FIVE EXPLANATIONS FOR THE INTERNATIONAL FINANCIAL CRISIS

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ABSTRACT

This paper first briefly outlines the background to the 2007-08 international financial crisis. It then goes on to examine five of the main approaches that have been put forward to explain the crisis: the widespread presence of perverse incentives; the over-expansionary monetary policy of the US Federal Reserve; the impact of global imbalances and a so-called 'savings glut' in developing countries; the extensive deregulation of the financial system since the 1970s; and the attempt to generate an increasing return on all forms of capital and the associated pressure on wages. The paper concludes with a brief note on the policy implications which follow from each of these explanations.

RESUMO

Este artigo, primeiramente, descreve de forma breve o contexto da crise financeira internacional ocorrida em 2007-2008. Em seguida, passa a analisar cinco das principais abordagens que têm sido propostas para explicar a crise: a presença generalizada de incentivos perversos; a política monetária expansionista do Federal Reserve; o impacto dos desequilíbrios globais e o chamado "excesso de poupança" nos países em desenvolvimento; a extensa desregulamentação do sistema financeiro desde a década de 1970; e a tentativa de se gerar um retorno maior sobre todas as formas de capital e as pressões associadas sobre os salários. O artigo conclui com uma breve nota sobre as implicações políticas que decorrem de cada uma destas explicações.

INTRODUCTION

The financial crisis which began in the US in 2007, and which led to the deepest global recession since the Second World War in 2008 and 2009, is only the most recent in a long string of crises and recessions that have afflicted capitalist economies. Breakdowns in economic reproduction did also occur in pre-capitalist societies, but these were primarily due to external factors, such as wars or draughts or the plague. In capitalist economies, by contrast, crises have emerged as a result of developments *within* the economy. This paper will first briefly explain the background and main features of the current crisis and then examine five of the main approaches to explaining it.

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^{1.} For details of financial crises since the 17th century, see Charles Kindelberger, *Manias, Panics and Crashes. A History of Financial Crises*, 1978.

CAPITALISM AND CRISES

In the nineteenth century, periods of rising prosperity led to investment in expanding production and, encouraged by the profitable opportunities, banks eagerly met increased demands for borrowing. As growth picked up, wages and other prices would begin to rise and erode profits. At the same time, the price of assets (shares, land, even raw materials) would increase and encourage speculative buying, often financed by borrowing, and this would push up prices yet further. At some point the bubble in asset prices would burst and, faced with large losses, bank lending would contract dramatically causing a major downturn in production, employment and income. The recession, in turn, led to the bankruptcy of the weakest firms, making labour and other resources available to other sectors, so preparing the basis for the next period of expansion. Such crises began in Britain in the early nineteenth century, and cycles of expansion and crises then recurred at approximately 10 year intervals, spreading to include other Western European countries and the US as industrialisation was extended in the second half of the century.

As the scale of industry and finance increased, crises became ever more threatening and the state began to intervene in an attempt to ameliorate their impact. In the second half of the nineteenth century, the Bank of England developed the function of 'lender of last resort' in order to prevent problems at one bank from setting off a chain of bank failures.² This involved making loans available to banks that were basically sound but which were threatened by a sudden lack of short-term funds. Although the US was the largest capitalist economy by the turn of the 20th century, because of populist political sentiment, it did not have a central bank until the Federal Reserve System was created in 1913.³

As is well known, the most serious crisis of all began with the US stock market crash in 1929 and was followed by a wave of bank failures between 1930 and 1932 in which around one third of US banks went bankrupt. When the Roosevelt government took office in early 1933, it immediately introduced a series of measures to regulate the financial sector. The Glass-Steagall Act introduced tight controls on the banking sector, including limits on interest rates and a legal separation between commercial banks (which accept deposits and make loans) and investment banks (which advise on and conduct transactions with securities). Shortly after, the Securities and Exchange Commission was set up to regulate the securities markets.

The period that followed the introduction of these controls on the financial system was characterised by an unusual degree of financial stability. From the 1940s

^{2.} This was first analysed in Walter Bagehot, *Lombard Street. A Description of the Money Market*, 1873, reprinted 1999.

3. This was prompted by a major crisis in 1907, when the largest private financiar LP Morran, effectively took on the role.

^{3.} This was prompted by a major crisis in 1907, when the largest private financier, J.P.Morgan, effectively took on the role of central bank, and prevented a financial collapse. For an excellent account, see Lawrence E. Mitchell, *The Speculation Economy. How Finance Triumphed Over Industry*, San Francisco, 2007.

until the early 1970s the US – and the other major capitalist countries, which also had tight regulations on their financial sectors – did not experience any serious financial crises. This period of financial stability was, furthermore, associated with a steady rise in the standard of living of the mass of the population. In the absence of serious recessions, unemployment remained exceptionally low while real wages increased and the provision of welfare services was expanded.

THE RE-EMERGENCE OF THE FINANCIAL SECTOR

After the Second World War, when US households had built up large savings, US banks initially held substantial reserves of deposits and did not experience the tight regulations as a serious constraint on their activities. By the late 1960s, however, this began to change and the banks began pushing for major changes.

First, the banks initiated a process of financial innovation, developing new instruments that were not explicitly forbidden by the existing regulations. The first of these was the creation of the Certificate of Deposit in 1966. Because this was, in legal terms, a tradable certificate and not a bank deposit, it enabled banks to attract funds by offering interest rates above the legal maximum set by the government. In subsequent years, the innovations became ever more complex, in part to get round regulations, but also to deliberately obscure the risks involved.

