

Main and Contributory Causes of the Recent Financial Crisis and Economic Policy Implications

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Abstract: We locate the main causes of the recent financial crisis on three factors. Two of them were the financial liberalisation and the distributional effects (redistribution from wage earners to the financial sector) in the US, and elsewhere. Both these factors gave great strides in the development and extension of new forms of securitisation and use of derivatives. This was a financial engineering practice, the third main factor, which led to the growth of the instruments labelled as collateralised debt obligations, especially so in the form of collateralised mortgages. There were also three contributory factors, which were accentuating the process of the main causes: the international imbalances, mainly as a result of the growth of China; the monetary policy pursued by countries over the period leading to the crisis; and the role played by the credit rating agencies. We discuss the economic policy implications of the financial crisis before we summarise and conclude.

Keywords: Financial Crisis, Main and Contributory Causes, Economic Policy Implications, Coordination of Economic Policies

JEL Classification: D30, E44, E58, E60

1. Introduction¹

We discuss the origins of the recent financial crisis, which began in the US in the autumn of 2007 and spread to 2008 and 2009, and subsequently led to the ‘great recession’. In doing so, we distinguish between main factors and contributory factors. The main factors contain three features: distributional effects, financial liberalisation and financial innovation. The contributory factors also contain three features: international imbalances, monetary policy, and the role of credit rating agencies. In discussing the origins of the current crisis we are very much aware of the limitations of current macroeconomics. Indeed, we agree with Minsky (1982), who argued about three decades ago that “from the perspective of the standard economic theory of Keynes’s day and the presently dominant neoclassical theory, both financial crises and serious fluctuations of output and employment are anomalies: the theory offers no explanation of these phenomena” (p. 60; see, also, Arestis, 2009; and Palley, 2012).

The recent financial crisis and the ‘great recession’ that ensued were caused by US financial liberalization, which helped significant income redistribution effects from wages to profits of the financial sector in the US; both features enabled and promoted the financial innovations that followed them. An interesting statistic on this score is reported in Philippon and Reshef (2009) in the case of the US. This is the pronounced above average rise in the salaries of those employed in finance. Relative wages, the ratio of the wage bill in the financial sector to its full-time-equivalent employment share, enjoy a steep increase over the period mid-1980s to 2006. What explains this development is deregulation, followed by financial innovation. The deregulation impact, according to the authors, accounted for 83% of the change in wages. Indeed, wages in the financial sector are higher than in other sectors, even after controlling for education.

The three contributory factors are suggested as features that promoted, rather than caused, the ‘financial crisis’. We take the view that although these factors were important, they were not the main causes of it. They were accentuating the process of the main causes rather than being part of the main factors of the crisis. We also discuss the economic policy implications of the financial crisis and the ‘great recession’

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before we finally summarize and conclude. It should be noted at this early stage that the focus is on the US economy and experience.

2. Main Factors

We begin with the distributional effects as one of the main causes.

2.1 Distributional Effects

The steady but sharp rise in inequality from around the 1980s (see, for example, Atkinson, 2015) is an important feature.² Galbraith (2012a) suggests that “inequality was the heart of the financial crisis. The crisis was about the terms of credit between the wealthy and everyone else, as mediated by mortgage companies, banks, ratings agencies, investment banks, government sponsored enterprises, and the derivatives markets” (p. 4). In the US “The top 1 per cent of households accounted for only 8.9 percent of income in 1976, but this share grew to 23.5 percent of the total income generated in the United States by 2007” (Rajan, 2010, p. 8). Also, “The richest 1 percent of American households owned about 35 percent of national wealth in 2006-2007 a far greater share than in most other developed countries” (Wade, 2012, p. 12). Further evidence by Piketty (2014) shows that between 1914 and the 1970s income inequality and the stock of wealth in the US fell dramatically. Since the 1970s, however, both income inequality and the stock of wealth have risen back to the pre-1914 norms. Indeed, and as Piketty (op. cit.) suggests, in the past 30 years or so in the US nearly 75 percent of the aggregate income growth has gone to the top of the distribution. Still further evidence by Atkinson et al. (2011) shows that the share of US total income going to top income groups had risen dramatically prior to 2007. The top pre-tax decile income share reached almost 50% by 2007, the highest level on record. The share of an even wealthier group – the top 0.1% - more than quadrupled from 2.6% to 12.3% over the period 1976 to 2007. Real wages had fallen even behind productivity well before the onset of the ‘great recession’ (we may note that in the US wages constitute the most important component of incomes). The share of the top 5% total income of households increased from 22% in 1983 to 34% in 2007; and household debt to GDP ratio over the period 1983-2008 almost doubled (Kumhof and Rencière, 2010a; see also 2010b). Indeed, and as Piketty (2014) shows, the income share of the top 1% in English speaking countries (especially in the US) has risen since 1980; the same 1% appropriated 60% of the increase in US national income between 1977 and 2007. The declining wage and rising profits share were compounded by the increasing concentration of earnings at the top, especially in the financial sector.³

The IMF managing director and the governor of the Bank of England have clearly stated at a conference in London (‘Inclusive Capitalism’, 27 May 2014) that rising inequality is a threat to economic growth and financial stability. The IMF managing director (Lagarde, 2014) made the point that “One of the leading economic stories of our time is rising income inequality, and the dark shadow it casts across the global economy” (p. 11). The IMF managing director went on to suggest that “The facts are familiar. Since 1980, the richest 1 percent increased their share of income in 24 out of 26 countries for which we have data. In the US, the share of income taken home by the top one percent more than doubled since the 1980s, returning to

² It should be noted that rising inequality preceding the August 2007 financial crisis is not the only one in the history of financial crises. The same pattern had preceded the financial crash of 1929. And as Haldane (2014) suggests, “Between 1920 and 1928, the income share of the top 5% rose from little more than a quarter to more than a third. Household debt relative to GDP doubled. Inequalities widened and balance sheets fattened. And the upshot was the same: a huge economic contraction when the credit bubble popped” (p. 5; see, also, Kumhof and Rencière, 2010).

³ See, also, the study by Arestis and Karakitsos (2013), where it is shown that the unfavourable trends in the US real wage rate prior to 2007 were partly reflected in the wages and salaries of private and government employees. Ever since the beginning of the 1970s to the end of 2009, the share of wages and salaries to GDP had fallen by an astonishing 9 percent to 44.5 percent.

where it was on the eve of the Great Depression. In the UK, France, and Germany, the share of private capital in national income is now back to levels last seen almost a century ago” (p. 11). The Governor of the Bank of England (Carney, 2014) clearly stated in his speech that “Bankers made enormous sums in the run-up to the crisis and were well compensated after it hit. In turn, taxpayers picked up the tab for their failure. That unjust sharing of risk and reward contributed directly to inequality but – more importantly - has had a corrosive effect on social fabric of which finance is part and on which it relies” (p. 36).

Turning to the share of profits in relation to income in the case of the US, the following comments are very relevant. We note that profitability at the end of 2001 hit an all-time low. This may have been the result of shifting production abroad, due to the increasing challenge of the US from other industrialised countries, such as Japan, Europe and especially China. It all gathered pace in the era of globalisation. However, the picture of profits is not shared by financial companies. The share of the financial sector to GDP almost doubled in size between 1981 and 2007, and more recently accounted for 8% of the US GDP (Philippon, 2008). Between 1981 and 2007 the US financial sector as measured by the ratio of private credit to GDP grew from 90% to 210%. Also, a sharp, nearly six-fold increase occurred, in their profitability since 1982. Indeed, and over the same period, wages in the financial sector were higher than in other sectors, even after controlling for education (Philippon and Reshef, 2009). Financial sector relative wages, and the ratio of the wage bill in the financial sector to its full-time-equivalent employment share, enjoyed a steep increase over the period mid-1980s to 2006.⁴

The redistribution feature was greatly helped by attempts at financial liberalization in many countries around the world. Of particular importance for our purposes was the financial liberalization framework in the US, especially the repeal of the 1933 Glass-Steagall Act in 1999. Both the redistribution and the financial liberalization policies led to a period of financial engineering in the US, which spread worldwide to produce subsequently the ‘great recession’. We turn our attention next to financial liberalisation.

