

**Global Finance after the Credit Crisis**

**John Grahl**

**Middlesex University Business School**

## **Introduction**

The vast financial disturbances which broke out in 2007, leading to unprecedented state intervention to rescue financial systems in 2008, surely necessitate a reconsideration of the role and prospects of the global financial system which has developed over the last decades. That system is widely recognised to be both a central component of the global economy as a whole and a key driving force in its emergence and transformation. For example, only the enormous financial recycling operation linked to China's export surplus has permitted the exceptional growth of the Chinese economy.

The continuing crisis of major banks, other large financial corporations and capital markets clearly impairs core functions of the financial system. Both political reactions to the crisis and the reactions of market participants themselves are bound to enforce major changes in the system. These are difficult to foresee – the present essay only sketches some possible lines of development.

The next section looks at certain features of the crisis and suggests that it represents not simply another financial crisis but a crisis of finance itself. The following section argues that neither financial globalisation nor the increasing importance of financial markets are likely to be interrupted by the crisis; rather will both market actors and regulators have to grapple with the introduction of specific public goods, without which both the stability and the efficiency of the global financial system will be permanently at risk. The concluding section speculates on the possible long-run consequences of the crisis.

## **A Crisis of Finance**

The liberalisation of finance, from the 1970s onwards, in most advanced economies, together with the removal or attenuation of many regulatory restrictions and controls, led to a chronic destabilisation of finance from the beginning of the 1980s onwards. From the start the main victims of crises were in the developing world. Indeed, the most serious such episode, in 1982, was the outbreak of a crisis of third world indebtedness which, aggravated by harsh and misguided policies at the IMF, had grave and long-lasting effects across much of Africa and Latin America.

It is not yet clear whether the financial turbulence which broke out in 2007 will have such devastating social consequences. However, to a much greater extent than previous crises, it calls into question the global financial system as such. There are several reasons for this.

### ***Scale***

Firstly, where several of the previous crises were centred on peripheral or emerging markets, or on the high-technology sector of developed economies, the latest crisis is clearly centred on the financial sectors of the United States and Western Europe. Moreover, most of the problematic financial claims relate to the finance of US real estate – this is by far the biggest financial market in the world. Outstanding household mortgage debt, on its own, is much larger than either government or corporate debt (and the latter also includes large amounts of mortgage debt).<sup>1</sup> The understandable interest of many researchers in corporate finance and in international financial transactions should not obscure the sheer scale of North American real estate finance.

Of course, to begin with, only a small fraction of these real estate claims were called into question – the subprime mortgages which, repackaged and resold, became the collateralised debt obligations at the centre of the subsequent turmoil. But more and more mortgages were affected, partly by the

contagion of doubt among similar assets, partly by the fall in real estate prices which undermined previously adequate collateral.

Leverage undoubtedly contributed to the enormous profits of major banks during the bubble. The “big five” British banks, for example, declared profits of £37 billion in 2006 – the year before the crisis broke out. This sum represented nearly 13% of all corporate profits in the UK and nearly 4% of total UK GDP.

The sheer scale of the crisis was then multiplied by the same leverage mechanisms which had expanded and intensified the subprime bubble. Losses relative to the own capital of the banks and hedge funds concerned were multiplied because so much borrowed money had been used to obtain increased subprime exposure.

This effect in turn was aggravated by the break-down of tactics widely used by the banks to avoid capital adequacy regulations. Most of the dubious mortgage-backed assets had been moved off the balance sheets of the banks themselves into various “conduits” or “Special Investment Vehicles” (SIVs). This meant that the banks themselves did not have to raise capital to match the risks involved. Most of the SIVs, however, were funded by short-term borrowing which became difficult or impossible to roll over as the quality of their assets was called into question and alarm spread through the credit markets. Thus banks had to take the mortgage-based assets back onto their balance sheets and ensure that enough risk-adjusted capital was in place to meet regulatory requirements. These risks, of course, were growing at the same time. The ratings agencies, which had initially given astonishingly high credit-worthiness ratings to sub-prime-based and similar assets, now rapidly downgraded them, increasing the capital needed.<sup>2</sup>

