment banking

Investment banks operate within financial markets, which include stock exchanges where shares in companies are traded, markets in bonds (debt instruments), and commodities (including oil and precious metals). They also operate in markets for financial instruments that are tradable, such as financial derivatives. Banks act in these markets as brokers between buyers and sellers, but have increasingly taken on the role of active participants. Where this occurs, they simultaneously buy and sell on their own account while continuing to trade on behalf of their clients.

Investment banks also have a role as mediators for large companies and governments that issue shares and corporate bonds in order to raise finance. Thus the banks receive fee income from acting as advisers and as issuance managers for institutions raising capital. They also act as investment advisers to the investment community – the buyers of these

instruments. These include pension funds, insurance companies and many other forms of investment and money management institutions.

The UK is a leader in many areas of this particular field. Over half of the world's initial public offerings (IPOs), when a company sells shares in itself to investors, occur in London. Two-thirds of the world's major asset managers operate in the UK, and 11 per cent of global investment assets are held in Britain.²¹

The shift in regulation and technology has changed the composition of investment banks' earnings, just as in retail banking. The changes in the UK finance sector associated with the deregulation of the 1980s are consistent with the larger pattern of global financial liberalisation. New entrants, and different forms of financial institutions, became engaged directly in financial market activities.

Fund management has generated huge fees for banks, including over \$10 billion in revenues (over 16.2 per cent of the total) for RBS in 2006 from fund management fees and commissions. By the end of 2006 over \$63.8 trillion was held in managed funds globally, and the fees that were generated by banks totalled \$11.8 billion in that year. Despite apparent conflicts in their role as investors, managers and advisers, financial institutions have increasingly sought to be universal banks. This has meant moving into investment banking because of the opportunities afforded by operating in overlapping markets. In 2007, revenues from trading on their own behalf were almost \$14 billion for HSBC, over \$12 billion for RBS and just under \$10 billion in Barclays' case.

Wholesale banking

The markets for exchange and trading between financial institutions, or wholesale banking, are a part of the system that is often overlooked. Nevertheless, the transformation of the wholesale markets is crucial to understanding the changes in the financial system. As the experience of Northern Rock shows, the staid and very functional inter-bank marketplace, specifically for lending between banks, became a component of business and profit strategy. The London inter-bank offered rate for lending amongst financial institutions (LIBOR) was briefly a subject of daily public concern.

As a consequence of a long period of low interest rates, the wholesale market increasingly became a crucial source of *cheap* funding. By the time the credit crunch came, the proportion of mortgage finance secured from banks accessing wholesale markets had risen to 40 per cent. This was often in the form of Residential Mortgage Backed Securities.²⁴

Northern Rock is an example of how a changed environment, created by deregulation, permitted the blurring of traditional divisions between retail and investment banking. On the surface, the Rock's approach appeared to be a great success. But it relied on the use of wholesale markets, a strategy that stored up problems not just for its shareholders and savers, but also for the entire British banking system.

From demutualisation in 1997 to the end of 2006, the Rock expanded its assets sixfold, to over £100 billion.²⁵ It had turned to wholesale markets to fund its lending as its deposits were simply not enough to sustain its rapid rate of growth. At its peak, Northern Rock was providing one in five new mortgage loans in the UK. It attempted to offload the associated risks by again turning to financial markets, repackaging and selling on the loans it had made in bundles (a process called 'securitisation'). The end result was bankruptcy. Once the golden period of cheap lending among banks came to an abrupt end, the entire model became unsustainable.

This shows how wholesale markets evolved into a conduit for the transmission of risk throughout the financial and economic system. When the credit crunch came, funding through wholesale borrowing became far more expensive. Banks stopped lending to each other for fear of widespread bankruptcy. The securitisation of the lending that wholesale funding had permitted, by selling bundles of mortgages to investors, injected the toxic assets into the holdings of investors across the world.

Capital markets

Analysis of the UK's capital markets is beyond the scope of this alternative White Paper. But that is not to imply that they do not have a significant influence on the shape of the financial sector. The sheer scale of financial activity needs to be understood to appreciate how it is possible for the financial system to dominate and influence decision-making throughout the economy. By far the largest of the various markets is for foreign exchange, or currency trading. For example, in 2007, £55 trillion is estimated to have been traded in sterling alone. That is 40 times the UK's GDP in the same year. There are over 3,300 companies that are traded on the various London stock exchanges. The estimate suggesting that the UK's market is at the core of £10 trillion in investment flows reveals a system that dwarfs the entire British economy's annual activity.

The White Paper: what the Government has got right

The Treasury White Paper identifies two principal strategies to ensure stability within the financial system and guarantee the efficient provision of appropriate financial products and services: enhanced *competition* and greater *diversity* within the sector. The Government is committed to ensuring that banks and financial markets will be 'more resistant to any global shocks'. It argues from the outset that 'the way firms manage risk, the quality and quantity of capital they hold, and the way regulators monitor firms need to change'.

Banks are seen by the Government as having herded into similar markets and stoked asset bubbles, which in turn created greater vulnerability. The vulnerability that led to the crisis is, at least in part, attributed to regulation that promoted pro-cyclical behaviour. Creating counter-cyclical regulation is therefore at the heart of the Government's proposed approach.

The White Paper strongly emphasises the lack of competition in UK banking. It also argues, however, that this is inevitable in a sector where any new entrants face high barriers to entry. The White Paper cites six such barriers:

- 1. The need for a branch network.
- 2. Brand importance.
- 3. Low customer turnover.
- 4. The challenge of access to payments networks.
- 5. Regulatory requirements.
- Access to information about customers' risk profiles.

The White Paper argues for a re-structuring of the financial sector's institutional framework. It sets out the need for a strategy that addresses

high-impact institutions through enhanced competition and scrutiny of their activities. It also proposes a new regulatory approach to manage systemic risk. It argues that international coordination is vital to achieving this. The proposed response reveals that some of the lessons mentioned earlier may well have been learned.

A new institutional framework for the sector implies that policy should not conflate the City with the UK's economy. The recognition that systemic risk needs to be managed necessarily entails rejecting the assumption that competition and the pursuit of self-interest by individual institutions will be enough to underpin effective self-regulation. The dangerous assumption that banks are the best judges of systemic risk appears to have been dropped.

In the White Paper's support for mutual forms of ownership, there is also a welcome recognition that bigger financial institutions are not always better. The Government is acknowledging that size can lead to certain weaknesses, such as misjudgements over risky products when big, far-off firms lack detailed knowledge of individual markets.

The White Paper: what lessons have not been learned

The White Paper sets out four distinct causes of the crisis: excessive leverage and risk taking; an over-reliance on wholesale funding; overdependence on risky product streams; and poor management. The analysis contradicts some of the assumptions that had previously underpinned the approach to managing and regulating finance. Leverage and high risk are now seen as causes of the crisis. Financial innovations were previously more likely to be seen as good in and of themselves.

The implicit recognition that markets and their participants may not always arrive at the best outcomes for the economy as a whole is present in the White Paper, and in some of the Treasury's proposed responses. But the full implications of this have not been taken on board. Reliance on a veneer of competition to effect self-regulation in financial markets led to participants herding into a very narrow range of products. This left the sector far more vulnerable to a downturn in those markets. The White Paper indicates that regulation was counter-productive. Yet it fails to acknowledge that what had underpinned the prior regulatory approach also underpins the proposed strategy to resolve the crisis: a vague faith in greater competition.

The Government does appear to have recognised, however, that we have things to learn from parts of the financial system that fall outside the mainstream. The White Paper's emphasis on the importance of mutual forms of ownership makes this clear, although it is not developed in any meaningful way. There remains a worrying faith in the ability of the financial system to spontaneously evolve in a positive way, but without any clear analysis of what we want the system to do.

There are two questions that need to be addressed in any reform agenda. First, what do we need to do to prevent the problems we have seen from occurring again (and to resolve more long-standing problems, such as financial exclusion)? Second, what positive things do we want the financial system to do, and what reforms would increase the chances of it being able to do them? The White Paper does not address these basic questions. But unless they are answered there will be little chance of developing a joined-up financial system that serves the needs of all stakeholders as efficiently as possible.

To consider this challenge for finance it is worth going back to first principles to ask a few fundamental questions that are rarely posed.

- What are the functions of the financial system?
- How do these relate to the needs of different actors at different levels of the economy, and to the economy as a whole?
- What does the financial system do that it should not?
- What does it not do that it should?
- How should it be composed to best achieve these goals?

While a short paper such as this cannot hope to provide definitive answers to these questions, it may bring us closer to doing so.

Part 3. The functions of finance

'Banks need to refocus their energies, not on those over complex products of no real use to humanity...but on their core functions of providing savings and credit and payment products to their customers...Not all financial innovation is valuable, not all trading activity plays a useful role, and a bigger financial system is not necessarily a better one.'

Adair Turner, speech at Mansion House Banquet, 2009

When even the Head of the FSA is questioning the 'social usefulness' of some financial activities, it is clear that things have changed radically. A potentially useful way of looking at this is provided by Nobel Laureate Robert Merton, who distinguishes between two different schools of finance as follows:

There are two fundamentally different frames of reference for analysis of financial intermediation. One perspective takes as given the existing institutional structure of financial intermediaries and views the objective of public policy as helping the institutions currently in place to survive and flourish. Framed in terms of the banks, or the insurance companies, private-sector managerial objectives are similarly posed in terms of what can be done to make those institutions perform their particular intermediation services more efficiently and profitably. An alternative to the institutional perspective ...is the functional perspective. The functional perspective takes as given the economic functions performed by financial intermediaries and asks what is the best institutional structure to perform those functions. ²⁷

Using Merton's distinction, the UK Government's response to the financial crisis has been quite institutional in nature; i.e., it has sought to shore up and protect existing financial institutions, many of which were deemed too big to fail. This is understandable given the interconnected nature of the financial sector, and the very real fears that the failure of a major bank (in addition to Lehman Brothers in the USA) could have triggered a meltdown of the financial system. That said, now that the danger of total panic has receded, it is hard to see why there should be such an attachment to keeping the existing set of institutions in place.

Surely, the aim should be to use this once-in-a-century opportunity to look afresh at the financial structure we have in the UK? Now is the time to think intelligently about what sort of system we need to best perform the functions of finance. Adair Turner's call for banks to return to their 'core functions' is greatly welcomed, but what are these functions?

Again, Robert Merton provides a useful starting point in terms of the central function of finance.

