

Paper for volume on 'Legal Aspects of the Financial Crisis', to be published later in 2009 - Comments welcome, not for quotation at this stage

Central banking, financial regulation and property rights

Most constitutional formulations of human rights include the right to own property. The first part of article 17 of the 1948 Universal Declaration of Human Rights states that “everyone” has the right to own property, while the second part elaborates this principle by saying, “No one shall be arbitrarily deprived of his property”. In practice private property rights are less than absolute in all jurisdictions. Well-known are the problems arising from “externalities”, where a divergence between private and social costs may justify restrictions over the exercise of property rights. Further, the tax system may sometimes discriminate against particular groups and hence make them worse-off, so that the economic effect is the same as if they had lost part of their property. The results of new regulations can be similar, in that they encroach on individuals’ freedom to act according to their perceived self-interest and prevent them reaching a desired outcome.

The argument of this paper is that the recent financial crisis has shown a particular kind of property right, that to the ownership of bank equity, to be highly vulnerable to changes in law and regulations. It will be suggested that governments’ interventions in the banking industry in 2007 and 2008, particularly their recapitalisation packages in late 2008, had major adverse impacts on the value of banks’ equity. Whether these impacts amounted to the “arbitrary” deprivation of property remains to be established, both in the courts and elsewhere. At any rate, the expectation must be that the new insecurity of property rights in this area will inhibit future investment in the banking industry. The paper concentrates on the UK, where government policy towards the banking system has been punitive by international standards.¹

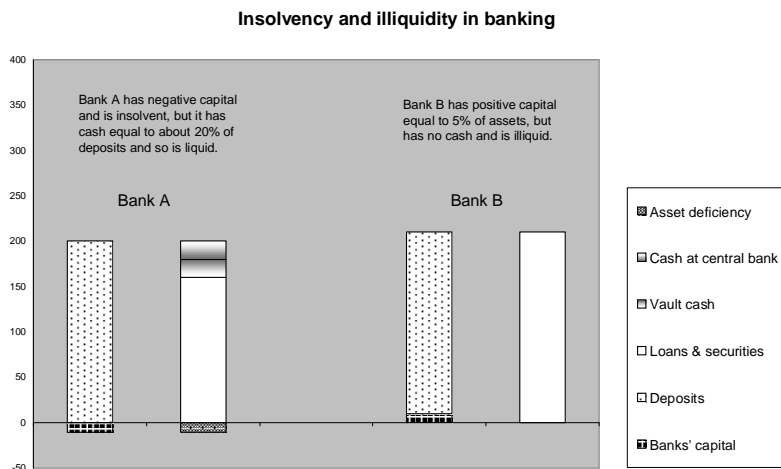
Illiquidity, insolvency and the central bank’s role

Our initial focus is on problems arising from the breakdown in the international wholesale money markets in the summer of 2007. These problems can be better understood if a distinction is drawn between banks’ “solvency” and “liquidity”. The

meaning of the term “solvency” is somewhat different in banking from that in other industries. Roughly speaking, non-banking companies are insolvent when payments cannot be made from bank deposits as they fall due and continued trading would mislead creditors about ultimate ability to pay. By contrast, banks can create liabilities against themselves by issuing new deposits and promising to convert these deposits into legal-tender cash. Indeed, since banks can expand deposits (i.e., “money”) “out of thin air” by adding identical amounts to both sides of a balance sheet, the concept of banking solvency is surprisingly elusive.² The viability of a banking business has two aspects,

- liquidity, i.e., the ability to convert deposits into cash at the request of its depositors, and
- solvency, i.e., the excess of assets over all liabilities except those to non-depositors.

