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INTERNATIONAL BANKING AND FINANCIAL REGULATION

Sol Picciotto
Lancaster University Law School
Instituto Internacional de Sociologia Juridica, Oñati

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 hazards caused by economic 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 dangers 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 by evaluating regulatory reforms of firms, markets and transactions, with suggestions for how these may be combined in an alternative approach.

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Sol Picciotto
Lancaster University Law School

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. The endemic tendency to crisis of the financial system belies the orthodoxy which has been generally accepted at least until now, that market-based finance and the myriad innovations it has spawned have generally provided an efficient and cost-effective form of financial intermediation. Since the crisis, greater attention has been given to the mounting evidence that excessive speculation causes volatility and crises, as well as imposing significant costs, which have grown exponentially. 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.

1. DISEMBEDDING AND FINANCIALIZATION

Liberalization

Liberalization from the 1970s[1] led to a `new world order' of international finance (Underhill 1997), and a form of domination which has been described as `financialization' (Epstein 2005, Krippner 2005, Montgomerie, 2008, Erturk et al. 2008). The cross-border and cross-industry integration promoted by liberalization has been accompanied by a massive expansion of financial systems in relation to the real economy, an unprecedented growth of financial assets and leverage, and the emergence of highly complex financial instruments, generating a far greater potential for financial instability and an enhanced mobility of such risks (Schinasi 2006, 5-8).

The period since 1973 has seen a major transformation of financial intermediation. Its main features have been (i) liberalization: the breaking down of internal and international barriers between different sectors and channels to form ever-wider global pools of financial capital; (ii) a shift from relational to market-based finance which may be described as disintermediation or marketization; and (iii) financialization: the relative growth of the financial sector and its profitability (Krippner 2005), linked to the enormous escalation of financial transactions and speculation (Epstein 2005). These have generally been followed and facilitated by the emergence of formalized regulation of financial institutions and financial services provision.

The new period of international liberalization of finance is usually said to have begun on 15th August 1971, when the US suspended the dollar's guaranteed convertibility to gold, precipitating the end of the postwar system of fixed exchange rates. However, the process had already started in the late 1950s with the liberalization of current account payments from 1958, gathering momentum between OECD countries in the 1960s. The partial liberalization enabled those engaged in international business, especially transnational corporations (TNCs), to vary their holdings of different currencies and switch between them, especially in anticipation of a currency devaluation. These `hot money' flows greatly contributed to the collapse of the fixed exchange rate system.

Offshore banking and finance also began to develop in the 1960s, as especially US banks began to establish foreign branches, to provide mainly wholesale financial services to their TNC clients.

[1] For a helpful graph of the gradual progress of capital account liberalization among OECD countries 1973-1995 see Busch 2009, 29.

This expansion was initially mainly towards London as the City, with Bank of England support, reinvented itself as global financial hub.[2] With the Bank's encouragement, the `Eurodollar' market grew rapidly from the late 1950s, once limited currency convertibility was introduced by OECD countries.[3] This itself involved regulatory avoidance: US bank reserve requirements did not apply abroad, while other countries' credit and interest rate controls did not apply to foreign banks or dollar deposits. US banks needed little encouragement to set up branches abroad, to serve their clients' expanding overseas operations. Also, by establishing themselves in London, US commercial banks could engage in corporate investment banking which was forbidden to them at home under Glass-Steagall. At the same time, the traditional barriers which segmented the UK financial markets began to break down from the late 1950s, as the large clearing banks moved into consumer credit finance, investment fund management, merchant banking, and financial consultancy (Maycock 1986).

The sphere of finance became greatly expanded during the economic boom period of the 1950s and 1960s. An unprecedented proportion of individuals and households especially in richer countries became able to generate savings, but also became reliant on the financial system for deferred expenditures (especially pensions) and consumer credit. While small business continued to be generally reliant on bank loans, large corporations had direct access to capital markets, and to the advantages of low-cost finance through the offshore system. Liberalization of national financial markets tended to result in new exclusionary patterns of financial recycling, as banks and savings institutions were sucked into participating in global financial markets. The poor in all countries have become particularly dependent on extortionate forms of moneylending, unless alternative institutions such as credit unions or micro-finance could be established (Leyshon & Thrift 1995). High levels of liquidity were also the fuel for a consumer credit boom in richer countries, which generated excessive indebtedness, making large sectors of the population very vulnerable when the financial crisis came.

Liberalization has been both international and internal: the gradual elimination of controls on currency exchange and capital movements, and the opening of national financial services markets to foreign firms, have interacted with the erosion of the segmentation of financial intermediation which separated activities such as retail banking, mortgage finance, insurance, investment banking, fund management and money-market operations. Much of this was driven by financial firms themselves, which used techniques of regulatory avoidance to prise open the barriers. Central to these techniques was the development of the `offshore' system, based on setting up branches or affiliates in convenient jurisdictions (discussed in the previous chapter). In many ways was this centred on the City of London, which from the 1970s became an `offshore' centre itself for the US and other foreign banks, and helped to create the wider offshore system using OFCs in UK dependencies and other havens (as discussed in the previous chapter).

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[2] Foreign-owned banks were exempt from all credit and interest rate requirements except in transactions with UK residents; after 1971, when a 12.5 reserve assets ratio was introduced for all banks, it applied only to sterling liabilities (Wilson Committee 1980 ch.4, Moran 1984, Hampton 1996).

[3] According to the detailed account by Schenk (1998), the Midland Bank in 1955 began to engage in swaps using dollar deposits by clients, taking advantage of the view taken by the Bank of England that this could be permissible under exchange controls, since banks were allowed to accept dollars, and to buy Treasury bills, they could be allowed to attract foreign exchange deposits from nonresidents and convert them to sterling via swaps; although this was intended for bank clients, this was impossible to police, allowing banks to arbitrage between interest rates. `In summary, a combination of Bank of England support, Treasury tolerance, and controls elsewhere created a regulatory environment which gave London a competitive advantage in the Eurodollar market.' (ibid. 237).

The internationalization of the City created a `disembedded' system of finance which undermined the traditional system of `club rule' centring on the Bank of England. This led to a rapid switch to formalized regulation (Moran 2003), and the `big bang' in 1986 further stimulated a period of headlong financial innovation and regulatory response (Dale 1996, Vogel 1996 ch.5). In turn, the rebirth of London as a global financial entrepot put competitive pressure on other centres and national financial systems.