The move to highly leveraged positions had been very general and had affected other sectors besides residential mortgages. Thus the rapid expansion of both hedge funds and private equity investment in Europe towards the end of the bubble period was part of the same general attempt to increase the yield on financial assets by assuming more debt. Hedge funds and private equity are two very types of investment vehicle – but they do have in common the use of very high gearing and this accounts for the simultaneous expansion in the years up to 2006 (PSE, 2007).

In the subsequent crisis, many of these positions also had to be unwound because the assets were losing value and the credit by which they were funded was drying up.

For all these reasons, the credit crisis involved losses on an unprecedented scale. The main factor involved, however, seems to have been the very general move to highly leveraged positions.<sup>3</sup> This in turn reflected a general reluctance to accept what would otherwise have been much lower rates of return on financial assets than had been the case over the previous twenty-five years.

When an individual bank takes a more leveraged position, it increases its own exposure to systemic risk, but that risk as such does not necessarily increase. However, when the sector as whole does so, the risk of system-wide disturbance is bound to grow. Central banks and other regulatory authorities around the world seem to have been aware that this was happening but were reluctant to respond by higher interest rates or tightened regulatory constraints because of the wish to extend the macroeconomic upturn. The consequence was a system breakdown on such a scale as to constitute a very serious threat to production and employment.

The deregulatory *Zeitgeist* was also a factor: the banks and other financial corporations have been powerful forces behind the continuing drive to dismantle many forms of social control over economic life. One consequence of such lobbying was the promulgation of new, and much less restrictive, capital adequacy standards for international banks (Basel II) at just the time when the

bubble burst. Regulators had been repeatedly warned that Basel II would aggravate the cycle by requiring banks to raise additional capital in economic downturns, that it gave far too much scope to banks to disguise the risks of their positions and that it did not impose sufficient transparency on bank accounting practices. The neglect of these prescient criticisms means that Basel II will almost certainly be rapidly superseded by new, more rigorous, regulatory arrangements.

### ***Impairment of the Banks***

Secondly, the crisis struck at the central actors of the global financial system – the banks. It has been a central feature of financial globalisation that classical bank intermediation has to some extent been displaced by the growth of security markets. This never meant, however, that the banks were less important as financial actors – on the contrary they have played a leading role in the security markets – as market-makers, market analysts and fund managers as well as in their more established functions of underwriting security issues and financing security trading (Plihon et al., 2006).

A necessary condition for the banks to play this key role has been the globalisation of interbank relations. In fact the money markets of the advanced economies, largely dominated by inter-bank credit flows, are the most completely globalised component of international finance and the major international banks which are active lenders and borrowers across currency zones could be regarded as the core of the global system.<sup>4</sup>

The banks concerned, which it is plausible to take as those linked to the CHIPS payment system, have undergone a ferocious concentration process bringing down their number from 142 in 1985 to 46 today.<sup>5</sup> The crisis has accelerated this process because even among these giants there are banks which have been badly affected by the credit crunch and the associated write-downs of assets and which are looking for safety in a merger.

These giants have the closest interconnections, supported by the deployment of extremely powerful information and communication technologies. Together they form a coherent system at the core of global finance. The fact that they use different currencies has disguised these close interdependencies from some commentators, but in fact the huge amounts of currency traded on foreign exchange markets represent, much more than “casino” speculation, a vast international interbank credit market. (The frequent misinterpretation of FX trading as essentially currency speculation is discussed in Grahl and Lysandrou, 2003.)

The growth of security trading around the world is completely dependent on the functioning of these interbank markets because this is how the banks are able to finance security trading.