2.2 Financial Liberalization

US experienced financial liberalisation from around the mid-1970s. In 1977 there was the deregulation of commissions for stock trading to begin with, and subsequently investment banks were allowed to introduce unsecured current accounts. The removal of Regulation Q in the 1980s followed, that is removing the placing of ceilings on retail-deposit interest rates. The repeal of the key regulation Glass-Steagall Act of 1933⁵ in 1999 (promoted by the US financial sector, using as their main argument the experience of the so-called Big Bang of 1986 in the UK) was the most important aspect of the US financial liberalization for the purposes of the question in hand.⁶ The final step in the process was another major and relevant legislative phase, which was the repeal of the Shedd-Johnson jurisdictional accord of 1982, which banned regulation of over-the-counter derivatives. That repeal went through the Commodity Futures Modernisation Act (CFMA) of December 2000; it is also the case that “In the 2000s deregulation was followed by desupervision, as US

⁴ Korinek and Kreamer (2013) examine the redistribution effects of financial deregulation to conclude that they lead to “a higher incidence of credit crunches and more severe externalities on workers in bad times” (p. 5).

⁵ The Glass-Steagall Act of 1933 is actually part of the Banking Act of 1933. It is sub-sections 16, 20, 21 and 32 that are widely referred to as the ‘Glass-Steagall Act of 1933’ (see Russell, 2014, footnote 2). Russell (op. cit.) suggests that “The Banking Act of 1933 emphasised the deterrence of speculation as a requisite of bank stability, and its Glass-Steagall provisions were largely viewed as protecting the banking system from contamination by the speculative pressures that may emerge when depository banks involve themselves in security markets” (p. 108).

⁶ It should be noted that prior to the financial liberalization period, from around the late 1930s and the early 1970s, there had been direct controls on bank lending and exchange controls on international flows, which may very well have contained innovation and efficiency in the banking sector. It was also the case, and as Bordo et al. (2001) demonstrate, that the period late 1930s-early 1970s was free from serious banking crises.

regulatory authorities made calculated decisions not to investigate financial-sector practices” (Galbraith, 2012b, p. 4).

However, the repeal of the 1933 Glass-Steagall Act that took place in 1999 was the apotheosis of the financial liberalization in the US. The 1933 Glass-Steagall Act was designed to avoid the experience of the 1920s in terms of the conflict of interest between the commercial and the investment arms of large financial conglomerates (whereby the investment branch took high risk tolerance). The ultimate aim of the 1933 Glass-Steagall Act was to separate the activities of commercial banks and the risk-taking ‘investment or merchant’ banks along with strict regulation of the financial services industry. In effect the Glass-Steagall Act of 1933 broke up the most powerful banks. The goal was to avoid a repetition of the speculative, leveraged excesses of the 1920s/1930s. The repeal of the Act in 1999 enabled investment banks to branch into new activities, and allowed commercial banks to encroach on the investment banks’ other traditional preserves. Not just commercial banks but also insurance and other companies, like the American International Group (AIG), were also involved in the encroaching.⁷

All these financial liberalization attempts were important in promoting financial innovations in the US financial markets. We discuss their importance before we turn our attention to the financial engineering that emerged directly from them and caused the financial crisis.

When fixed commissions were in place, investment banks would book stock trades for their customers; deregulation meant greater competition, entry by low-cost brokers and thinner margins. Then, in the late 1970s, investment banks were allowed to invade the commercial bank territory, through the creation of ‘money market’ accounts (current accounts that were unsecured). Removing Regulation Q allowed fluctuations in interest rates, thereby forcing commercial banks to compete for deposits on price, which led them to pursue new lines of business. Such new business was in response to the investment banks’ needs for short-term funding. It created, however, a financial crisis in the 1970s and 1980s when savings banks and loans could not fund themselves in view of the narrowing of the margins of lending and borrowing rates. Investment banks moved into originating and distributing complex derivative securities, like collateralized bond obligations (normal investment bonds backed by pools of junk bonds). However, that was not a great success and the move collapsed in the second half of the 1980s, and that occurred in view of the wide fluctuations in the backed bond prices.⁸

However, that originate-and-distribute failure was followed by a new initiative of asset-backed and mortgage-backed securities, which gained a clientele in the 1990s. That was partially enabled by the relaxing of the 1933 Glass-Steagall Act in 1987, when the Federal Reserve Bank (the Fed) allowed 5% of bank deposits to be used for investment banking, and then further promoted in 1996 when 25% of deposits were allowed for the same purpose. Then in 1997 the Broad Index Secured Trust Offering (BISTRO), a

⁷ It is interesting to note that as from 1933 and for decades the US financial regulatory framework “encouraged the relative financial stability and low interest rates characteristic of the ‘golden age’ of Keynesian economics in the United States. As the deregulatory impulses of a resurgent neoliberalism gathered steam, several provisions of the New Deal Financial reforms were either undermined or repealed in the 1980s and 1990s, culminating in the repeal of the Glass-Steagall provisions in 1999” (Russell, 2014, p. 114).

⁸ This raises the issue of the difference between originate-and-distribute and originate-and-hold models. In the originate-and-hold model bank loans are held in the banks’ own portfolios. In the originate-and-distribute (or originate-to-securitize) model bank loans are re-packaged and sold to other banks, foreign banks and the domestic and foreign personal sector. The latter model transfers the loan risk from the bank to whoever buys the Asset Backed Securities (ABS). Then the Commodity Futures Modernization Act (CFMA) of December 2000 emerged. This Act deregulated single-stock futures trading, and provided certainty that products offered by banking institutions would not be regulated as futures contracts. CFMA enabled and legitimised credit-default swaps (CDSs, which are credit derivative contracts between two parties, whereby there is guarantee in case of default), thereby creating a potentially massive vector for the transmission of financial risk throughout the global system.

bundle of credit derivatives based on pools of corporate bonds, and later the Collateralised Mortgage Obligations (CMOs) based on pools of subprime mortgages and Collateralised Debt Obligations (CDOs) based on other debt.⁹ BISTRO was not a great success in view of the corporate sector's booms and recessions at that time. However, CMOs and CDOs, which were based on mortgages and other assets, became a success for the creators due to the steady growth of the housing and other relevant markets. That was one of the main causes of the crisis: the originate-and-distribute model of securitization and the extensive use of leverage.

2.3 Financial Innovation

The repeal of the 1933 Glass-Steagall Act in 1999 enabled investment banks to branch into new activities, and it allowed commercial banks to encroach on the investment banks' other traditional preserves. It was not just commercial banks that were involved in that encroaching. There were also insurance companies, like the American International Group (AIG), and hedge funds heavily involved. Haldane (2010, Chart 2) clearly shows that the 1933 Act was effective from the 1930s to the late 1980s¹⁰ when, as mentioned above, the US authorities began to relax it at the same time of the redistribution effects and financial liberalization attempts. In fact, concentration in the US banking sector remained flat over that period. The revoke of the restrictions of the 1933 Glass-Steagall Act in 1999 with the Gramm-Leach-Bliley Act, thereby allowing comingling of commercial and investment banking, and finally the repeal of the 1933 Act in 1999, which allowed commercial and investment banks to mingle together, had the dramatic effect of increasing the share of the top three largest US banks from 10 percent to 40 percent between 1990 and 2007 (Haldane, *op. cit.*, p. 9). Interestingly enough, that dramatic increase in the size of the US banking is not mirrored in other industries. Haldane (*op. cit.*) shows that "The largest banking firms are far larger, and have grown faster, than the largest firms in other industries", so that "the too-big-to-fail problem has not just returned but flourished" (p. 9). Furthermore, Haldane (*op. cit.*) argues that "A similar trend is discernible internationally: the share of the top five largest banks in the assets of the largest 1000 banks has risen from around 8 percent in 1998 to double that in 2009" (p. 9).