The US, with its financial system polarised between a few very large banks and a mass of small state-chartered banks and thrifts, and responsibility dispersed between fragmented and competing regulatory bodies, had difficulty in adjusting to the emergence of wider financial markets. Conflicts between sectional interests and turf wars between regulators led to both deregulatory and reregulatory movements and frequent deadlock in Congress, leaving scope for regulators to relax rules, and for banks to exploit regulatory arbitrage (Busch 2009, ch.3). When the thrifts[4] came under pressure from money market funds, controls on their deposit rates were removed in 1980, and in 1982 there was a relaxation of the assets in which they could invest, making them like banks. This led to extensive lending to real estate and other risky sectors, and when the real estate bubble burst at the end of the decade hundreds collapsed, requiring a government bailout of $180b. Meantime, the banks lost ground to their foreign competitors,and chafed at the Glass-Steagall restrictions (which they could anyway avoid by using foreign affiliates e.g. in London), so they were eroded by administrative decisions. Finally, restrictions on affiliations between commercial and investment banks through bank holding companies imposed in 1956 were formally relaxed in 1999, while affiliations with some thrifts were also allowed (US Treasury 2008, 35-7).

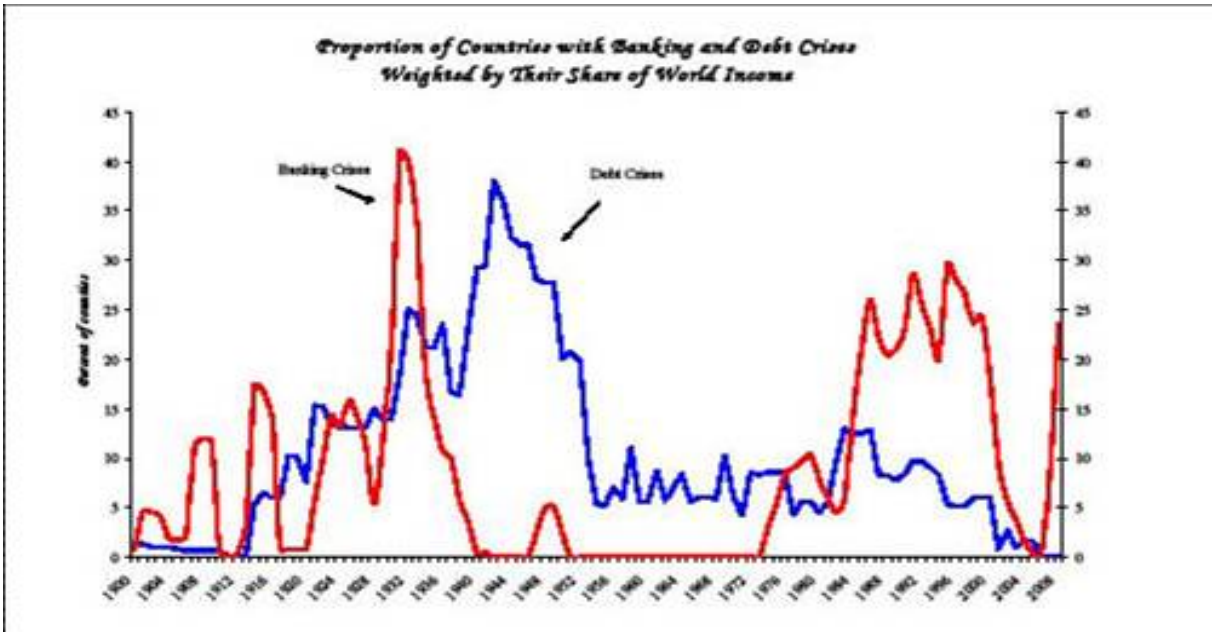
Risk and Regulation

Contrary to many conventional accounts, finance has become highly regulated in many countries and internationally, but in forms favouring private or quasi-public self-regulation (discussed below). Also, by focusing on market participants rather than transactions, these forms of regulation in practice gave them the support needed to turn finance into a self-sustaining sphere of circulation and speculation. These activities were legitimized by ideologies of `risk management', underpinned by models of financial markets as efficient allocators based on rational decision-making. The new cultures of finance became increasingly hard to challenge as the structures of financial transactions became more complex and opaque, and these cultures were underpinned by arcane techniques of mathematical modelling based on calculation of relative volatility (MacKenzie 2006). The forms of regulation which were adopted created incentives to adopt strategies of `regulatory arbitrage', devising new and more complex forms of `structured finance'. Although sold and justified on the grounds that they offered a more efficient way of spreading risk, the evidence is that they have tended to create greater risk of systemic crisis. The disembedding of loan transactions and their recombination in complex instruments which were then traded may have diffused the risk, but it relied on more abstract and formal evaluations, while their complexity created opacity.

Although the main driver for financial regulation has been to prevent bank crises and failures, it has clearly failed to do so, as shown most spectacularly by the crisis of 2007-8 leading to the economic slump. However, this was only the culmination of a continuing trend of bank crises,

[4] Also known as savings & loan (S&Ls), like the UK building societies they originated as mutuals for small savers and mortgage lending.

contrasting sharply with the experience of the period 1951-73, in which the number of bank crises was zero (see Chart).[5]



From: Reinhart & Rogoff 2008, 8.

The opaque and distorted character of the globalized financial system has also meant that finance has been channelled from poor to rich countries and people. The secrecy and lax regulation provided and promoted by the `offshore' system[6] have provided powerful incentives for `capital flight' from developing countries towards the main financial centres (discussed in the previous chapter). This helped to sustain the position of the dollar as the de facto global reserve currency, enabling the US to finance its external deficit by high levels of borrowing, and creating massive international imbalances by which funds especially from Asia both maintained and became hostage to the strength of the dollar.

Although this period is often described as one of deregulation, in fact formal regulation of financial markets has greatly increased, leading, in Steven Vogel's memorable phrase, to the paradox of 'Freer Markets, More Rules' (Vogel 1996).[7] Prior to liberalisation, normative

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[5] 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 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, as shown in the chart, taken from Reinhart & Rogoff 2008, 8. See also Reinhart & Rogoff 2009, 204-208.

[6] This system is not confined to offshore finance centres alone, indeed the major financial centres especially London and New York play a key part in it: see the Financial Secrecy Index, http://financialsecrecyindex.com/ .

[7] 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).

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

2. INTERNATIONAL RE-REGULATION

The public authorities with responsibility for stability and security of the financial system (central banks and sectoral regulators) have concentrated on allocating responsibility for supervision of entities and establishing prudential standards for them, mainly in the form of capital requirements. They have generally adopted a hands-off attitude towards financial transactions. Regulation of transactions has mainly been done by private industry bodies, exchanges, clearing houses, credit rating agencies (CRAs) and private associations such as the International Swaps and Derivatives Association (ISDA), usually under powers granted by public authorities or backed by law.