The primary function of any financial system is to facilitate the allocation and deployment of economic resources, both spatially and temporally, in an uncertain environment.²⁸

In line with the orthodox view of the role of finance, we go further than this initial premise. Allocation of resources should be such that finance flows

to its more productive use, thus maximising output and incomes. This takes us to the standard view, but we suggest a rather different way of seeing this primary function. What is generally meant by 'productive use' is simply the most profitable potential activities. But is this really all we want the financial system to do? In this alternative White Paper we propose a slightly more rounded and positive approach, where the meaning of 'most productive' is broadened.

First, financial return should be about much more than *short-term* financial gain. The financial system should be channelling finance to those activities that build stable, long-term value. Second, given the huge challenges we face, these long-term returns should also be environmentally sustainable. Third, the same logic applies in the social sphere, where the financial system should facilitate investments that are socially productive, rather than destructive – that contribute to community life, rather than undermining it.

Our reformulation of the central function of finance is therefore:

To facilitate the allocation and deployment of economic resources, both spatially and temporally, to environmentally sustainable activities that maximise long-term financial and social returns under conditions of uncertainty.

This means that resources are spread into activities in different places and sectors. The resources are invested so that over time they produce greater returns. Together, the variation and balance of resources is also a strategy to cope with the risks of losses. Merton proceeds to list six core functions that expand upon his formulation. These are equally applicable to our modified version.

Function 1: A financial system provides a payments system for the exchange of goods and services.

Function 2: A financial system provides a mechanism for the pooling of funds to undertake large-scale indivisible enterprise.

Function 3: A financial system provides a way to transfer economic resources through time and across geographic regions and industries.

Function 4: A financial system provides a way to manage uncertainty and control risk.

Function 5: A financial system provides price information that helps coordinate decentralised decision-making in various sectors of the economy.

Function 6: A financial system provides a way to deal with the asymmetric-information and incentive problems when one party to a financial transaction has information that the other party does not.²⁹

In each case, it is important to distinguish who the function is being performed for. From the way in which they are described here it is evident that the beneficiary of these functions is the economy as a whole. But an economy is comprised of many different parts, each of which interacts with the financial sector in different ways.

First, the financial system provides services for individuals and their families. Second, it provides services for SMEs, local charities, other third sector organisations and social enterprises. Third, it provides services for

large companies and large charities and third sector organisations, all of which may have international as well as national operations. Finally, the financial system provides direct services for public sector agencies, from local to national government.

In Appendix 1, we separate out these functions in relation to these different stakeholders to demonstrate that a well-functioning financial system is absolutely fundamental to the lives of all of us. If left to their own devices, financial institutions will tend towards the most profitable activities at any point in time, with a preference for short-term profitability. While this provides an important service to the real economy, it is far from being the only one that is needed. The system, and society as a whole, has a problem if a focus on short-term profiteering precludes institutions from undertaking equally valuable but less profitable investments. The current extent of financial exclusion and the acute shortage of small business lending show that not all stakeholders have been well served by the financial system.

At the level of the broader economy, the importance of a well-functioning financial system can not be overstated. To recap, our version of the primary role of the financial system is:

To facilitate the allocation and deployment of economic resources, both spatially and temporally, to environmentally sustainable activities that maximise long-term financial and social returns under conditions of uncertainty.

As has been pointed out, a precondition for the achievement of this function is a minimum level of stability, particularly the avoidance – or at least the mitigation – of boom and bust and financial crises.

We have seen that the Government has learned some lessons from the current crisis, and seems to have abandoned or modified some of its previous assumptions about the nature of the financial system. However, it also seems to have failed to take on board some very important lessons. While the White Paper appears to accept the need to restrict the negative features of financial systems, it still lacks a vision of how to make the sector promote the positive potential of the economy.

The Government's crisis response, including the £50 billion Bank Recapitalisation Fund and the £150 billion Credit Guarantee Scheme to support lending, demonstrates an acceptance that big institutions may not always provide the best solutions. Certain provisions of the Banking Act of 2009 are also an acknowledgement of this.

This is tempered, however, by a resistance to separating the more prosaic utility functions of the banks from those that generate risk for themselves and the wider economy. Presumably, the importance of scale and diversification of banks has outweighed other considerations. All the White Paper gives us here is a vague commitment to work with international partners, together with a tasking of the multilateral Financial Stability Board to find ways to identify which firms might be vulnerable to large-scale failure. Rather than just preventing banks from being too big to fail, the Government is looking at different ways of regulating those institutions that are systemically important.

The commitment to manage systemic risk through measures such as enhanced transparency, greater regulatory focus and counter-cyclical capital requirements acknowledges problems of incentives and short-termism. It also indicates an acceptance that systemic risk is different from the risk that individual institutions face. But the White Paper relies on competition, greater capital burdens, enhanced scrutiny and financial

education of consumers to address the problems identified. This points to the lessons that are still furthest from being absorbed. No mention at all is made of the distorting impact of skewing economic policy towards the needs of the financial sector.

In the next section we attempt to distil the lessons from the crisis, and from the long-standing problems of the UK financial sector, into five key principles. Each principle is illustrated with case studies from outside mainstream finance. The aim of these examples is to highlight initiatives and concepts that could be developed further, and to identify what the mainstream financial sector could learn from different institutional forms.

We believe that a financial sector modelled on our principles could reconnect high finance with the real economy down to the level of individual communities – including disadvantaged communities. A system built on these principles would constitute what we call an ecology of finance.

Part 4. Principles to underpin an ecology of finance

In the previous section, we went back to first principles and considered what we want the financial system to do. But none of the positive aspects of the financial system can be fulfilled unless we first stop – or at least dramatically reduce – the negative impacts that come to the fore in the current crisis.

Much of the focus during the crisis, including that of government, has been on how finance can be reined in, constrained, or even tamed. This is obviously important, but we need to do more than this. The principles outlined here are designed both to greatly reduce the incidence of negative impacts and to point towards a positive vision for the future. We have combined lessons from the crisis of what not to do with positive examples from good practice in some parts of the financial system to create a balanced set of principles to underpin reform.

Principle 1: Transparency

Transparency is essential in banking and finance if there is to be a fair distribution of economic resources. It is also needed to ensure the efficient investment of capital, and to support regulatory attempts to maintain the stability of the system. A key revelation of the current crisis, echoed by the Treasury White Paper, is the uncertainty that existed among banks concerning their own and each other's exposure. Simply put, they did not know what they had invested in or what lending they had undertaken. When the markets turned sour, banks did not know for sure how much money had been lost and by whom.

Since 1977, the United States has had a law, the Community Reinvestment Act (CRA), requiring banks to disclose their activities, in particular in poorer communities. This Act led to a regime of monitoring lending, investments and financial services in communities that had traditionally been underserved; it stimulated US banks to contribute to combating financial exclusion. In the UK, however, banks have resisted any intervention by regulators to require them to publish their lending. In 2006, **nef** documented how subsidiaries of the same banking group in Chicago and Manchester differed hugely in their reporting practices. This year the chair of the Government's own Social Investment Taskforce, Sir Ronald Cohen, reiterated the need for legislation to oblige banks to publish lending data.

The proper transparency of banks' risks and liabilities could have helped avoid the damaging credit crunch that occurred when other banks, investors and the regulators could not properly account for losses and liabilities. There must be proper disclosure by banks in order for the

proposed increase in monitoring and scrutiny outlined in the White Paper to make a positive difference.

More fundamentally, it is impossible to know if the goals of stability, competition and diversity are being achieved if investment, lending and banking activities are not documented. The CRA, though it pertains principally to lending in low-income US communities, demonstrates how simple disclosure requirements grew into a functioning investment partnership between banks and sectors of the economy that had previously been neglected. For more information on the CRA, see Box 9.

Principle 2: Appropriate scale and proximity

The financial sector is just too big, and this is particularly the case in the UK. It dominates the economy and skews policy, often at the expense of other sectors such as manufacturing. The UK has a long-standing comparative advantage in finance, so it is perfectly reasonable that the financial system might be bigger than in other countries. But we appear to have gone some way beyond that. In 2009, the City of London was the largest financial centre in the world, acting as a hub for over £10 trillion in investment flows and hosting half of the world's top 100 international banks.³¹

Despite the UK's dominance in high finance, some important sectors of the real economy – such as small business lending – have long been poorly served by our financial system.

Personal financial exclusion, for example, remains a big problem. Three in ten British households are financially excluded because they are outside the banking system and electronic payment networks. Financial exclusion makes people vulnerable to predatory lenders and causes poorer people to pay more for a long list of goods and services. The most recent Treasury figures reveal that nearly two million people lack access to a bank account.

A majority of low-income households use prepayment meters to pay for gas and electricity. According to Consumer Focus, this pay-as-you-go method costs such households an extra £255 per year for one fuel and £485 for two fuels. For low-income households with earnings of about £10,000 a year, the aggregate surcharges paid for gas, electricity, telephone, cash machine withdrawals and credit averages about £1,000 a year.

Against this background people on low incomes have also fallen victim to predatory lending. **nef** exposed the rapid growth of predatory and subprime lending in its report *Profiting from Poverty*, which revealed a sectoral turnover of £16 billion a year, based on interest charges to low-income households ranging from 160 to 2,000 per cent APR.³²

One of the problems in the UK financial system is that financial institutions themselves have grown too large. They have tended to focus their business on arm's-length activities that can be standardised and sold on the basis of objective criteria such as income and postcodes.

The further removed investors are from real assets, the less knowledge they have about them, and the more their behaviour is driven by market psychology. Not so long ago our banks tended to have an intimate knowledge of their particular sectors, locations and customer bases. Now that is largely a thing of the past. As financial institutions have severed

We need to reconnect investors and investments, and this is best achieved when finance is as local as possible. The principle of financial subsidiarity should apply.

Box 1. The credit crunch and its impact on lending to business

It is a feature of our modern banking system that retail banks are far removed from the image of the local bank manager, whose knowledge of his or her customers laid the basis for lending decisions. Though deemed anachronistic now, relationship-based banking yielded significant benefits, in particular for enterprise and local economies. Businesses' plans were assessed and improved by managers whose closeness to the community meant they could respond flexibly to changing needs.

Relationship banking permitted a wide range of 'soft' services to be delivered whose value is not captured by the blunt instrument of credit scoring favoured by today's banks. Those services included the kind of support that families and small businesses often value, such as money management advice, help with business planning and access to networks. **nef**'s *Ghost Town Britain* series documented how the loss of bank branches and local post offices not only strips people of a service they value but also undermines the economic viability of the local high street, pushing some local businesses into bankruptcy.³³

The drying up of retail forms of credit defined the credit crunch. Many individuals and small businesses were refused loans, and the cost of borrowing rose dramatically. Businesses found that their regular financial services were more expensive. Overdrafts were reduced and fees increased. Regular loans cost more, even if businesses' prospects had not necessarily worsened.