In order to keep the discussion manageable, we may assume that banks have only two categories of creditor, depositors and shareholders. Solvency can then be defined as a condition in which the value of shareholders’ claims on a bank is positive, because the value of assets is greater than that of deposits. The distinction between “liquidity” and “solvency” can be easily represented graphically. (See Diagram 1 below.) A bank is liquid if it has a sufficiency of cash *on the assets side* of the balance sheet and it is illiquid, at least in one rather crude sense, if it has no cash whatsoever. On the other hand, a bank may be understood as being solvent if it has positive obligations to shareholders *on the liabilities side* of the balance sheet. It is immediately evident that a bank can be illiquid but solvent or liquid but insolvent, as is indeed illustrated by the two cases in the diagram.³



For any given profit margin on their loan portfolios, the rate of return on banks’ capital is inversely related to the ratios of their cash and capital to assets.⁴ It follows that profit-seeking commercial banks are constantly trying to find ways to reduce these two ratios,

while preserving the convertibility of deposits into cash. In the words of Phillips in his 1921 classic on *Bank Credit*, “the essence” of banking “consists in the practice of extending loans far in excess of either the capital or the cash holding of the bank in question”.⁵ By the start of the twenty-first century banks’ ratio of equity capital to assets was typically under 5 per cent across the industrial world, while in many countries cash was minute, amounting to 1 per cent or less of deposit liabilities.

Nowadays central banks have a special constitutional position, since in most nations they are the only issuers of legal-tender banknotes. Arguably, commercial banks’ dominant motive in establishing a relationship with the central bank is to lower their cash requirement and, at least in the first instance, to increase their rate of return on capital.⁶ A reduction in the cash requirement becomes possible because of the central bank’s ability to create new legal-tender notes at negligible resource cost. If a commercial bank has a cash shortfall, the central bank can lend to it, usually by adding a sum to its cash reserve deposit. The cash reserve deposit is then available to meet deposit withdrawals or adverse balances in inter-bank settlement. The loan can be repaid when cash inflows to the commercial bank resume on a sufficient scale. By these means access to central bank credit enables commercial banks to operate with lower cash/deposit ratios than would otherwise be the case.⁷

Central bank credit is granted for the most part on a temporary and more or less technical basis, with the central bank having no doubt about the borrowing bank’s solvency and its capacity to repay the cash in a few working days or weeks. However, from time to time banks have more serious strains in their balance-sheet management, and a particular bank (or banks) may have trouble financing their assets over an extended period of uncertain length. This financing difficulty does not necessarily imply that the assets are of low quality or that the bank is insolvent. Indeed, it may be a valid assumption that, if the assets were realised over an interval of time “normal” for the type of banking business in question, the bank would be fully solvent. (The normal realisation period for most mortgage assets is of course several years.) However, the bank’s inability to finance its assets may force it to dispose of them in a hurry, as in a so-called “fire sale”, perhaps at a discount of 10 per cent or more to their “true” value. Whereas a bank (with a capital/asset ratio of 5 per cent) is solvent if the realisation of its assets proceeds “normally”, it is insolvent if assets have to be relinquished in fire-sale conditions.

It follows that banks’ solvency *at any particular balance-sheet date* is not a simple and immutable given, but depends on the realisation period of assets *in future*. This characteristic of banking business goes a long way to explain both the potential awkwardness of the “solvency” notion and commercial banks’ keenness to have access to central bank credit when suffering from cash withdrawals. The often problematic context in which such credit is sought is captured by the description of the central bank as “lender of last resort”. As noted in a 1986 volume on *Perspectives on Safe & Sound Banking* commissioned by the American Bankers’ Association,

The lender of last resort should provide direct assistance to institutions that are economically solvent, but are experiencing deposit runs of sufficient magnitude that... rapid asset sales at fire-sale prices could render them fire-sale insolvent. Little cost attaches to assisting such

institutions, and substantial economic and social benefits accrue from maintaining them as going concerns. The major form of assistance involved is a grant of time that allows the bank to restructure its affairs less expensively.⁸

The breakdown of the international wholesale money markets

Over the 40 years to mid-2007 banks and other large financial players had built up large claims on each other in the international wholesale money markets. Whereas in the 1950s and earlier decades, banks' assets consisted largely of government securities and loans to domestic residents in the local currency, by mid-2007 they included substantial claims on other banks. These claims included banks in other countries and were often denominated in a foreign currency. Some banks were large net creditors in the wholesale money markets, but a significant proportion were both net debtors and could not sustainably maintain their loan portfolios without continued financing (much of it in the form of securities) from the wholesale markets.