The focus on regulating actors and not transactions has created incentives for regulatory arbitrage, by creating continuous pressure on firms to move into markets and jurisdictions with lighter requirements, as well as devising transactions avoiding such requirements. At the same time, private bodies to which regulation of transactions has been delegated have inevitably developed vested interests in encouraging rather than controlling the growth of markets in those instruments. The form of regulation adopted by the public authorities (capital reserve requirements) also had the effect of creating a false sense of security (sometimes referred to as `moral hazard'). Further encouragement for risk-taking was created by the guarantee of lender-of-last-resort (LLR) support in case of bank failure. This was provided both explicitly under deposit insurance schemes, but also implictly, usually by central banks, due to the danger of a run on banks, and the systemic risk posed by major bank failures for the whole economy. The result was that the new forms of regulation, although increasingly extensive, tended to encourage rather than control the forces leading to financialization and speculation. The focus on firms rather than markets also exacerbated the difficulties of achieving both international and inter-sectoral coordination between regulators, especially as liberalization broke down barriers between markets and brought different types of firms into competition.

It is therefore hardly surprising that, in a period of rapid liberalization 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 globalized financial system has generated new forms of risk and instability with ever-wider effects.

The Basel Committee and the Capital Adequacy Regime

Central banks and other financial supervisors have been mainly concerned for the soundness of banks and the stability of the financial system. The dangers of instability were brought home by bank failures in the early 1970s in the UK (the `secondary banks'), the US (Franklin National) and especially Germany (Herstatt). In 1974 central bankers, working through the Bank for International Settlements (BIS), and on the initiative of the Bank of England, established what

became known as the Basel Committee on Banking Supervision (BCBS).[8] 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; while it was noted that a problem would be posed by the `virtual absence of supervision in some popular "off-shore" banking centres' (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; and this fatal flaw has continued despite the creation in 1980 of an Offshore Group of Banking Supervisors (OGBS), which has worked in conjunction 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.[9] 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 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.[10]

This still left open the question of groups engaged in both banking and financial market operations, which was starkly illustrated by the collapse of Barings Bank in 1995, due to inadequately monitored futures market operations based in Singapore (BBS 1995, Gapper 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.

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[8] 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.

[9] 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.

[10] 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).

The substantive standards for capital provisioning developed by the BCBS supplemented the procedures for coordination between supervisors. Actually, the formalization 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 large 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 New York into the offshore banking system (Hawley 1984).[11] 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, Murphy 2004, ch.5).

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 Regulatory Networks

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.[12] The interactions between these bodies makes it difficult to attain any degree of effective cooperation or coherence, and creates new tensions between technocracy and political accountability, with considerable problems of legitimacy. Although the regulatory agencies and their networks are fragmented and often competing, they can be said to form a `policy community' although bound closely to the regulated entities through the various industry representatives, think-tanks and lobby groups.[13] Given also the `many possibilities for innovative avoidance of regulatory provisions' this inevitably `enhances the dependence of the official agencies on the industry' (Underhill 1997, 25).

A significant characteristic has been the importance of regulation by private organizations, 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. Whether they are run as mutual organizations by their members or as

[11] This was consolidated by the joint move of the US and the UK in 1984 to bring Eurobond flotations `onshore' by allowing payment of interest gross provided that the paying agent certifies that the recipient is a non-resident (Picciotto 1992, 168); despite proposals to end this, it still continues (see previous chapter).

[12] Underhill 1997, Picciotto and Haines 1999. An attempt to chart at least the main bodies involved is made in Davies & Green 2008, 33.

[13] Particularly influential in banking and finance has been the Group of Thirty, see http://www.group30.org/.

independent entities, their main aim is to achieve growth in trading volume and membership, so they have little incentive to crack down on activities which may harm outsiders or damage the finncial system.

Bilateral or `over-the-counter' (OTC) financial instruments, including an infinite variety of complex transactions in derivatives and swaps, which now account for the vast bulk of the market,[14] are also governed 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). Standard form agreements such as the ISDA's have serious limitations as regulatory instruments, as they are are based on the existing consensus view of the risks entailed, discourage parties from considering the specifics of the transaction, and put all market participants in the same boat, even if it is a leaky one (Hudson 2009, para. 32-14). The private and bilateral nature of OTC contracts has also meant a serious lack of transparency, since neither market participants nor regulators have information about the exposures of counterparties.

A key role has also been played by the credit rating agencies (CRAs) 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, have in practice been given an official status (so they form in effect a state-backed oligopoly), since their ratings have important regulatory consequences.[15] However, their private interest in expanding the market for their services meant that, in the words of Frank Partnoy, they became `more like gate openers than gate-keepers', especially in the development of new forms of structured finance.[16]

Another important issue which has been substantially delegated to a private body has been the development of international accounting standards. Conflicts over a proposed EU Directive on company accounts led to the establishment of the International Accounting Standards Committee (IASC), formed as a professional body in 1973, which tried to reconcile different national reporting systems (including the US Generally Accepted Accounting Principles – GAAP) by publishing International Accounting Standards (IAS). In the 1980s the IASC skilfully linked up with both international bodies such as the BIS and IOSCO and national authorities, aiming mainly to ensure acceptability of its standards to stock exchanges and financial market supervisors (Botzem & Quack 2006). It was reorganized in 2001, to try to balance the involvement of the preparers (large accounting firms) and users (finance and corporate interests) of accounts, by establishing the International Accountancy Standards Board (IASB), operating under a private non-profit Foundation, which has also attempted to broaden the basis of its funding, and hence accountability. It has also sought to enhance the legitimacy of its standards by

[14] Since they are generally transferable and relatively standardized they are traded, although privately, not in an open market or exchange.

[15] 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.

[16] Partnoy 2006, 60, see also Aguesse 2007; Davies & Green (2008, 68-71) discuss the US debates following the Enron affair over whether to establish tighter controls on the CRAs; yet failures by the credit rating agencies contributed significantly to the bubble in mortgage finance and the crisis of 2007-8 (Mason & Rosner 2008, BIS 2009, 8-9).

using a `due process' of consultation, modelled on that of the US Financial Accounting Standards Board (Botzem & Quack 2006, 283). Audit standards are still solely set by the accountancy industry for itself, through the International Auditing and Assurance Standards Board (IAASB), a technical committee of the International Federation of Accountants (IFAC); and some have suggested that a body analogous to the IASC should take over this role, or perhaps even the IASC itself (Davies & Green 2008, 220).