Over half of firms reported in January of this year that insurance, credit lines and new credit were more difficult to obtain or more expensive.³⁴ Lending levels to businesses have shown a marked decline since having reached exceptional highs in 2007. In July 2009, loans to (non-financial) businesses fell by a staggering £4.1 billion, while net lending by banks fell in all sectors of the economy.³⁵

The Government recognised this as a destructive manifestation of the financial crisis infecting the real economy. It stepped in to take up the slack from collapsing bank credit. The bailed-out banks – Royal Bank of Scotland (RBS), Lloyds TSB and HBOS – took up the £50 billion Bank Recapitalisation Fund, designed to make more credit available. In addition the Credit Guarantee Scheme of up to £150 billion provided banks with a guaranteed source of funding with which to improve the flow of credit to the economy.

The Government also negotiated lending commitments with individual banks adding up to £40 billion in 2009 and 2010. RBS agreed to lend £25 billion, on commercial terms and subject to demand. Lloyds and Northern Rock made similar commitments for £14 billion each. Banks without direct government support also agreed to increase lending. HSBC committed to lend up to £15 billion to homeowners, and Barclays agreed an additional £11 billion of lending for mortgage and business lending. An enterprise finance guarantee scheme of up to £1 billion replaced the old Small Firms Loan Guarantee earlier this year. The aim was to increase support for SMEs, which were deemed particularly vulnerable to the credit crunch.

The Treasury White Paper highlights the Government's substantial support. This has been designed to ensure the financial crisis is contained: 'The focus of the Government's efforts has been to minimise the impact of the financial crisis on the wider economy, and the businesses and consumers who rely upon the banking system for the finance and other services needed to manage their day-to-day activities.'³⁶

For some decades there has been an incipient infrastructure of small lenders in the UK, called Community Development Finance Institutions (CDFIs). These institutions emerged as part of the microfinance movement and were identified by the Government as a crucial mechanism to channel lending and investment to communities, including small businesses, that had been underserved by the financial sector. The then Department of Trade & Industry initiated grant support in 2003 under the Phoenix Fund which eventually provided just over £50 million in support to CDFI lending. The sector now comprises over 100 institutions across the UK, and by 2008 lending and investment portfolios stood at a combined £331 million. In 2007/8, lending by CDFIs totalled £76 million and levered in an additional £35 million. Most CDFIs remain very small institutions targeting a very specific niche of inclusion. A third of CDFIs have grown their fund sizes to £1–£3 million but too many have a marginal overall impact.

Box 1. Continued.

Though small CDFIs can play a critical function that no other lender will undertake, as shown in **nef**'s 2009 report *I.O.U.K:* Banking failure and how to build a fit financial sector. ³⁷It documents two very different companies that relied on CDFIs to survive the Crunch. When banks began to retrench at the onset of the credit crunch CDFIs – whose lending is driven by a social mission, not profits – stepped in to provide crucial loans when banks' self-made crises in financial markets meant they no longer lent to viable and ongoing business customers. Banks could no longer afford any risk and the consequences were felt by SMEs who had no part in creating the crisis, but were amongst its first victims.

Large-scale finance is essential, and this requires large institutions that can exploit economies of scale. But smaller-scale, local provision is equally important. In terms of the six core functions described earlier, many people do not have access to basic payment and settlement services, or the ability to save, or the ability to secure small loans.

The UK financial system tends to channel finance towards areas where there is already an abundance – such as the south east of England – rather than to deprived areas of the UK where it is much more needed. Small, locally based institutions do not have the wherewithal to tackle this problem by themselves. But they could do so with the support of a larger wholesaler providing them with funds. We believe that such a wholesaler could form a valuable part of an interlocking system of institutions of different sizes that helps to iron out inequalities in the system. If all institutions are small and operate at the local level, they are vulnerable to risks particular to those areas. Very small-scale institutions therefore need to be combined with those operating at regional and national levels in a national network supported via a national wholesaler.

Box 2. A Social Investment Wholesale Bank

In 2008, **nef** examined what progress had been made in channelling social investment towards social and third sector institutions. Financing community development has been particularly problematic. The recommendations of the Government's Social Investment Taskforce in 2000 attempted to address this challenge. The report found that third sector institutions – particularly financial institutions such as CDFIs that provide small loans to individuals, SMEs and social enterprises – were struggling to raise sufficient investment even in the context of exceptional financial sector growth. Public funding, designed to catalyse social investment, had been too short term and patchy. Trusts, charitable investors and ethical investment funds lacked proper incentives and investment channels to address the shortfall.³⁸

A key recommendation, enacted by the Government, was a tax credit to provide an incentive to encourage social investment. It was hoped that Community Investment Tax Relief (CITR) would soon raise £1 billion of investment. In its first five years, however, it succeeded in raising only a twentieth of that amount. This has done little to contradict concerns that CITR is unwieldy and inappropriately designed.

A more positive alternative is the idea of creating a wholesale finance institution, a Social Investment Wholesale Bank. The Commission on Unclaimed Assets originally proposed using the unclaimed deposits held in dormant bank accounts to capitalise such an institution. Estimates as to how much capital would be made available have varied from tens of millions of pounds to potentially several hundred million. The goal of the bank would be to act as a conduit for investment into social entities, and to help bring into being a more developed financial infrastructure to better enable and account for social investment.

An example of what the Social Investment Wholesale Bank could help to catalyse is the development of Social Impact Bonds. The concept of such a bond is that it can raise funds to invest in social programmes that will ultimately reduce the need for expensive social provision by the state. As a report by Social Finance into the potential of Social Impact Bonds documents, there are a host of areas of public expenditure where the proportion of resources spent on prevention is dwarfed by the overall cost related to the problem.³⁹

In the prison system, for example, 40,200 adults leave prison each year following custodial sentences lasting less than a year. Imprisoning these people costs the public purse £213 million each year, yet no support is provided upon release. As a consequence 73 per cent of those released re-offend within two years. For adults under the age of 21 the rate of reoffending is 92 per cent. Given the expense of prison to society in financial and social terms, the Social Bond mechanism could be used to raise money to invest in social entities that can demonstrably reduce recidivism. The savings that result would be the basis for repayment of the loan. Investors are given a conditional return on their bond; if the investments succeed in reducing recidivism, the Government releases the bond payment. This is an example of where social mission, Government involvement and investors' needs could be combined to produce a better outcome than an entirely profit-based financial system could provide, irrespective of new regulation and reforms. Such a connected system has the potential, if scaled up, to ensure that many more people have access to all six functions of the financial system described earlier.

The sixth financial function identified by Robert Merton is to reduce 'information asymmetries'. The stronger and deeper the local roots of financial institutions, the more knowledge they will have of both their customers and the commercial realities in the area. This is by far the best way to reduce such asymmetries.

While this is important, however, it cannot be enough in its own right. We also need to channel commercial finance to the areas and sectors where it is most needed on a much larger scale than happens now. There are good models for how this can be done effectively.

Box 3. The Nordic Investment Bank

The Nordic Investment Bank is a financial institution established by five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) as a mechanism to promote their economic growth and cooperation. Since 2005, Estonia, Latvia and Lithuania have also become members. The aim of the bank is to promote sustainable growth in its member nations, and its focus is explicitly long term. It is an orthodox bank, financing public and private projects via loans and guarantees, often complementing and enabling other financing sources.

The sectors that the Nordic Investment Bank focuses on are energy, the environment, transport, logistics and communications, and innovation, though it also finances manufacturing, mining and services projects. More than two-thirds of its financing is directed at member countries. It benefits from high credit ratings, and uses its expertise and position to finance cross- border investments and manage risk – the classic role of an investment bank. It helps to ensure stable long-term investment. Recalling the primary function of finance, to facilitate the allocation and deployment of economic resources in different geographical areas and over time while managing risk and uncertainty, the Nordic Investment Bank provides a model for a new form of powerful financial institution that is working towards goals of economic and social sustainability.

A priority of its financing is environmental sustainability, and all lending is assessed in terms of direct and indirect environmental benefits. Loans are nevertheless provided on market terms, and the Bank itself raises investment from the international capital markets.

It operates a number of lending facilities and engages in a cross-section of environmental projects. These include a €1 billion CLEERE (Climate Change, Energy Efficiency and Renewable Energy) framework. This has facilitated over 20 projects with a total commitment of €500 million in its first year. One of these is a high-grade silicon metal production facility for the solar cell industry, a facility that has helped to cut manufacturing emissions and save energy and water. The Nordic Investment Bank also invests in improving the manner of investment itself. For example, it has invested in a post-2012 Carbon Credit Fund. It hopes to catalyse the development of the market for carbon accreditation, thereby supporting projects that reduce carbon emissions.

The founding mission and ownership of the Nordic Investment Bank mean that it has no interest in following the example set by profit-oriented investment banks that seek out the highest short-term profits. In its commitment to environmental issues it shows how other banks, such as the Social Investment Wholesale Bank, could be geared towards a socially valuable mission. Given the urgency of climate change and the need to mitigate and adapt to its impacts, the Nordic Investment Bank provides a potentially useful model for a green industrial investment bank

Principle 3: Diversity of function and of ownership

As institutions stopped specialising, either geographically or by market sectors, they increasingly converged on the most profitable activities. During the boom, this was largely trading or speculative activities, which paid handsome rewards but also fuelled the boom. The flipside was that less profitable activities – such as maintaining a branch network and providing financial services for low-income people – became ever more marginalised.

These less profitable activities are absolutely vital functions, not optional extras. A greater diversity of function and of ownership in the financial sector is one way in which we could ensure that less profitable activities are not left behind.

We need financial institutions to focus on specific functions and to do a good job, not to chase the latest bandwagon. Retail banking is a very different business from investment banking, but universal institutions that

devote large resources to speculative activity put at risk their ability to provide core functions for their customers – payments, settlements, savings and loans.

We think there is a strong case for separating retail banking from other forms of activities. There are also lessons that can be learned from different institutional forms that focus only on taking deposits and making small loans, and are firmly anchored in local communities.

Box 4. Credit unions

One pernicious consequence of financial exclusion, including lack of access to direct debit payments, is that it can force the very poorest to pay higher costs for worse services. Those who cannot pay by direct debit for their utilities face higher charges. Those on low incomes ensured by debt often end up being charged very high rates of interest by predatory lenders and credit card companies.

One third sector approach to overcoming this is the credit union movement. Originally pioneered in the midnineteenth century, credit unions are savings and lending institutions regulated by the FSA. They are non-profit, pay no bonuses, and are owned by their members. As with building societies, the depositors themselves are the shareholders.