The impairment of this system through the crisis was never the “paralysis” sometimes evoked in the press, because that would have meant a catastrophic breakdown of the entire economy. At the start, problems were confined to *unsecured* term interbank credit and what happened was a rise in the risk and liquidity spreads in the interest rates concerned, rather than a cessation of lending. Most interbank lending is against collateral and these markets continued to function more or less normally.

However, as bank balance sheets continued to deteriorate, problems of illiquidity were combined with a growing threat of insolvency. (See the commentaries by Willem Buiter on the *Financial Times* website.) The failure of the investment bank, Lehman Brothers, seems to have concentrated minds and tensions spread to interbank relations as a whole while the banks perceived as most vulnerable suffered runs on their credit which they could no longer roll over at any interest rate.<sup>6</sup>

In general, financial crises tend to be more or less severe according to whether or not risks are concentrated in the banking system (Boyer et al., 2004).<sup>6</sup> Such a concentration was certainly the

case here, with an IMF estimate that, out of some \$1.4 trillion of losses and write-downs through the crisis to October 2008, the banks had incurred at least some \$725 billion and possibly as much as \$820 billion (IMF, 2008, p9). In principle, a fraction of the losses by banks and other agents were insured either through “monoline bond insurance companies” or the use of credit default swaps, but the authorities, by buying many of the most dubious assets, tried hard to avoid too much stress being placed on these insurance systems for fear of another wave of failures and asset price falls.

Interbank credit represents an enormous economy of monetary resources, with a relatively restricted aggregate deposit base supporting a vast and rapidly growing amount of financial transactions. By the same token its collapse would be the equivalent of an immense monetary deflation. By the autumn of 2008, however, only unprecedented and coordinated interventions by governments prevented such a collapse. Many of the giant banking corporations at the centre of global finance were now subjected to political tutelage.

### *Loss of Control*

A third novel feature of the crisis was the loss of control by central banks. Macroeconomic textbooks usually assert that monetary policy is implemented through the central bank’s control over short-term interest rates. By the summer of 2007 this truism was being re-examined as it became clear that the interest rates charged to households and businesses had become detached from the official rates set by central banks. As the latter were eased in response to financial distress and weakening economic activity, the former remained stubbornly high.

It is here that interest rates on unsecured term interbank lending become highly significant because these rates such as LIBOR or EURIBOR (London or Euro interbank offered rate, respectively) are the benchmarks used to set interest rates on a very large amount of private lending. The banks were not prepared to reduce the rates at which they lent to their customers in step with reductions in central bank target rates.

In fact, central banks are relatively small players in credit markets. (For example, the Bank of England in 2007 had assets totalling £39 billion, although this grew in the crisis to £73 billion in 2008; compare Barclays – one of the “big five” British commercial banks, with assets of £1.3 trillion in 2007.) They typically target directly only one very short-run interest rate, that in unsecured overnight interbank lending, and rely on substitution among the different credit markets to influence the general level of short-run rates in the economy as a whole. Implicitly, this depended on the strength and stability of the big commercial banks as well as their confidence in one another. Given those conditions, the commercial banking sector as a whole came close to being part of the state in that it could borrow on approximately the same terms as could central government.

The impairment of the big banks put an end to this situation. A huge spread opened up between one-month and three month interbank interest rates and those in the overnight markets still, more or less, under central bank control. (It is interesting that this happened at virtually the same time and to approximately the same extent in dollar, euro and sterling money markets, testifying to the close, global, integration of the financial sectors concerned. That the Japanese banking sector escaped the credit crisis with relatively limited damage seems to be due to the severity and persistence of the Japanese banking crisis from the late eighties onwards.) These spreads correspond to the liquidity and risk premia exacted by the banks’ creditors. (For a detailed analysis, IMF, 2008a, chapter 2). At the same time, the interest rates on lending to the government went very low indeed as wealth-holders sought a safe haven. (Late in October 2008, the annual yield on three month US Treasury Bills was below 1% while the corresponding rate in Germany was 1.75%.)