Although it is a private body, the IASB has become an important mediator for contests between national and stakeholder interests over issues which are not merely technical but have important economic and political ramifications (Botzem & Quack 2006, Nölke & Perry 2006, De Bellis 2006, Mattli & Büthe 2005). It achieved a notable success when the European Commission decided not to proceed with its own revisions of EU accounting standards, and instead the IASB's standards have been given formal legal force in the EU under Regulation 1606/2002, establishing a procedure for adoption of those standards and requiring companies listing any security on an EU market to use such adopted standards. The IASB standards have further reinforced the trend to financialization by shifting away from historic cost towards `fair value' accounting, involving bringing intangibles on to the balance sheet and a `mark-to-market' basis for valuing financial assets (Nölke & Perry 2006).

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 between authorities in different countries and between different kinds of supervisors and regulators. This is especially the case in the US, where banking has four distinct federal regulators, as well as regulators at the state level,[17] 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,[18] although within a coordinated regulatory framework of Directives aiming at market liberalization. It is also loosely coordinated through EU `comitology' networks, involving finance ministry officials, central banks and bank supervisors, as well as regulators of other financial services providers.[19]

The problems of international coordination of regulatory networks is well illustrated by the responses to the issue of tax havens and offshore financial centres. Concern about the use of these jurisdictions for money-laundering led to the setting up of the Financial Action Task Force (FATF), which was formed in 1989 as an initiative of the G7, but actually housed at the OECD in Paris.[20] Its work deals with similar issues to that of the OECD-CFA, for instance obstacles to

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[17] 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 (US-GAO 2007, 11); state regulators supervise state-chartered banks and thrifts (for an overview see Busch 2009, 54).

[18] 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 no done so.

[19] Davies & Green (2008, ch.4) provide a good account and analysis, focusing on the changes following on the financial services action plan launched in 1999 and the Lamfalussy Report of 2002.

[20] It is in fact in the main OECD building, whereas the Fiscal Committee is in an Annex.The FATF established an international standard for anti-money-laundering (AML) regulations in its Forty Recommendations, issued in 1990.

exchange of information such as bank secrecy. Tax authorities would greatly benefit from being able to exchange information with agencies dealing with money-laundering, and this is possible at national level in some countries.[21] Joint action might also be helpful in putting pressure on jurisdictions which may be reluctant to accept or enforce regulatory standards. Yet cooperation between the FATF and the OECD-CFA has been minimal, probably because AML regulators consider that they would find it even more difficult to obtain information if it were known that tax authorities could have access to it. Practical cooperation between Financial Intelligence Units (FIUs) takes place through an even more informal (but nevertheless quite effective) body, the Egmont Group, formed in 1995.[22] This in turn intersects with networks dealing with narcotic drugs (the UN Office on Drugs and Crime, UNODC) and corruption.[23]

Even when better coordination has been attempted, the result has been the creation of new bodies or networks. Thus, the initiative to reform the `international financial architecture', following the financial crisis which started in Asia in 1997, resulted in the creation of the Financial Stability Forum (FSF), once again as a political initiative through the G7. The FSF 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 added another node in the complex regulatory networks.[24] The FSF also prompted the creation of new international networks,

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Although only `soft law' they provided a very effective template for AML regulations which spread rapidly all around the world. They were revised in 1996 and especially 2003, following the 9/11 attack, extending AML to countering the financing of terrorism (CFT). The FATF now has 34 members, but also works in conjunction with related regional bodies, known as FSRBs, which have some overlapping membership with and are associate members or observers of the FATF. The OGBS is an observer in the FATF and evaluates observance by its members of FATF standards. Monitoring of the effectiveness of national AML-CFT regulation is done through regular `peer review' visits and reports. Practical cooperation between Financial Intelligence Units (FIUs) takes place through an even more informal (but nevertheless quite effective) body, the Egmont Group.

[21] Notably, Australian Taxation Office officials have direct access to the extensive Australian Transaction Reports and Analysis Centre (AUSTRAC) database, which is collected under AML legislation, and is more extensive than in most other countries, in that it includes all foreign exchange transactions of any amount anywhere in the world involving the Australian dollar. This enables the ATO to make systematic analyses of currency flows, to identify possible suspicious transactions involving illegitimate tax arrangements (ANAO 2008, and interview information).

[22] This grew significantly after the increased concerns about terrorist financing, from 69 members in 2002 to 108 by 2008 (Annual Report 2008, available from www.egmontgroup.org).

[23] Due to political sensitivities, there is no intergovernmental organization dealing with this, and the NGO Transparency International was set up by former World Bank staff, largely in reaction to constraints felt by the WB about interference in the internal politics of states. For other international arrangements relating to corruption see chapter 5 above.

[24] The FSF (renamed the Financial Stability Board after the 2008 crisis) brought together regulators responsible for financial stability, led by central bankers, and is housed at the BIS. It reports to the IMF's International Monetary and Financial Committee, and the actual monitoring of the extent to which jurisdictions comply with the standards and codes was taken on by the IMF and World Bank (WB). Since 1999 IMF and WB staff have conducted regular reviews to produce Reports on Observance of Standards and Codes (ROSCs) on compliance with the FSF standards. The ROSCs cover the main financial centres, extended in 2000 to all OFCs even if not IMF members. However, they do not include a review of the centres' cooperation in tax enforcement, which was referred to the OECD-CFA. After 9/11 the ROSCs were extended to cover compliance with AML-CFT standards, monitored by the FATF (or its related regional bodies). However, the IMF strongly opposed the use of public name-and-shame methods such as `blacklisting', and dissuaded the FATF from using them, although there was considerable evidence of their effectiveness, due to the sensitivity of OFCs to reputational damage (Sharman 2006, 101-126, 155-56). 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.

notably the International Association of Deposit Insurers (IADI), established in 2002, also based at the BIS in Basel, which however seems to have had limited success so far in improving harmonization and coordination of LLR support (Davies & Green 2008, 52).

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.

Financial Innovation and Regulatory Arbitrage

The Basel Accord allowed for some flexibility in capital requirements by assigning weightings to different categories of assets. It could therefore go beyond credit (counterparty) risks to take account of market risks, which became important as banks became heavily involved in market-based finance. However, the capital adequacy regime itself stimulated the development of new financial techniques, involving the `securitization' of loans, and a shift to disintermediation and market-based finance (Calaby 1989). Following its introduction there was indeed an explosion of innovation in the creation of ever more complex financial instruments, especially techniques for shifting and managing risk. This in effect created markets in risk. The main methods have been the use of financial derivatives, especially credit derivatives and swaps; and the bundling together of packages of securitized loans,[25] allowing them to be moved off the balance sheet to special purpose vehicles (SPVs) or Special Investment Vehicles (SIVs) and sold off to other investors.

