

# **The Social Embeddedness of Transnational Markets**

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## **DISEMBEDDING AND REGULATION: THE PARADOX OF INTERNATIONAL FINANCE**

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### *Abstract*

The financial crash of 2007-8 is the latest and greatest of the crises resulting from the process of 'financialisation' of the past 30 years. The breakdown of the Bretton Woods system in the early 1970s unleashed a process of liberalisation and internationalisation of finance, and a shift away from relationship-based to market-based finance, led by the UK and the US, acting in tandem as the dominant centres of global finance. Although often described as a period of deregulation, the disembedding of finance through liberalisation was accompanied by an enormous growth of formalised regulation. Although it has been generally reactive, and continually amended and reformed, regulation has mediated the processes through which the competitive and dynamic processes of change have been contested. The proliferation of regulation was national in focus, but it developed as an international process, through networks of regulators and specialists, who developed principles and standards, changing rapidly, usually under the impact of scandals and crises.

Financial regulation has focused on trying to manage the diseases caused by financial globalisation, rather than tackling their root causes. It is therefore hardly surprising that, in a period of rapid liberalisation which has created ever wider and more open markets, regulatory failure has been endemic. The response has been to create new regulatory institutions and networks which have grown ever more complex, despite all efforts to improve their coordination. In the face of the best efforts of the regulators, the increasingly globalised financial system has generated new forms of risk and instability with ever-wider effects. This paper outlines the main features of international financial regulation, especially of banking, and the institutions involved, and concludes with some suggestions for a new alternative approach.

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# **DISEMBEDDING AND REGULATION: THE PARADOX OF INTERNATIONAL FINANCE**

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Financial crises have been a recurring feature since the emergence of the eurodollar market in the 1970s, culminating in the great financial crash of 2007-8.<sup>1</sup> The endemic tendency to crisis of the financial system belies the widely accepted orthodoxy that market-based finance and the myriad innovations it has spawned have generally provided an efficient and cost-effective form of financial intermediation. On the contrary, there is mounting evidence that excessive speculation causes volatility and crises, as well as imposing significant costs, which have grown exponentially.<sup>2</sup> This would justify a new approach to financial regulation, which should aim to insulate institutions which intermediate social savings and investment from financial market speculation.

Although this period is often described as one of deregulation, in fact formal regulation of financial markets has greatly increased.<sup>3</sup> The disembedding of finance resulted in the emptying out of the moral content of financial management to allow excessive concentration on profits leading, in Steven Vogel's memorable phrase, to the paradox of 'Freer Markets, More Rules' (Vogel 1996). Prior to liberalisation, normative standards in the closed spheres of finance were said to be controlled by a mere raising of the eyebrows of the Governor of the Bank of England. The emergence of regulatory networks in finance can be said to form part of the broader phenomenon of the 'new regulatory state', resulting from the functional fragmentation and internationalisation of statehood (Picciotto 2008). However, the type of regulation which emerged from international regulatory networks has generally supported market-based finance,

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<sup>1</sup> Surveys by IMF economists in the mid-1990s showed that since 1980 133 out of 181 IMF member states (=73.5%) experienced 'significant' problems in the banking sector, either 'crises' involving bank failures and government rescues (41 instances in 36 countries) or extensive unsoundness (108 cases); the costs ranged from 3-6% of GDP in richer countries to 10-15% in middle-income countries, and to 25% in developing countries (Caprio & Klingebiel 1996; Lindgren et al. 1996, Goldstein & Turner 1996). This of course was prior to the crises which began in Asia in 1997 and spread to Russia and elsewhere, and the great financial crash of 2007-8. A recent study by Reinhart and Rogoff confirms that in a longer historical timescale the period since the mid-1980s has seen a significantly higher incidence of banking crises (hitting alike countries at different levels of development), while 1951-1972 saw virtually none (Reinhart & Rogoff 2008, 8).

<sup>2</sup> There has been surprisingly little research on this issue, but a recent study by Kenneth French estimates conservatively that the costs of active investing in the US stock markets averaged over the period 1980-2006 exceeds the returns from passive investing by 0.67%, a capitalised cost of 10% of the market's value (French 2008, 1558). A substantial part of the high costs is attributable to the growth of hedge funds, which need to generate extraordinary returns to justify their very high management fees; since investment is a negative-sum game, any abnormal returns generated by one group of investors must be at the expense of others. The highly experienced mutual fund investment manager John Bogle points out that the annual rate of stock turnover in the USA has shot up from around 20% in the period 1938-76, to over 100% in 1998, and to 215% in 2007 (or 284% if the speculation in exchange-traded funds is included; for the data see French 2008, 1552); in addition, index futures and options, which allow highly leveraged speculation, now total double the value of the actual stocks; unsurprisingly, market volatility has greatly increased (Bogle 2008, 56-9). I am greatly indebted to David Campbell for pointing me to this work and its significance, as well as for many insightful comments.

<sup>3</sup> Regulation has followed liberalisation in many types of market, although perhaps even more so in financial markets (Vogel 1996); Michael Moran has analysed the shift in the UK from 'club rule' to the emergence of the regulatory state as a saga of change 'from stagnation to fiasco', in terms of an 'incomplete reconciliation with the conditions of modernity' (Moran 2003, 179).

which has led to speculation, and has provided incentives for financial innovations aimed at regulatory avoidance and arbitrage.

### *The International Re-Regulation of Banking*

Central banks and other financial supervisors have been mainly concerned for the soundness of banks. The dangers of instability due to liberalisation were brought home soon after the inception of the internationalisation of finance, by bank failures in the early 1970s in the UK (the 'secondary banks'), the US (Franklin National) and especially Germany (Herstatt). In response, in 1974 central bankers, working through the Bank for International Settlement (BIS), and on the initiative of the Bank of England, established what became known as the Basel Committee on Banking Supervision (BCBS).<sup>4</sup> The BCBS began by attempting to allocate responsibility for the supervision of transnational banks, based on the broad principle of home country responsibility for solvency, and that of the host for liquidity. However, it was clear that this distinction could only be a loose one, and was hard to apply in many cases (e.g. to subsidiaries, especially joint ventures). Hence close cooperation, including exchange of information between supervisors, would be crucial; and the 'virtual absence of supervision in some popular "off-shore" banking centres' was noted as a problem (Blunden 1977, 327). These principles were issued as the Basel Concordat in 1975, which has been continually revised and expanded to try to improve coordination between bank supervisors, and to ensure that banks' international operations are monitored in an integrated way.