These gaps persisted, and even widened, in spite of big moves by the central banks to re-establish control. They started lending much greater sums to the banks, for longer periods and accepting a much wider range of assets as collateral. Thus a central tool of macroeconomic policy has itself been impaired by the crisis. In a deteriorating macroeconomic climate, where interest rate reductions for household and business borrowers would normally be a key policy response, this situation eventually provoked quite radical proposals. Suggestions include channelling all interbank lending through the central bank or expanding the scope and scale of central bank lending in other ways. In any case it seems likely that central bank balance sheets will grow substantially relative to those of commercial banks and other financial corporations, leading perhaps to a permanent shift in the balance between public and private power in the financial sector.

Such a development would to some extent at least reverse the monetarist reassignment of macroeconomic functions which began in the 1980s. The sole goal of monetary policy was to be price stability, rather than either financial stability or support for general macroeconomic policies. The minimalist central bank – with a very limited balance sheet – is to some extent a consequence of the approach to monetary policy adopted at that time. To that extent, central banks may be recovering some of their previous functions, although in a very different context.

### **Reform, not Fragmentation**

The argument so far has merely been to characterise the credit crisis as being, in at least three important respects, different from and more severe than previous crises: the combination of the scale of the disturbances, the impairment of the large banks at the centre of global finance and the weakened control of central banks suggests that this is not simply a financial crisis, but a crisis of finance, calling into question the both structure and the functioning of the financial system.

It is much more difficult to go beyond these descriptions to assess the possible nature and direction of future changes to this system. Any such assessment has also to consider the new *political* situation. The financial *déba*cle is the biggest blow ever suffered by neoliberal ideology and the biggest ever setback for the neoliberal project. Thus a much wider range of economic strategies are now becoming politically possible than in the recent past where neoliberalism has dominated and this makes future developments even more uncertain.

However, some implications of the crisis already seem relatively clear. Firstly, the financial sector, and especially major banks, are likely to be subjected to much closer, more intrusive and more comprehensive regulation. Some obvious examples can be given. ( It has to be acknowledged that some regulatory issues raise technical difficulties beyond the expertise of the writer. For a recent account, responding to the first phases of the crisis, Davies and Green, 2008.) Reforms to bank accounting will be used to control off-balance sheet assets and liabilities and to reassert capital requirements over the entirety of a banks' positions. The conflicts of interest which have clearly distorted the work of the ratings agencies will be addressed. There will be a push for more complete and up-to-date reporting of the positions taken by banks and hedge funds. Some reforms also seem likely to reduce the immense incomes enjoyed by those at the head of financial corporations. Many of the parameters of regulation are likely to become cyclically variable to avoid the exacerbation of cyclical upswings and downswings by existing regulatory structures.

Secondly, it seems already clear that the crisis has not called into question but rather reinforced the global character of the financial system. One aspect of this is the serious attempts that were made, in spite of a some initial disarray, to coordinate the official responses to the crisis. Central banks, firstly, organised a series of simultaneous monetary policy changes and other coordinated

interventions; central bank literature shows that, although little action was taken during the subprime bubble, there was a growing concern with stability issues and intense communication and debate among central banks about them. ( For an account of arrangements in Europe see ECB, 2006.)

Serious government intervention began in the autumn of 2008 with the rescue package proposed by US Treasury Secretary Henry Paulson and eventually adopted by the Congress and a rescue package, including the provision of new capital for the banks from the government, in Britain. Coordination of such policy interventions seems to have begun almost at once, both within the EU and among the G7 group of the largest economies. There were clearly dangers of spillover effects from some types of intervention, such as the Irish government's guarantee of bank liabilities, and some clashes, notably between Britain and Iceland, but in general the international nature of the crisis and the need for an international response seem to have been recognised early (Iceland's appeal for credit from the Russian Federation is an interesting illustration of the geo-political shifts which may be accelerated by the crisis). Reference to global forces might also, of course, be an attempt to evade responsibility by national political leaders, but on the whole the political language used seems to be justified by economic and financial events.