The opening and middle years of the current decade saw a boom in so-called "structured finance". Banks in the USA and Europe arranged the issue of securities which were backed by assets such as houses and credit card receivables, and sliced into tranches of different credit-worthiness. There is no room here to go into details, but in early 2007 falls in American house prices undermined the credit standing and market price of these securities. On 9th August three French money market funds, which held them in large quantities, announced heavy losses. Since banks knew that their virtually all their wholesale counterparties (including other banks) held asset-backed securities to a greater or lesser extent, market participants cut back on transactions between each other. By mid-August the international wholesale money markets were paralysed. Banks that were net debtors to these markets would be obliged to shrink their assets, perhaps in fire-sale circumstances, if they were unable to find new sources of finance. The case of Northern Rock, a leading mortgage bank in the UK, illustrated the larger dilemma. Although in May it had raised £4.7b. in a securitisation issue which had been oversubscribed 2.2 times and was Northern Rock's "third cheapest deal ever", it realized that another securitisation issue of similar size due in September could not proceed.⁸ It informed its regulator, the Financial Services Authority, on 10th August.

On the face of it the crisis – both as it affected Northern Rock and more generally – was a classic opportunity for last-resort lending. In early 2007 most banks in the UK and across the industrial world were profitable, solvent and well-regulated, while virtually no one had forecast the sudden closure of the vast markets in international wholesale finance. An important virtue of a last-resort loan is that, when made to a solvent bank, the interests of shareholders are respected. Since the repayment of a loan ends the lender's claim on the borrower, a last-resort loan ought to enable a profitable bank with the appropriate amount of regulatory capital to remain in business. The advantages of last-resort arrangements have long been widely understood in the banking industry, as shown by the above quotation from the volume sponsored by the American Bankers Association. Critically,

by avoiding the fire-sale liquidation of bank assets, last-resort lending steadies asset values and contributes to macroeconomic stability.

The UK had itself enjoyed the benefits of skilful central bank operations in the secondary banking crisis of 1973 to 1976, when the disintegration of the banking system had been averted by a “lifeboat operation” of inter-bank lending coordinated by the Bank of England.⁹ In short, when a solvent bank that has complied with regulations has difficulty in financing its assets (i.e., it is “illiquid”), the right public policy response is last-resort assistance from the central bank. A loan at a penalty rate is the most common form of such assistance, but the orchestration of inter-bank lending, perhaps backed by guarantees, should also be mentioned. To be effective the loan must be extended for as long as necessary and on a sufficiently large scale, subject only to the conditions that the borrowing bank should remain solvent and provide good-quality collateral.¹⁰

The nationalization of Northern Rock

But that was not the view taken by influential UK commentators in the Northern Rock case. Martin Wolf of the *Financial Times* and Anatole Kaletsky of *The Times*, along with a large number of other financial journalists, advocated nationalization. After a run on its retail deposits over the weekend of 15th and 16th September, Northern Rock did indeed receive a last-resort loan. But the loan was given grudgingly on punitive terms and UK officialdom made clear that it wanted the loan repaid quickly.¹¹ Insofar as the commentators provided any serious reasoning to support nationalization, it had two main elements. The first was that the last-resort loan was “government money” and represented an improper subsidy to an unworthy private sector activity. The second was that Northern Rock was “bust”, with the apparent interpretation being that Northern Rock’s funding difficulties amounted to full-scale insolvency. Perhaps because of the confusion between illiquidity and insolvency, the media proponents of nationalization invariably made no mention of compensation. They implied that shareholders should receive nothing, even though the book value of Northern Rock’s shareholder funds at end-2007 was over £1,600m.

The demands for the early repayment of the loan and the nationalization of Northern Rock were part of a media hubbub which undoubtedly reduced the bank’s market value. Although several private parties expressed interest in purchasing it and preserving it as a going concern, on 18th February 2008 the Chancellor of the Exchequer, Alistair Darling, announced that Northern Rock would be nationalized. Over the next week a bill for that purpose was passed by both Houses of Parliament. The resulting legislation – the Banking (Special Provisions) Act 2008 – included clauses on the shareholders’ compensation which, if interpreted at face value, would leave them with only a fraction of Northern Rock’s book value or even with nothing at all. Meanwhile the government made no secret of its intention to run Northern Rock on commercial lines and eventually to privatise it. Gordon Brown, the Prime Minister, said openly that the state might make a profit on the transaction. Clearly, if Northern Rock’s assets proved to be of good quality (as was generally believed) and if the proceeds of the privatisation issue were a multiple

of book value at the time, the state would indeed make a handsome profit from its involvement in the Northern Rock affair.¹² (In the long run banks have typically traded at two or more times their book value in public markets.)