However, recurrent crises have revealed the gaps, especially those created by the 'offshore' system, which has been an important catalyst in the transformation of state sovereignty.<sup>5</sup> This fatal flaw has continued despite the creation in 1980 of an Offshore Group of Banking Supervisors (OGBS), which has worked with the BCBS. First in 1982 came the developing country debt crisis triggered by the Mexican default, and the failure of the Ambrosiano bank due to reckless euromarket operations, concealed through a Luxembourg holding company which escaped supervision (Herring & Litan 1995, 101). This led to a revision of the Concordat in 1983, to strengthen the supervision of bank groups on a consolidated basis.<sup>6</sup> Even as this was being negotiated, a fresh crisis was brewing which showed its inadequacies, with the final collapse in 1991 of the Bank for Credit and Commerce International (BCCI). BCCI had been 'carefully structured ... to avoid consolidated supervision in all the countries in which it did business' by using subsidiaries in Luxembourg and the Cayman Islands, though it was run from London and

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<sup>4</sup> Quinn 1989. Known at first as the Committee on Banking Regulations and Supervisory Practices, it consists of the central banks and banking supervisors of the Group of Ten (G10) countries, plus Luxembourg, Spain and Switzerland, and reports to the G10 Governors.

<sup>5</sup> See Picciotto 1999, Palan 2003. An important element in the internationalisation of finance was the creation of 'offshore' financial centres (OFCs), building on already established tax havens; but it should be emphasised that this took place with the connivance and even encouragement of some regulatory authorities in the main financial centres, especially London and New York, which in effect form part of the 'offshore' system. Notably, since 1984 the UK and the US have allowed payment of interest e.g. on Eurobonds without any withholding tax, provided that the paying agent certifies that the recipient is a non-resident. This in effect turns a blind eye to tax evasion, but even hesitant attempts by tax authorities to improve the availability of information have been blocked due to bank supervisors' fears of large capital outflows (Spencer and Sharman 2006, 28-9). The US 'qualified intermediary' programme has been described by a specialist commentator as one which 'effectively preserves bank secrecy, facilitating U.S. investment by nervous foreigners' (Sheppard 2008, 3).

<sup>6</sup> A Note issued in March 1979 had already stated that parent supervisory authorities should evaluate solvency on the basis of consolidated accounts including not only foreign branches but also 'by one means or another' also subsidiaries.

Pakistan (Herring & Litan 1995, 104; Bingham 1992; Alford 1992). A new standard issued in 1992 stressed the need to identify a clear home-country authority capable of supervising groups on a consolidated basis, with adequate arrangements for obtaining information from others involved. This was further strengthened in 1996 by a report, issued jointly with the OGBS, setting out 29 recommendations relating to obtaining and sharing information, and procedures for on-site inspection in host countries by home country supervisors.<sup>7</sup>

This still left open the question of groups engaged in both banking and financial market operations. This was starkly illustrated by the collapse of Barings Bank in 1995, due to inadequately monitored futures market operations based in Singapore (BBS 1995, Gapper & Denton 1996, Singapore 1995, Zhang 1995). The Barings debacle accelerated the attempts at coordination between banking and financial market supervisors, with the formation in 1996 of the Joint Forum, linking the BCBS with the International Organisation of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS). This has focused mainly on trying to coordinate substantive standards on capital requirements for financial firms, which the BCBS had been working on for banks since the 1980s.

The substantive standards for capital provisioning developed by the BCBS supplemented the procedures for coordination between supervisors. Actually, the formalisation of capital requirements largely *resulted* from the emergence of internationalised financial markets, prior to which central banks used more direct means of ensuring that banks under their supervision were sound, such as requiring them to hold deposits in the central bank, and controlling their lending. These did not apply to international banking activities, but when the US authorities became concerned at the lack of any reserve requirements for Eurodollar banking by the end of the 1970s, they initially found little support for international convergence of capital requirements (Kapstein 1994, 108). In 1981 they yielded to pressure from US banks to create an International Banking Facility in New York, but this failed in its intention to pressurise the UK to move towards stronger international coordination, and instead brought a part of offshore banking onshore (Hawley 1984). The pressure for convergence grew again after US reserve requirements were reviewed following the failure of Continental Illinois Bank in 1984, and convergence was facilitated by the US adoption of risk-based capital requirements similar to those of the UK and others. This led to a bilateral agreement with the Bank of England, extended to Japan, and paving the way for the adoption by the BCBS of an international standard for bank capital, issued as the Basel Accord of 1988 (Kapstein 1994, 106-119). The Accord was eventually combined with the Concordat, following an extensive process of consultation with bank regulators outside the G10, into the Basel Core Principles issued in 1997, which link the minimum procedural requirements for supervision with the substantive capital adequacy standards.

### *Public-Private Multi-Level Governance*

The new forms of regulation of internationalised finance have produced a multiplicity of regulatory bodies, interacting through a veritable maze of networks, national, international, infranational and supranational (Underhill 1997, Picciotto and Haines 1999). The interactions between these bodies makes it very difficult to attain any degree of effective cooperation or coherence, and create new tensions between technocracy and political accountability, which undermine the legitimacy of regulation (Picciotto 2008).

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<sup>7</sup> This has been supplemented by standards for customer identification and due diligence, as well as a report in 2003 on 'shell banks' (defined as those managed in a jurisdiction different from that in which they are licensed, hence escaping supervision). These arose from heightened concerns about money-laundering, especially terrorist financing, after September 2001 (see further below).

Indeed, attempts to improve international coordination of regulation often result in the creation of new bodies or networks. A good example is the initiative to reform the 'international financial architecture' following the financial crisis which started in Asia in 1997. This resulted in the creation of the Financial Stability Forum (FSF), which has attempted to improve the international coordination of the plethora of regulatory standards developed by international bodies related to finance, mainly by identifying a Compendium of financial standards and codes. In practice, the creation of the FSF only added another node in the complex regulatory networks.<sup>8</sup>

A significant characteristic is the importance of regulation by private organisations, or quasi-public bodies often given independent powers, although authorised by the state. For example, a major role is played by exchanges and clearing houses in formulating contracts and regulating trading procedures, including margin requirements and settlement arrangements. They also try to coordinate their regulation of markets internationally through cooperation agreements (MOUs), which include provisions for information exchange and cooperation, for example in monitoring large trades. Non-traded or 'over-the-counter' (OTC) financial instruments, including an infinite variety of complex transactions in derivatives and swaps, which account for the vast bulk of the market, are less transparent, and standards for these are also set by private associations, notably through the standard form contracts of the International Swaps and Derivatives Association (ISDA). These are backed by its private arbitration procedures, and supported by national legislation and rulings to ensure their enforcement (Partnoy 2002, 217).