Membership is restricted according to a common bond that typically is defined geographically or by a shared workplace or sector. Credit unions are financial cooperatives whose members' savings are retained within the union and used to lend to members on affordable terms. In the UK almost 750,000 people are members of a credit union, and the sector now holds almost £500 million in savings. It has also made over £400 million worth of loans.

Though an impressive success story, credit unions in the UK are marginal compared to their counterparts in some other European countries. In Germany and France credit unions have a market share of 16 per cent and 40 per cent respectively.⁴¹

Southwark Credit Union, based in London, is one of the largest and longest-established UK credit unions. With three branches, over 30 staff and assets of near to £7 million, it serves over 7,000 members. ⁴² It provides savings, loans, insurance and current account services. It offers these not only to people who would otherwise be excluded from the mainstream financial services sector, but also to a range of professional members reflecting its origin as an employee workforce credit union. It draws members from the staff of Southwark Council; Kings College, Guy's and St Thomas's Hospitals, as well as from the wider Southwark community. In the wake of the credit crunch, its lending rose to £1.6 million in the final quarter of 2008 compared to the £1.1 million in loans offered in the same quarter in 2007. The recent growth in lending has been driven by people seeking to consolidate their debts or find more affordable loans than other credit they had relied upon, such as credit cards. ⁴³

Credit unions are not banks. The two have common features, but credit unions are far more restrained in the extent of risk and leverage they can undertake. Legislation is set to come into force in 2010 that will free credit unions to broaden their membership, enabling them to accept organisational and community group accounts.

The value of these institutions lies not only in their provision of affordable loans but also in the financial education and support they provide. However there remains a long way to go in their development. Only 0.5 per cent of the UK population is a member of a credit union, compared to an estimated30 per cent in the United States and 45 per cent in Ireland.⁴⁴

Another very specific function that is vital to most people's lives is the financing of housing. It is hard to think of a more important function for many. Yet the UK's financial system has played a central role in creating the problematic housing sector we have.

Box 5. Housing and finance

The UK housing market was highly dysfunctional even before the credit crisis. Statistics from 2008 emphasise this. Five million people were estimated to be in need of social housing and almost 600,000 families lived in overcrowded conditions. Councils accepted over 57,000 families as homeless. In England alone 67,000 families were living in temporary accommodation at the end of 2008. Despite the unmet demand for housing, there are around 80,000–90,000 empty or derelict homes in the UK. Housing's significance as a key financial transaction for most households is shown by mortgage finance representing 86 per cent of the UK's total personal debt.

Although house prices have fallen, the rising cost of mortgages means housing is *less* affordable for many, demonstrating how the role of retail banks can represent a critical bottle-neck in the economy.⁴⁸

The increased importance of housing to finance, and vice versa, is a relatively recent phenomenon. The late 1990s and 2000s saw UK banks turn away from their retail/depositor base to secure an increasing proportion of mortgage finance from the wholesale financial market. Prior to the credit crunch about 40 per cent of UK mortgage finance was raised in wholesale credit markets.

Another factor that drove the expansion of credit was the phenomenon of Residential Mortgage-Backed Securitization (RMBS). This involved multiple mortgage loans being packaged up in to 'securities' and sold on to third-party investors around the world, enabling UK banks and other mortgage issuers to pass on the risk normally associated with home loans. UK lenders were responsible for over half of the total European issuance of RMBS. From 2000 until 2007 the reliance of mortgage lenders on customers' deposits declined dramatically, from 72 per cent to 55per cent for the top ten lenders, while overall mortgage lending tripled to £346 billion. Notably, of the top ten mortgage lenders in 2007 (who represented 78 per cent of the market), those with the highest reliance on RMBS (and representing a third of the market) had all been bankrupted by autumn 2008.

Alternatives to the never-ending housing ladder do exist. In the Community Land Trust (CLT) model, land is separated from home ownership. It is held in trust in perpetuity by the community, and gains in value are distributed democratically. This helps to make schemes self-financing and to keep homes affordable for local people. In this way, the speculative element of investment in housing can be removed. Today, a growing number of large estates and islands have been bought by community trusts. By June 2005, 200 communities had been helped, with £12 million committed to eligible projects.

On Holy Island, Northumberland, the islanders decided to embrace the Community Land Trust model when not a single home put on the open market in 1995 was purchased by a local resident. By 1999, Holy Island's new trust had developed five new energy-efficient houses to let to local residents at affordable rents, with all but one of the tenants working on the island. In 2002, two flats were converted for islanders, bringing the total of affordable properties to seven.

Historically, building societies were the main source of housing finance. The fact that they were mutually owned was a key part of their strength.

Box 6: Building societies

The reliance in the White Paper on the growth of mutuals to provide new competition is problematic. Policy needs to address the problems that the cooperative sector has faced during the era of financial deregulation. Across Europe, the sector has a combined market share of 20 per cent. Yet many building societies are under severe pressure. Several UK societies have collapsed since the crisis began, and others have had to be rescued. The claims of a more conservative and cautious capital and lending model, compared to the 'casino' approach of shareholder-owned banks, have been cast into doubt.

Many building societies' problems stem from choosing to turn their back on the traditional approach to lending. From the 1990s onwards, deposit-taking was no longer enough to fund mortgage-lending growth, at the core of societies' traditional business. The house price bubble meant banks competed to lend at unprecedented levels, such as Northern Rock's now infamous 125 per cent mortgage loans. ⁵⁰ Societies that championed the traditional virtues of conservatism in lending and restraint have been undermined by deregulation and the bubbles it stoked. As a Moody's analyst perceptively explained: 'mutuality can be a successful model if you're happy to stay a retail institution taking deposits'. The economic boom before the credit crunch meant many societies felt irresistible competitive pressure to compete over riskier business lines, including high-risk subprime lending. ⁵¹

The restraint imposed by mutual status was used as justification for the wave of demutualisation that occurred in the 1990s. Demutualisation began in 1989 with Abbey National and peaked in 1997, but it is now deemed an expensive failure. All the demutualised societies have either been taken over or hurriedly nationalised.

A 2006 parliamentary enquiry found that many promises about the benefits of abandoning mutuality were not realised, notably including the fact that windfall payments, paid to members at demutualisation, undervalued members' stakes. While directors of demutualised banks saw their salaries soar, the provision of products worsened. There was an overall reduction in competition and consumer choice. In submitting to the enquiry in the year prior to its bankruptcy, Northern Rock blithely insisted that 'mutual status does not encourage efficiency' and noted that its success over the previous eight years 'would not have been possible under the old mutual model'. ⁵²

Building societies have a better record than other large-scale financial institutions in maintaining closeness to their customers, including addressing problems of financial exclusion. The continuing existence of smaller niche organisations, such as the Ecology Building Society, points to the potential for these societies to sustain a position in specialised market niches. Between 1995 and 2000, while demutualised societies closed branches at a rate of 24.1 per cent, remaining building societies closed just 2.4 per cent. ⁵³

Given the eventual desire to end state ownership of failed banks, Northern Rock presents an intriguing opportunity to test whether some of the damage of demutualisation can be reversed. It appears unlikely that the Rock can be returned to the market as a free-standing entity, able to compete in a market less competitive than the one it failed in previously. To avoid it being swallowed up by a competitor, it appears valid to contemplate remutualisation just on the basis of competition. Rather than a quick cash injection from a sale, a remutualised Northern Rock could pay back the taxpayer's stake over time from future profits, as well as indirectly through its role as an additional competitor following a different model in what is an even more top-heavy sector.

Mutual ownership does not just have advantages in the housing sector; it could also play a significant role in establishing a more diverse ecology of finance. Also, as the building society sector makes clear, mutual forms of ownership need not be small scale. They can retain their strengths when operating at a much larger scale while maintaining links with the communities from which they sprang.

Box 7: The Mondragon Cooperatives and Caja Laboral Bank

The Caja Laboral Bank for the Mondragon Cooperatives in the Spanish Basque country offers valuable insights into how to provide patient capital; longer-term financing that is more adaptable to a context of

stable economic growth. The Mondragon local development methodology has assisted a rural area to develop a vibrant industrial base over the past 50 years. The Mondragon Cooperative Corporation is testimony to this success. With 100,000 worker-owners, it is the largest worker co-op in the world.⁵⁴

Turnover annually is over €20 billion, and Mondragon is now the seventh-largest corporation in Spain. The features that constitute Mondragon as a system of integrated cooperative enterprise are unique, but they point to a model for how a financial institution firmly rooted in the local community can underpin a vibrant economy.

Mondragon is a business system whose operational elements fit together dynamically. The internal operational profitability is reported to be twice that of the average private sector corporation in Spain. ⁵⁵ The cooperative system is structured on two levels. The base level encompasses the 220 worker cooperatives that have comprised the Mondragon Cooperative Corporation (MCC) since the 1980s. The second level involves cooperative support corporations and one distribution corporation. This includes the Caja Laboral Popular (CLP) bank; similar to a large credit union but not owned by its members. The CLP, established in 1959, is a cooperative in which two-thirds of the votes are controlled by the 220 workers' co-ops and one-third by the staff of the bank. The bank has 120 branch offices and operates in all areas of the Basque country.

The CLP is the hub of the Mondragon investment system. It invests in new co-ops in a 'social business angel' manner. When forming a new co-op, the MCC can provide marketing expertise, help with business planning and assistance with business training. The CLP assists with financing. The CLP provides banking services to its 500,000-strong customer base, and enterprise finance to the range of co-ops within the MCC. It marries this to a permanent commitment to research and to business and product development.

The system is built on fundamental social and economic principles. It is committed to investing to build social capital, favouring enterprises embedded in communities and families. Collective equity accounts share the profits among local charitable organisations, and there is reinvestment in the MCC to sustain research and innovation and meet pension needs. The fair-pay principle ensures that no worker receives more than ten times the pay of the lowest paid worker in an organisation. And the system is democratic: a board of directors for the MCC is chosen by elected representatives, while CLP directors are chosen by worker co-ops and bank staff.

At the core of our proposed ecology of finance is a more pluralistic system of function and of ownership, designed intelligently to align the interests of financial institutions with the broad public interest – locally, regionally and nationally.

Such a system would be positive for the primary function of finance identified earlier, as it would see more money flow into sustainable, productive activities at local level. It would give local people far greater control over their own futures through a diffusion of ownership. It would also have other very positive effects, as we shall now see.

Principle 4: Stability

Boom and bust is endemic in the current financial system, and its effects can be devastating for people's lives and livelihoods.