In the early years after the invention of financial derivatives 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 occasionally surfaced again especially during crises. In the days of commodity derivatives, Keynesian economists pointed out the potential for excessive speculation resulting from the shift from simple forwards contracts to systematic trading of standardized futures on organized 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 (Campbell & Picciotto 2000), especially as speculation can be greatly magnified by leverage. Nevertheless the blanket justification was accepted that they helped 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

[25] The initial step for structured credit was the use of securitization to create Asset-Backed Securities (ABSs), consisting of a package of assets producing a cash flow; these were often loans or bonds, vested in a specially created corporate vehicle and used to back the issuance of notes, and known as Collateralized Debt Obligations (CDOs). This technique was then combined with credit derivatives, by bundling together a package of credit default swaps (CDSs), known as synthetic CDOs, pioneered by investment bank J. P. Morgan in 1997 with its Bistro (Broad Index Secured Trust Offering). This combined the credit risk of a range of corporate bonds, which since they carried varied risks of default, was considered to spread the risk, which could be further `sliced and diced' into senior, mezzanine and junior tranches. The same technique was then applied to residential or commercial mortgages to create Mortgage Backed Securities (MBSs), the lowest grade of which were termed sub-prime. Although the innovators at JP Morgan decided not to venture into this market, mainly because the lack of historical data on mortgage defaults made it impossible to predict correlation, which was central to the VaR model (Tett 2009, 62-82; MacKenzie 2009), it grew rapidly from 1999 (for UK data see Turner 2009, 14).

provide some transparency, into totally opaque OTC markets.[26] Regulation focused on dealing with their potential consequences. This gave free rein to the financial rocket-scientists to devise the ever more elaborate instruments, especially synthetic CDOs, which we now know became so complex and opaque as to defeat effective valuation.

The `originate and distribute' model using SPVs was thought to reduce risk by spreading it, but since SPVs directly raised their own debt, financial leverage was greatly increased. Also, although creation of an SPV took the debt off the balance sheet of one firm, since a high proportion of the SPVs' debt was bought by other banks and financial institutions, it was simply being circulated around the system, in effect creating what came to be known as a `shadow banking' system. This generated incentives for lax practices in providing credit, since the individual debts were wrapped in a securitized package and immediately 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.[27]

The Basel capital standards therefore provided further encouragement for financial techniques motivated by avoidance or `regulatory arbitrage' (US-GAO 2007, 15), since many of the innovative financial instruments aimed to reduce the capital reserve requirement, which has a direct impact on the firm's profitability. This was the main reason for the use of SPVs and SIVs (Tett 2009, 114), because the originators of the loans retained only a contingent liability (dependent on the occurrence of specified `credit events'). It was also a major driver in the development of credit derivatives such as credit default swaps (CDSs), and credit insurance.[28] By these means, capital requirements were greatly reduced or eliminated, enabling banks and other institutions to ramp up of the volume of lending sometimes to an enormous extent. This meant that counterparty credit risk had been converted to market risk. 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. Although a BCBS study argued that many factors other than regulatory differences affected competition (Jackson et al 1999), it must be accepted that 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 standardized 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,

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[26] 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).

[27] Although the Basel II standards for approval of an ECAI included independence from political or economic pressures which may influence the rating, nothing was said about the standard practice that the issuer pays the fee, and the competition between the oligopolistic rating agencies inevitably created pressures to give favourable ratings.

[28] Ample evidence is provided in Gillian Tett's detailed account, for example of how the CDS concept was regarded as having `pulled off a dance around the Basel rules' (Tett 2009, 74)

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 created risks for the banking system by boosting their own funds with loans from investment banks and further leveraging this 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,[29] 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 it involves a reversion to self-regulation. In encouraging firms to adopt sophisticated risk modelling, regulators `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' (US-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 minimum capital requirements (ibid. 26). This does indeed seem to have been the result in the UK, which was an early adopter, as shown by the case of Northern Rock (discussed below).

The use of risk models also 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, in particular the reliance on probabilities based on historical data and systems of backtesting.[30] The establishment of detailed

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[29] 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 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). Although this extremely high leverage was the source of the problem, the direct causes were more complex: Donald MacKenzie's detailed analysis suggests that the decisive factor was that emulation of LTCM's trading model by others created a `superportfolio', and that as Russia's default on ruble-denominated bonds caused traders to sell other assets, it created a self-fulfilling spiral which dried up even LTCM's immense resources of liquidity (MacKenzie 2006, 218-241).

[30] 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'.

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).

A fundamental objection is that VaR combined two formalist theories in a way that compounds the errors of both. On the one hand it accepts the assumptions of efficient market theory put forward by financial economists (originated by Eugene Fama of Chicago): that prices on traded assets efficiently reflect all relevant information. Although held with fervour by many financial practitioners, it is a justification for financial markets rather than a description of their actual workings.[31] These assumptions were combined with mathematical techniques using historical data to estimate correlation probabilities (e.g. of default) based on Gaussian statistical modelling which assume random distributions. The assumptions of both of these theories have been strongly criticized. Micro-sociological and anthropological studies of financial markets show that traders react to conventional signals, or even rumour and panic, since their main aim is to anticipate market movements. Such observations are consonant with the perceptions of behaviouralist economists and others about market volatility due to herd behaviour, or `self-reinforcing positive feedback processes'.[32] Statistical techniques based on assumptions of random distributions have been challenged by Benoit Mandelbrot, who has shown that real-world events are not random but tend to cluster, and in particular that financial market movements have a higher probability of reflecting recent behaviour, i.e. move in cycles. Thus, VaR risk management models based on a combination of the efficient market hypothesis and random distribution probability theory will be poor predictors of cyclical market movements.[33]

3. THE CRASH AND ITS LESSONS

The period of financialization culminated in the great financial crash of 2007-8. Whereas the crisis of 1929 focused on the stock market and only badly hit the banking system after it triggered an economic crisis, in this case a generalized financial crash was sparked by the contagion caused by the popping of the bubble in mortgage-backed CDOs. This brought on an economic crisis, affecting the whole world, although unequally.

The crisis generated 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 [sic], able to create and fairly redistribute wealth', by drawing

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[31] In practice, as Donald MacKenzie points out `Probably a majority of the finance theorists … have had some involvement in practical activity that would make no sense if the efficient-market hypothesis were taken to be an entirely accurate model of markets', and this was so also of other basic building blocks of derivatives, the Capital Asset Pricing Model (CAPM) and the Black-Scholes option pricing model, indeed Black himself `delighted in pointing out "the holes in Black-Scholes" ' (MacKenzie 2006, 248). MacKenzie examines in detail how these techniques helped to construct financial markets, based on a `performativity' theory, which he suggests flows from `the cognitive limitations of human beings', so that `economic action involves distributed cognition' (ibid. 265).