A key role is played by the rating agencies such as Moody's and Standard & Poor's, which evaluate financial instruments and the creditworthiness of their issuers, both firms and governments (Sinclair 2005). These agencies, although private and profit-making companies, are in effect given an official status (so they form in effect a state-backed oligopoly), since their ratings have important regulatory consequences.<sup>9</sup> However, in the words of Frank Partnoy, they have become 'more like gate openers than gate-keepers', especially in the development of new forms of structured finance.<sup>10</sup>

The multiplicity of regulatory bodies creates significant problems of coordination. Indeed, supervision of global financial institutions and markets has been beset by conflicts and 'turf battles', both 'horizontal' (between authorities in different countries) and 'vertical' (between different kinds of supervisors and regulators). For example, US banking has four distinct federal

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<sup>8</sup> The FSF reports to the IMF's International Monetary and Financial Committee, and the actual monitoring of the extent to which jurisdictions comply with these standards and codes was taken on by the IMF and World Bank (WB). Since 1999 IMF and WB staff have conducted regular reviews on compliance of the main financial centres (extended in 2000 to all OFCs even if not IMF members) with the FSF standards, producing regular Reports on Observance of Standards and Codes (ROSCs). However, the ROSCs do not include a review of the centres' cooperation in tax enforcement, which was referred to the OECD's Committee on Fiscal Affairs. This has enabled OFCs to use the ROSCs as a seal of approval of their 'high' standards in financial supervision, while continuing to maintain strict fiscal and financial secrecy, thus facilitating regulatory and tax avoidance.

<sup>9</sup> In the US, since the mid 1970s, institutional investors have been required to place their funds in assets which are given a high or investment-grade by a recognised rating agency. The Basel II Capital Standards Framework (paras 90-108) gives responsibility to national regulators for recognising whether an 'external credit assessment institution' (ECAI) meets the criteria which it lays down, and its capital requirements are dependent on the ratings given by recognised ECAIs.

<sup>10</sup> Partnoy 2006, 60, see also Aguesse 2007; failures by the credit rating agencies contributed significantly to the bubble in mortgage finance and the crisis of 2007-8 (Mason & Rosner 2008).

regulators, as well as regulators at the state level,<sup>11</sup> while financial derivatives are regulated by both the Commodity Futures Trading Commission (CFTC) and the Securities Exchange Commission (SEC), whose rivalries are legendary (Coffee 1995). In Europe, bank and financial market regulation remains at the national level,<sup>12</sup> although within a coordinated regulatory framework of Directives aiming at market liberalisation. It is also loosely coordinated through EU 'comitology' networks, involving usually central banks, and often separate bank supervisors, as well as regulators for financial markets.

Although international networks have facilitated the diffusion of regulatory forms and practices and their coordination, this has been in the context of competition between financial centres and national economies to maintain or develop their own markets. The complex interactions between regulators multiplied rapidly as the shift to market-based finance broke down structural barriers and created competition between different types of intermediary (retail and investment banks, insurance companies, and other financial services providers), and produced concentration into financial conglomerates.

As banks became heavily involved in market-based finance, capital requirements needed to go beyond credit (counterparty) risks to take account of market risks. This was an important motive for the 'risk-based' approach to capital adequacy adopted in the Basel Accord, which assigned weightings to different categories of assets. However, following its introduction there was an explosion of innovation in the creation of ever more complex financial instruments, especially techniques for shifting and managing risk. The main methods have been the bundling together of packages of asset-backed securities (ABSs) into securitised loans (referred to as Collateralised Debt Obligations, or CDOs), allowing them to be moved off the balance sheet to special purpose vehicles (SPVs) and sold off to other investors; and the use of financial derivatives, especially credit derivatives and swaps. The 'originate and distribute' model using SPVs was thought to reduce risk by spreading it, but since they directly raised their own debt, financial leverage was greatly increased. In effect it created what has come to be known as a 'shadow banking' system, creating incentives for lax lending practices since debts were passed on to others. It also placed great reliance on the bond gradings by credit rating agencies, which however depended on information supplied by the issuers, who also paid the fees for the ratings.<sup>13</sup>

Indeed, the relative rigidity of the Basel capital standards tended to encourage such techniques even further, as many were motivated by avoidance or 'regulatory arbitrage' (GAO 2007, 15). A number of banks adopted an 'originate and distribute' lending model, in which the originators of loans retained only a contingent liability (dependent on the occurrence of specified 'credit events'). The risk could further be mitigated by credit insurance or credit default swaps, greatly reducing or eliminating capital requirements, so enabling a ramping up of the volume of lending.

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<sup>11</sup> The Office of the Comptroller of the Currency (OCC) supervises federally chartered banks, the Federal Reserve bank holding companies, the Office of Thrift Supervision other deposit-taking institutions, and the Federal Deposit Insurance Corporation (FDIC) has some supervisory authority for the deposit-taking institutions which it insures (GAO 2007, 11); state regulators supervise state-chartered banks and thrifts.

<sup>12</sup> The possibility of a direct role for the European Central Bank in prudential supervision has been largely rejected, although under article 105.6 of the EU Treaty, the EU Council acting unanimously may 'confer upon the ECB specific tasks concerning policies relating to the prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings', but it has not done so.

<sup>13</sup> Although the Basel II standards for approval of an ECAI include independence from political or economic pressures which may influence the rating, nothing is said about the standard practice that the issuer pays the fee, and that competition between the oligopolistic rating agencies inevitably creates pressures to give favourable ratings.

Amendments of the Basel standard were therefore proposed in 1994-5 to deal with off-balance sheet items and market risks resulting from trading activities. This began the shift towards allowing banks to use their own internal models to determine capital requirements, based on calculating 'value at risk' (VaR).

In parallel with this, the blurring or breaking of barriers between commercial banks and other financial firms also created concerns about competitive equality. Even though regulators considered that many factors other than regulatory differences affected competition (Jackson et al 1999), regulatory requirements create incentives for regulatory arbitrage unless they apply equally to economically equivalent transactions (Kuritzkes et al. 2003, 148-150). Coordination between regulators of banks, financial markets, and insurance was taken up through the Joint Forum, where the 'building block' approach of the BCBS created substantial disagreements (Steil 1994). The 'market risks' amendments finally adopted in 1996 therefore offered two options, a standardised method (Basel I) and the internal models approach. The latter emerged fully-fledged as Basel II, entailing a shift from capital standards defined by supervisors to establishing criteria for the approval of risk-management systems of firms themselves. Indeed, approval of the risk model and capital provisioning was only one of the three pillars of Basel II, which also specified supervisory procedures, and market disciplines facilitated by transparency requirements.