The financial system is inherently 'pro-cyclical' in that it tends to underestimate risks in good times and overestimate them when the economy turns down. As a result, banks lend more than they should in the upturn – at a cost which does not take full account of risk – and do not lend as much as they should in downturn.

The previous three principles all have the potential to contribute positively to overall economic stability, particularly diversity of function and ownership and appropriate scale. The more firmly rooted financial institutions are in the real economy, the less susceptible they will be to periodic bouts of mania and panic. The more they are owned by people similarly rooted, the greater this effect. Finally, the more specific the function and the more appropriate the scale, the less likely they are to be

engaged in the sort of speculative activities that have caused so much damage in the current crisis.

But these three principles alone are unlikely to be enough to ensure overall stability. Something needs to be done, for example, about the destabilising effect of the 'value-at-risk' models that some banks have developed.

Value-at-risk models are designed to assess, on a daily basis, how much a bank could lose given certain events happening. This then informs that bank's appetite to take on additional lending, and the terms at which such lending should be offered. When risks look low, value-at-risk also looks low, and so greater lending is encouraged. These models base their assessment of risk on the relatively recent past; i.e., the probability of a particular event happening is taken to be a function of the frequency with which it has happened. As a result, during a long boom period, the probability of a crisis gets lower and lower when viewed through these models. Conversely, after a crisis the probability of another crisis happening appears very large indeed.

The problem with this is that these models are giving banks an attitude to risk that flies in the face of the real conditions in the economy. In reality, risks rise during booms and peak just before a crisis. Most value-at-risk models would say the reverse. After a crisis, risks are actually quite low, and opportunities tend to be abundant because of depressed asset prices. But a value-at-risk model would say that post-crisis risks are very high.

Stability requires that regulation should offset these tendencies rather than exacerbate them. This demands regulation that tightens conditions in booms and loosens them in busts.

In many ways this is the precise opposite of the direction in which banking regulation and supervision have been heading, both nationally and internationally.

Box 8. The Basel Capital Accords, the credit crisis and pro-cyclicality

The Basel Capital Accord first came into being in 1988. It was amended in 1996 to incorporate market risk. The Accord sets minimum regulatory capital requirements that banks must hold to offset the risk of unexpected losses on their loan portfolios. The key figure is 8 per cent of risk-weighted assets, which means that if I lend you £100 I must set aside 8 per cent of this to cover the risk that you may default. This 8 per cent figure is then adjusted according to the riskiness of the loan on the basis of factors such as the creditworthiness of the borrower, the structure of the loan and its maturity.

International banks lobbied hard for reform of the original Accord, arguing that it was crude and did not reflect real economic risks. They had been developing their own sophisticated credit-risk models to measure this economic risk, and argued that these were far more accurate and would provide a better basis for assessing regulatory capital levels. The Basel Committee on Banking Supervision (BCBS) came to agree, and 'Basel II' has been developed over the past ten years as a way of more accurately aligning regulatory capital requirements with risk. The banks' own internal risk assessments have contributed to this. Basel II is currently being implemented in pretty much all developed, emerging and developing economies, and looks set to become even more of a global standard than its predecessor.

The problem, of course, is that the current crisis has undermined some key assumptions upon which Basel II is based. Most significantly, we can no longer trust that the banks' own assessments provide an accurate picture of genuine economic risk. Banks are at least as susceptible to booms and subsequent busts as are other economic actors, and their models appear to amplify rather than mitigate these tendencies.

From an early stage, critics of Basel II have argued that it will increase pro-cyclical tendencies in the global financial system in a fundamental way. If capital requirements at any point in time are based upon banks' own assessments of risk – and if banks systematically underestimate risks in boom times – then capital requirements will fall during upturns. This will encourage more lending and amplify the boom. Conversely, in a downturn, banks will see risks as being very high. This situation will cause capital requirements to rise, reducing lending and worsening the crunch.

There has been a realisation that risks from the perspective of individual institutions (microprudential) are not the same as those for the system as a whole (macroprudential). The job of regulators is to offset the inherently pro-cyclical nature of banking by 'leaning into the wind'. This means a number of things. First, capital requirements (or 'dynamic provisioning', as pioneered in Spain) should vary through the economic cycle. They need to rise in times of rapid credit growth to reflect the fact that, systemically, risks are increasing in these periods rather than falling. Second, capital requirements should also be linked to other risk factors such as liquidity – i.e., the extent to which institutional activities are funded through short-term loans and thus vulnerable to a liquidity crisis should funding be withdrawn. Northern Rock is perhaps the best example of the kind of meltdown such vulnerability can produce. Third, the total level of capital and/or provisions held in the system need to increase, as the crisis made clear that there was significant undercapitalisation throughout the system.

We need a diverse set of institutions performing different functions well. But we also need regulation that leans into the wind to promote stability, so that booms are dampened by measures such as counter-cyclical provisioning and capital requirements.

Principle 5. Fairness, competition and real value

Banking is not a 'normal' industry. This has been made abundantly clear in the current crisis. The centrality of banking to the economy and to people's lives brings certain benefits to the sector, not least that government will step in to provide support if necessary. This effectively means that risks are underwritten by the taxpayer. Our bankers, supported by taxpayers, need to shoulder the responsibility of seeing beyond the short term and beyond commercial interest to consider broader societal objectives.

Box 9. The US Community Reinvestment Act, 1977

In 1977, the Community Reinvestment Act (CRA) was brought into force, largely as a disclosure requirement. The Government wanted to force banks to reveal their lending and investment in poor communities where they had been suspected of 'red lining': deliberately excluding minority groups from using financial services. The information that this yielded created an opportunity for more targeted reforms (enacted in the 1990s under the Clinton Administration) to create a ratings system for banks' social performance. The CRA opened the door to greater public and regulator knowledge about banks' activity, and ultimately led to the emergence of a community finance sector worth in excess of \$8 billion. The sector provides investment, lending and savings services to individuals and small enterprises across the United States that would otherwise have been neglected.

The benefit of public disclosure has been vividly revealed by the subprime crisis. In the earlier years, following the introduction of the CRA, the loans received by a majority of low-income borrowers would have been scrutinised under CRA rules. In the past decade, however, most loans were provided by institutions that had minimal or no obligation to submit their activities to regulatory oversight under the CRA.

Mounting evidence is emerging showing that loans to borrowers classed as subprime performed far better when made by institutions subject to CRA supervision. Evidence from the San Francisco Federal Reserve suggests that 'the CRA has increased the volume of responsible lending to low- and moderate-income households'. Studies of lending in US cities revealed that banks under the CRA were significantly less likely than other lenders to make a high-cost loan, and were more likely to offer lower interest rates. CRA banks were also more than twice as likely as other lenders to retain originated loans in their portfolios. Foreclosure rates were found to be lower areas with a higher concentration of bank branches. ^{58,59}

Fairness should be a basic principle of any financial system. It is reasonable for us to ask something back from those institutions that receive benefits not available to straight commercial organisations. However, fairness – in the sense of all stakeholders being able to access the financial services they need – may require us to go further.

In this regard, an important recent development has been the proposal to transform the Post Office into a People's Bank, designed to provide specific financial services in local communities. The extensive branch network that the Post Office retains, as well as the high trust in which it is held, bode well for its ability to provide services to people who may not otherwise have access to them.

Box 10. The Post Bank

As we have seen, banks' engagement with individuals and communities has evolved from a relationship model to one that is increasingly at arm's length. A novel proposal, to use the Post Office as the basis for a new People's Bank, has been designed to address the increasing distance between banks and communities. In some ways, the Post Office has already been providing a vital basic financial service by delivering the utility aspect of banking within local communities – i.e., the payment system – in areas where banks have systematically retrenched.

The potential for a Post Bank is clear. There remain more post office branches than all the bank branches in the UK combined. These local post offices are often in high streets that banks have long abandoned. The infrastructure to deliver financial services also already exists; for example, in the receipt of payments and in the management of the Post Office Card Account (POCA). This is crucial to individuals and to the small businesses in which 22.7 million people are employed. In a recent survey, the need for an alternative source was shown by 29.4 per cent of small businesses revealing that they rely on bank overdrafts and credit cards as a major source of funding.⁶⁰

The ambition for such a bank is threefold. First, to repair the ties between local communities and the broader economy, which the credit crunch threatens to exacerbate. Second, it is also intended to provide a constructive mechanism to safeguard the future of a key national asset, the Post Office, the value of which is felt beyond the financial. Finally, the Post Office's role in poorer communities and supporting small business represents a key presence in communities that economic policy struggles to reach. ⁶¹

Overseas examples demonstrate the viability of such a model. In France, the Post Bank launched in 2006 had 11 million customers by 2007. Within two years of the launch of Italy's Post Bank, its post office posted a profit for the first time in 50 years. These operations can have significant scale; in Germany the post office bank is the largest in the country by number of customers. ⁶²

As we have seen, competitiveness in finance has not always resulted in the outcomes that might be expected. One key reason for this is the lack of real competition. For small businesses in many areas, and the less affluent in general, there is often little or no competition for their custom when it comes to financial services. This means that where finance is available, it is often on exorbitant terms. The legal end of the home credit market, for example, is characterised by very high interest rates for small cash loans (which typically amount to between £50 and £500 each). The leader in the field, Provident Financial, offers a typical APR of 272 per cent through its personal credit lender and boasts of having over two million customers. ⁶³

A CRA-style disclosure and investment obligation and the presence of a Post Bank would improve this. The former would do so by compelling major banks to invest in activities that they would not choose to support otherwise. The latter would offer services directly to the excluded but it would do so on fair terms, providing real competition for the institutions that already operate in these sections of the market, rather than replicating their products, services and terms.

Real value is not always the same as financial value, and may even be destroyed in the drive to create financial value. We need to take a more holistic view. What we need is a financial system that is able to channel finance to activities that may not necessarily maximise short-term financial returns, but are essential for our long-term social and environmental well-being.

CDFIs and the mooted Social Investment Bank are part of this alternative vision. A Green Industrial Bank could also contribute at macro level, while an extensive network of Post Banks could reinvigorate local communities and economies. All these institutions, as well as the mainstream banks, need to be connected and accountable under the umbrella of disclosure and investment requirements.

Part 6. Regulating the ecology of finance

Regulating institutions and products – microprudential regulation

The focus in the UK has come to concentrate on regulating individual institutions – i.e., microprudential regulation – to ensure their stability. While this is insufficient to ensure stability from a system perspective, it is nonetheless an essential task.