Another interesting and relevant observation is that the non-bank less regulated and supervised mortgage lenders contributed disproportionately to the boom in mortgages. Dagher and Fu (2011) demonstrate this proposition and show that while in 2003 the non-bank mortgage lenders accounted for one-third of mortgage lending, they contributed more than 60 percent to the increase in mortgage lending between 2003 and 2005. It is thereby suggested by the same authors that more stringent regulation could have averted some of the volatility in the housing market.

The repeal of the Glass-Steagall Act in 1999 allowed the merging of commercial with investment banking, thereby enabling financial institutions to separate loan origination from loan portfolio, and promoting the emergence of the originate-and-distribute model. Indeed, financial institutions were able to use risk management in their attempt to dispose of their loan portfolio. House prices kept rising over the period 1999 to late 2006, which enabled households to borrow against home equity they had built up. Also, risk aversion fell sharply, thereby producing the mispricing of risk that led to the credit crisis in 2007-2008. This underpricing of risk came about by low risk spreads whereby the differentials between risky assets and safe assets declined substantially. It came about particularly over the long period 2001-2005 of unusually low

⁹ CDOs were originally developed for the corporate debt markets, but over time they encompassed the mortgage and mortgage-backed security markets.

¹⁰ Haldane (2010) concludes that the Glass-Steagall Act of 1933 regime satisfied 'robust' regulatory criteria "And so it proved, lasting well over half a century without a significant systemic event in the US" (p. 14). See, also, Russell (2014).

nominal, and very low real interest rates. But even over the longer period of the late 1980s/early 1990s to 2007, macroeconomic risks were thought to have been reduced substantially in view of the ‘great moderation’ or ‘great stability’ or even ‘Non-Inflationary Consistently Expansionary (NICE)’ era of low and stable inflation and steady growth.

As a result, financial institutions could provide *risky* loans without applying the three Cs: Collateral, Credit history and Character (person or institution able to pay the loan off even in hard times). This fostered a new activity that relied on interlinked securities mainly emerging from, and closely related to, the subprime mortgage market. Subprime mortgage is a financial innovation designed to extend home ownership to risky borrowers. The term refers to borrowers who are perceived to be riskier than the average borrower because of their poor credit history. Rising home prices encouraged remortgaging, thereby expanding the subprime mortgage market substantially. The growth of loans in the subprime mortgage market was substantial. As a percentage of total mortgages we had the following phenomenal increase: 1994: 5%; 1996: 9%; 1999: 13%; 2006: 20%; 2007: 47%. Those developments, as mentioned above, led to an important financial innovation, namely securitisation. Financial institutions engineered this new activity that relied on interlinked securities, the CMOs and CDOs. The sale of CMOs and CDOs to international investors made the US housing bubble a global problem and provided the transmission mechanism for the contagion to the rest of the world. The world of CMOs and CDOs exploded at a stunning pace between around 2004 and 2007 with substantial profits for the relevant financial institutions. Goda and Lysandrou (2014) show that “The market for these products had remained fairly small until about 2002, but between that time and early 2007 it had grown 12-fold in size, from US\$0.25 trillion to approximately US\$3 trillion, i.e. to a size sufficient to spread panic in the money and interbank markets when it totally collapsed in August that year” (p. 301). It should also be noted that between 1998 and 2007 mortgage debt as a percentage of disposable income increased by more than 50% from 61% to 101%.

Banks proceeded to set up trusts or limited liability companies with small capital bases, i.e. separate legal entities, known as Structural Investment Vehicles (SIVs). Parallel banking, or the shadow banking system as it has been called, was thereby created outside the control and the regulatory umbrella of the authorities.¹¹ This SIVs operation was financed by borrowing from the short end of the capital markets at a rate linked to the inter-bank interest rate (Libor). The short-term capital thereby raised was used by the SIVs to buy the risky segment of the loan portfolio of the mother company, mainly risky mortgages. The risky loan portfolio was then repackaged in the form of CMOs and CDOs and sold to other banks and the personal sector, both to domestic and foreign investors; in terms of the latter it was mainly to Europeans. So long as the short-term rate of interest was lower than the long-term rate, and along with the high commissions charged, big profits were secured, and the housing market turned into a bubble. It is true that after the internet bubble collapsed in March 2000 there was considerable fear, especially in the US, that price deflation might ensue. That fear, especially on the part of monetary policy makers, along with the apparent world glut of savings (Bernanke, 2005), led to a period of low nominal policy interest rates.

When the yield curve was inverted, that is long-term interest rates became lower than short-term rates, the subprime mortgage market simply collapsed. It occurred following a period of a policy of rising interest

¹¹ An interesting comparison in terms of the size of the shadow banking sector in the US and the Euro Area is provided by the ECB (2012): “In the United States the size of the shadow banking system, measured as the total amount of its assets, was comparable to the size of the banking system in the second quarter of 2011, while in the euro area it represented less than half of the total assets of the banking sector. However, the size of assets held by financial intermediaries that are not regulated as banks is still important in the euro area, especially in some countries” (p. 5). In terms of individual countries in the Euro Area, the big players in terms of their shadow banking sectors are Ireland, Luxemburg and the Netherlands alike (ECB, 2012, p. 23).

rates (mid-2004 to mid-August 2007) after a prolonged period of abnormally low interest rates (initially 1997-1998 but more aggressively after the internet bubble of March 2000 and even more so after November 2001, until central banks began to raise interest rates in 2004). The subprime mortgage market began its downward direction soon after; this occurred by late 2005 when the housing market peaked with that process accelerating, and more dramatically so, by the end of 2006. The collapse of the subprime mortgage market also helped the end of the housing boom and the burst of the housing bubble. Defaults on mortgages spread to investment banks and commercial banks in the US and across the world via the elaborate network of CMOs and CDOs.¹² Furthermore, the collapse of the subprime market spilled over into the real economy through the credit crunch and collapsing equity markets; and all that led to the freezing of the interbank lending market after August 2007. A significant recession emerged after the end of 2008: the ‘great recession’. And as Haldane (2010) shows, the social costs of the crisis were significant worldwide; they were of the magnitude of several trillion dollars. Indeed, the social costs of the same financial crisis far outweighed the direct monetary costs of the related bailouts.

A pertinent question is why regulators appeared to have been ignorant of such reliance of the financial system on the parallel banking sector in 2007 and before, when clearly they should not have been. It surely must be the case that the regulation regime, such as it was at the time, must have been totally indifferent and ineffective. Even after the eruption of the August 2007 financial crisis and the ensuing ‘great recession’, the parallel banking sector has continued to thrive. The shrink of big western banks’ balance sheets and their retreat from lending¹³ has enabled the shadow banking since then to fill the gap and thereby to explode even more than before the crisis.¹⁴ Regulators do not seem to worry about these developments, though. The reason may very well be that they see the shrinking of banks and especially the transfer of risky assets to other parts of the financial system a desirable development in that the financial system becomes safer; shadow banking thereby disseminates risk beyond banks. Also, since shadow banks do not take deposits, sudden and destabilizing withdrawals could not take place. These developments, though, should be regulated closely so that the relevant pre-August 2007 experience with the shadow banking, as explained above in this sub-section, is not repeated.

3. Contributory Factors

We begin with the international imbalances as one of the three contributory factors.

3.1 International Imbalances

The process described so far was accentuated by the international imbalances, which were built up over a decade or more. The rise of China and the decline of investment in many parts of Asia following the 1997 crisis there, created a great deal of savings. Those savings were channeled mainly into the US, helping to put downward pressure on US interest rates, which along with the Fed low interest rate policy pursued at the

¹² Coval *et al.* (2009) argue that by “offering AAA-ratings along with attractive yields during a period of relatively low interest rates, these products were eagerly bought up by investors around the world” (p. 4).