The consultation process for the Basel II proposals was further extended by the need to improve and refine the standards to cope with the explosive growth of trading of increasingly complex financial derivatives. Although this was mainly driven by non-banks such as hedge funds, these entities borrowed extensively from banks and further leveraged their capital by using it as margin to take positions in derivatives involving enormous exposures. The dangers involved were brought home with the failure in September 1998 of Long Term Credit Management (LTCM), a hedge fund run by Wall Street's top financial rocket-scientists,<sup>14</sup> which triggered a rescue facilitated by the New York Reserve Bank. This showed that central banks might be obliged to provide lender-of-last resort (LLR) support to non-banks, due to the systemic risk created by banks' involvement in their activities.

Basel II aimed to resolve the problems of rigidity of formal requirements, which are unresponsive to innovation or indeed tend to encourage regulatory avoidance, by harnessing regulatory standards to the firms' own risk management tools. This more 'reflexive' approach has some advantages, for example allowing the inclusion of a wider range of risks, not only market but also 'operational' risks (resulting from system or managerial failures such as 'rogue traders').

However, Basel II carries its own dangers, since in many ways it involves a reversion to self-regulation. In encouraging firms to adopt sophisticated risk modelling, regulators have 'struggled to balance incentives (in the form of permissible capital reductions) for banks that adopt the advanced risk measurement approaches with the objective of broadly maintaining the aggregate level of minimum required capital' (GAO 2007, 22). Indeed, the introduction of Basel II in the US was delayed by studies which showed that it would result in substantial reductions in

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<sup>14</sup> Run by Wall Street veteran John Meriwether, LTCM's partners included Robert Merton, the Nobel-prizewinning economist who devised the Black-Scholes model for valuing financial derivatives. Following its collapse, a document leaked from the Swiss bank UBS showed that it had estimated that LTCM was leveraged at least 250 times - 27.2 times 'on balance sheet' but an undisclosed amount 'off-balance sheet'; nevertheless, UBS had ignored its own lending guidelines, resulting in a loss of SwFrS 950m (Treanor & Tran 1998). The BCBS report following the affair that LTCM estimated the size of LTCM's total assets at \$125bn, but its notional off-balance-sheet positions at well over \$1tr.; while its leverage ratio was 25:1 in early 1998, without taking account of derivatives; while LTCM's size, leverage, and secretiveness 'may have made it a unique case', competition had led financial institutions to 'compromise important aspects of the risk-management process', especially by offering generous terms on margins for OTC derivatives (BCBS 1999, 10).

minimum capital requirements (ibid. 26). Also, the use of risk models runs the danger of creating self-reinforcing practices among firms and practitioners, and their effectiveness greatly depends on the validity of the models used and the mathematical and statistical techniques on which they are based, notably the reliance on probabilities based on historical data and systems of backtesting.<sup>15</sup> The establishment of detailed parameters for backtesting took international regulators into even more difficult and arcane regions, and indeed some specialists suggested that the risk modelling should be left to the banks (Rochet 2008, 31).

### *The Financial Crash of 2007-8 and Regulatory Reform*

The great financial crash of 2007-8 took place just as the Basel II standard was beginning to be implemented. Regulators responded by affirming that this 'market turmoil' underlined the importance of Basel II, while accepting that it required further amendments (Wellink 2008). The FSF produced a report which proposed that these should include strengthening the capital requirements for complex structured credit instruments, default risk, and liabilities to off-balance sheet entities; establishing guidance for the management and supervision of liquidity; improving oversight procedures; and enhancing transparency and disclosure to ensure market disciplines are effective (FSF 2008). To try to deal with the continuing problem of consolidated supervision of international financial groups, a college of supervisors would be established for each major firm by the end of 2008.

From the viewpoint of the regulatory authorities, it is understandable and perhaps justifiable to seek to learn the lessons of the crash by pressing on with Basel II, with further improvements. As pointed out above, Basel I created significant incentives for regulatory avoidance in ways which contributed substantially to the eventual crisis, especially the various devices for moving CDOs off-balance-sheet. Those who have recognised potential problems with risk-based capital requirements, especially due to the additional risk introduced by the risk models themselves, have suggested that they be supplemented, for example by a simple leverage ratio requirement; however, a leverage ratio would be pro-cyclical, and would encourage the use of off-balance-sheet devices (Hildebrand 2008).<sup>16</sup>

This nevertheless ducks serious questions about the existing approach to regulation posed by the crisis. It was significant that the UK, which had led the way in introducing the Basel internal models approach, nevertheless experienced its first bank run for 130 years in 2007. Indeed, the bank in question, Northern Rock, despite being considered a high impact firm, was given a Basel II waiver at the end of June 2007, allowing it greater reliance on its internal risk model, on the grounds that it had been extensively stress-tested. On 25 July Northern Rock declared a 30% increase in its interim dividend because the waiver and other asset realisations meant that it had an 'anticipated regulatory capital surplus over the next 3 to 4 years'. Unfortunately, the scenarios used in the stress tests did not include what actually happened in August 2007, a collapse of the mortgage-backed securities market and an extended drying up of liquidity in interbank lending.

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<sup>15</sup> The so-called Value at Risk (VAR) models became publicised in October 1994 when J. P. Morgan made available over the internet its RiskMetrics system and the data needed to apply it. Although financial economists argued that they are consonant with portfolio theory (Dowd 1998), they were strongly criticised, notably by Naseem Taleb, for ignoring the effects of low-probability high-impact events, so-called 'black swans'.

<sup>16</sup> The US authorities had in any case intended to retain a simple leverage ratio requirement as a complement to the Basel ratios (GAO 2007). They also propose to allow banks the option of a 'standardised' version of Basel II, which essentially means sticking with Basel I; it is likely that the vast majority (all but a dozen or less) would do so, both because of the complexity and costs of introducing internal risk models, but also because the capital requirement seems likely to be lower, due largely to a different method of quantifying operational risk (Rubin 2008).



The announcement of a rescue on 13 September started a panic which eventually resulted in the nationalisation of the bank (UK Treasury Committee 2008).