As we saw in Box 8 on the Basel Capital Accords, there is now an acceptance that financial institutions were insufficiently capitalised to cope with crises. It is therefore likely that microprudential regulation will evolve so that individual institutions hold more capital to cover future losses. While this is broadly helpful, the danger is that in solving one problem we create another. Of course, requiring higher levels of capital to be held by the major international banks that have been hardest hit by the crisis makes a lot of sense. These are not the only actors of importance though.

Many smaller and more specialised institutions have weathered the crisis well. Lending to SMEs, or to social enterprises and third sector organisations, is of fundamental importance to our economy. Financial institutions that have focused on these activities have not been affected by the gyrations of the credit default swaps (CDS) market. But activities that are already difficult to fund on a commercial basis may become much harder to support if regulation is designed in too much of a broad-brush way. Profit margins on such activities can be tight. A wholesale increase in capital requirements for all forms of banking could have the effect of making much of this lending unviable economically, choking off credit to key parts of the economy just when we need to be increasing it. A one-size-fits-all approach is likely to create a number of such unintended consequences.

Some of the assumptions behind Basel II are undoubtedly correct. It is obviously right to tailor the capital that different financial institutions hold to the specific risks facing them. However, not all financial institutions are the same and not all the activities they engage in are the same. These factors cause considerable variation in underlying risks, and the current direction of regulation does not appear to recognise this. By assuming that all institutions are as risky as the most risky, we create the potential to undermine the very parts of the financial system that have proved themselves to be most resilient in the current crisis.

Microprudential regulation thus needs to take account of the following factors in determining the appropriate capital requirements for any financial institution:

- The inherent risk in its activities.
- The correlation between these activities i.e., the portfolio risk.
- The funding structure of the institution i.e., the extent to which it is reliant upon short-term funding (or 'liquidity risk').

- The governance structure of the institution i.e., the extent to which its ownership is able to absorb shocks by dispersing the effects through a network of owners/customers.
- The function of the institution and the systemic risk it poses.
- The scale of the institution and the systemic risk it poses.

The key point is that while a credit union or CDFI may engage in the same activities as does a large bank in some cases, this does not mean that the risks to the institution – or to the financial system as a whole – are the same. Other factors will determine this, and microprudential regulation needs to take account of these differences.

We are also proposing that banks be segregated by function, and particularly that retail banking should be separated from investment banking. In this instance, a different regulatory approach is clearly required for each function. A key advantage of such a split is that regulation can be tailored to the specific activities of the institution, rather than running the risk that we end up regulating nothing by trying to regulate for everything.

Finally, applying higher capital requirements to larger institutions would achieve two functions. First, it would take account of the greater systemic risk such institutions pose. Second, it would provide a counterweight to the tendencies towards scale in finance.

Regulating the economy: macroprudential regulation

Macroprudential regulation takes a systemic view. It is designed to lean into the wind, dampening upturns and reducing the severity of downturns.

The two main approaches that have been proposed to achieve this are variable capital requirements and counter-cyclical provisioning. The idea of the former is that capital requirements need to vary through the economic cycle, increasing in upturns and decreasing in downturns. Counter-cyclical provisioning, meanwhile, is about requiring banks to put aside capital to protect against expected losses when a loan is disbursed. Provisions for expected losses are usually made when a loan is near to maturity. If insufficient funds have been set aside at an earlier date, however, there may not be enough available to cover losses.

Whichever of these options – or combination of options – is chosen, the key is for there to be an automatic mechanism that applies to all. A major debate is raging in regulation centres about the relative merits of having a set of rules and having a more discretionary approach. Traditionally, the approach in the UK has been to stress the value of discretion, with supervisors being expected to exercise such discretion in their dealings with banks. However, it is now clear that supervisors are just as susceptible as everybody else to the 'this time it's different' way of thinking that characterises every bubble. As a result, it seems wise to have minimum rules – with counter-cyclical mechanisms linked to the growth in credit, for example – and then allow some discretion on top of this.

Another important feature is comprehensiveness. As we have seen, the lines between different types of financial institutions and markets have become increasingly blurred. If we are to truly offset the pro-cyclical tendencies of the financial system, then macroprudential regulation needs to apply to all equivalent instruments; i.e., whether a product is offered by a bank, a non-bank financial institution, or on an open exchange, it should be subject to counter-cyclical regulatory requirements.⁶⁴

The alternative is regulatory arbitrage, where activities morph into a different shape and move to the non-regulated parts of the financial system.

Macroprudential regulation needs to take account of the following:

- The stage of the business cycle.
- The level and composition of risk in the system as a whole.
- The distribution (or concentrations) of risks.
- The overall level of capital/provisions.
- The concentration of capital/provisions.

Regulation and social usefulness

A more speculative point to make concerns the social usefulness of finance and how, if at all, regulators should approach this issue.

Lord Turner's questioning of the social usefulness of some of the financial activities undertaken in the City provoked howls of protest. This was entirely predictable, but he posed a reasonable question that is all too rarely asked. It is often forgotten that finance is a means to an end and not an end in itself; i.e., the purpose of the financial system is to allocate capital within a *real* economy to ensure that it is used as productively and efficiently as possible. The result of such an allocation is real economic activity, creating real jobs and real income for real people. This is its social usefulness.

The crisis in the banking system has made it very clear that, in certain key respects, the system as a whole has not been effective at being useful. Indeed, certain parts of it may not have been doing it at all. Creating ever more complex derivative products, many steps removed from the real assets from which they are derived, must at some point stop producing any benefits for the economy. And it may even produce 'disbenefits'.

A business, farmer or investor may have justifiable reasons to hedge in the derivatives market against future events (such as to insure against spike in oil prices, adverse weather conditions or major currency movements). This might be considered to be socially useful in that some economic activities might not take place without such a market, and individuals or firms could be bankrupted without such insurance. Derivatives are in essence insurance products. Just as a farmer might hedge against adverse weather conditions, so you or I might insure our house against the possibility that it might burn down. Both are clearly socially useful. The difference in the home insurance market, however, is that there is not a huge secondary market buying and selling insurance contracts, slicing and dicing and speculating on the probability that our houses actually will burn down.

It would be difficult to describe this as socially useful, and the same argument can be made about sections of the financial system as it has evolved in recent decades. As the quote from Lord Turner suggests, this is partly a matter of size. Leverage (i.e., borrowing) and credit creation have combined to inflate the size of the financial sector far beyond what it was not so many years ago.

While it is beyond the scope of this alternative White Paper to examine this issue, there appears to be a case for attempting to tailor both microprudential and macroprudential regulation so as to encourage socially useful activities, while discouraging socially damaging ones.

Part 7. Recommendations

Our specific recommendations are divided into two sections. The first section considers what we can do to prevent a recurrence of the problems we have seen and bring greater stability to the financial system. The second looks at what we can do in a more positive sense, to encourage financial institutions to perform their full range of functions for all stakeholders in the future.

To prevent negative outcomes

- Separate out retail banking from other forms of banking by preventing deposit-taking institutions from engaging in a range of financial activities.
- Regulate financial institutions appropriately according to their functions in respect of the separation of different banking activities.
- Regulate financial institutions according to the riskiness of their activities, modified by consideration of their funding structure, governance arrangements and scale (with capital requirements increasing with the size of the organisation).
- Develop counter-cyclical macroprudential regulation to offset the pro-cyclicality of the financial sector.

To encourage positive outcomes

- Put in place a Social Investment Bank at macro level, linked into a local network of adequately funded CDFIs and other local financing institutions.
- Establish a Green Investment Bank to channel finance towards developing the environmental infrastructure we need, in such a way that regional inequalities are taken into account.
- Establish a national Post Bank based on the existing post office network, to address financial exclusion and provide real, fairly priced competition in local communities.
- Encourage the expansion of existing mutual institutions and the establishment of new ones, including from the remains of bankrupt, nationalised banks.
- Introduce legislation to harness the benefits of disclosure and investment obligations, based on the CRA, to link large, commercial banks into an ecology of finance with local, excluded economies.

Conclusions

The need to reform the financial system in the UK and globally is clear. The need to do so by creating a financial sector that is more akin to an ecology of firms and institutions may not be so obvious. An ecology is understood as the system of relationships between living things and their environment. The relationships between components of an ecology, be they tiny living organisms at micro scale or the macro environment that all occupy, are intricately connected. A more productive ecosystem, and one that is more robust, is characterised by diversity and an ability to sustain specialised and adapted life in the presence of external shocks.

The reforms set out in this alternative White Paper are not an appeal to reinvigorate the state's role at the expense of private actors, but for regulation and policy to rein in the counterproductive excesses of the sector. However, it is also a question of a positive vision. The Treasury's White Paper set out a series of problems and accompanying reforms that do little beyond hope for a return to business as usual that is as pain-free as possible. The crisis is not reducible to regulation that was inadvertently pro-cyclical, or firms who misjudged risk. The crisis is the consequence of a philosophy that drove regulatory approaches, Government thinking and legitimised a culture now deemed reckless and unsustainable.

This dangerous belief in the pre-eminence of finance and the interests of those within the sector led to a bloated City whose influence on the economic decisions of businesses, individuals and even government became disproportionate. The City is not the same thing as UK Plc, and the recession we are now emerging from more slowly than our European peers has been exacerbated by the UK's peculiar form of financial Dutch disease. The irony is that the UK has long been a pioneer and hub of a multiplicity of financial innovations and approaches, as the rich history of the City of London shows. This would not be apparent from the last three decades of domino-like conversion and consolidation, turning partnerships, private firms and mutual societies into public limited companies exclusively focused on quarterly profit at all costs.

The assumptions underpinning the uncritical backing of the City at the expense of the rest of the financial sector and the wider economy are now unravelling. The gigantism of ever-bigger banks that was celebrated by invoking economies of scale became a philosophy of too big to fail. The moral hazard of supporting companies too big to bail reveals that there *is* such a thing as excessive size and that a healthy financial sector is marked by organisations of different scale serving different markets. Regulation was also victim to a confusion of international competitiveness, or championing the UK's role in the global financial sector, with genuine competition.

Policy became fixed on the desires of those within the finance sector; meanwhile export and manufacturing became more difficult in an economy geared up to meet finance's needs over those of other sectors.

There is a key difference between the situation of individual financial institutions and the health of the overall marketplace.

As bubbles in housing, dot-com companies and the stock market have shown for centuries, the ability of a market to spontaneously guide prices and allocate resources efficiently is far from perfect. However the reforms articulated in the Treasury's White Paper do not yet follow through the logic of this understanding. Instead of encouraging a return to something similar to pre-crisis conditions, policy needs to move away from blaming a few irrational institutions who became reckless. Instead regulators need to rediscover their rightful role of standing outside of the market and taking a broader view of the national economic interest. Regulators need to be able to lean into the wind by restraining reckless leverage and market over-exuberance. Equally, they need to counteract excessive pessimism, too, and act to stop downturns becoming slumps.