¹³ It is reported in the Economist (2014b) that the retreat of banks from bank lending to business in the main Western countries since the eruption of the financial crisis in August 2007 has been significant. In the US it is 6 percent below its high at that time; in the UK it has been reduced by 30 per cent and in the euro area the decline has been 11 percent. The reduction of bank lending to consumers is reported to have been less. The Financial Stability Board (FSB) estimates that shadow bank lending, in the 20 big economies it deals with, rose from \$26 trillion in 2002 to \$71 trillion in 2012 (figures as reported in the Economist, *op. cit.*). Interestingly enough, in China shadow banking grew by 42% in 2012, and is still growing. It is also interesting to note that the asset-backed securities innovation is back in vogue and seen as a cheap source of funding (see Bank of England and European Central Bank, 2014).

¹⁴ ECB (2012) warns that “the forthcoming implementation of Basel III, with the introduction of more stringent capital and liquidity requirements for credit institutions, and the provisions to be applied to insurers may provide further incentives for banks to shift part of their activities outside of the regulated environment and therefore increase shadow banking activities” (p. 5).

same time, enabled households there to live well beyond their means. Low interest rates at the same time helped to push up asset prices, especially house prices, thereby enabling the financial sector to explode. The explosion of the banking sector enabled lending to households and businesses to expand substantially along with lending to other banks. All these imbalances created a more buoyant market for financial institutions thereby helping in the promotion of the financial engineering innovation (see Arestis and Karakitsos, 2010, for further details). They also helped the inversion of the yield curve referred to above. The increase in liquidity helped the subsequent increase in the demand for long-term assets thereby lowering the long-term rate of interest and increasing the short-term rate.

The ‘privilege’ enjoyed by the US dollar as the world’s currency encouraged and enabled savings to be channeled mainly into the US, helping to put downward pressure on US interest rates. Also, the increasing allocation of manufacturing jobs to the relatively low wage areas of Asia, and China in particular, where well educated low-cost workforce combined with developed world technology, helped to keep down wages and hence low inflationary pressures in the US and elsewhere. This along with the channeling of savings into the US also enabled the low-to-mid-income households there to increasingly rely on credit as a means of survival.

An important implication of this analysis, and to avoid the ‘privilege’ of the dollar mentioned above, is the possibility of regulating the international monetary system. Global imbalances contributed to previous crises, and were an important item on the agenda at the Bretton Woods conference in 1944. Indeed, Keynes (1980) recognized the asymmetry of the obligations imposed on the countries involved with the problem of adjusting international imbalances. Keynes (op. cit.) argues, “To begin with, the social strain of an adjustment downwards is much greater than that of an adjustment upwards” but also “the process of adjustment is *compulsory* for the debtor and *voluntary* for the creditor. If the creditor does not choose to make, or allow, his share of the adjustment, he suffers no inconvenience. For whilst a country’s reserve cannot fall below zero, there is no ceiling which sets an upper limit. The same is true for international loans if they are to be the means of adjustment. The debtor *must* borrow; the creditor is under no such compulsion” (p. 6). In terms of the current international imbalances they have been allowed to continue for a long period in view of the privileged position of the US as the issuer of the world’s reserve currency. The August 2007 financial crisis experience clearly implies that designing an international monetary system to avoid the problems alluded to by Keynes (op. cit.) is long overdue.

3.2 Monetary Policy

This feature springs from the focus of monetary policy on price stability as the main objective of economic policy, which implies frequent interest rate changes as a vehicle to controlling inflation. The impact of this policy has been the creation of enormous liquidity and household debt in the major economies, which reached unsustainable magnitudes and helped to promote the current crisis. This was particularly so after the burst of the IT bubble in March 2000 when central banks, led by the Fed, pursued highly accommodative monetary policies to avoid a deep recession. Looking at debt statistics (see, BIS, 2008, p. 29), the following developments are evident. Outstanding household debt between 1998 and 2002 in the US averaged 76.7 percent of GDP; between 2003 and 2007 the average shot to 97.6 percent of GDP; in the same periods, outstanding household debt, including mortgage debt, jumped from 72.0 percent to GDP to 94.3 percent of GDP in the case of the UK. In the Euro Area it rose from 48.5 percent to 56.6 percent respectively. This suggests that while monetary policy did not have a main role in causing the crisis it was, nonetheless, largely responsible for promoting it. Furthermore and over the period 1997 to 2007, the ratio of US financial sector debt to GDP rose by 52 percent; over the same period the total US private debt to GDP rose by 101 percent. Similar numbers apply in the case of other developed countries, notably UK, Ireland, and Spain. Another

interesting set of US statistics is the following. In 1989 the debt to income ratio was around 60 percent for the top 10 percent of household incomes and around 80 percent for all other groups; in 2007 the respective ratios were around 80 percent for the top 10 percent, 250 percent for the bottom quintile, and between 150 and 180 percent for the middle groups.

It should be clear that the dominant argument that increased liquidity is always beneficial may not be so wide-ranging. Diminishing marginal utility and associated increased financial activity relative to real economic activity along with speculation create increasing dangers of destabilizing herd. This implies that an 'optimal level' of liquidity is evident. However, there is a serious complication in that although "an optimal level of liquidity, with increased liquidity and speculation valuable up to a point but not beyond that point" there is nonetheless "the complication for practical policy makers that the point of optimal benefit is impossible to define with any precision, that it varies by market, and that we have highly imperfect instruments through which to gain the benefits without the disadvantages" (Turner, 2010, p. 28). The enormous liquidity created over the period in view of the monetary policy pursued at the time, must have surpassed the 'optimal level' to which we have just referred.

It is also important to note that the credit part of liquidity was particularly important in promoting the 'great recession', as Schularick and Taylor (2009) show. It is the case, though, that policymakers and proponents of the current macroeconomic paradigm, the 'New Consensus Macroeconomics' theoretical framework, do not take credit and money seriously; they have no role to play in monetary policy. Indeed, the proponents firmly believe that macroeconomic outcomes are independent of any financial factors. They ignore that "financial factors can have a strong, distinct, and sometimes even dominant impact on the economy" (Schularick and Taylor, *op. cit.*, p. 1; see, also, Arestis, 2009). The credit system, though, could potentially have a role in producing financial instability, closely related to the proposition that 'financial crises are credit booms gone wrong', an argument that is often attributed to Minsky (1986). Interestingly enough, Schularick and Taylor (2009) produce evidence that supports this view. Utilising a linear probability model, along with a probit model, conclude "that a credit boom over the previous five years is indicative of a heightened risk of a financial crisis" (p. 20). Schularick and Taylor (*op. cit.*) also suggest that "the use of credit aggregates, rather than monetary aggregates, is of crucial importance", a result that leads to the further conclusion that "credit is a superior predictor, because it better captures important, time-varying features of bank balance sheets such as leverage and non-monetary liabilities" (p. 22). An important implication of these results for monetary policy purposes is that to the extent financial stability is the focus of monetary policy then a better target to focus on is credit aggregates in view of its superior power to predict incipient crises. Even policymakers recognise the importance of the 'credit view' of financial crises. For example the ex-Chairman of the UK's Financial Services Authority has expressed a firm interest in this view along with the suggestion of the importance to regulate credit (Turner, 2010).

As a result of these developments, the transmission mechanism of monetary policy has changed: the buildup of household debt and asset holdings has made household expenditure more sensitive to short-term interest rate changes. Furthermore, the current high debt levels, combined with the difficulties in the 'real' sector, imply that lenders and equity holders stay away from the market place; not forgetting the presence and magnitude of toxic assets, which pose real problems that still need to be sorted out. The dangers with this type of conduct of monetary policy are clear. Frequent changes in interest rates can have serious effects: low interest rates cause bubbles; high interest rates work through applying economic pressures on vulnerable social groups. Regulatory and prudential controls thereby become relevant and necessary.

3.3 Role of Credit Rating Agencies

Credit rating agencies (CRAs) have played an important role both in the global credit crisis and in the subsequent sovereign debt crisis, which took gigantic proportions in the Economic and Monetary Union (EMU), thereby attracting criticism for both. The increasing power of CRAs started in the US where they were granted the official designation as ‘Nationally Recognized Statistical Rating Organisations’. Their role in the economy is to forecast the probability of default on the repayment period of the issuer of a debt liability. While CRAs provide information on the audit quality, namely on the probability of default of financial products, they say nothing in terms of potential systemic risk. The latter being the danger of a chain reaction that emanates from a number of financial institutions faced with serious difficulties. It follows that while it may be rational for firms and investors to be guided by ratings in their investment decisions, they can destabilise the financial markets at a systemic level in the process.