Not surprisingly, the shareholders of Northern Rock were dismayed by this outcome. In spring 2008 two of the principal shareholders, SRM Global Masters Fund and RAB Special Situations Fund, decided to seek judicial review of the compensation procedure. They appealed in particular to the property rights provisions of the 1998 Human Rights Act, a piece of legislation which has undoubtedly given impetus to numerous cases of judicial review over the last decade.¹³ Judicial review was granted, with the case coming to court in January 2009. By this stage SRM and RAB had been joined by Legal & General and the Shareholder Action Group. The judges dismissed the shareholders' case, although giving the claimants leave to appeal.

The generalisation of the crisis

During 2008 the crisis intensified and became more general. Until late in the year central banks were anxious about rising inflation, with the oil price topping out at over \$140 a barrel in the summer. Although inter-bank rates were well above the policy rates indicated by the central banks (i.e., base rate in the UK, Fed funds rate in the US and the repo rate in the Eurozone) and the wholesale money markets remained closed, significant reductions in policy rates were postponed until the final quarter of the year. The result was that by the autumn of 2008 a large number of banks across the industrial world were suffering from funding problems similar in character and severity to that faced by Northern Rock in August and September 2007. Further, the banking crisis had started to impinge seriously on the macroeconomic situation. Because they were unable to tap the inter-bank market for funds, banks were cautious in the management of their own cash and restricted their lending. Particularly in the UK, this restriction led to slower growth of bank balance sheets and so of the quantity of money. Whereas corporate bank deposits were growing at an annual rate of 15 per cent in early 2007, in the second half of 2008 they contracted by almost 5 per cent (i.e., at an annualised rate of 10 per cent).

In September another mortgage bank, Bradford & Bingley, suffered a downgrading by a credit rating agency and found it increasingly difficult to raise finance in the inter-bank market. In contrast with the dithering which had marked officialdom's response to Northern Rock's problems, the Tripartite Authorities – the Treasury, the Bank of England and the Financial Services Authority – decided to nationalize Bradford & Bingley without further ado. The nationalization took advantage of the terms of the Banking (Special Provisions) Act 2008 and again implied that shareholders might receive nothing. Since Bradford & Bingley had raised £400m. in a rights issue only a few weeks before it came into the state's hands, either Bradford & Bingley's guidance to investors in the rights issue prospectus had been misleading or the official action was a startling violation of private property rights. Shareholders have taken the management to court to seek damages over the wording of the rights issue prospectus. At the time of nationalization Bradford & Bingley's mortgage book was widely deemed to be of poor quality, but 97

per cent of its loans were current (i.e., with all interest and capital payments on time), its capital/asset ratio was well above the regulatory minimum and the average loan-to-value ratio of its mortgage portfolio was under 55 per cent. Indeed, the Bank of England and FSA had been closely involved in overseeing and endorsing the terms of the rights issue, so that Bradford & Bingley's enhanced capital would comply with regulations.

Northern Rock and Bradford & Bingley were relatively small institutions, but in early October concern had emerged that the UK's core High Street banks might also experience strain in financing their assets. The British government understood these banks' problems to reflect lack of market confidence in their credit-worthiness, which it attributed to inadequate capital. In two separate announcements, on 8th and 13th October, the Tripartite Authorities took steps to recapitalise the banks. In the first of these the authorities indicated their preparedness to guarantee inter-bank borrowings (for a fee) and to inject capital into privately-owned banks. But the message appeared to be that any injections would take the form of preference capital, leaving shareholders' interests unaffected. The second announcement was very different and was described in several reports, including those from the British Broadcasting Corporation's Robert Peston, as amounting to the "nationalization" of the UK's banking system.