To achieve the goal of a financial system that allocates economic resources around the economy and over time as effectively as possible, thus maximising long-term social, economic and environmental value, we have set out a series of principals to underpin reforms.

Transparency is a prerequisite of all other reforms. Achieving fairness and identifying risk relies upon knowing where the money is, as does each facet of every regulatory goal. When finance became distant from its customers, it violated the original benefit of a bank to the wider economy; generating information and knowledge about its customers and markets. Appropriate scale and proximity are therefore required to ensure a stable and effective allocation of resources; banks relying on credit scoring of individuals or credit rating of collateralised debt obligations are simply outsourcing their responsibility to understand the risk of what they invest in, effectively hoping for the best.

To achieve diversity and evolve from our bank monoculture to an ecology will require committing to support of the grassroots alternative finance structures. These structures have developed despite the difficulty of competing with an immense mainstream sector that abandoned those deemed 'unbankable'. Credit unions and CDFIs, plus alternative investment vehicles such as Community Loan Trusts, should benefit from greater direct support from public policy as this support would benefit the economy. Building societies, as the Treasury White Paper identifies, represent another significant component of a more competitive sector. What these organisations have in common is a mission that goes beyond profits; ultimately fairness and competition need to be directed towards achieving these underlying goals and measured on what is achieved. To reap the rewards from social finance, we need to link grassroots organisations into a regional and national wholesale structure, where finance moves to where it is needed, supporting investments that maximise sustainable value.

Our recommendations are designed to prevent a repeat of the conditions that led to the crisis and exacerbated the UK's vulnerability to it, but also to map out a new direction. The UK economy was driven recklessly to ever-greater extremes of bubbles and indebtedness by permitting the finance sector to govern economic decisions instead of serving them. Our second set of recommendations is just as important. This sets out a vision for what the ambition of reform should rightfully be: delivering investment and financial services that serve the social, environmental, and economic needs of society.

Appendix 1: The functions of finance for different stakeholders

In this appendix we examine how the functions of the financial system differ for the different stakeholders. In some instances the same functions are needed by different people, but in a different way and on a different scale. In other cases, some groups require certain functions that others do not.

What are set out here are not the functions that the UK's financial system performs for each of these stakeholders, but an account of what functions it *should* perform. These are largely positive in nature – i.e., the useful things finance should do for people and for groups. However, in order to make this possible, we assume the absence of negative impacts beyond tolerable limits. In particular, as we have seen in recent times, the financial system cannot function properly if it is driven to the point of collapse. Negative factors, such as high levels of volatility and cyclicality, are likely to undermine the system's abilities to perform the functions listed satisfactorily.

The job of reform is thus twofold. How can any potentially negative features of the financial system be avoided? And, once this has been achieved, how should the system be constituted to fulfil the primary function we have described in such a way that each of the six functions set out can be delivered for all stakeholders.

Function 1: A financial system provides a payments system for the exchange of goods and services

- Individuals and families: the payment and settlement services provided by banks allow salaries and benefits to be paid and held securely. They also enable regular bills to be paid, and ensure that goods and services can be purchased without the need to hold large amounts of cash.
- SMEs, small third sector groups and social enterprises: the payment and settlement system serves the same functions as for individuals and families, though the scope is somewhat wider. Additional elements include the payment of wages to employees and the meeting of financial obligations to suppliers.
- Large private and third sector organisations: the payment and settlement system offers the same services as above, but with an even broader scope. The ability to process payments from customers (or donations from supporters) is fundamental to the operations of larger organisations. Similarly, the range of payments to suppliers will be far more complex as will the management of internal payments to employees. Another important dimension is that the UK's system is linked internationally to its equivalents in all parts of the world, allowing transactions involving different currencies to be processed and settled smoothly.

- Public sector agencies: as with the other categories, public sector agencies need the payment and settlement system to purchase goods and services, and to pay suppliers and employees. The Inland Revenue uses the system to collect taxes, and the benefit agencies do likewise to pay benefits and pensions directly into bank accounts.
- The economy: a well-functioning payment and settlement system is fundamental to the economic life of any country. The importance of being able to process millions of different transactions each day, with a high degree of accuracy, cannot be overestimated. Furthermore, public confidence in this ability to irrigate economic life is essential: without such confidence transactions would not be made, economic activity would shrink enormously, and much of the infrastructure and convenience afforded by a sophisticated financial system could disappear.

Function 2: A financial system provides a mechanism for the pooling of funds to undertake large-scale indivisible enterprise

- Individuals and families: the financial system provides a safe means of saving, allowing individuals and families to accumulate what they earn. It also pools people's savings to provide personal loans and larger, long-term loan finance in the form of mortgages. Without confidence in the security of deposit-taking financial institutions as holders of savings this would simply not be possible.
- SMEs, small third sector groups and social enterprises: similar functions are served for smaller private and third sector organisations. Where there is a difference is in the range of lending products that are available based on pooled savings. Financial institutions may provide start-up or seed capital, and working or expansion capital, with a range of maturities and in a variety of guises. Such products enable organisations to grow more than they would be able to if they had to rely on internal resources, such as retained earnings. They also allow new enterprises to start up that could not do so without access to larger-scale funding.
- Large private and third sector organisations: here the functions are similar but the scale is very different. A key role of the financial system, as suggested by Merton's Function 2, is to pool savings to the level needed to finance large-scale investments. Large private companies looking to raise funds for major capital products, for example need access to funds on a scale that no individual, or group of individuals, would generally provide. Even if an individual lender were able to do so, the risk of lending such a large amount of capital to a single project would be far too high. Banks and corporate bond markets, in contrast, operate on a level where they can provide finance to many such projects. They do not have to put all their eggs in one basket, so even if one project performs badly or even fails, this is balanced by successes in other areas.
- Public sector agencies: a similar point applies to public agencies. Government debt is funded through sovereign debt issued in the capital markets, enabling large-scale public investment that would not be possible on the basis of ongoing revenues from taxation alone. Just as a company's investment would be restricted by having to rely on current income from revenues, so a government needs to borrow to invest.
- The economy: in the absence of such a pooling and provision of finance, many small-, medium- and large-scale investments would not be possible. The actual size of the investment is not the key point; it is the size relative to the alternative funds available to the

borrower that matters. An individual could not afford to buy a house using his or her income alone; a small business – or third sector organisation – might struggle to start or expand without access to investment capital; large private and public capital investment projects would not happen without access to finance at an appropriate level. In short, economic activity would remain at a very small scale indeed, while many of the things we take for granted – and which have relied on major investment in the past – would not have occurred. Our standard of living would be far, far lower than it is today.

Function 3: A financial system provides a way to transfer economic resources through time and across geographic regions and industries

- Individuals and families: the financial system enables individuals and families to 'smooth' their incomes over time: borrowing when young; saving and investing in their most productive years of life; and spending the returns from these investments in old age, when working lives are finished. Without the ability to borrow, and to buy investment products geared to meeting individual needs and to providing future pension income, individuals would have to rely on a combination of current income and whatever savings they have managed to squirrel away.
- SMEs, small third sector groups and social enterprises: as with individuals, small businesses and third sector groups are able to smooth their income by using the financial system. Borrowing when young allows investment to generate the revenues needed to reach maturity. Under Function 2, we discussed the benefits of pooling savings to fund this. The fact that these are not restricted to a particular industry is vital. If this were not so, it would not be possible to start new industries. Similarly, diversified financial institutions operating at regional or national level are able to transfer investment capital from where there is a surplus to where there is scarcity.
- Large private and third sector organisations: the same points apply for larger private and third sector agencies, on a much larger scale.
- Public sector agencies: the public sector also needs to borrow to invest in projects when they are in their infancy, so as to generate high returns in the future. Of course these need not necessarily be financial returns, as they should relate to maximising some notion of public benefit. We are thus looking at investing to maximise social returns. The public sector also uses the financial system to move finance from some parts of the country to others. For example, high tax revenues gathered in south east England will not all be spent in this region, but will form part of general funds available for public spending according to social and political priorities across the UK.
- The economy: in principle the financial system enables capital to be channelled to the point of its most productive use. Finance needs to reach those companies and sectors that are likely use it most productively, thus maximising total productive output and raising national income and living standards.

Function 4: A financial system provides a way to manage uncertainty and control risk

 Individuals and families: the future is inherently uncertain, and the principal means of addressing this through the financial system is via insurance products. The probability of your house burning down is very low but if it does happen and you are not insured, you would probably be unable to cope with the consequences financially. Insurance companies work to pool these risks through diversification. By charging a premium that covers collectively the costs of pay outs for major accidents, thefts and other losses, insurance companies can operate profitably. Unless we are talking about the Great Fire of London, houses do not all burn down at the same time. Employment insurance covers the risk of becoming unemployed, while life insurance ensures that a family is not left penniless if the primary breadwinner – or carer – dies. In all cases, it is the fact that these events are relatively uncorrelated across society that enables insurance companies to make pay outs and retain profitability.

- SMEs, small third sector groups and social enterprises: smaller private and third sector organisations are able to manage uncertainty and control risk through insurance companies in a very similar way to individuals and families, though these relate to the organisations' activities rather than the personal lives of participants. Insurance is important in this arena, as without it insurance cover would be limited to the legal restrictions on liability that are placed on an individual. Formal bankruptcy proceedings are part of the insurance infrastructure in business, with liabilities focusing on the organisation itself rather than the individuals involved.
- Large private and third sector organisations; as well as the insurance products described previously, larger organisations use the financial system to hedge their risks. This, too, is a form of insurance – but using derivative products available in the financial markets. For example, a company that uses a lot of oil (and is therefore highly exposed to the volatility of oil prices) may either buy oil in the forward market – thus guaranteeing its price – or buy products that pay out in the event of an oil price rise. Though this carries a cost that is akin to an insurance premium, that cost is known and manageable. Such products extend well beyond oil or the price of a particular product, of course: it is possible to hedge against changes in the weather, movements in currency markets and fluctuating interest rates – virtually anything you can think of. It is not only the private sector for which this is relevant. Large international charities, which often receive revenues in one currency but distribute them in another, need to protect the value of their disbursements. They may well choose currency hedging products to do so.
- Public sector agencies: in some ways the very existence of the public sector is a means of managing uncertainty by pooling, or collectivising, risk. National Insurance, for example, was originally conceived in this way we all pay into a central pot that can be drawn upon in adversity. In the event of unemployment, for example, we have access to benefits that are related to the previous payments made. Such public forms of insurance –the National Health Service can also be seen in this light are an alternative to the private provision of insurance, but one that is equally reliant on a well-functioning financial system.
- The economy: if uncertainty is high and cannot be managed, people will not engage in a large number of activities that are central to economic life. The combination of insurance products and limited liability has been cited as a crucial factor in enabling companies to embrace the spirit of enterprise needed to drive the Industrial Revolution. Without public forms of insurance we would be at the mercy of volatile markets, and the very fabric of society could be undermined. Having to fend entirely for yourself fosters a

highly individualistic approach to life in which a willingness to share and consider others may be undermined. A world where uncertainty and risk cannot be managed would be very different from the world we have today, and much more financially insecure.