This is not the only criticism that has been levelled on CRAs. They have also been accused as bestowing AAA credit rating to toxic assets, which were thereby treated as completely safe.¹⁵ It is true that the complex structure of the CMO and CDO markets complicated the task of credit rating institutions, which erroneously assigned AAA-status to many worthless papers. In fact, some 80 percent of the total value of CMOs and CDOs were given AAA credit rating, thereby treated as completely safe (Goodhart, 2009).¹⁶ The overstated credit ratings contributed to the growth of the CMO and CDO markets in the upswing but also to its downfall in the downswing. In the aftermath of the subprime crisis in the US, CRAs were blamed for their high initial ratings of structured finance securities in that they did not reflect the true risks inherent in those securities. This unfortunate episode emerged in view of the CRAs that rated only the credit default risk and not market or liquidity risk. For example, government debt with a rating of AAA had a different and superior overall quality as compared with the AAA of CMOs and CDOs. Many lenders who bought CMOs and CDOs were under the impression that all three types of risks were included in the rating of these tranches. They were, thus, confusing the AAA rating of government bonds and CMOs/CDOs and others. This criticism has been summarized more bluntly by Greenspan (2010): “The venerated credit rating agencies bestowed ratings that implied AAA smooth-sailing for many a highly toxic derivative product” (p. 13); and that “despite their decades of experience, the analysts of the credit rating agencies proved no more adept at anticipating the onset of the crisis than the investment community at large” (p. 12).

A further problem is the role of CRAs in the economy. This is to forecast the probability of default on the repayment period of the issuer of a debt liability. Their job is, therefore, relevant forecasting. The accuracy of their forecasts is clearly an important issue, which should be susceptible to ex post accountability. On this score there is no check on their forecasts since it is left to the CRAs themselves what precisely to publish. This is, then, another serious criticism of CRAs, which stems from their role in the economy, which is not undertaken and executed properly.

Also conflict of interest is another important feature of the CRAs, in view of the fact that they are paid by the issuers, not by investors. In fact, the larger CRAs receive most of their revenues from the issuers they rate. These fees were enhancing their revenues and profits substantially during the boom; thereby creating

¹⁵ A relevant case is the decision of the US Department of Justice, which sued in February 2014 the Standard & Poor’s (S&P) credit rating agency for \$5 billion in that it knowingly issued overgenerous ratings.

¹⁶ In the study by Ashcraft et al. (2011) it is reported that on a value-weighted basis 80 to 90 percent of CMOs and CDOs received the AAA credit rating.

potentially a serious conflict-of-interest case. This could very well have distorted upwards their ratings. They have actually been accused on this score in terms of their over optimism of their ratings of CMOs and CDOs and other securitized assets. Although reputation and competition might protect this upward bias, the super-normal profits earned and the fact that issuers seek out that CRAs that provide the highest rating, “indicate(s) a prime facie case for bias” (Goodhart, 2009, p. 121). He et al. (2011) test and confirm the conflict of interest hypothesis. They conclude that “the conflict of interest problem of rating agencies likely played a significant role in the evolution of the MBS markets” (p. 135; where MBS stands for Mortgage-Backed Securities). The CRAs have, thus, been heavily accused for lacking independence from the institutions they rate, who pay for the assessments.

It may very well be the case, though, that CRAs got this assessment of the credit default wrong. Although there is no evidence of this proposition, it may very well be the case that insufficient competition amongst the CRAs means that they are not beyond reproach (Goodhart, 2009, chapter 2). In terms of the US monetary policy makers, Greenspan (2010) admits, “We at the Federal Reserve were aware as early as 2000 of incidents of some highly irregular subprime mortgage underwriting practices. But regrettably we viewed it as a localized problem subject to standard prudential oversight, not the precursor of the securitized subprime mortgage bubble that was to arise several years later” (p. 7, footnote 13).

It follows from this discussion that there is sufficient consensus that CRAs contributed to the August 2007 financial crisis. This is mainly in view of the CRAs erroneously assigned AAA-status to many worthless papers, which did not reflect the true risks inherent in those securities. This unfortunate episode emerged in view of the problems discussed above. The IMF (2010a) report suggests that CRAs had exposed ‘some flaws in the system’ including overreliance on ratings, which led Kiff (2010) to conclude that “ratings have inadvertently contributed to financial instability – in financial markets during the recent global crisis and, more recently, with regard to sovereign debt” (p. 1). Furthermore, and in the case of sovereign debt, the IMF (2010b) report argues that credit rating agencies should shoulder some of the blame for ‘the selloffs of securities’ when they are downgraded (the so-called ‘cliff effect’). Kiff (2010) proceeds to suggest that credit rating agencies “may pay insufficient attention to sovereign debt composition and contingent liabilities, though in some cases they do not have access to all the information they need” (p. 1). The same report encourages the provision of more information and timely data by the countries on their sovereign debt, including disclosure of contingent liabilities.

The inevitable question that arises from the above analysis is whether had CRAs assigned lower credit ratings, would investors have reacted in a way that would have muted the supply of subprime mortgages? The relationship between initial credit ratings and prices of CMOs/CDOs is examined in the study by Ashcraft et al. (2011). The sample utilized includes 56,764 relevant securities from 3,069 subprime deals issued from 2001 to 2007. The sample covers around 90 percent of subprimes issued over the period (see Ashcraft et al., 2010, for more details on the data utilized). Controlling for a set of security and loan characteristics, Ashcraft et al. (2011) conclude on a positive relationship between initial credit ratings and prices of CMOs/CDOs; more specifically, “A one-notch improvement in the credit rating is associated with a decline in yield spreads of about 20 basis points” (p. 217). Relevant asset prices are therefore very sensitive to credit ratings. The implication of these results is clearly that they strongly reinforce “the view that decisions about regulation of the credit rating industry are important and should be weighed carefully by policymakers” (Ashcraft et al., 2011, p. 118). It clearly is the case, then, that reforming CRAs is long overdue.

4. Policy Implications

A number of economic policy implications follow from our analysis. Monetary policy that manipulates the rate of interest to achieve the price stability only, should be abandoned. Coordination of monetary, fiscal and financial stability policies becomes paramount. Distributional effects should also be accounted in the conduct of economic policies. There is also the question of CRAs, which should be properly regulated. These are the main policy implications, which we discuss and elaborate upon in what follows. We begin with the importance of distributional effects in economic policies.

4.1 Importance of Distributional Effects in Economic Policy

Clearly recent experience, as our analysis above has shown, demonstrates that distribution of income and wealth if not tackled can lead to crisis, as the case was with the recent financial crisis. Distribution of income from wages to profits, especially to the top end of the financial sector, was one of the main causes of the financial crisis. We have argued in Arestis and Sawyer (2011) for the importance of accounting ‘distributional effects’ in both economic theory and policy, which have been fatally ignored. This is an important finding in view of the fact that “Until the crisis, it is difficult to identify a period in the past 50 years when inequality was close to the top of the public policy or academic agenda” (Haldane, 2014; see, also, Stiglitz, 2012). Still there is no general tendency towards greater economic equality, as others have also demonstrated (see, for a recent contribution, Piketty, 2014); on the contrary, unequal distribution continues unabated. Distributional effects should be a major objective of policy as this is also clear from our analysis. And to quote a relevant conclusion from an IMF study (Kumhof and Rencière, 2010b), “Restoring equality by redistributing income from the rich to the poor would not only please the Robin Hoods of the world, but could also save the global economy from another major crisis” (p. 31; see, also, Bordo et al., 2012, and Stiglitz, 2012).