What is perhaps most striking is the extent to which regulators seem to have been working in the dark, despite ample warning of the dangers and their potential systemic effects. The bursting of the housing price bubble took place over some 18 months, and it took a further 12 months or more for the impact of the crisis to work its way through. Yet such was degree of opacity of the entire 'shadow banking system' that, as it struck one eminent financial institution after another, the regulatory authorities seemed taken by surprise on each occasion yet again. Delinquencies and repossessions on US subprime mortgages had begun to rise in 2005, and by December 2006 the Center for Responsible Lending predicted that 'one out of five sub-prime mortgages originated during the past two years will end in foreclosure' (Schloemer et al 2006, 3). These warnings were amply justified in the first half of 2007, yet in July, after Bear Stearns bailed out two hedge funds specialising in subprime mortgages, Fed chairman Ben Bernanke estimated in testimony to Congress that the cost could amount to \$100b; a year later it had risen ten-fold.

The onset of the crisis was signalled on 9 August 2007, when BNP Paribas suspended withdrawals from three of its hedge funds that had invested in sub-prime residential mortgage securities, declaring that 'the complete evaporation of liquidity in certain market segments of the US securitisation market has made it impossible to value certain assets fairly regardless of their quality or credit rating', and that the 'situation is such that it is no longer possible to value fairly the underlying US ABS assets in the three above-mentioned funds'. This forced the credit-rating agencies into a long overdue revaluation of CDOs,<sup>17</sup> and banks began hastily to identify their losses and shore up their balance sheets, leading to a freezing up of interbank lending. The impact was immediately felt by institutions most heavily involved in market-based mortgage finance, such as Northern Rock, but like an undersea earthquake a tsunami was unleashed which would eventually overwhelm many more.

It seems that the regulatory authorities had no clear appreciation of the potential repercussions of the puncturing of the bubble in house prices in the US and other countries, although they had plenty of time to evaluate the extent of the problem. By August 2007 the disastrous impact on the valuation of mortgage-backed CDOs and the knock-on effects on liquidity and interbank lending were clearly known. Only in December 2007 was some coordinated action attempted, with a joint announcement by five leading central banks of arrangements to provide liquidity to the banking system and unfreeze interbank lending. Yet the crisis rumbled on for a further 9 months to its climax.

At the G7 meeting in Tokyo in February 2008 the estimation of write-offs related to the US mortgage crisis had reached \$400 billion, though by April the IMF's financial stability report estimated losses would come to \$945b. By the time the G7 leaders had reconvened in Washington DC in October, the US had been forced into a recapitalisation of its entire financial system of some \$700b, following rescues of a half-dozen of its biggest financial institutions (Bear Stearns, Fannie Mae and Freddie Mac, AIG, Merrill Lynch, Wachovia) involving a total of some

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<sup>17</sup> Mortgage-backed CDOs had generally been assigned AAA ratings by the agencies, which abruptly began to downgrade them by several notches from August 2007; this resulted in criticism that they had done very well from their role in the CDO boom, since their pricing model had changed from charging the issuer rather than the buyer, and that they had failed adequately to evaluate complex CDOs layered into several tranches with different risk levels, relying on unverified data from the issuers and historical mortgage default statistics; their response was to argue that their ratings were only 'opinions' on default risk (Editorial 2008). Not surprisingly, they are now the target of a number of investor lawsuits.

\$245b of government guarantees, while other major entities (IndyMac Bank, Washington Mutual, Lehman Brothers) had been closed or allowed to fail or be bought up. In mid-September 2008 Lehman Brothers was allowed to go bankrupt,<sup>18</sup> while AIG was effectively nationalised; the rationale for the contrasting decisions was hard to understand, since both were known to have significant involvement in credit default swaps or insurance. If the failure of Lehman and the gigantic US rescue package was the climax of the crisis, its tragi-comic anti-climax came with the 'Minsky moment' when Bernard Madoff's hedge fund collapsed with losses estimated at \$50b, and was revealed to have been no more than a Ponzi scheme.<sup>19</sup>

The impact in the UK was of a similar scale, with the government rescue package of October 2008 being worth at least £50bn (\$88bn) plus up to £200bn (\$350bn) in short-term lending support; the £50b loan book of Bradford & Bingley was nationalised and its banking business sold, and a takeover was facilitated of the biggest mortgage lender HBOS by Lloyds TSB in a £12bn deal creating a banking giant holding close to one-third of the UK's savings and mortgage market. European institutions also succumbed: banking and insurance giant Fortis was partly nationalised by the Netherlands at a cost of 11.2bn euros; Dexia was saved by an injection of 6.4bn euros by the Belgian, French and Luxembourg governments; while several German banks were rescued, and the German authorities engineered a 50bn euro deal to save Hypo Real Estate. The Netherlands rescued ING to the tune of \$13.4bn, while Sweden's government set out its own bank rescue plan, with credit guarantees to banks and mortgage lenders up to a level of 1.5 trillion kroner (\$205b). The Icelandic government was forced to take control of the country's third-largest bank Glitnir, and then of the 2<sup>nd</sup> largest, Landsbanki, ultimately having recourse itself to an IMF rescue package of \$2.1b. Even Switzerland threw a lifeline of 6bn Swiss francs (\$5.3bn) to UBS, plus a funding facility for up to \$60bn of distressed assets.

The main problem seems to have been the totally opaque nature especially of OTC derivatives, so that the extent of exposure of financial institutions was impossible to estimate. This seems to be the root cause of both the collapse of trust and confidence which paralysed the markets, and the failure of the regulatory authorities to quantify the potential impact with any degree of accuracy. Indeed, despite its extensive recapitalisation from public funds, the banking system still seemed paralysed, requiring continuing life-support through further public credit guarantees and asset protection schemes.

These events bore out the predictions of some commentators, made relatively early, that this was not just a limited 'credit crunch' affecting parts of the home mortgage finance system, mainly in the US. Notably, Martin Wolf in the *Financial Times*, in December 2007 described it as a turning-point for the world economy, and a 'huge blow to the credibility of the Anglo-Saxon model of transactions-orientated financial capitalism' (Wolf 2007).

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<sup>18</sup> The collapse of Lehman after 158 in banking has been largely blamed on the policies of its autocratic CEO, Dick Fuld (Partnoy 2008); it certainly shows the weakness of corporate governance: Lehman's Finance and Risk Committee included a theatre producer who had been on the board for 23 years, and a former chief of the American Red Cross and the Girl Scouts, but it was chaired by Henry Kaufman, the former Federal Reserve Bank of New York economist (Macintosh 2008), known as 'Dr Doom' for his bearish forecasts, who had resigned from his research post at Salomon Brothers in 1987 as it accelerated its speculation in high-risk business, and had published repeated warnings of the dangers of derivatives and their inadequate regulation, most recently 5 weeks before Lehman's collapse (Kaufman 2008).