A second important development was the internationalisation of the US banking system. In the late 1960s, US banks began to open branches in Europe, predominantly in London, and this expanded rapidly in the course of the 1970s.⁵ The big US banks were, in part, following their big US corporate customers, who had begun to invest in Western Europe in the 1960s. But the expansion of US bank branches in London was also strongly motivated by a desire to operate outside the constraints of the US regulatory authorities, in particular to get round restrictions on capital outflows which had been tightened in the mid-1960s.⁶

The third significant development was a process of financial deregulation. Faced with the processes of innovation and internationalisation, the US authorities were faced with a stark choice: either they would have to seriously update the regulatory framework or they would have to accept that banks would increasingly circumvent the existing rules. In fact there was remarkably little discussion. With strong pressure from financial institutions, and a political and ideological climate

^{4.} The only banking crisis during this period was in Brazil in 1962.

^{5.} The number of US banks with overseas branches increased from 8 in 1960 to 130 in 1980 (M. Mizruchi and G. Davis, 'The globalization of American banking, 1962 to 1981', in Frank Dobbin (ed.), *The Sociology of the Economy*, New York, 2003).

^{6.} The main measures were the Interest Equalisation Tax, introduced in 1963 to discourage foreign corporations from raising capital in the US bond market, and the Voluntary Credit Restraint Programme, introduced in 1965 to discourage banks in the US from funding the overseas investments of US corporations.

that had swung towards a belief in the self-regulating capacity of private markets, the US government embarked on a step-by-step process of eliminating the constraints on the financial sector.

FINANCE-LED CAPITALISM

From around the early 1980s, it is possible to identify a new phase of US capitalism, and because of the central role occupied by the financial sector, it often referred to as finance-led capitalism.⁷ Many of the feature of this new phase took shape around the same time in Britain under the government of Mrs Thatcher, and they followed, albeit it in a somewhat more moderate form, in France and Germany from the 1990s. The main financial developments included the following.

Firstly, as a result of the process of innovation and deregulation there was an enormous growth of the financial sector. This involved a growth of financial institutions, above all of big banks, but also of non-bank financial institutions, including pension funds and investment funds (known as mutual funds in the US), and more speculative institutions such as hedge funds and private equity funds; it involved the development of a host of new financial instruments, including complex bonds and speculative instruments such as derivatives; and it included a major expansion of financial markets.

Secondly, the strengthening of the financial sector resulted in pressure on non-financial companies in the industrial and commercial sector to give top priority to achieving the highest possible financial return for share holders – the pursuit of so-called 'share-holder value'. If companies failed to sustain high dividend payments to shareholders, they were threatened with the risk of big institutional investors selling off their holdings. If share prices then fell significantly, the company was likely to get taken over. To guard against this, companies embarked on repeated rounds of rationalisation, outsourcing parts of the work, closing the least efficient plants, and reducing costs – especially wage costs – wherever possible.

Thirdly, non-financial firms – faced with the pressure to raise their own returns – began to engage in financial investments which appeared to offer a higher return than that obtained from investing in their previous lines of business. In this way, as non-financial companies increased their holdings of financial assets, investment in fixed capital (machinery, equipment and buildings) tended to be weaker than the earlier post-war period and, as a result, generated fewer jobs.

This new phase of capitalism appeared to be very successful for corporations in the US. From the early 1980s up until 2007, the share of corporate profits in

^{7.} For a discussion of this new phase see the essays in Gerald Epstein (eds.), *Financialisation and the World Economy*, Cheltenham, 2005.

US national income increased steadily, rising to a level last seen in the mid-1960s.⁸ The financial sector benefited in particular, with its share of total pre-tax profits rising from around 15 per cent in the early 1980s, to some 35 per cent in the years just before the crisis broke in 2007.⁹ However, this was associated with a remorseless pressure on wages and, in practice, economic growth in the US from the early 1980s was highly dependent on the expansion of credit and the growth of speculative bubbles in asset prices. Despite the government's commitment to free market capitalism, each time the model faltered the Federal Reserve adopted a highly expansive monetary policy so as to forestall a serious recession and crisis.

In the 1980s, the most striking financial development was the extensive use of so-called junk bonds to finance a major wave of corporate takeovers. Compared with the industrial-grade bonds issued by well-known companies, there was a higher risk that these bonds would not be paid back, but they offered a more attractive rate of return and proved highly profitable for the investment banks which managed their issue. In 1989, however, after several years of over-lending, the banks abruptly curtailed the expansion of new loans and the economic expansion came to an end. The Federal Reserve managed to ameliorate the impact of the downturn by adopting an extremely expansive monetary policy and interest rates were held down for several years.

In the second half of the 1990s, the US economy experienced its next expansion which was driven by a boom in information technology. Rising profits and a strong growth of lending fuelled rising investment in new technology and led to a major bubble in share prices. Households with direct or indirect holdings of shares experienced a so-called 'wealth effect', and borrowed to finance higher consumption. This came to an end when the share-price bubble burst in early 2000, leading to a collapse in prices that was comparable with that after the famous crash in 1929. However, while this led to a recession in 2001, the Fed was again able to limit the impact of the downturn by adopting a highly expansionary monetary policy and interest rates were kept exceptionally low for several years.¹⁰

Between 2002 and 2007, the US economy registered a further expansion, this time driven primarily by a boom in house prices. Financial institutions aggressively expanded their mortgage lending, including lending targeted at low-income households through so-called sub-prime mortgages. As a result of financial deregulation, these were subject to much looser conditions than traditional mortgages although

^{8.} See Paul Lally, Andrew Hodge and Robert Corea, 'Returns of Domestic Nonfinancial Business', *Survey of Current Business*, US Department of Commerce, May 2008.