The responses to crisis in the private sector also seem to have reinforced the global character of the system. Protectionist tactics were hardly to be expected from the big banking corporations who surely place a very high value on their freedom of action, but there were some indications that the banks were mobilising international resources to meet the crisis. The intervention of sovereign wealth funds to supply new capital to Western banks went very badly for the former, who came in too early, bought bank equity too dear and suffered huge losses in consequence (Demarolle and Johanet, 2008). Nevertheless, these actions may foreshadow larger shifts in the ownership and control of the global financial system in the future.

It was mentioned above that the globalisation of finance has been marked by a substantial change in the structure of finance, away from classical bank intermediation and towards a much bigger role for organised security markets – for both company shares and, especially, bonds. Does the “securitization” fiasco mean the end of this trend? The view taken here is that such an outcome is extremely unlikely. A security is a marketable claim. It is necessary to distinguish between the legal and economic interpretations of this definition. The whole range of “toxic” assets arising from the subprime bubble had the legal form of marketability but they often lacked its economic content – the markets for such paper were thin and inadequate even towards the end of the bubble when the absurd AA and AAA ratings had not yet been exposed. (For just this reason these assets had yields well in excess of what could normally be expected from high-grade paper.) It was pointed out above that much of the risks involved stayed with the banks – this in itself indicates that formal securitization did not really correspond to the creation of a functioning market.

To function in effective way, asset markets require a certain standardisation. The possibility or otherwise of such standardisation determines whether the widespread recognition of the asset which is needed for tradability exists. The key advantages of traditional “relationship” banking over the public issue of securities arises where credits or investments are too specific to permit a wide market to develop. As Michel Aglietta (2008) points out, when such standardisation is not possible, securitization destroys information. The thin, fragile markets for subprime-based collateralised debt obligations destroyed it on an enormous scale, with potential buyers knowing less and less about the nature of the claims being offered.

Similar considerations apply to the huge growth of financial derivatives. Those which have given rise to most difficulties are OTC (over-the-counter) instruments rather than the much smaller total of standardised, exchange-traded derivatives where big defaults are unlikely because changing prices are rapidly reflected in payments by counterparties with deficit positions. In the case of both asset-based obligations and OTC derivatives, the danger was a confusion between types of claim. Those which are highly specific or which depend on detailed knowledge of a particular agent should stay with or close to the original creditor because information will be destroyed by secondary trading; those which are effectively standardised can be safely traded on secondary markets. What is to be avoided is a confusion whereby claims are moved off banks' balance sheets without being effectively distributed across liquid secondary markets. Regulation should perhaps encourage a certain standardisation of claims; this is often said to discourage innovation but, in both retail and wholesale financial markets, it is now clear that many supposed innovations are either exercises in spurious product-differentiation or, quite simply, scams. A somewhat slower pace of financial innovation is perhaps desirable.

The broad trend from classical bank intermediation to security markets is not yet fully understood. On one view, the main reason for it is regulatory – the imposition of risk-adjusted capital requirements on the banks. However, it is also possible to interpret the shift in terms of economic development – as supporting financial relations among a very large number of agents and on a very great scale. Thus the clear lead of the US in the development of security markets could reflect the fact that, even before the era of global finance, this was a vast economic system spread over a huge area (Grahl, 2001; Lysandrou, 2005).

Thus, although one can be certain that much tighter controls will be put on bank activities, both the global character of financial systems and the increased role of security markets seem likely to survive the crisis, and indeed may even be advanced by it.

## **Two Conjectures**

The predictions made in the previous section are already somewhat tentative. At the time of writing the end of the crisis is not yet in sight and there is no possibility of any definitive assessment of its course and consequences. Instead of attempting to reach clear conclusions, two possible lines of development will be sketched in this last section – both of them speculations but with a certain rationale.