[32] The noted practitioner, George Soros, argues that participants seek both to understand and to influence markets on the basis of their perceptions (which he terms `reflexivity'); hence markets operate with a prevailing bias which is self-validating but eventually self-defeating, causing booms and busts (Soros 1987/2003). The ways in which perceptions and the general cultural climate contributed to the `irrational exuberance' that fed the bubble were also pointed out by Robert Shiller (2000).

[33] See Cooper 2008, 143-151. These views have gained increased salience in some official reports following the crisis, see e.g. Turner 2009, 39-42, 44-5; BIS 2009, 9-10.

up a more responsible and ethical `new capitalism', and even a `new world of solidarity and multilateralism'.[34] As the implications of the crisis have become clearer, and its political repercussions have spread, proposals for reform have become more far-reaching. However, many in the world of finance are still clinging to their old culture, and there is strong resistance to radical change.

Responses of the Regulators to the Unfolding Crisis

The crash took place just as the Basel II standard was beginning to be implemented. The immediate response of regulators was to affirm that this `market turmoil' underlined the importance of Basel II, while accepting that it required further amendments (Wellink 2008). These included 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.[35] These initial responses nevertheless ducked serious questions about the Basel II and the existing approach to regulation. 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 realizations 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 was in fact actually happening even as the waiver was granted. Within a couple of weeks Northern Rock faced a collapse of the mortgage-backed securities market and an extended drying up of liquidity in interbank lending, and in mid-August was forced to approach the Bank of England for support. The announcement of a rescue on 13 September started a panic which eventually resulted in the nationalization of the bank (UK Treasury Committee 2008).

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[34] 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 were counter-balancing statements supporting `entrepreneurial risk valuation without sharing mistakes', and opposing `excessive regulation'.

[35] 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). The US authorities had in any case intended to retain a simple leverage ratio requirement as a complement to the Basel ratios (US-GAO 2007). They also propose to allow banks the option of a `standardized' 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).

What is perhaps most striking about the great financial crash 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, by two events. First, the European Central Bank made a brief announcement that it was opening an unlimited funding line for banks due to `tensions in the euro money-markets'. This was followed within hours by a statement revealing that 49 banks had taken advantage of this to the unprecedented level of 94b Euros (Tett 2009, 215). More low-key was the second event, the suspension by BNP Paribas of 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'.

These events forced the credit-rating agencies into a long overdue revaluation of CDOs,[36] 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

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[36] 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 (WSJ) 2008). In saying this they were attempting to rely on defences which had partially succeeded in the post-Enron litigation (Partnoy 2006, 86-7) to protect themselves from the inevitable investor lawsuits.

Washington DC in October, the US had been forced into a recapitalization 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 $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. The climax came in mid-September 2008, when Lehman Brothers was allowed to go bankrupt,[37] while AIG was effectively nationalized; the rationale for the contrasting decisions was hard to understand, since both were known to have significant involvement in credit default swaps or insurance. The 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.[38]

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 nationalized 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. Nevertheless, this new group was forced to accept recapitalization under the £37b government scheme announced in November, which resulted in the government taking a stake of 43% in this group, and well as 58% in RBS. European institutions also succumbed: banking and insurance giant Fortis was partly nationalized 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 2nd largest, Landsbanki, ultimately having recourse itself to an IMF rescue package of $2.1b. Even Switzerland threw a lifebelt 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 recapitalization from public funds, the banking system remained

[37] The collapse of Lehman after 158 years 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).

[38] 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). Minsky's is a post-Keynesian behaviouralist perspective, which suggests that stable financial markets themselves inevitably encourage experimentation, risk-taking, optimism and even euphoria, and hence that finance is inherently fragile and crises inevitable (Nesvetailova 2007, 154).

paralyzed for some time, requiring continuing life-support through further public credit guarantees and asset protection schemes.

The costs of the various types of public support for the financial sector alone, ranging from capital injections and asset purchases to the provision of guarantees, was estimated by February 2009 to amount to 43% of GDP across the advanced economies and 28% for the G20 countries as a whole.[39] 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).

New Perspectives on Financial Regulation

There were clearly many aspects and contributory factors to the crisis, and there are many lessons to be learned. These include economic, political, social, and moral issues, which go well beyond those of legal regulation. The focus here is specifically on international regulatory coordination and standards.

The crash dramatically brought home how central the financial system is to the world economy. The realm of finance poses more sharply than any the central dilemmas facing economic regulation today. Financial transactions are quintessentially private, market relationships, yet a stable financial system is an essential public good. This sharp contradiction has been starkly driven home by the extensive state bailouts; yet governments have shunned the word nationalization, and have done all they can to leave firms in private hands. Although enormous private profits were made in the boom years, the immense losses will fall on the public purse. It is therefore clear that any new approach to the regulation of finance should include a fundamental re-evaluation and rebalancing of the relationship between public authorities and regulators and the finance industry.

A strong case can be made for movement towards new forms of social ownership and accountability for financial institutions. These could build on historic forms such as mutual and cooperative ownership. This would ensure some check on money managers, and more active monitoring should be possible even by shareholders, such as the large institutional investors, especially pension funds (Blackburn 2002, 487-90). However, this can only guard against the worst excesses, and is no substitute for regulation. Such regulation can establish a framework of social objectives, within which managers should be free to take investment decisions based on criteria of efficient resource allocation (ibid., 490). Central to such social objectives should be financial stability; but as the financial crisis has shown, several factors contributed to excessive risk-taking. Not the least important were the remuneration structures for financial managers, which have now become a focus for public debate and regulatory concern,[40] although the `bonus culture' still seems impervious to public opprobrium or regulators' threats.[41]

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[39] IMF 2009, Table 1. However, a high proportion is due to liquidity provisions and guarantees which do not require upfront financing, excluding this the cost for advanced G20 countries averages 5.2% of GDP. The actual eventual costs are hard to estimate, the IMF paper suggests they might be about half the upfront costs, but this may be optimistic, and the cost of losses on guarantees would be additional to this. It estimates that government debt would rise to over 100% of GDP in advanced G20 countries by 2014.