^{9.} US Bureau of Economic Affairs, National Income and Product Accounts, Table 1.14.

^{10.} The Federal Reserve's lead interest rate was reduced in rapid steps from 6.5% in January 2001 to 1% in 2003 and 2004.

the interest rates were significantly higher.¹¹ As increased demand pushed house prices up, many households borrowed money against the increased value of their homes, and this was then used to finance increased consumption. Although wages remained virtually stagnant, the increase in consumption spending was able to drive economic growth in the US for several years. But when the bubble in house prices burst in 2007, the whole situation unravelled, detonating the most serious financial crisis since the 1930s.

SECURITISATION

The crisis was set off by the failure of financial instruments created to finance the growth of mortgage lending. In 1988, an international agreement known as the Basel Accord established that banks should hold capital reserves equal to 8 per cent of their lending. This was to ensure that, if loans were not repaid, the capital reserves would provide a bank with a cushion to absorb the losses without driving it into bankruptcy. However, one effect of this regulation was to encourage a process know as securitisation, by which the banks would bundle a large number of loans (in the case of mortgages, typically several thousand), and create a security which could be sold on the capital market to a financial investor. In this way, a bank could earn fees and, by removing the loans from its own books, avoid tying up their capital for the life of the mortgages. The investor in turn received the interest and capital payments from the mortgage borrowers.

Mortgage-backed securities were also created by bundling together large numbers of sub-prime mortgages but, because the repayments on these were largely dependent on low-income households, many with irregular employment, they were considered to be riskier than other forms of securities. The big New York investment banks then developed a highly lucrative business, taking the initial securities and creating new, highly complex securities known as collateralised debt obligations in which the rights to repayments was sliced up into *tranches*. The detail of how these instruments were constructed was extremely complicated – indeed, one aim was precisely to obscure the underlying risks involved – but the general principal was as follows. The first or senior tranche had first call on the repayments by mortgage borrowers. Because it was thought that even among low paid households a certain proportion would always meet their payments, this tranche was considered very safe, but it paid the lowest return. Once repayments to senior tranche holders had been met, holders of the second

^{11.} While the interest rate on a standard 30-year mortgage was 5-6%, that on a sub-prime mortgage could be as much 10%. See Robert B. Avery, Kenneth P. Brevoort and Glenn B. Canner, 'The 2006 HMDA Data', *Federal Reserve Bulletin*, vol. 93, December 2007.

^{12.} The rate was lower for some forms of lending that were considered to involve a lower risk.

^{13.} For an account of the development of securitisation and its role in the crisis, see Gillian Tett, Fool's Gold, London, 2009.

or mezzanine tranche would receive repayments. These were considered a little more risky, and this tranche therefore offered a slightly higher rate of return. The lowest or equity tranche would only receive repayments when the other tranches had been serviced. If any households failed to meet their repayments, the holders of this tranche would have to carry the loss. Because this tranche carried the most risk, investors had to be offered the highest rate of return.

Securitisation was widely hailed by orthodox economists who argued that, by dispersing the risk of losses among a large number of investors, with investors able to select the level of risk they were able to cope with, the financial system as a whole had become more stable. However, many of the big banks themselves held some of the most risky securities, in part attracted by the high returns they paid. Furthermore, these holdings were often financed by borrowing short-term funds at lower rates of interest from other financial institutions. For a time, it was a highly profitable investment. In fact it was so attractive, that many European banks – including Germany's publicly owned *Landesbanken* – began to invest in US mortgage backed securities too. However, when the housing bubble burst and prices began to fall, the value of many mortgage backed securities and their complex derivatives began to fall precipitously.

THE ONSET OF THE CRISIS

The crisis broke in August 2007.¹⁴ The immediate cause was that banks did not know to what extent other banks had incurred losses from holding mortgage related securities and, in order to avoid the risk of not being repaid, banks stopped lending to each other. As a result, the inter-bank money market, where banks borrow and lend short-term funds between themselves, and which is central to the functioning of a modern capitalist banking system, dried up. This occurred almost simultaneously in the US and in Europe, and both the Federal Reserve and the European Central Bank responded by immediately pumping large amounts of money into the US and Euro-area inter-bank markets. But while this prompt response prevented a complete breakdown in the money market, inter-bank lending remained seriously curtailed and, in turn, bank credit to industrial and commercial businesses was reduced markedly. In the following months, the central banks in the US, the Euro-area, Britain and Switzerland repeatedly pumped additional funds into their banking systems, but the situation continued to deteriorate as US mortgage backed securities continued to loose value, and the scale of bank losses increased. One signal of the deteriorating situation was the failure of Bear Stearns, one of the leading New York investment banks, in March 2008.

^{14.} For a more detailed account, see Trevor Evans, 'The 2002-2007 US Economic Expansion and the Limits of Finance-led Capitalism', *Studies in Political Economy*, vol. 83, Spring 2009.