<sup>19</sup> Neo-Keynesian economist Hyman Minsky's theory of financial bubbles and crashes, based on the psychology of financial speculation during a boom, suggested that the final stage of speculative mania is the Ponzi scheme, i.e. the pyramid selling of assets in which investors are paid large returns from the continuing flow of new investments, until the scheme collapses (Minsky 1992).

Given the extent of the financial carnage, serious consideration should be given to something more radical than simply further reform of the Basel approach to prudential supervision. This form of reactive regulation is like encouraging a patient to become addicted to dangerous drugs while trying to manage the dosage. The encouragement of unbridled financial liberalisation has resulted in relentless competition and innovation, within a legal framework which allowed owners and managers enormous rewards, while assuming little personal risk. Since the 1970s, financial regulatory authorities have grown apace, and their rulebooks have multiplied. But with corporate governance and regulatory compliance being reduced to bureaucratic box-ticking (shown for example by the treatment of Northern Rock), financial regulation has stumbled from one crisis to the next, and the reforms on each occasion have proved inadequate to the next test.

### *An Alternative Approach?*

The detailed regulatory proposals of the regulators seem far removed from the general popular feeling that finance must be put on a new footing, which has even been expressed by politicians. This was eloquently articulated in the conference hosted in Paris in January 2009, *Nouveau Monde, Nouveau Capitalisme: éthique, développement, régulation*. The conference called for a restoration of 'trust in capitalism' as 'a humanistic economic, social and organisation, able to create and fairly redistribute wealth', by drawing up a more responsible and ethical 'new capitalism', and even a 'new world of solidarity and multilateralism'.<sup>20</sup> Yet there still seems to be an enormous gap between such bold words and the actual details of the proposals for regulation under consideration.

A new, and hopefully smart, approach to regulation of finance should aim to insulate the intermediation of social savings and investment from financial market speculation, treating banks and other managers of savings essentially as public utilities. This should begin with close attention to industry structure and competition. The rescue of failing firms has created fewer and larger financial conglomerates.<sup>21</sup> Careful thought needs to be given especially to whether to re-establish the old divisions between retail and investment banking, mortgage finance, and insurance. Integrated finance may have advantages in helping to spread risk, but as the crisis has shown only too starkly, it can also act as a transmission mechanism for risk. It should be clear from the crisis that the management of social savings must be segregated from financial speculation.

There is also the problem that the new mega-banks may be both too important to allow to fail and too large to rescue. The authorities must now explicitly acknowledge the banks for which they accept ultimate responsibility, and finally abandon the long-discredited policy of 'calculated ambiguity' about their lender-of-last-resort function.<sup>22</sup> This should entail the corollary of

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<sup>20</sup> From the statement on the website of the conference (<http://www.colloquenouveaumonde.fr/home/>), by Éric Besson, Secretary of State in charge of Strategic Planning, Public Policy Evaluation and Digital Economy Development, who opened the conference. In the way of politicians (and the academic media-stars invited to such events), there were counter-balancing statements supporting 'entrepreneurial risk valuation without sharing mistakes', and opposing 'excessive regulation'.

<sup>21</sup> Notably, the completion of the acquisition by Bank of America of Merrill Lynch has combined an enormous retail bank network with the largest brokerage and a major investment banking business, to create the biggest financial institution in the US.

<sup>22</sup> This telling phrase and the proposal are from an analysis made over ten years ago (Herring & Litan 1995, 128). Yet the same ambiguity is evident in the statement made in October 2008 by G7 finance ministers and central bank governors, that they 'agree to take decisive action and use all available tools to support systemically important financial institutions and prevent their failure'. Rochet (2008) has argued that the problem is that decisions on when to mount a rescue are over-influenced by political considerations, so the solution should be greater independence and

restrictions on the activities of those banks, with a reversal of the presumption in favour of financial innovation (Bell & Quiggin 2006, 646). In other words, guarantees of public support for systemically important financial firms should be conditional on strict conditions on the type of financial intermediation in which they may engage. The aim should be to insulate the social financial intermediation system from financial speculation.

First is the question of financial derivatives. In the early years after their invention in the 1970s concerns were raised that at least some of these instruments would fuel speculation and lead to 'casino capitalism' (Strange 1986, 113-119), and this debate has occasionally surfaced again especially during crises. Keynesian economists pointed out the potential for excessive speculation resulting from the shift from simple forwards contracts for commodities to systematic trading of standardised futures on organised exchanges, but derivatives in physical commodities could be justified by the need to manage and finance inventories in the face of uncertainties of crops due to the vagaries of nature (Williams 1986). The lack of any such justification for financial derivatives strongly suggests a need for a much more cautious approach to them, especially as speculation can be greatly magnified by leverage (Campbell & Picciotto 2000). Nevertheless the blanket justification has been accepted that they help to manage risk and reduce the cost of finance, despite recurrent incidents of major losses attributable to them (Kuprianov 1995). Not only that, but derivatives trading was allowed to expand exponentially, away from exchanges, which at least provide some transparency, into totally opaque OTC markets.<sup>23</sup> Regulation has focused on dealing with their potential consequences. This gave free rein to the financial rocket-scientists to devise the ever more elaborate instruments, especially various type of credit default swaps, which we now know became so complex and opaque as to defeat effective valuation.

A new approach should be based on prior approval of instruments in which different types of licensed financial institution would be authorised to trade. Financial derivatives should be treated like pharmaceutical drugs. No-one suggests that all new drugs should be released on the market, leaving it to consumers or even doctors to decide how safe they are and for which uses. It is now clear that financial derivatives can be economically toxic, and they should be regulated accordingly. The approvals process should include determination of the tax treatment, as well as conditions of use: how they should be treated on the balance-sheet and for capital provisioning; whether they can be traded over-the-counter or only on open exchanges; transparency (data to be kept on holdings, counterparties, and trading volumes); and which categories of investor should be allowed to deal in each. Since licensed financial entities would only be permitted to deal in approved instruments, there could be no danger of primary financial markets moving 'offshore'.

A similar approach should be adopted to other forms of speculation, such as hedge funds. Thus, financial firms backed by the public guarantee of LLR support should be prohibited from lending to hedge funds. By greatly contributing to the leverage of hedge funds, such loans further fuel financial volatility and instability, as well as creating systemic risk in the case of a hedge fund failure such as that of LTCM. Secondly, there should also be a crack-down on the various methods of tax avoidance and evasion, to which a blind eye has been turned by national finance

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accountability of regulators; but this would not seem to deal adequately with the tension between moral hazard and the need to maintain systemic stability.