[40] In August 2009 the Attorney-General for the State of New York, Andrew Cuomo, released a report which showed that 9 of the largest US banks, which between them had received $175b of support under the Troubled Assets Relief Programme (TARP), had nevertheless paid bonuses in 2008 amounting to $32b; compensation and benefits remained

A key issue, not least for measures to ensure social accountability, is how to ensure effective regulation on a world-wide scale. One response would be to call for a World Financial Authority (WFA), however utopian it may seem. Such a suggestion was already made by some commentators following the Asian financial crisis of 1997-8 (Eatwell & Taylor 2000), on the grounds that `the domain of the regulator should be the same as the domain of the market' (Alexander et al. 2006, 15). There are however a number of difficulties with this view, quite aside from its politically utopian nature. It is certainly the case, as the sketchy account in this paper has made clear, that the fragmented character of financial market regulation has created serious problems both of coordination and of legitimation. However, that fragmentation cannot be wished away, it is essentially a reflection the diversity of both the forms of finance and of financial institutions as they developed historically in different countries, as well as the different aims and objectives of regulation.[42]

Systemic stability can certainly be identified as an overarching global imperative for regulation, if one accepts that international liberalization has gone so far that financial instability in any one part of the financial system can create serious dangers worldwide. However, there are several regulatory functions which potentially affect stability. Monetary policy has important effects, and the loose money policies especially of the US Fed. created the excessive liquidity that fed the house price bubble in the early years of this century, as Alan Greenspan himself acknowledged to the US Congress in October 2008.[43] Another distinct function is supervision of the financial firms, which is often done by several regulators for different types of firm (banking, insurance, brokerage). Even in the UK, which created a single regulatory body covering all market participants when the Financial Services Authority (FSA) was established in 1997, coordination with the Bank of England and the Treasury in the `tripartite system' was problematic (UK Treasury Committee 2008b).

Problems of coordination would remain even if all aspects of financial regulation were brought together under the umbrella of one enormous global regulator. The challenge is to design regulation appropriately, so that (i) no significant loopholes are left, and (ii) those responsible for each specific aspect also look to the bigger picture and communicate well with each other. Although the detailed accounts of the 2007-8 crisis which have emerged do show some failures of communication, the defects of the regulatory system were due much more to the failure to take a more holistic view, by both regulators and market participants.[44] This suggests that the three

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at the levels set during the bull markets even after the collapse: thus, Citigroup and Merrill Lynch, despite each posting losses of nearly $28b, paid out bonuses totalling $5.3b and $3.6b respectively (Cuomo 2009, 2-5).

[41] Thus, in the UK the FSA issued a Code requiring remuneration policies to be `consistent with effective risk management', and threatened that if necessary incomplete adherence to the Code could result in increased capital requirements (Turner 2009, 79-81). See further below.

[42] A comprehensive survey for the G30, chaired by Paul Volcker (G30 2008), classified regulatory systems as institutional (based on the legal form of regulated entities), functional (based on type of business), integrated (single regulator), and `twin peaks' (separating safety-and-soundness and conduct-of-business regulation). It found a trend towards integration and regulation by objective, but also cautioned that coordination problems were also present in integrated regulators, which also sometimes suffered from bureaucratic overload.

[43] These were also rooted in international economic imbalances, which led to large foreign holdings of US bonds especially by China, Japan and oil exporting countries (see Exhibit 1 in Turner 2009, 14, and data and analysis in BIS 2009, 5-7).

[44] This is the conclusion of Gillian Tett's detailed, insightful and readable account (Tett 2009, 298-9). A major reason of course was that the public regulatory authorities were entirely *unable* to see the whole picture because they had in effect abandoned any attempt even to understand let alone regulate the actual transactions taking place in the

aspects of regulation, of firms, markets and instruments, should be geared towards the overarching issue of systemic risk and should be coordinated (BIS 2009, 125). A new approach should therefore go beyond proposals for specific regulatory reform of these three aspects, to consider the interactions of the various aspects of regulation and their systemic implications.

Firms

The reform of firms is especially challenging because finance has become both interconnected and complex. The rescue of failing firms has created fewer and larger financial conglomerates,[45] and even smaller firms are highly interconnected. The paradox is that the mega-firms may be too large and complex to be able to manage their own risk adequately, yet too big to be allowed to fail, while the smaller ones may be too interconnected to let fail (BIS 2009, 120). 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. Thus, an increasing number of commentators are suggesting three essential structural reforms for the future financial system:

> (i) the financial sector should be smaller, more proportionate to the overall economy;
>
> (ii) no entity should be `too big to fail'; in my view, this should be done by a more explicit formulation of the `lender of last resort' (LLR) guarantee;
>
> (iii) there should be a clearer separation between firms providing standard forms of financial intermediation as kind of a public utility, referred to as `utility banking' or `narrow banking', and those involved in more risky and speculative activities.[46]

In the words of the Bank for International Settlements, banks must become `smaller, simpler and safer' (BIS 2009, 119). These aims can only be achieved, I suggest, if the reforms of firms are linked to those of markets and instruments.

Regulators who mainly focus on prudential supervision of firms are inevitably emphasizing reform of capital requirements. This should learn the lessons of the crisis in particular to introduce counter-cyclicality and to tighten up the provisioning for market risk and the trading book, which will result in much higher minimum capital ratios. However, as was pointed out in the Turner Report, there needs to be a more fundamental evaluation of how the levels of capital provisioning are determined, based on principles rather than pragmatism (Turner 2009, 53-58). National regulators need not wait for international agreement through the BCBS, and should in any case remember that the Basel standards are supposed to be *minimum* standards, and should learn from the success of countries such as India and Spain, which avoided the worse of the financial crash due to having adopted higher requirements. Capital standards are only one of the three pillars of Basel, and should be supplemented by rigorous supervisory reviews of firms (the second pillar).

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marketplaces of finance. Finance had become an increasingly opaque and secretive world, protected by arcane technical practices, regulation of which had largely been delegated to practitioners themselves.

[45] 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.

[46] These now include, in the US Paul Volcker (former head of the Fed.); in the UK Mervyn King (Governor of the Bank of England, see King 2009), Adair Turner (chairman of the Financial Services Authority, see Turner 2009), and John Kay (*Financial Times* columnist, see Kay 2009); and the Bank for International Settlements (see BIS 2009

The third pillar of Basel, `market discipline' raises perhaps the most important aspect of regulation, which has only recently begun to be discussed: the circumstances in which state support should be provided for failing firms, and the terms for such support. Market discipline does not exist as long as public authorities continue to pursue the policy of `calculated ambiguity' about their lender-of-last-resort function.[47] Concern about this situation lies behind the proposals for a requirement that all licensed firms should be required to draw up a `will', in the form of a `plan for an orderly wind down of their activities', which has been suggested by the Governor of the Bank of England (King 2009, 7). I suggest that there is a need to go further, and to make the LLR guarantee explicit, but in a way that is linked to regulatory requirements in relation to financial markets and instruments (explained further below).