The crisis deepened dramatically in September 2008. At the start of the month, Fannie Mae and Freddie Mac, the two most important semi-public mortgage lending agencies in the US ran into serious problems and required major financial support from the government. The key development was the collapse in mid September of the big New York investment bank, Lehman Brothers, which had been deeply involved in the construction of complex mortgage-based securities. The US authorities claimed that, because Lehman was an investment bank (which deals in securities) and not a commercial bank (which accepts deposits and is protected by the central bank), they could not legally intervene. But it is clear that the government had decided to show big financial institutions that they could not count on always being rescued. The way that they did this, however, proved to be a major error of judgement.

The collapse of Lehman Brothers set off a chain of further major financial failures, including that of American International Group, the largest insurer in the world, which had incurred huge liabilities insuring dubious mortgage backed securities. It also led to an acute sharpening of the crisis in the inter-bank money market, which resulted in an almost complete collapse in bank lending in the US, even to the most well-known companies. Finally, in early October the crisis hit international stock markets, which lost some 20 per cent of their value in the course of one week in the US, Europe and even Asia, which had been less touched up to this point.

At the end of the second week in October, amidst a wide-spread official view that the international financial system was on the edge of collapse, the governments of the US and the major European countries, including Britain, France and Germany, all announced plans to invest capital directly in banks faced with failure. This amounted, in effect, to a part nationalisation of the banking system and in the US the government became the main owner of the two biggest banks, Citibank and Bank of America. At the same time as making capital available, the governments also announced plans to provide guarantees for inter-bank lending in the hope that this would lead to a return to lending.¹⁵ However, while the coordinated state intervention did halt the chain of financial failures, it was unable to prevent a collapse of bank lending, either in the US or in Europe.

THE GLOBAL RECESSION

Several years of strong economic growth in the US came to an end in 2007 when households were no longer able to finance a further increase in consumer spending by borrowing against rising house prices. When bank lending dried up

^{15.} For details, see European Central Bank, 'Measures taken by euro area governments in support of the financial sector', *Monthly Bulletin*, April 2010, pp. 75-90.

in October 2008 following the failure of Lehman Brothers, investment abruptly collapsed, and the US was hit by its most serious slump since the 1930s. In the final quarter of 2008 and the first quarter of 2009, output and employment in the US dropped abruptly, and the impact of the slump was transmitted to the rest of the world.¹⁶

The slump was transmitted to Western Europe through two main channels. Firstly, growth in Europe before the crisis had been strongly dependent on exports, largely driven either directly or indirectly by demand from the US. The slump in US demand, exacerbated by a collapse of trade credit, led to a decline of some 20 per cent in European exports and Germany, where growth had been especially dependent on exports, was particularly affected. Secondly, as in the US, the European economy was hit by a sharp reduction in the availability of bank credit as European banks struggled to deal with big losses on holdings in US securities. As a consequence, economic output in the older EU countries fell by 4.4 per cent in the final quarter of 2008 and the first quarter of 2009.¹⁷

The impact of the crisis in much of Eastern Europe and the Baltic Region was even more severe. Many countries had had large current account deficits and, prior to 2007, they had been able to finance these deficits at relatively favourable interest rates by borrowing on the international capital market. However, once the crisis broke in 2007, this financing dried up leaving the countries with a major problem. Furthermore, most of these countries did not benefit from the protection of being members of the Euro area, and were also faced with the danger of a currency crisis. In the event, Hungary and Latvia were forced to turn to the International Monetary Fund for emergency support, and were required to introduce major cuts in public expenditure, including spending on wages and pensions.¹⁸

The crisis was transmitted to Asian countries, including Japan and China, primarily through a collapse in the demand for manufactured exports, with Japan's exports falling by 50 per cent, and many smaller Asian exporters suffering from a collapse in the demand for semi-finished products.

As a result of a dramatic decline in industrial output in the US, Europe and Asia, the demand for energy and other raw materials declined sharply, leading to a notable fall in most primary commodity prices, including that of oil. Consequently, oil exporters such as Russia, the Middle Eastern countries and Venezuela

^{16.} US real GDP fell by 3% in the last quarter of 2008 and the first quarter of 2009 (US Bureau of Economic Affairs, *National Income and Product Accounts*, Table 1.1.1).

^{17.} See Eurostat Table tet20002 for trade and Table teina011 for growth.

^{18.} The Baltic countries were by far the worst hit, with real GDP falling in 2009 by 18% in Latvia, 14.8% in Lithuania and 14.1% in Estonia (Eurostat, Table tsieb020).

saw a sharp fall in their income, as did the exporters of agricultural and mineral products in Latin America and Africa.

Finally, some of the very poorest in the world were affected by the crisis through a decline in the employment of migrant workers and a fall in the remittances which they were able to send back to their families. This was particularly marked for migrant workers in the US from Mexico and Central America, but it also affected many other migrant workers from elsewhere in Latin America, Asia and Africa.

GOVERNMENT RESPONSES

The sharp slump in output in the US and Europe came to an end in spring 2009. In the second half of the year output began to recover slowly, although it remained below the level reached prior to the onset of the crisis. The recovery was aided by significant government stimuli. In the US, one of the first measures of the Obama government on taking office in early 2009 was to push through a \$789 billion programme of increased expenditure and tax cuts, worth about 3 per cent of GDP in 2009 and 2010. In Europe, there were calls for a coordinated fiscal expansion, most notably by the French government. Although Germany opposed this, many countries did subsequently introduce national programmes and, in the event, the programme introduced in Germany, worth around 2.5 per cent of GDP over two years, was one of the largest.