These propositions are supported by empirical evidence, as for example, the findings of Onaran and Galanis (2012) show: “Our empirical estimations examining the effect of income distribution on growth in sixteen large developed and developing countries offer three important findings to understand this adverse development. First, domestic private demand (i.e. the sum of consumption and investment) is wage-led in all countries Second, foreign trade forms only a small part of aggregate demand in large countries Similarly, if countries, which have strong trade relations with each other are considered as an aggregate economic area, the private demand regime is wage-led. Finally, the most novel finding of this paper is that even if there are some countries, which are profit-led, the global economy is wage led. Thus, a simultaneous wage cut in a highly integrated global economy leaves most countries with only the negative domestic demand effects, and the global economy contracts. Furthermore some profit-led countries contract when they decrease their wage-share, if a similar strategy is implemented by their trading partners” (p. 28). It clearly is the case then that pro-labour distributional policies that promote wage policies, strengthening the welfare state, the status of labour unions by changing union legislation to foster collective bargaining, and financial regulation are important and relevant policies (see, also, Stockhammer, 2013). These arguments are further strengthened in view of the causes of the unequal distribution discussed in this contribution. Kristal and Cohen (2013) provide empirical evidence, based on 43 US private non-agricultural industries between 1969 and 2007, which suggests that “the erosion of pay-setting institutions, mainly unionization and the real minimum wage, explains about 50 percent of rising wage inequality in U.S. private industries between 1969 and 2007, while the spread of computer technology explains 12-14 percent between 1969 and 1997 and 21-24 percent between 1988 and 2007” (p. 37). It is also the case that “similar results showing a larger effect of de-unionization (vs. computerization) on inequality were found in Germany (King, 2013), as well as in a study on 22 developed countries (OECD, 2011)” (Kristal and Cohen, 2013, p. 37). Furthermore, Furceri and Loungani (2013) suggest two further contributors to increased inequality. “The first is the opening up of

capital markets to foreign entry and competition, referred to as capital account liberalization. The second source is policy actions by governments to lower their budget deficits. Such actions are referred to as fiscal consolidation in economists' jargon and, by their critics, as 'austerity' policies" (p. 25). Furceri and Loungani (2013) refer to 58 episodes of large-scale capital account reforms in 17 advanced economies to conclude that "on average, capital account liberalization is followed by a significant and persistent increase in inequality. The Gini coefficient increases by about 1 percent a year after liberalization and by 2 percent after five years" (p. 26). It is also argued by Furceri and Loungani (op. cit.) that "Over the past 30 years, there were 173 episodes of fiscal consolidation in our sample of 17 advanced economies. On average across these episodes, policy actions reduced the budget deficit by about 1 percent of GDP. There is clear evidence that the decline in budget deficits was followed by increases in inequality. The Gini coefficient increased by 0.2 percentage point two years following the fiscal consolidation and by nearly 1 percentage point after eight years" (pp. 26-27).

The Economist (2014a) supports the argument that redistributing income does help to increase aggregate demand. Ostry et al. (2014) provide evidence on the relationship between inequality, redistribution and growth to conclude that "First, inequality continues to be a robust and powerful determinant both of the pace of medium-term growth and of the duration of growth spells, even controlling for the size of redistributive transfers..... And second, there is surprisingly little evidence for the growth-destroying effects of fiscal redistribution at a macroeconomic level" (pp. 25-26). Such a strategy should be complemented by fiscal and monetary policies, along with proper co-ordination of them, as we argue below. The objective should be full employment. Fiscal policy in particular is an important dimension in this regard. The study by Muinelogallo and Roca-Sagalés (2011) employs an endogenous growth model that incorporates fiscal policy and economic growth along with their effects on income inequality. Pooled-panel estimations are undertaken for 43 upper-middle and high-income countries for the period 1972-2006 to conclude that increases in public investment expenditure reduce inequality without harming output, regardless of whether they are financed through direct or indirect taxes. Reforming taxes to make them fairer is another important aspect of fiscal policy. Indeed, Berg and Ostry (2011) show that a redistributive tax system is associated with higher and durable economic growth. Korinek and Kreamer (2013) advocate redistributive policies "such as higher taxes on financial sector profits that are used to strengthen the social safety net of the economy would constitute such a mechanism" (p. 6). Raising the minimum wage and indexing it to inflation is another important tool to fight inequality (see, for example, The Economist, 2014a). A further example, and priority, is the removal of subsidies for the 'too-big-to-fail' financial institutions for such a policy initiative would help to remove, to a large extent, one of the main contributory factors to the surge in wealth at the top of income distribution and to the financial sector in particular. A recovery led by domestic demand and increase in the wage share in the global economy would help to reverse the major factor of inequality behind the global crisis. Gains in competitiveness can and should be achieved through productivity increases rather than wage reductions and weak labour conditions. In this sense strong trade unions, collective bargaining and high minimum wages are beneficial.

Indeed, the immense accumulation of wealth in the financial sector, as shown above, should not be accompanied by austerity measures. It should, instead, be tackled by raising taxes on upper-income holders and cutting war expenditure (Crotty, 2011, for example). The IMF (2014) study summarises the argument and concludes that there is growing evidence that high income inequality has increased in recent decades in both developed and developing countries (as well as emerging), and has been detrimental to macroeconomic stability and growth. It is thereby of paramount importance for governments to employ fiscal policy to influence income distribution. This should be undertaken through both tax and spending policies. As for

specific guidance on the use of fiscal policy for redistribution, this, it is suggested, is a country-specific problem. Piketty (2014) argues that with such substantial redistribution effects, a global progressive tax on individual net worth would offer the best option for keeping inequality under control. Those with low incomes would pay little, while those who have billions would pay a lot. Such tax would require international co-operation of course. Although implementing such a tax would be a serious challenge politically, Piketty (op. cit.) suggests that if the EU and the US supported such a tax, it would be a great beginning. An additional measure is the implementation of a financial transaction tax (see, for example, Arestis and Sawyer, 2013) designed to curb speculation and raise funds for public investment. We would also suggest that raising minimum wage, capping high pay, strengthening trade unions, education policies, are further examples that can help redistributive effects. At the end of the day, though, tackling unequal distribution is an area where very little progress, if any, has been undertaken.

4.2 Financial Stability

In terms of financial stability we may begin by agreeing with the conclusion of the IMF (2009) study that “the instruments used to pursue financial stability are in need of sharpening and refining” (p. 5; see, also, Blanchard et al., 2010). IMF (2010b) goes a step further to suggest that financial stability in the form of macro prudential policies is the way forward. Indeed, the same publication suggests that if the current low interest rates were to produce excessive risk-taking or bubbles, these should be addressed through macroprudential policies and not through the interest rate policy measure. IMF (2010d) suggests a macroprudential approach to contain systemic effects of ‘too-important-to-fail’ institutions, including non-bank institutions. Bean et al. (2010) suggest that macro prudential policy is a better policy to prevent asset and credit bubbles than merely monetary policy. Also, Yellen (2014) suggests that “a macroprudential approach to supervision and regulation” should play the main role in financial stability instead of monetary policy, which “faces significant limitations as a tool to promote financial stability”. Still, Yellen (op. cit.) argues, it is important to note that “the pursuit of financial stability is complementary to the goals of price stability and full employment”.

It is true that only microprudential policies had been the basis of the regulatory framework prior to the ‘great recession’. A number of writers have argued that the regulatory framework was problematic because of that deficiency (see Hansen et al., 2011, and a number of additional references therein). A macroprudential approach is thereby of enormous importance. Hansen et al. (op. cit.) summarise the argument very well: “A microprudential approach is one in which regulation is partial equilibrium in its conception and aimed at preventing the costly failure of individual financial institutions. By contrast, a ‘macroprudential’ approach recognizes the importance of general equilibrium effects, and seeks to safeguard the financial system as a whole. In the aftermath of the crisis there seems to be agreement among both academics and policymakers that financial regulation needs to move in a macroprudential direction” (p. 3). The difficulty with only a microprudential framework is that since it attempts to tackle problems with individual institutions, the overall result could very well be a serious damage to the economy as a whole. It is, thus, paramount for a macroprudential to co-exist with a microprudential one.