Finally, there is the question of regulation of entities which are engaged in financial transactions which pose a high degree of risk, and therefore should *not* be covered by the LLR guarantee. In a sense this is also about market discipline, since we seem to have forgotten the fundamental point that the profits made by financial firms derive from managing `other people's money'. The financial managers who have been able to make enormous personal gains, through the bonus systems which are now much debated, or through fee structures (in the case of hedge funds), are able to profit from the upside, while bearing no real risk on the downside. This is because they benefit from the strongest protection: that of limited liability. I suggest that current proposals for regulation such as those put forward by the European Commission, based on licensing managers of `alternative' investment funds, 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. Indeed, licensing and regulation of such funds could be counter-productive by inducing a false sense of security in investors.

However, an excellent case can be made for devising an incentive structure which would make hedge fund and other money managers bear risks from their trading, rather than the present arrangements which generally allow them to benefit enormously from the upside, and lose nothing from the downside. This could be done by introducing legal liabilities which would ensure that they face personal responsibility for losses and failure, instead of being insulated by corporate limited liability (Hudson 2009, 854).

Markets

Ensuring safety of markets centres on a fundamental reform of OTC trading, to introduce central counterparties and trading on a public platform such as an exchange in place of the totally opaque and private system which was allowed to mushroom. This is the only way to prevent contagion leading to liquidity crises due to lack of knowledge about exposures. Although this seems obvious and necessary, even the relatively modest proposals put forward in the US Congress are currently subject to strong lobbying. It has also been proposed that the risks arising from interconnected and common exposures should be safeguarded against by introducing a systemic capital charge (BIS 2009, 129).

[47] This telling phrase and the proposal are from an analysis made fifteen years ago (Herring & Litan 1995, 128). Yet the same ambiguity was 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 accountability of regulators; but this would not seem to deal adequately with the tension between moral hazard and the need to maintain systemic stability.

An important measure for creating `friction' which could act as a brake on excessive speculation is the proposal for a tax on financial transactions. This originated as far back as 1972, in the form of James Tobin's proposal for a very low tax on foreign exchange transactions, to curb volatility on forex markets (Porter 1996, ul-Haq et al. 1996). This has been considered controversial in the boom years, but it is surely now time to give it serious consideration. Support for doing so has recently strengthened by a notable conversion: the UK government has suggested that a general financial transactions tax should be considered, although among a list of other proposals. The motivation now seems to be as much to generate fiscal revenues to help pay for the cost of the crisis as to regulate the markets, but if one measure can do both, so much the better. Clearly, this would have to be internationally coordinated. However, the threat that firms would escape it by moving offshore is exaggerated. Financial transactions are generally cleared through payments systems based in the major currency centres and primary financial markets, and these could be used to ensure effective enforcement. Since the French and German governments are already in favour of the idea, it now has substantial official support.

However, effective reform of markets, above all, requires that the nettle of regulation of financial instruments should be firmly grasped.

Instruments

The greatest regulatory gap revealed by the crisis is in relation to financial instruments, which were left almost entirely to private regulators. Plugging this gap needs more than the introduction of tighter controls on credit rating agencies such as the Code of Conduct put forward by IOSCO in 2008. Public regulators should have a more direct role, and there should be a reversal of the presumption in favour of financial innovation (Bell & Quiggin 2006, 646). 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, through a system of registration and certification.[48] 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, and which categories of investor should be allowed to deal in each.

This obviously poses a question about enforcement. Financial transactions are private, even if they have a public impact, and firms which desire to engage in trading of unapproved instruments could do so in secret, or offshore. To be effective, a prior approvals requirement should be linked to the system of licensing of financial firms, especially the deposit-takers which benefit from the LLR guarantee. In effect, LLR support could become a keystone linking together the regulation of firms, markets and instruments. This should be done by making any guarantees of public support for financial firms which are deemed systemically important conditional on strict conditions on the type of financial intermediation in which they may engage.[49] The aim should be to insulate the social financial intermediation system from financial speculation. Since licensed

[48] This has now been proposed by the BIS (BIS 2009, 126-7); even the Turner report accepts that direct regulation of both retail and wholesale financial products should be considered (Turner 2009, 106-110).

[49] As the Governor of the Bank of England has pointed out `It is not sensible to allow large banks to combine high street retail banking with risky investment banking or funding strategies, and then provide an implicit state guarantee against failure. Something must give' (King 2009, 7).

financial entities would only be permitted to deal in approved instruments, there could be no danger of primary financial markets moving `offshore'.[50]

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 facilitate market manipulation and 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.

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 ministries for fear of losing out in the competition among financial centres, as discussed in the previous chapter. 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.

Re-Balancing Regulation and the World Economy

Would there 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. However, 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 (Brenner 2002, 2006, Arrighi 2007, G. Turner 2008). A shift to greater income equality would provide a more sustainable basis for economic growth than credit-based boom and bust.

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.[51]

As I have argued in this paper, the damage done by financialisation has resulted not from lack of regulation, but from faulty regulation. In particular, the financial sector has benefited enormously from three major forms of *protection*:

> (i) Although financial markets are considered to be private, financial firms have been backed by the lender of last resort guarantee, which has been provided covertly, and unconditionally. The result, as commentators have now pointed out, is that the managers of the `private' firms have pocketed the profits in boom years, leaving the enormous losses when crises erupt to be paid by the general public. This protection should be removed, by making the LLR explicit, and conditional on those firms benefiting from it engaging only in approved transactions.

[50] A financial group might still use an affiliate formed in an offshore jurisdiction to engage in transactions for which the parent is not licensed, but the affiliate would lose LLR support of the home state.

[51] This has been surprisingly little researched, see now Bogle 2008, French 2008. The Governor of the Bank of England has pointed out that the British banking system was, in proportion to GDP, five times greater than that of the US, creating correspondingly greater risks to th economy (King 2009).

(ii) Money-managers have become enormously and disproportionately rich, benefiting from taking risks with other people's money. This protection should be removed, by ensuring personal liability for such money managers.

(iii) Financial business has generally been lightly taxed, because the international tax system has allowed enormous loopholes, via the offshore finance system, for international financial transactions and activities. This privilege could be removed by more effective international tax coordination and enforcement.

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. It must be recognised as having become highly socialized, the transmission belt between social savings and investment, and its institutional structures should begin to reflect this (Blackburn 2002).

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