Government programmes have compensated, at least to some extent, for a collapse of spending by private firms. However, these programmes, together with huge sums spent on supporting the financial sector and a big decline in tax revenues, have led to large budget deficits and a dramatic rise in the indebtedness of the major capitalist states. As a result, while output has been stabilised, the focus of the crisis has shifted to the ability of governments to finance their borrowing. The US government has, for some 30 years, relied on large inflows of foreign capital to help finance its budget deficits, but major holders of US debt, such as the Chinese government, have indicated they are uneasy about accumulating ever more US debt. In the Euro area, despite unprecedented peace-time indebtedness, the stronger countries are still able to finance substantial borrowing, although countries with large current account deficits in Southern Europe have faced greater difficulties. By spring 2010, Greece – although a member of the Euro area – was only able to borrow at around twice the rate of interest paid by Germany, and was forced to seek emergency support from other euro area countries and the IMF. Shortly after, the threat that similar problems could spread to other countries, in particular Portugal and Spain, obliged Euro area governments to agree to the creation of an unprecedented €440 billion fund to provide support for member

states.¹⁹ As a result of the pressure to reduce budget deficits, Ireland, Greece, Spain and Portugal have all been obliged to cut public spending, including spending on wages and pensions. At the time of writing, the ground is also being prepared for cuts in social spending in northern Europe.

Despite expectations at the height of the crisis, governments have been slow to take measures to curb the financial sector. After the threat of financial collapse receded in early 2009, the pressure to introduce major reforms abated. In fact, many of the US banks that survived the crisis began to post large profits again. The market share of the biggest banks had increased and they were able to benefit from central bank financing at exceptionally low interest rates. More generally, although the model of finance-led capitalism had seemed discredited at the height of the crisis, in both the US and Europe, governments returned to policies that were in important respects similar to those they had been pursuing before the crisis. In the US this involves striving to promote a revival of consumer spending, while in Europe – and especially Germany – governments place their hopes in a renewed expansion of exports.

The financial sector has, of course, resolutely opposed the introduction of measures that would seriously restrict their activities and in the US the big banks have spent huge sums lobbying Congress to this effect.²⁰ However, in addition to the pressure which the financial sector can bring to bear, policy responses have also been shaped by the dominant understandings of what went wrong.

THE ROLE OF INCENTIVES

One of the most widely accepted approaches to explaining the crisis emphasises the role of perverse incentives. There are numerous instances of this. Firstly, the sales personnel who went from door to door in poor neighbourhoods selling subprime mortgages were paid by the number of customers they could get to sign up. They offered very low initial repayment rates (so-called 'teaser rates' that did not even cover the cost of interest) and had no incentive to check people's incomes or to point out that repayments would rise significantly after one or two years (who reads the small print?).

Secondly, the banks which originated the mortgages did not plan to keep these on their own books, but rather to bundle a large number of such loans together and to sell them as a security to a financial investor, such as a pension fund or an

^{19.} This was part of a broader package totalling €750 billion, which included an additional €60 billion for an existing programme to provide EU member states with balance of payments support, and €250 billion to be made available by the International Monetary Fund.

^{20.} See, for example, Binyamin Appelbaum and Eric Lichtblau, 'Banks Lobbying Against Derivatives Trading Ban', *New York Times*, 9 May 2010.

investment fund. The banks' aim was therefore to generate as many mortgages as possible, and not to carefully check whether mortgage holders would be able to meet their repayments.

Thirdly, the investment banks which took the initial mortgage backed securities and then sliced them up to create highly complex collateralised debt obligations generated huge profits from fees. The bankers who put these instruments together were rewarded with lavish bonuses – which could run into millions of dollars a year – that were generally paid in the same year that the instruments were created, irrespective of how they performed in the future.

Finally, the ratings agencies, on whose assessment of risk most investors relied when deciding whether to purchase an unfathomably complex security, were faced with a serious conflict of interest. The agencies are profit making businesses, and by the height of the housing boom a significant part of their profits were generated from rating complex mortgage based securities. In fact, only limited data was available to assess the risks (sub-prime mortgages were quite new) and the agencies had an incentive to provide a favourable assessment in order to ensure that the investment banks did not take their profitable business to another agency.

Much of the official discussion of reforms, both in the US and Europe, has been concerned with how to rectify this pattern of incentives. Bankers have been widely criticised for their greed, which did indeed assume mammoth proportions, and their bonuses have come in for particular scrutiny. However, greed is not something that is entirely new to capitalism, and the significance of individual motivations and perverse incentives can only be understood in the context of broader economic developments.

US INTEREST-RATE POLICY

A second approach to explaining the crisis, put forward by some economists and much repeated in European – and especially German – policy circles, is the argument that the US central bank kept interest rates too low and for too long between 2001 and 2004.²¹ According to this view the low interest rates were the key factor which drove the strong growth of mortgage lending and led to the bubble in house prices which, on bursting, caused the crisis.