Function 5: A financial system provides price information that helps coordinate decentralised decision making in various sectors of the economy

- Individuals and families: the price of financial products should, in principle, reflect the risk they entail. When seeking to borrow, the terms should reflect the riskiness of the loan and/or the riskiness of the proposed investment. This should prevent individuals and borrowers from taking on financial obligations that they are unable to meet in the future. When thinking about investments, it makes sense for a younger person to take on a higher level of risk, as this also carries the prospect of higher returns. As we get older, however, it makes sense to buy fewer risky products, as the guarantee of future payouts in pensions for example becomes more important.
- SMEs, small third sector groups and social enterprises: the pricing of financial products performs a similar role for small companies and third sector organisations. The relative riskiness of borrowing or lending should be reflected in the price of financial products, enabling all parties to make decisions reflecting their circumstances and risk tolerance.
- Large private and third sector organisations: this is similar but on a larger scale and with greater scope. The corporate bond market sends signals about the relative creditworthiness of companies, while the stock market is perhaps more forward looking, encapsulating information on relative future profitability. The price signals enable individual and institutional investors – such as pension funds – to allocate their investments according to their particular risk tolerance, or the 'asset-liability structure' in the case of institutional investors. For example, a mature pension fund with a large number of current liabilities (i.e., payments to pensioners) should invest more in low-risk companies and corporate bonds. The returns are potentially lower, but the income streams are more certain. In contrast, a young pension fund with a preponderance of members still some way from retirement will think more of capital gains. Because of this it will be more likely to take on riskier investments. Large companies are therefore able to attract investors most suited to their particular activity and stage of development.
- Public sector agencies: 'spreads' on sovereign bonds reflect the probability of default, and so perform the same function. Very lowrisk sovereigns attract an AAA rating, and their bonds pay the lowest return. The UK is able to attract funds from investors looking for very safe investments, and do so at relatively low cost.
- The economy: as well as matching investors with borrowers in terms of the 'fit' of their characteristics, financial prices perform essential roles in terms of total investment. For example, government bonds of different maturities pay different rates of interest: in general, shorter maturity means a lower rate. Put together, this creates a 'yield curve' which provides the basis of pricing all other investments in the country. No private company can borrow more cheaply than the Government because the Government, by definition, is a less risky lending proposition. The yield curve thus provides a 'floor' for borrowing, that all other rates are based upon. Even more fundamentally, the Bank of England's Monetary Policy Committee sets the rate at which financial

institutions can borrow from the Bank, which is then reflected in the rates paid to savers and charged to borrowers. The Bank is able to vary this rate to influence the level of saving and borrowing in the economy, in order to maintain price stability. The financial system is thus fundamental both for maintaining broad macroeconomic stability and for coordinating investment throughout the economy. Function 3 described how the allocation of finance across the economy and over time should, in principle, ensure that funds are channelled to their most productive use. It is through relative prices, such as differential interest rates reflecting differing risk and return, that this is achieved.

Function 6: A financial system provides a way to deal with the asymmetric-information and incentive problems when one party to a financial transaction has information that the other party does not

- Individuals and families: in the absence of a functioning financial system, if I wish to borrow money I can only do so by asking others to lend to me directly. However, unless they know me personally, how are they to judge the probability that I will repay the loan? This is what Merton describes as an 'asymmetric information' problem. 66 What he means is simply that although I know whether I am a good credit risk, you do not. Furthermore, you can't really just take me at my word: if I were trying to cheat you, I would obviously say that I was a good credit risk. Banks, in particular, play a vital role in overcoming this. 67 Relationship banking rests on the building of long-term relationships between banks and their customers, so that the bank is the repository of information on creditworthiness. More recently this traditional form of banking has been augmented by third-party credit assessments, where information on borrowers is pooled in 'credit bureaux' that is then sold in the form of credit assessments of potential borrowers. More recently still, credit scoring has developed to provide the same function but on a non-personal basis. Scores are based on objective data such as income, age, credit history and postcode.
- SMEs, small third sector groups and social enterprises: smaller organisations face exactly the same asymmetric information problems as do individuals, and the financial system uses the same tools to overcome them. In addition, venture capital funds invest in start-up or early-stage companies, but take a direct ownership stake in them. Such funds overcome asymmetricinformation problems by becoming very intimately involved in the decision-making of firms, thus protecting their investments and trying to ensure a good return.
- Large private and third sector organisations: larger organisations use the financial system to overcome these problems in slightly different ways. Many of their methods relate to the previous function, in which we considered the role of market prices. 'Market discipline' means that investors shareholders, bondholders and banks have a strong incentive to keep a watchful eye on their investments. If problems emerge, these will be reflected in market prices, providing a strong incentive for firms to ensure that problems do not arise.
- Public sector agencies: market discipline also plays a role with government. If government borrows too much, the price of this borrowing will rise significantly. At some point it may no longer be possible to borrow at all. This provides a strong check on financial profligacy among governments, which may be tempted either to borrow excessively or to print money to fund their activities. If a government succumbs to either of these temptations, it is likely to store up very negative long-term consequences for its citizens. In

- principle, the financial system acts as a brake on this because to some extent it ensures that the incentives available to government remain aligned with the long-term interests of its citizens.
- The economy: if asymmetric-information problems are not overcome, the flow of finance will diminish hugely. Some have argued that the Great Depression in the United States in the 1930s was made far deeper and more prolonged than it would otherwise have been for exactly this reason. The closure of many banks destroyed institutional knowledge of borrowers' creditworthiness, causing the flow of finance to dry up. This took many years to rebuild. Different parties also have different incentives, and the 'disciplining' role of the financial system is crucial in ensuring that these do not become too misaligned. All parties need broadly to work together to allocate finance efficiently and productively, to minimise fraud and misuse, and to build productive capacity, incomes and quality of life.

Endnotes

- All Party Parliamentary Group report on Demutualisation of Building Socieities, 'Windfalls or Shortfalls', London, 2006
- ² HM Treasury (2009) UK International Financial Services the future (London: HMSO) p 22–24.
- ³ Data calculated from OECD-DAC 2009 database (Paris: Organisation for Co-operation and Economic Development).
- In some countries, finance has come to play an even larger role, and these countries have been affected by the crisis even more than the UK. For example, finance's share of value added in Iceland almost doubled in the ten years up to 2008, rising from 4.3 to 8.7 per cent. For Ireland, the corresponding figures are 6.6 and 10.6 per cent (OECD *op. cit.*)
- ⁵ HM Treasury (2009) Reforming Financial Markets (London: HMSO).
- An oligopolistic market is one where a handful of firms have control or extensive influence, enabling them to impose worse services or higher prices on buyers. A famous example of this is the OPEC cartel of petroleum exporters.
- ⁷ Referred to as the 'Big Bang', 1986 represented a turning point in the regulatory approach to and organisation of many aspects of the financial system. Transactions switched to electronic trading in stock exchanges, and markets were liberalised by legislation such as the Building Societies Act (which allowed banks and building societies to compete more easily in each other's core markets). The Government wanted to open up markets that had previously benefited incumbents at customers' expense, as well as to modernise the UK's financial services sector.
- The term 'over the counter' stems from the uniqueness of these contracts, which are tailored agreements between the contractual parties and are therefore not traded on open, public exchanges such as FTSE or NASDAQ. This makes them harder to track and account for; their opacity has been blamed as a contributing factor in the depth of the recent global financial crisis.
- Data from the Bank for International Settlements.
- ¹⁰ Office for National Statistics (2008) *United Kingdom National Account: The Blue Book* (London: HMSO).
- A consequence of higher interest rates is that international currency speculators will purchase your currency, in order to benefit from differences in interest rates across different currencies. This drives the value of the currency up further and is known as the 'carry trade'. To conduct this trade, a speculator sells currency where there is a low interest rate, and buys an equivalent amount of another currency that has a high interest rate. This allows the speculator to profit from the difference in lending and borrowing rates. Consequently trading in currencies may have little to do with traders' need for the currency or their view on the underlying economic conditions that are supposed to spontaneously drive exchange-rate levels.
- ¹² HM Treasury (2009) *UK International Financial Services the future* (London: HMSO).
- Share options are another form of derivative. They are financial instruments that give their owner the *option* to buy shares in a company at a price agreed when the option is initially sold, for an agreed period. This means they have an inherent value as a bet on the future price of the underlying shares up to when the option expires. Share options have been extensively utilised as a form of incentive-linked pay for senior executives; they are a cheaper way than giving shares outright to encourage management to maximise the share value of the companies they run.
- John Maynard Keynes identified this process as long ago as the 1930s, in his *General Theory of Employment, Interest and Money*. Such booms and busts have been a perennial feature of the financial system for centuries. All that has changed, it seems, is the frequency, scale and thus the impact of these crises.
- ¹⁵ This was essentially Milton Friedman's argument in defence of floating rather than fixed exchange rates in the 1950s. Friedman used this line of reasoning to argue that floating exchange rates would actually be very stable, fluctuating very little from 'equilibrium values'. In fact, the opposite has been the case.
- ¹⁶ For an excellent account of this process, see Persaud A (2000) *Sending the herd off the cliff edge: the disturbing interaction between herding and market-sensitive risk management systems* (Washington DC: Institute of International Finance).
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- ²³ Dos Santos (2009) op. cit.
- ²⁴ RICS (2009) European Housing Review 2009 (London: RICS) p 126–127.
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- ³⁶ HM Treasury (2009) Reforming Financial Markets White Paper (London: HMSO) p 32.
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- Dutch disease is a term used to describe how a single dominant sector of an economy can inadvertently distort general economic conditions to such an extent that other sectors are undermined. This famously occurred in the Netherlands upon the discovery of natural gas deposits. This valuable export sector drove up the value of the Dutch currency, making exporters and manufacturers in other sectors less competitive, and worseing the general balance of trade.
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