From the banks' own point of view the surprise feature of the announcements was that – very suddenly – officialdom mandated them to hold far more capital than had previously been the case. The justification for the change was that the Treasury and the Bank of England had decided that the UK faced a few years of deep recession, so that the banks must have a stockpile of excess capital in advance of possible heavy loan losses.¹⁴ The Treasury said that it would underwrite issues of new equity by RBS and HBOS. Both Barclays and RBS put out press releases saying that they had not sought additional capital from the British government or any other source. Nevertheless, they had to raise such capital or to alienate their regulators and forfeit access to the credit guarantee scheme. At the same time the UK's Debt Management Office embarked on heavy issues of medium- and long-dated issues of government securities, which lowered financial institutions' money holdings and limited their ability to subscribe for new issues of bank shares.¹⁵ Given the squeeze on the quantity of money and hostile media coverage of the banking industry, private investors were unwilling to apply for the newly-issued shares in RBS and HBOS. By this means the government came into possession of 57 per cent of RBS's equity at a cost of £15b. (The stake in HBOS was more complicated, because HBOS was being merged with Lloyds TSB.)

Little more than a month earlier RBS had issued its interim report for 2008, indicating shareholders' funds at end-June of just over £59.0b. which had been bolstered by a recent rights issue of £12b. Even if this figure were written down to £40b. to allow for the goodwill element in RBS's takeover of part of ABN Amro in 2007, the government's investment appeared to be on highly favourable terms. It was acquiring assets that – according to the latest RBS balance sheet – were worth at least £31b. for less than half that sum. As with Northern Rock, the Prime Minister insisted that the investments were assets, "not just money being pumped in", and that the government would sell its RBS stake at some point. Needless to say, the government's intervention led to a further flight

of investor confidence and a slump in the stock market's valuation of the British banking industry. In January the government had to put out an announcement that, emphatically, it did not wish to nationalize the entire sector. At that point the market capitalisation of Britain's leading banks was a fraction of their book value. A case could be argued that, even if it took place at market prices, nationalization would have amounted to expropriation.

Further ambiguities in banking solvency

Banking is, always and inevitably, exposed to risks of macroeconomic upheaval. The ability of borrowers to repay bank loans depends on the level of asset prices, which is influenced by the general monetary environment. Further, because asset prices are volatile, and loan loss incidence impacts on banks' profitability and capital positions, the solvency of the banking industry is to some extent "in the eye of the beholder". At end-2008 someone who expects house prices to fall by 40 per cent in the next two years may deem the banking industry of his or her country to be "bust", whereas someone who expects house prices to fall by 20 per cent over the next three years may view exactly the same banking industry as solvent. This type of ambiguity in the notion of bank solvency is distinct and separate from the confusion between illiquidity and insolvency which was discussed earlier. Evidently, if a commentator wants to cast aspersions on banks' solvency and more broadly on their management competence, they are a soft target.

The counter-argument is that problems in assessing banks' loan loss incidence, profitability and capital are not new, and auditors have had decades to build up a body of relevant rules and practice. Much of the trouble in 2007 and 2008 arose because banks had unusually large holdings of so-called "available-for-sale securities" which were esoteric products created during the structured finance boom. For the most part the leading British banks held only AAA-rated tranches of these issues, and these tranches continued to pay interest and were unimpaired. But their market value had collapsed in the turmoil after August 2007, and accountants and managements were required under new "mark-to-market" rules to regard the fall in the securities' value as eroding banks' equity capital.

At any rate, the media witch-hunt against the financial sector in this period licensed politicians and journalists to make numerous allegations that banks were "bust" or "insolvent", when banks' annual reports indicated positive capital running into tens of billions of pounds. Undoubtedly crucial in the government's assault on the banking industry was a widespread failure to understand that a bank may be illiquid and in need of last-resort market funding, but still fully solvent. Walter Bagehot in his 1873 classic text on *Lombard Street* advocated that the central bank organize large-scale and pre-emptive last-resort lending to handle an illiquidity crisis. But Mervyn King, the Governor of the Bank of England in summer 2007, repudiated the Bagehot doctrine and said that it was not his institution's job to make large loans on an extended basis to privately-owned commercial banks.¹⁶ King believed that this was a job for the government. From an early stage the Treasury was therefore involved in the crisis, which became heavily politicised.

Are property rights in the banking sector inherently insecure?