The low interest rate in the US certainly did make mortgage borrowing more attractive – it actually enabled many poorer households to buy a house for the first

^{21.} For a pithy statement of this view, see John B. Taylor, *Getting Off Track. How Government Actions and Interventions Caused, Prolonged and Worsened the Financial Crisis,* Hoover Institution Press, 2009. Taylor was architect of the influential 'Taylor Rule' which proposes a simple formula for guiding central banks' monetary policy. He served as assistant secretary of the Treasury in G. W.Bush's first government, the time when the bubble was developing.

time.²² However, the criticism of US interest-rate policy fails to recognise that the whole pattern of growth in the US since the 1980s has been repeatedly dependent on bouts of highly expansive monetary policy and that without such measures the financial sector would almost certainly have suffered more serious crises in 1990 and, most especially, in 2001.

Following massive over-lending to finance the wave of takeovers and mergers in the 1980s, the banks abruptly curtailed further credit in 1989, and the Federal Reserve under its new Chairman, Alan Greenspan, responded by dramatically lowering interest rate, which were kept low from 1990 to 1994. This relieved pressure on the major banks and, although many savings banks had to be rescued at this time, a significant financial crisis was avoided.²³ Furthermore, although the credit crunch led to a brief recession in 1990, this was remarkably mild. While employment growth was muted for several years the highly expansive monetary policy played a key role in creating the conditions for a new period of expansion.²⁴

In the second half of the 1990s, when the US economy registered its strongest growth for two decades, the stock market soared. At its peak, it was by most criteria as over-valued as in 1929, but when the bubble burst in 2000 it did not have such a devastating impact as the earlier crash and this was primarily due to the response of the central bank. By dramatically cutting interest rates from 2001 to 2003, it again relieved the pressure on key financial institutions and avoided a major financial crisis. Furthermore, although there was a recession in 2001, as in 1990, it was brief and mild. When expansion resumed in 2002, it was driven almost entirely by increased consumption and, with wages stagnant, this was primarily financed by borrowing – this time against rising house prices.

The fact that European policy makers have harked on about the supposed errors of US monetary policy also overlooks the fact that European – and above all German – economic growth in the period from 2002 to 2007 was in important respects dependent on the expansive policy in the US. In Germany, where wages were at best stagnant, economic growth was largely dependent on increasing exports, while the growth of global demand was driven, primarily, by the credit-financed increase of consumer demand in the US.

^{22.} The proportion of black, Hispanic and female purchasers was much higher among sub-prime borrowers than among those for standard 'prime' mortgages (see Robert B. Avery, Kenneth P. Brevoort and Glenn B. Canner, 'The 2006 HMDA Data', *Federal Reserve Bulletin*, vol. 93, December 2007).

^{23.} Many Savings and Loans Associations had made big losses on speculative investments following their deregulation in the early 1980s. Government support, estimated at around \$150 billion, was large at the time, but has since been dwarfed in the most recent crisis.

^{24.} The main channel through which this operated was by making the US less attractive for financial investors so that the dollar weakened, making US exports significantly more competitive.

GLOBAL IMBALANCES

A third approach to analysing the crisis identifies the source of the problem not in the US but rather in developing countries, in particular, the Asian exporting countries, who have large current account surpluses.²⁵ This view has enjoyed considerable resonance in official US circles. The basis for the approach is that a so-called 'global savings glut' led to a large inflow of capital into the US, and that this contributed to the bubble in share prices in the late 1990s and, following the end of the IT boom, led to low long-term interest rates that, in turn, led to the bubble in house prices.

The US has had a current account deficit since the early 1980s. The size of the deficit increased strongly from the 1990s, and this was only possible because of large offsetting inflows of capital to the US. The ability of the US to finance such a deficit was closely related to the role of the US dollar as the principal international reserve currency. Following the Asian financial crisis in 1997-98, countries that had been forced to bow to IMF conditions consciously built up their reserves of foreign currency to avoid such a situation in the future. Meanwhile China, which has built up the largest foreign reserve holdings, has pegged its exchange rate either to the dollar, or to a basket of currencies including the dollar, in order to ensure that its export industries remain competitive, and to continue generating jobs for the stream of workers flowing into the cities from the countryside. In addition, oil exporting countries accumulated substantial surpluses for several years prior to the onset of the crisis, much of which was also invested in US financial assets.

The savings glut hypothesis emphasises the policy choices made in the developing countries. However, the ability of the Asian countries to achieve large export surpluses was strongly dependent on the demand for their exports, and the most important factor driving this was the credit-financed consumer demand from the US.²⁶ Consequently, while the large inflow of capital to the US did, at least in part, reflect policy choices by Asian governments, those countries only faced this choice because of the demand generated as a result of the strongly expansionary monetary policy in the US. Furthermore, although speculation played some role in pushing up oil prices, much of the oil-price increase was driven by the strong demand for energy when economic growth was high in both the US and Asia.

^{25.} The notion of a 'global savings glut' was put forward before the crisis broke in a series of speeches by Ben Bernanke, Greenspan's successor as chairman of the Federal Reserve. See Ben Bernanke, 'The Global Savings Glut and the US Current Account Deficit', 10 March 2005. A more developed analysis, which broadly supports the Bernanke position, and was also written before the onset of the crisis, can be found in Martin Wolf, *Fixing Global Finance, How to Curb Financial Crises in the 21st Century*, Yale University Press, 2009.

^{26.} This argument is developed in Richard Duncan, *The Dollar Crisis. Causes, Consequences, Cures, John Wiley & Sons (Asia)*, 2003/2005.

Although the savings glut analysis is primarily applied to developing countries, it should be noted that there have also been strong inflows of capital to the US from Japan and from Europe, in particular Germany, all of which also had significant export surpluses. Indeed, it was the inflows of private capital from Europe to the US that led to European banks being hit by such large losses from investments in US mortgage backed securities.