<sup>23</sup> The BIS has attempted to quantify OTC derivatives market activity since 1998 by surveys of market participants, on a 6-monthly basis; the most recent triannual report of December 2007 estimated that the total amounts outstanding had grown by an average annual rate of 25% since 1998, but by 33% in the period 2004-2007, reaching an estimated \$516 trillion (BIS 2007).

ministries for fear of losing out in the competition among financial centres.<sup>24</sup> Without the benefit of the significant reduction in the cost of capital due to the public subsidies resulting from these two factors, hedge fund activity would sharply diminish or perhaps even die out. An excellent case can be made for devising an incentive structure which would make hedge fund managers bear risks from their trading, rather than the present arrangements which allow them to benefit enormously from the upside, and lose nothing from the downside. However, to focus proposals for regulation on this would be to tackle the problem at the wrong end. Hedge fund investors are supposed to be sophisticated, or at least rich, so they may be left to bear their own losses.

There would of course be a price to pay for the re-establishing of a truly prudential framework for finance. The ending of the addiction to easy credit would impose a cold-turkey cure on the consumption-led boom growth of late capitalism based on asset-price bubbles. Certainly, radical critics have warned for some time that 'financialisation' was the symptom of deep-rooted contradictions of an unstable growth model which rested on widening income inequalities both within national economies and internationally, in a vain attempt to maintain US hegemony (Brenner 2002, 2006, Arrighi 2007, Turner 2008). A transition to a global financial system no longer addicted to cutting the costs of capital to unrealistic levels by systematic avoidance of taxation and regulatory requirements, as well as engaging in reckless financial speculation, could result in a more efficient allocation of capital to productive uses. Indeed, analyses of the costs of financial trading support the common-sense perception that the financial sector now drains enormous sums from the economy which cannot be justified (Bogle 2008, French 2008).

Coupled with a rebalanced international economy based on paying realistic social wages to workers in the new economic growth poles of Asia, Latin America and even Africa, as well as reducing income inequalities in the developed countries, a more sustainable pattern of economic growth could be possible. If one lesson is clear from the latest financial crisis, it is that banking and finance cannot be allowed to remain the province of unrestricted pursuit of private profit by the greedy. It must be recognised as having become highly socialised, the transmission belt between social savings and investment, and its institutional structures should begin to reflect this (Blackburn 2002).

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<sup>24</sup> The majority of the world's hedge funds use Cayman Islands companies or partnerships: data collected by the Cayman Islands Monetary Authority for 2006 from 5,052 Cayman-domiciled hedge funds (comprising 81% of the 6,252 active funds in Cayman) showed total net assets of US\$1.38 trillion; by the end of December 2007 the total had grown to 9,413, mostly managed from the US and UK (CIMA 2008). However, these are generally paper entities used for booking the transactions, although some ancillary services such as fund administration are done in Cayman. The main activities of hedge fund management take place in the US and UK, but they are treated as only provision of advisory services. Income paid from the funds to their investors is taxable, but this is commonly evaded by routing such investments through companies formed in havens, taking advantage of their secrecy (Sheppard & Sullivan 2008). Similar structures are used for other kinds of financial speculation, such as credit derivatives, which also entail dubious interpretations of source taxation rules on where financial transactions take place (Weiner 2008). However, the tax authorities in countries with major financial centres such as the US and UK have been reluctant to take action against such extensive blatant avoidance and evasion, presumably due to fears that financial services business such as fund management would go to other centres.

## BIBLIOGRAPHY

- Aguesse, P. (2007). "Is Rating an Efficient Response to the Challenges of the Structured Finance Market?" *Risk and Trend Mapping no.2* Retrieved 19 January, 2009, from [http://www.amf-france.org/documents/general/7693\\_1.pdf](http://www.amf-france.org/documents/general/7693_1.pdf).
- Alford, D. E. (1992). "Basle Committee Minimum Standards: International Regulatory Response to the Failure of BCCI." *George Washington Journal of International Law & Economics* **26**: 241-291.
- Arrighi, G. (2007). *Adam Smith in Beijing : lineages of the twenty-first century*. London ; New York, Verso.
- BCBS (1983). *Principles for the supervision of banks' foreign establishments*. Basel, Committee on Banking Regulations and Supervisory Practices.
- BCBS (1999). *Banks' Interactions with Highly Leveraged Institutions*. Basle, Basle Committee on Banking Supervision.
- Bingham, T. (1992). *Inquiry into the Supervision of the Bank of Credit and Commerce International*. London, House of Commons.
- BIS (2007). *Triannual Central Bank Survey. Foreign Exchange and Derivatives Market Activity in 2007*. Basel, Bank for International Settlements.
- Blackburn, R. (2002). *Banking on death : or, investing in life : the history and future of pensions*. London, Verso.
- Blum, J., M. Levi, et al. (1998). *Financial Havens, Banking Secrecy and Money-Laundering*. Vienna, UN Office for Drug Control and Crime Prevention.
- Blunden, G. (1977). "International cooperation in banking supervision." *Bank of England Quarterly Bulletin* **17**: 325-329.
- BBS (1995). *Report of the Board of Banking Supervision Inquiry into the Collapse of Barings*. London, House of Commons, HC 673.
- BCBS (1999). *Banks' Interactions with Highly Leveraged Institutions*. Basle, Basle Committee on Banking Supervision.
- Bell, S. and J. Quiggin (2006). "Asset Price Instability and Policy Responses: The Legacy of Liberalization." *Journal of Economic Issues* **40**(3): 629-649.
- Brenner, R. (2002). *The boom and the bubble : the US in the world economy*. London ; New York, Verso.
- Brenner, R. (2006). *The economics of global turbulence : the advanced capitalist economies from long boom to long downturn, 1945-2005*. London ; New York, Verso.
- Campbell, D. and S. Picciotto (2000). "The Justification of Financial Futures Exchanges." *Modern Financial Techniques, Derivatives, and Law*. A. Hudson (ed.). The Hague, Kluwer Law International: 121-33.