Furthermore, macroprudential policy acts more directly at the source of the problem. It is a ‘system-wide oversight’ approach, and as such it “would broaden the mandate of regulators and supervisors to encompass consideration of potential systemic risks and weaknesses as well” (Bernanke, 2008). In terms of the macroprudential tools, Hansen et al. (2011) discuss six sets of such tools: time-varying capital requirements; higher-quality capital; corrective action targeted at capital as opposed to capital ratios; contingent capital; regulation of debt maturity; and regulating the shadow banking system. They offer empirical evidence to conclude that macroprudential regulation is of paramount importance. The danger is that “given the intensity

of competition in financial services, they will also drive a larger share of intermediation into the shadow banking realm” (Hansen et al., p. 25). Regulating this system, long overdue in our view, along with the rest of the financial system is the obvious conclusion, although this is “a complex task, and one that will require a variety of specific tools” (Hansen et al., p. 25). Still such regulation is of vital importance, however complex such a task might be. It is not the case that such attempts have not been initiated. Kashyap et al. (2014) suggest that “Bank regulations involving capital requirements have been substantially refined”. However, “Other changes to rules regarding liquidity, or to give regulators other powers over, say dividends or loan-to-value (LTV) standards have been delayed. Indeed, it is fair to say that there is still no unified framework that organises thinking about how to proceed” (p. 2).

At the same time, though, monetary and macroprudential, and more generally financial stability, policies should be coordinated. Financial stability policy measures should “include capital requirements and buffers, forward-looking loss provisioning, liquidity ratios, and prudent collateral valuation” (IMF, 2010c, p. 3). Still and in this view, price stability “should remain the primary objective of monetary policy” (p. 3); interestingly enough, though, the argument is not for price stability to be the single objective of economic policy. It is also suggested that “changes to central bank liquidity operations and broad crisis management frameworks are needed to address moral hazard. Changes to enhance the flexibility of central bank operational frameworks will improve the resilience of the system. Institutions and markets that are potential recipients of liquidity support, in times of stress should be monitored and regulated” (p. 3). So the focus seems to be on systemic financial stability. All these changes, IMF (op. cit.) argues, “should be done in a way that preserves central bank independence” (p. 4). As argued below, though, central bank independence would not be suitable under conditions of coordinated policies.

Another important and obvious policy implication that follows from our analysis is that the focus of monetary policy to meet the single objective of inflation should be abandoned. King (2009) suggests that “price stability does not guarantee stability of the economy as a whole” and that “Inflation targeting is a necessary but not sufficient condition for stability in the economy as a whole” (p. 5). Bean et al. (2010) are also clear on this issue when they argue that monetary policy “seems too weak an instrument reliably to moderate a credit/asset price boom without inflicting unacceptable collateral damage on activity” (p. 32). IMF (2009) is also very clear on this score, “We must learn lessons from the events of the past two years. They cannot be final conclusions because the present crisis has some way to run. But one stands out. Price stability does not guarantee stability of the economy as a whole”.

It follows from this discussion that financial stability and monetary policy should be the responsibilities of the central bank. This means of course that central banks would have an added objective that of financial stability. Financial stability has not been addressed properly, and as such it requires further investigation. The focus of financial stability should be on the proper control of the financial sector so that it becomes socially and economically useful to the economy as a whole and to the productive economy in particular. Banks should serve the needs of their customers rather than provide short-term gains for shareholders and huge profits for themselves. Such an additional objective, though, raises the issue of how to incorporate financial stability in the loss function of the central bank in view of the fact that it is impossible to measure such a variable. Blinder (2010) raises the issue and wonders “whether the right loss function is actually lexicographic, with financial stability logically prior to the other goals” (p. 4). This is a serious challenge for those central banks that use the ‘New Consensus Macroeconomics’ modelling framework (see, for example, Arestis, 2009, 2011).

4.3 Coordination of Economic Policies

We may begin this sub-section by quoting the ex-IMF Managing Director, who asked the question of “What about fiscal policy? Under the old paradigm, fiscal policy was definitely the *neglected child* of the policy family. Its role was limited to automatic stabilizers – letting budget deficits move up and down with the cycle – and discretionary policy was regarded with deep suspicion. But fiscal policy had a *Sleeping Beauty* moment during the crisis – with monetary policy running out of steam, and with the financial system on its knees, the forgotten tool arrived to prop up aggregate demand and save the world from an economic freefall. We need to rethink fiscal policy” (Strauss-Kahn, 2011, p. 3). Indeed, we have to rethink fiscal policy seriously and suggest that the time has come to assign a strong macroeconomic role to it, along with coordination with other relevant economic policies (Arestis, 2012).

Clearly, monetary and financial stability policies should be coordinated. But we go further and argue that it is vital for full coordination of both policies with fiscal policy, along with discretion in applying them (Arestis, 2015). Fiscal policy should be used both in the short term and in the long term to address demand issues. In this respect, relatively frequent adjustments to fiscal stance in the light of macroeconomic developments are necessary. Regional and industrial policies should be employed to create the required capacity. The perception of how one reaches such a conclusion relies heavily on the belief that the objectives of macroeconomic policy are sustainable (environmental and otherwise) along with equitable economic development and growth. Within this general focus, the main objective of macroeconomic policy is the achievement of full employment of the available labour force. Achieving such an objective would require, inter alia, the maintenance of a high level of aggregate demand consistent with full employment of labour. Also, the provision of sufficient productive capacity to enable the achievement of full employment is required, where sufficient is to be interpreted in terms of quantity, quality and geographical distribution. In this sense, industrial and regional policies are required to enhance supply. Public expenditure, particularly investment, can also be structured to ease supply constraints.

Coordination of economic policies is thereby paramount. There is also ample empirical evidence that is very supportive of the theoretical propositions just proposed (see Arestis, 2012, for a comprehensive review and summary of the relevant empirical evidence). An interesting example is the study by Eggertsson (2006) who concludes that under fiscal and monetary policy coordination, fiscal multipliers are higher than when no policy coordination prevails; they are, indeed, bigger than those found in the traditional Keynesian literature. The fiscal policy multiplier under coordination is 3.4 in the case of the real spending multiplier, and 3.8 under the deficit spending multiplier. When no policy coordination is present, i.e. when the central bank is ‘goal independent’, the real spending multiplier is unchanged, while the deficit spending multiplier is zero. Fiscal policy, though, is most effective when monetary policy is accommodative; and to quote Coenen et al. (2005) “With no monetary accommodation, the inflation pressures lead to an upward movement in real interest rates and thereby offset, in part, the effects of the fiscal stimulus on GDP. In contrast, with monetary accommodation and nominal interest rates held constant, the increases in inflation give rise to decreases in real interest rates. As a result accommodative monetary policy complements the fiscal policy stimulus and intensifies its effects on real GDP” (p. 51). It is also important to note that under such coordination central bank independence cannot be sustained; and it should be abandoned. In any case, and as argued in Angeriz et al. (2008), the experience with central bank independence, in a number of countries around the world, has not been such a success once all different relevant angles are considered. Namely, the characteristics that are important for independent central banks to achieve, namely inflation level, persistence in inflation and inflation volatility, seem to have very little to do with central bank independence.

It follows from the above analysis that the main operation of any Central Bank should be directed towards financial stability. The events leading to the ‘great recession’ testify to this important requirement. With the objective of financial stability, the Central Bank would become more like a Central Financial Agency

(CFA). It would be responsible for policies, which seek to influence the credit and lending policies of the full range of financial institutions.