The US's dependence on large inflows of capital to finance its current account deficit was widely seen as a problem before the crisis broke. If foreign central banks should cease to invest in dollars, it could set off a crisis of the dollar (referred to in official parlance as 'a disorderly adjustment'). The US authorities have sought to deflect attention from their responsibility for their country's deficit by focussing on China's export surplus, and by making repeated calls for the Chinese authorities to cease intervening in the foreign exchange market and to allow the remnimbi to appreciate. In line with its emphasis on eliminating international imbalances, in April 2009 the US also proposed that the G20 should seek to promote more balanced current accounts, but this was opposed, for one, by Germany.

DEREGULATION

A fourth approach to explaining the crisis, and one that is much emphasised by critics of the neo-liberal model of capitalism, focuses on the role of policies to deregulate the financial sector.²⁷ An important step in the process of deregulation was the abandonment of pegged exchange rates in 1973, after which the US and the other major capitalist states largely left their exchange rates to be determined in the foreign exchange markets. The subsequent volatility of exchange rates was an important impetus for the development of a whole series of so-called derivatives, designed to provide insurance against adverse exchange rate movements. Then, in 1980, as inflation increased in the US, the legal limit on interest rates was abolished – an important pre-condition for the subsequent introduction of sub-prime mortgages, which charged interest rates some five percentage points higher than standard mortgages.

Following the election of President Reagan in 1980, the process of financial liberalisation deepened. A new banking act in 1982 relaxed the regulation of banks, including savings banks, many which promptly plunged into risky, high yield business and, after making widespread losses, eventually required a government bail-out costing some 150 billion dollars at the end of the decade. In 1987, the Reagan government replaced Paul Volcker as head of the Federal Reserve with Alan Greenspan, who was seen as more sympathetic to financial deregulation and,

^{27.} This is mentioned, amonst others, by Dean Baker, *Plunder and Blunder. The Rise and Fall of the Bubble Economy*, Sausalito, 2009.

under Greenspan, rules on interstate banking and the separation of commercial and investment banks began to be interpreted ever more liberally. The final step, taken in 1999 under the Clinton government, was to repeal the 1933 law that enforced the separation of commercial and investment banks, opening the door for the creation of giant financial conglomerates.

Under Greenspan important decisions were also made *not* to introduce tighter regulation in various areas. The Fed allowed banks to set up subsidiaries, usually in the Caribbean, known as 'structured investment vehicles' which were used to hold financial investments while avoiding the usual rules on minimum capital holdings (which enables banks to absorb losses without going bankrupt).²⁸ This was where the banks held their investments in the complex mortgage-based securities which, when their value collapsed, set off the crisis. The Fed also decided not to introduce a tighter regulation of financial derivatives, many of which were custom designed (standardisation reduced banks profits) and were sold 'over the counter' or outside organised exchanges. Credit default swaps (CDS), a derivative which provides insurance against a bond failing, played an important role in the crisis. Such insurance appeared to make investments in mortgage-backed securities even safer. However, many CDSs were sold by investment banks – in particular the investment banking division of AIG – that did not have the resources to meet their obligations if the bonds should fail. Incredibly, a CDS can be purchased without owning the bond it is insuring, providing the purchaser with a strong interest in the bond failing!

The deregulation of the financial sector, which began in the 1970s, and gained force thanks to the neo-liberal policies of the Reagan and Clinton governments, facilitated the expansion of the financial sector in the US, the development of new, ever more risky financial instruments, and the enormous build up of credit which fuelled the stock market bubble in the 1990s and the housing bubble in the next decade. However, while deregulation was certainly a key pillar of neo-liberal philosophy, the actual process of deregulation was introduced step by step in response to pressure from the financial sector, which had found ways of initiating such changes inside the limits of previous laws.²⁹ The financial sector is still subject to far greater regulation than any other sector of the economy, and the state has attempted to steer the process, most notably by intervening with expansionary policies whenever financial stability appeared to be threatened. It is such intervention to contain crises that has led to the emergence of giant finan-

^{28.} In Europe, banks — including the German *Landesbanken* — opened similar subsidiaries, usually in Dublin, to hold their investments in mortgage-based securities. Spain was alone in not allowing its banks to evade minimum capital requirements in this way.

^{29.} This point is stressed in Leo Panitch and Matin Konings, 'Myths of Neoliberal Deregulation', *New Left Review*, no. 57, May-June 2009, pp. 67-83.

cial institutions which are seen as 'too big to fail'. While the audacity of the big financial institutions' schemes for generating profits beggars belief, they are the instigators of financial deregulation rather than its result. This implies that calls for financial re-regulation will, on their own, not be sufficient to deal with the forces that gave rise to the crisis.

EXCESS CAPITAL

The fifth and final explanation to be examined here argues that the root cause of the crisis lies in the huge sums of capital which have been accumulated in the US (and Europe). The incessant drive to obtain the highest possible return on this capital has led to stagnant or at best very low increases in income for large sectors of the population, thereby restricting the growth of their purchasing power in the economy. As a result, in the US the growth of household consumption and of the economy at large became dependent on many households borrowing more and more, a highly precarious strategy which led to the build up of an untenable mountain of debt securities that at some stage was doomed to collapse.