The UK banking industry did ultimately receive the economic equivalent of last-resort assistance from the British state, although it came more from the government than the central bank.¹⁷ Preference capital subscribed by the government is more or less the same thing as a long-term last-resort loan at a fixed high rate, while Treasury guarantees on inter-bank lending are indistinguishable from central bank coordination of inter-bank facilities with an indemnity against loss to the creditor banks. But the government accompanied its assistance by the acquisition of significant stakes in the banking industry at well beneath book value. The banks were so vulnerable to funding risk because of the closure of the wholesale money markets that they could not resist official pressure. Indeed, an argument can be made that the tendency to regard a solvent but illiquid bank as “bust” gave a pretext to nationalize – or at any rate to attempt to nationalize – significant assets without compensation. (In the January 2009 trial the government counsel, Lord Grabiner, made the outright statement, “Northern Rock was bust”. In fact, Northern Rock in September 2007 had a level of capital sufficiently positive to comply with FSA regulations.) The public bullying of the UK banking industry and the virtually blatant indifference to shareholder rights had no historical precedent. Until 2007 and 2008 the British state had never tried deliberately to appropriate equity capital from bank shareholders in a financial crisis.

However, when the passage of events led to extensive speculation that the entire banking system would be nationalized, the government decided to be less confrontational. It insisted that it wanted the British banking system to remain mostly in private hands. The truth was that public policy had been inconsistent and unpredictable, and contained a large element of intimidation.¹⁸ If the measures announced in October 2008 had been put in place earlier, and in particular if the government guarantee on all inter-bank borrowing had been available from August 2007, it is at least arguable that both Northern Rock and Bradford & Bingley could have remained going concerns in the private sector. At any rate, the government’s behaviour had made shareholder rights in the UK banking industry insecure and inflicted serious damage to the market value of those banks that remained in private ownership. In late 2008 HSBC let it be known that it had conducted an internal review of whether it wished to continue to locate its corporate headquarters in London.

Of course the UK is not the only country where policy-makers have faced new and unexpected dilemmas in the management of their banking industries. Nevertheless, other jurisdictions have generally been more circumspect in their treatment of shareholder rights. In Germany the mortgage lender Hypo Real Estate, which relied on wholesale funding in much the same way as Northern Rock and the other UK mortgage banks, had become unable to fund its assets from market sources by late 2008. The finance ministry was prepared to organize new funding, but only on condition that it could acquire 75 per cent of the equity, and drafted a bill to that effect. But the ruling coalition, led by the conservative Christian Democrats, decided that the bill amounted to expropriation, and was in conflict with articles 14 and 15 of the German constitution.¹⁹ In Belgium also

small shareholders were able to secure a court ruling against government plans to break up Fortis bank, although the eventual outcome of their intervention is uncertain at the time of writing.

Were the UK government's acquisition of a major part of the British banking industry and the collapse of the market value of the remaining privately-owned banks inevitable sequels to the closure of the international wholesale money markets in 2007? And could the wider macroeconomic trauma have been avoided? The thesis here has been that the trouble, at least in the UK, stemmed largely from the reluctance of the Bank of England to act as lender of last resort in the traditional manner. Because the central bank was unwilling to extend large-scale loans for an extended duration to solvent but illiquid banking companies, these companies were forced to deal with an unsympathetic government. The government, egged on by both influential commentators and the popular press, misinterpreted illiquidity as insolvency, and then rode roughshod over the property rights of banks' shareholders. A different relationship between banks and the British state, and more specifically between banks and the Bank of England, may be needed to restore confidence in the security of property rights in the UK banking sector.²⁰

The recent financial crisis confirms the familiar theme that all property rights are defined relative to a particular social and political context. The value of equity in any country's banking industry depends, in particular, on financial regulation and the quality of the services that the central bank provides to commercial banks. Investors in the banking sector of any country cannot be surprised that the value of their holdings can be slashed, by large amounts in a very short period of time, by changes in regulation. But shareholders in the UK's banks may feel that, in its behaviour towards them in 2007 and 2008, the British state breached a long-standing implicit contract.²¹ This contract had long benefited not only their private interests, but also the economy and society in which their industry had developed.

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1st March, 2009