Firstly, there now seems to be a real possibility that the world economy is entering a period of cheap capital and low rates of return. Since the Volcker shock of 1979 (the drastic change in US monetary policy with very high interest rates) the potential abundance of investible funds has been prevented from driving down target rates of return in industry and commerce. During the 1980s, very tight monetary policies and a general search for liquidity by potential investors kept interest rates at very high levels. Real (that is, inflation adjusted) rates were driven higher by the fact that disinflation ran ahead of monetary policy relaxation. In the 1990s, rates on government debt came down markedly, but the very high rates of return sought by investors in the equity markets prevented this from lowering the cost of risk-bearing capital. These unsustainable conventions as to rates of return were shaken by the dot.com crash when it turned out that in many cases high reported shareholder returns were illusory. Then in the subprime bubble banks used massive leverage in an ultimately futile attempt to raise the return on their capital.

One lesson of these episodes is that a sustainable convention, among investors, of a general rate of return has something of the character of a public good. The authorities might in the future use their



analytical and research resources to diffuse realistic expectations as to yields; they will certainly try to police the use of leverage by major financial corporations. One result could be a general decline in yields and interest rates, not simply on government debt, but also on industrial investments and consumer credit. If this happened the social consequences, particularly in labour markets could be dramatic. The persistent deterioration in the relative bargaining position of employees has been caused to a considerable extent by the high rates of return which were routinely pursued on industrial assets. It is impossible to predict how such a change in the balance of power in the labour market would be expressed – a revival of traditional trade unionism seems rather unlikely. But a reassertion of employee interests in some form would most certainly be encouraged by cheap capital. One of the main forces pressing down on the confidence and the ambitions of the popular classes would be weakened.

The second conjecture is even more speculative. At present the global financial system is being rescued by governments and at public expense. This is bound to lead to reforms – the way the system works will change. It is at least conceivable, however, that change will go further than this – that there will be a challenge to the finalities of the system, to its goals and the priorities among them. To envisage such a development is certainly to take a sanguine view of the global economy and global financial relations. But, whether or not such a transformation is feasible, it is most certainly necessary. The key priorities of development in the poorest countries and of environmental protection cannot plausibly be asserted in economic life unless they shape the financial constraints on households and businesses. Only if the global financial system becomes the bearer of these objectives do they have the slightest possibility of realisation. This is a long way from the speculation and excess which has disfigured Western financial centres in recent years. But it is to be hoped that the end of that world may make another possible.