In the 1950s and 60s, capital was quite closely tied to specific industrial and commercial companies. When profitability declined with the end of the post-war boom in the 1970s, the owners of money capital sought greater mobility for their capital so that they could take advantage of whatever opportunities might offer the highest rates of return. This was reflected in the growth of international flows of financial capital. These were predominantly between the developed capitalist countries but, when opportunities presented themselves, capital also flowed into developing countries. Here, with smaller financial markets, this often led to bubbles in share or land prices, and when these bubbles burst, the capital would rush out, precipitating a major crisis.³¹

From the 1950s to 1970s, the stock of financial wealth in the US grew roughly in line with GDP, but this growth then accelerated rapidly. According to a study by McKinsey Global Institute, it rose from 194 per cent of GDP in 1980 to 442 per cent in 2007.³² This growth could only be sustained so long as the financial assets were able to secure an adequate return. To this end, financial institutions generated a whole range of exotic, complex instruments for which they charged high fees. As already noted, financial investors also pressured non-financial corporations to give priority to generating higher dividends for share holders, a process which required a constant process of rationalisation and cost cutting, and led to the outsourcing

^{30.} For wage developments in the US see Table 3.5, Mishel Lawrence, Jared Bernstein and Heidi Shierholz, *The State of Working America 2008/2009*, Ithica, 2009.

^{31.} The most notable episodes include the crises in Mexico (1994-95), Asia (1997-98) and Russia (1998).

^{32.} McKinsey Global Institute, *Global Financial Markets*, September 2009. The largest increase was in holdings of bonds and shares.

of tasks, including to low-wage countries.³³ At the same time, non-financial corporations began to invest in financial assets, which offered a higher return than they could achieve through productive and commercial projects. Consequently companies tended to invest a smaller proportion of their funds in fixed capital, a development which also had a negative effect on job creation. The overall result was to weaken the growth of employment and to create a sense of insecurity at work – described by mainstream economists as the 'frightened worker' effect. At all events, the growth of real wages for both working and middle-class employees was seriously constrained.

The problem is demonstrated by the relation between the growth of labour productivity and the growth of wages. Between 1950 and the mid-1970s, productivity and real wages both increased by around 80 per cent. Between 1980 and 2007, however, while productivity again increased by some 80 per cent, real wages increased by slightly less than 40 per cent.³⁴ In this situation, the number of two-income households increased, and the number of hours worked also increased as workers attempted to compensate for these developments. However, given the increasing gap between the increase in output and the increase in households' purchasing power, the key factor which sustained the growth of consumption was borrowing.

In the 1990s, middle and upper-middle class households who felt richer as a result of the increased value of shares they owned, either directly or indirectly through investment and pension funds, began to borrow extensively to finance consumption spending. After the share price bubble burst in 2000, rising house prices enabled many households to borrow, either by refinancing their mortgages, or by simply borrowing against the rise in value of their homes (so-called 'home equity withdrawal').

Credit-financed spending not only helped to close the demand deficit, it also provided financial capital with a further means of appropriating interest from a significant segment of the population. However, because such borrowing was dependent on asset-price bubbles it could not be sustained. When house prices ceased to rise, the growth of consumption faltered and the US economy entered a recession. When the edifice of dubious financial instruments folded, the financial system almost collapsed and, with credit virtually unavailable, even to the best known companies, the US economy entered a slump. The overblown financial sector could for a time reap spectacular profits and enable the US economy to

^{33.} For estimates of the gains to US corporations from outsourcing to low wage countries, see William Milberg, 'Shifting Sources and Uses of Profits: Sustaining US Financialisation with Global Value Chains', Schwartz Centre for Economic Policy Analysis, The New School, Working Paper 2007-9.

^{34.} Based on figures for hourly output, hourly wages and consumer price inflation from US Bureau of Labour Statistics, Series PRS85006092, PRS85006102 and CUSR0000SA0.

constantly push out the boundaries of growth. But the lurch from one bubble to another built up ever more explosive tensions that eventually came home to roost.

CONCLUSION

The model of finance-led capitalism which developed in the US from the 1980s and in continental Europe from the 1990s provided the basis for a pattern of precarious growth that was very dependent on the growth of credit and the emergence of bubbles in asset prices. Central bank intervention made it possible to sustain growth in the US each time it faltered, but at the expense of accumulating ever greater contradictions. As European banks invested in apparently high yielding US securities, they too became entangled in these contradictions. When the crisis broke in 2007-2008, governments appeared to accept a need for widespread financial reform, but once the threat of collapse had receded, they reverted, essentially, to the same policies that had failed so dramatically.

This response reflects, in part, explanations for the crisis which imply that a recurrence of the near collapse can be avoided without the need for fundamental changes. To this end it is argued, variously, that the pattern of perverse incentives must be modified; that over-expansionary monetary policies must be avoided; and that a means of reducing global imbalances must be put in place. But critics of neo-liberalism have questioned this tepid approach and called for a thoroughgoing re-regulation of the financial sector. There is also an even broader critique which argues that the source of the problem does not lie only in the financial sector, but with the huge sums of capital that, since the 1970s, have sought the freedom to roam around the world in search of the highest possible return in finance, industry or commerce. This, it is argued, has led to a sustained – and successful – downward pressure on the incomes of large sectors of the population, both in the US and in Europe, and left economic growth dependent on credit financed consumption or a striving for export surpluses. According to this view the underlying forces which led to the crisis can only be countered by a fundamental change in the distribution of income, wealth and power.

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