- Caprio Jr., G. and D. Klingebiel (1996). "Bank Insolvencies: Cross-country Experience." Washington D.C., The World Bank.
- CIMA (2008). *Investments Statistical Digest*. Cayman Islands Monetary Authority.
- Editorial (2008). "The Moody's Blues". *Wall St Journal*, 15 February.
- French, K. R. (2008). "Presidential Address: The Costs of Active Investing." *Journal of Finance* LXIII(4): 1537-1573.
- FSF (2008). Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience. Financial Stability Forum.
- Gapper, J. and N. Denton (1996). *All That Glitters. The Fall of Barings*. London, Hamish Hamilton.
- GAO (2007). *Risk-Based Capital: Bank Regulators Need to Improve Transparency and Overcome Impediments to Finalizing the Proposed Basel II Framework*. General Accounting Office, US Congress, Washington DC.
- Goldstein, M. and P. Turner (1996). Banking Crises in Emerging Economies: Origins and Policy Options. Basle, BIS Economic Papers no.46.
- Hawley, J. P. (1984). "Protecting capital from itself: US attempts to regulate the Eurocurrency system." *International Organization* 38(1): 131-165.
- Herring, R. J. and R. E. Litan (1995). *Financial Regulation in the Global Economy*. Washington DC, Brookings.
- Jackson, Patricia, et al. (1999). Capital Requirements and Bank Behaviour: the Impact of the Basle Accord. Basel, BCBS.
- Kapstein, E. B. (1994). *Governing the Global Economy. International Finance and the State*. Cambridge, Mass., Harvard U. P.
- Kaufman, H. (2008). "The principles of sound regulation". *Financial Times*, August 5 2008.
- Kuprianov, A. (1995). "Derivatives Debacles. Case Studies of Large Losses in Derivatives Markets." *Federal Reserve Bank of Richmond Economic Quarterly* 81(4): 1-39.
- Kuritzkes, A., T. Schuermann, et al. (2003). "Risk Measurement, Risk Management, and Capital Adequacy in Financial Conglomerates." *Brookings-Wharton Papers on Financial Services*.
- Lindgren, C.-J., G. Garcia, et al. (1996). *Bank Soundness and Macro-Economic Policy*. International Monetary Fund, Washington D.C.
- MacIntosh, J. (2008). "Board comes under fire". *Financial Times*, September 17 2008.
- Mason, J. R. and J. Rosner (2007). "Where Did the Risk Go? How Misapplied Bond Ratings Cause Mortgage Backed Securities and Collateralized Debt Obligation Market Disruptions", working paper available at <http://ssrn.com/paper=1027475>.
- Minsky, H. P. (1992). "The Financial Instability Hypothesis", Bard College - The Levy Economics Institute Working Paper 49.

- Palan, R. (2003). *The offshore world : sovereign markets, virtual places, and nomad millionaires*. Ithaca, N.Y. ; London, Cornell University Press.
- Partnoy, F. (2002). "ISDA, NASD, CFMA, and SDNY: The Four Horsemen of Derivatives Regulation?" *Brookings-Wharton Papers on Financial Services*.
- Partnoy, F. (2006). "How and Why Credit Rating Agencies are Not Like Other Gatekeepers." University of San Diego - School of Law, San Diego Legal Studies Papers 07-46, Available from <http://ssrn.com/abstract=900257>.
- Partnoy, F. (2008). "Hubris – is thy name Richard Fuld?". *Financial Times*, 12 Sept.
- Picciotto, S. (1999). Offshore: The State as Legal Fiction. In *Offshore Finance Centres and Tax Havens. The Rise of Global Capital*. M. P. Hampton and J. P. Abbott (eds). Basingstoke, Macmillan: 43-79.
- Picciotto, S. (2008). Regulatory Networks and Multi-Level Global Governance. *Responsible Business: Self-governance and law in transnational economic transactions*. O. Dilling, M. Herberg and G. Winter. Oxford, Hart: 315-341.
- Picciotto, S. and J. Haines (1999). "Regulating Global Financial Markets." *Journal of Law and Society* 26(3): 351-68.
- Quinn, B. (1989). Cross-Border Regulation of Banking. *Legal Issues of Cross-Border Banking*. R. Cranston. London, Bankers Books.
- Rochet, J.-C. (2008). *Why are there so many banking crises? : the politics and policy of bank regulation*. Princeton, Princeton University Press.
- Rubin, G. (2008). "Capital windfall? ." *ABA Banking Journal* 100(10): 46-53.
- Schloemer, E., et al. (2006). *Losing Ground: Foreclosures in the Subprime Market and Their Cost to Homeowners*. Center for Responsible Lending.
- Sheppard, L. A. (2008). How Do U.S. Holders of Swiss Accounts Come Clean? Part 2. Tax Analysts, Doc. 2008-26687.
- Sheppard, L. A. and M. A. Sullivan (2008). "Offshore Explorations: Caribbean Hedge Funds, Part 1." *Tax Notes International* 49: 108-118.
- Sinclair, T. J. (2005). *The new masters of capital : American bond rating agencies and the politics of creditworthiness*. Ithaca, Cornell University Press.
- Singapore, Ministry of Finance (1995). *Baring Futures (Singapore) Pte. Ltd: Investigation Pursuant to Section 231 of the Companies Act (Chapter 50) - The Report of the Inspectors appointed by the Minister for Finance*. Singapore.
- Spencer, D. and J. C. Sharman (2006). "OECD Proposals on Harmful Tax Practices. A Status Report." *Journal of International Taxation* (October, November): 3-20; 23-39.
- Steil, B., Ed. (1994). *International Financial Market Regulation*. Chichester, Wiley.
- Strange, S. (1986). *Casino Capitalism*. Oxford, Basil Blackwell.



- Treanor, J. and M. Tran (1998). "Markets in turmoil: Rescued hedge fund was 'leveraged 250 times'". *The Guardian*, 10 October.
- Turner, G. (2008). *The credit crunch : housing bubbles, globalisation and the worldwide economic crisis*. London, Pluto.
- Underhill, G. R. D., Ed. (1997). *The New World Order in International Finance*. Basingstoke, Macmillan.
- UK Treasury Committee (2008). *The Run on the Rock*. London, House of Commons Treasury Committee, **HC 56-I**.
- Weiner, J. M. (2008). "Icelandic Bank Failure Reveals Tax Haven Links." *Tax Notes International* 52 (Nov. 10, 2008): 443.
- Wellink, N. (2008). Recent market turmoil – implications for supervisors and risk managers, Remarks by Dr Nout Wellink, President of the Netherlands Bank and Chairman of the Basel Committee on Banking Supervision, at the GARP 2008 9th Annual Risk Management Convention & Exhibition, New York, 27 February 2008.
- Williams, J. (1986). *The Economic Function of Futures Markets*. Cambridge, Cambridge U.P.
- Wolf, M. (2007). "Why the credit squeeze is a turning point for the world". *Financial Times*, December 11 2007.
- Zhang, P. G. (1995). *Barings bankruptcy and financial derivatives*. Singapore ; River Edge, N.J., World Scientific.