## Endnotes

1. At end 2007, household mortgage debt in the US stood at \$10.5 trillion; corporate debt was \$6.3 trillion; government (Federal, State and local) \$7.3 trillion; claims on foreign debtors \$1.9 trillion. Federal Reserve (2008) p8.
2. For the disastrous role played by credit rating agencies in the assessment of sub-prime mortgages and the collateralised debt obligations based on them see, IMF (2008a) chapter 2, box 2.2, "When is a AAA not a AAA?".
3. It should be noted that, contrary to the declarations of the European Commission (D.-G. Internal Market press release, 27<sup>th</sup> February 2008) and some political leaders in Europe, the drive for high leverage was even more marked in Europe than in the US itself. Daniel Gros and Stefano Micosi report that, "the dozen largest European banks have now on average an overall leverage ratio (shareholder equity to total assets) of 35, compared to less than 20 for the largest US banks." These economists recognise that the leverage numbers reported to regulators are much lower, but they explain this by the "massive in-house investment banking operations of European banks" which "are not subject to any regulatory capital requirement." They give the following figures for the leverage ratios of European banks as of 30<sup>th</sup> June 2008: UBS, 46.9; ING 48.8; Barclays, 61.3; Crédit Agricole, 40.4, Deutsche (2007) 52.5. (Gros & Micosi, [www.voxeu.org](http://www.voxeu.org)).
4. Globalised money markets require huge amounts of collateralised foreign currency trading: the key instrument involved, the FX swap, accounted for the first time for more than half of all FX trading in 2007, some \$1.7 trillion per day (out of a total of \$3.2 trillion). Dollar trades against the euro, the yen, sterling Swiss francs, Australian and Canadian dollars and Swedish krona made up two thirds of all FX trading, again relating it to the activities of Western financial centres. Data from BIS (2007).
5. This concentration was until recently dominated by mergers between banks in the same currency zone and this may have disguised the increasingly global nature of the system as a whole. The recently announced Commerzbank, Dresdner Bank continues this pattern, but the crisis has also seen a number of large international mergers and takeovers such as Mitsubishi's stake in Morgan Stanley.
6. The account in the text is based on the supposition that the monetary flows through wholesale payment systems can be taken as a reasonable proxy for interbank lending (it is difficult to imagine what else these enormous flows can represent). For example, the flow of funds through the ECB's inter-bank payment system, TARGET, continued to grow throughout 2007 (from 2.19 trillion euro per day in January to 2.69 trillion in December). However, in 2008 actual falls are recorded from 2.76 trillion in January to 2.32 in August – the first such contraction in the system's history. Flows through the New York-based CHIPS system, however, which handles dollar payments among 46 of the very biggest international banks, continued to grow at annual rates of 12.1% in 2007 and 9.6% in the first half of 2008.
7. In Ireland, for example, the government issued a blanket guarantee of all bank borrowing, which comes close to moving, at least temporarily, the banking system as a whole into the public sphere. Of course this measure, which has several precedents in, for example, Italy in the 1930s or Sweden in the early 1990s was taken to rescue the banks rather than to re-establish central control over interest rates, which are set by the ECB. But similar measures are being proposed to secure a general decline in market interest rates to combat recession.
8. The neoliberal project is understood here as a political strategy which uses the intensification of certain market processes to roll back many of the gains achieved by the workers' movement and other social movements in the first seventy years of the twentieth century. It is important to add that this definition excludes the use of the term, "neoliberalism" to cover all important developments in contemporary capitalism. In particular, the emergence of a global financial system is not seen basically as a consequence of neoliberalism, but rather as a necessary and functional aspect of globalisation in general, which is itself perceived as a new stage in the socialisation of production.

## References

- Aglietta, M. (2008) “La crise du crédit structuré et la réforme de la regulation prudentielle” in Artus, P. (ed) *La Crise Financière: Causes, effets et réformes nécessaires*, PUF, Paris
- BIS (2007) *Triennial Central Bank Survey: Foreign exchange and derivatives market activity in 2007*, Bank for International Settlements, Basel.
- Boyer, R., Dehove, M., and Plihon, D. (2004) *Les Crises Financiers*, Conseil d’Analyse Économique, Documentation Française, Paris
- Davies, H. And Green, D. (2008) *Global Financial Regulation: the essential guide*, Wiley, London.
- Demarolle, A. and Johanet, H. (2008) *Rapport sur les fonds souverains*, Documentation Française, Paris.
- ECB ( 2006) “The EU Arrangements for Financial Crisis Management”, Financial Stability Review, European Central Bank, Frankfurt, December.
- Federal Reserve (2008) *Flow of funds accounts of the United States*, Federal Reserve Statistical release, June 5<sup>th</sup>.
- Grahl, J. (2001) “Globalised Finance and the Challenge to the Euro”, *New Left Review*, March/April.
- Grahl, J. and Lysandrou, P. (2003) "Sand in the Wheels or Spanner in the Works? The Tobin Tax and Global Finance", *Cambridge Journal of Economics*, vol. 27, no 4.
- IMF (2008a) *Global Financial Stability Report*, April.
- IMF (2008b) *Global Financial Stability Report*, October.
- Lysandrou, P. (2005) “Globalisation as Commodification”, *Cambridge Journal of Economics*, 29, 5.
- Plihon, D., Soubeyran, J. C. and Saidane, D. (2006) *Les Banques: acteurs de la globalisation financière*, Documentation Française, Paris
- PSE (Socialist Group in the European Parliament) (2007) *Hedge Funds and Private Equity: a critical analysis*.