4.4 Reforming Credit Rating Agencies

In any type of reform, the role of credit rating agencies should be seriously revised. A number of suggestions on this score are worth considering. Abolishing them in view of their unacceptable performance in over-rating, might be one way forward. Changing the way of their remuneration is another. In this sense, looking carefully into the conflict of interest that arises from their fees paid by the issuers, rather than by the investors, thereby introducing a strong incentive to boost ratings, is long overdue. Indeed, it would be better to get investors who buy the rated bonds to pay the CRAs rather than the issuers of them (Cole and Cooley, 2014). Credit ratings should be more transparent; publishing their methodologies and including more details on their work, so that investors can easily check their credibility, is vital in this respect. The Dodd-Frank Act of 2010 provided a way forward in an attempt to tackle this issue. This is the introduction of a new Office of Credit Ratings to supervise closely the work of credit rating agencies. This is an important aspect of the Dodd-Frank Act of 2010, which however has not been implemented yet. The President of the European Commission has suggested the placing of credit rate agencies under the direct supervision of a ‘European Securities and Markets Authority’; this proposal is still in its infancy. The Chancellor of Germany and the President of France proposed ‘a clampdown on credit rate agencies’. The Bank of England and to a lesser extent the ECB, signal a clear break away from credit rating agencies. Despite this critique the CRAs business model with its Nationally Recognised Ratings Organisation in the US remains in place and underpins it. Indeed, the three big CRAs are at record high profits well after the financial crisis of August 2007, as reported in the Financial Times (‘Big Credit Rating Agencies under Fire’, 5th May 2014).

A further interesting result that relates to the August 2007 financial crisis is from a Bertelsmann Foundation study (Fuchs and Gehring, 2013), which suggests that there is ‘home bias’ in sovereign ratings. Fuchs and Gehring (op. cit.) define ‘home country’ “as the country where the agency’s headquarters is located or, alternatively, as the country of origin of its major shareholders. Accordingly, we refer to a ‘home bias’ in sovereign ratings if a rating agency gives preferential treatment to its home country and to countries with close economic, political and cultural ties to it. Thus, in our definition a home bias is a deviation of the actual rating level from what would be predicted solely by the sovereign’s economic and political fundamentals” (p. 3). The study utilises monthly dyadic panel data on sovereign ratings, the logic of which is that the sovereigns employed are non-independent, issued by nine CRAs¹⁷ based in six countries from January 1990 to June 2013, and covers 143 sovereigns. Its purpose is to investigate empirically the extent to which there is systematic evidence for home bias in sovereign debt ratings. The study focuses on the extent to which “credit rating agencies assign better ratings to their home country as well as to countries that are geopolitically and economically aligned with, or culturally similar to it” (p. 4). Fuchs and Gehring (2013) conclude that there is convincing empirical support for the existence of home bias in sovereign debt ratings. The evidence is even stronger after the onset of the August 2007 financial crisis. It is also the case that “The extent to and the areas in which agencies are prone to a home bias differ across agencies. Specifically, we find that four agencies provide significantly better ratings to their home country than what would be justified by their assessments of the economic and political fundamentals of other sovereigns. Moreover, five agencies assign significantly better ratings to those countries to which home country banks have a higher relative risk exposure, and six agencies are to some degree affected by cultural distance as measured by

¹⁷ The nine CRAs referred to in the text are: Capital Intelligence, Dagong Global, Dominion Bond Rating Services, Fitch Ratings, Japan Credit Rating Agency, Moody’s Investor Services, Rating and Investment Information, and Standard & Poor’s (Fuchs and Gehring, 2013, p. 5).

linguistic differences and common language. Overall, the home bias in sovereign ratings appears to be driven by economic and cultural ties, not geopolitics” (p. 4).

An alternative to the CRAs model has been proposed. This is the Bertelmann Foundation (2012a, 2012b) proposal that suggests the establishment of an international non-profit CRA, labelled as INCRA, which should be funded as a sustainable endowment. It would, thereby, “provide a new legal framework that is based on an endowment solution to guarantee sustainability and security for its long-term existence” (Bertelmann Foundation, 2012a, p. 4). It is also suggested that “The G20 would be the best forum to evaluate the political will for giving a new institution a chance – an institution that would be embedded in the markets but also in the society overall” (Bertelmann Foundation, 2012a, p. 5). It is argued that an initial injection of \$400m should be accumulated from a broad range of donors. The latter would include governments, international bodies such as IMF and World Bank, foundations and non-government organisations and the financial services industry. The governance structure of the INCRA would comprise of the following committees: the funders; the management body; the stake-holder committee, which would appoint and oversee the management body and would ensure independence of the analytical function of INCRA from the funders; and the credit policy committee, which would ensure the quality of the ratings. The clear intention for the INCRA “is that it would be able to better signal coming crises before they happen, with investors and issuers knowing that INCRA has no other agenda but to provide independent, conflict-free opinions” (p. 27). In terms of what would INCRA rate, it is straightforward for it would “rate only national government securities, and then supranationals after the first year of its existence” (p. 28).

Gkionakis et al. (2014) is another study that is critical of the CRAs and proposals to reform them are suggested. In this view, CRAs have caused problems with the proposition that the most recent and “The biggest casualty was the Eurozone periphery, which was downgraded far too heavily during the 2009-11 sovereign debt crisis as the rating committees repeatedly overruled the signals coming from fundamentals and to an unprecedented extent” (p. 1). Gkionakis et al. (op. cit.) propose an alternative that is based on estimating the ‘objective’ component of ratings, namely the component of ratings that depends on measurable ‘fundamentals’ of creditworthiness, while the ‘subjective component’, i.e. the assessment by the rating committees that modify the signals, should be used as a residual. So the alternative used for estimation purposes employs a relationship derived from a single regression based on the objective component variables and treating the subjective element as part of the stochastic-error term of the regression. The main objective component variables are: nominal GDP, GDP per capita, GDP growth, public debt, current-account-to-GDP ratio, external debt-to-GDP ratio, indicator variables on whether the relevant country has defaulted previously, whether the country is an advanced or otherwise country, government effectiveness, and rule of law.

Their main empirical findings show that “the Eurozone’s periphery is on average rated almost five notches below what their fundamentals signal, while the Fragile Five¹⁸ are on average rated almost two notches above their fundamental (or objective) signals” (p. 1). More specifically, “Spain, Portugal, and Ireland are all five notches below where they should be, while Italy is underrated by four notches. For Portugal this is the difference between its current junk status and investment grade. At the other end of the scale, Brazil, Indonesia and Turkey are overrated” (p. 17). It is thereby concluded “that the self-appointed credit committees have caused more damage than good as their over rulings of macro fundamentals have been somewhat random in both directions, and with serious distortions in recent years” (p. 18). These findings and conclusion lead the study to the suggestion that “the CRAs be stripped of their regulatory powers for

¹⁸ The so-called ‘Fragile Five’ are: Brazil, India, Indonesia, South Africa and Turkey.

sovereign ratings. Anything with a regulatory role should be carried out by agents of the state, or in this case all states. Therefore, to replace them in this role, we suggest that an international body be mandated with the development of a set of macro indicators (along the lines of what we have shown here to be the CRAs' objective signal), and that these indicators replace the role in regulatory and other policy matters presently played by the CRAs" (p. 18). Failing in terms of this suggestion, the alternative for the ratings agencies is that they "should be forced to substantially increase transparency, including publishing a separate breakdown of the objective and subjective components of ratings, the minutes of the rating committees, and the voting records" (p. 18).

All the suggestions discussed in this sub-section are relevant and important, and, unfortunately, long overdue.

5. Summary and Conclusions

We have highlighted the origins of the August 2007/2008 financial crisis and of the subsequent great recession. We have emphasised the main causes of them, namely distributional effects, financial liberalisation and financial architecture, along with the contributory ones: international imbalances, monetary policy and the role of the credit rating agencies. More intervention on the policy front is needed, along with proper coordination of fiscal with monetary/financial stability policies. Distributional effects and financial stability should be major parts of the economic policy objectives. A properly regulated and functioning banking system is paramount to allow economic activity to expand. A further and related recommendation is that reforming the credit rating agencies is urgent and paramount.

It is the case, though, that when it comes to the question of the implementation of the policy initiatives the news is disappointing. In fact, five years since the Dodd-Frank Act of July 2010 and the banking reform remains a work in progress across the world. The IMF managing director was right to argue at a conference in London ('Inclusive Capitalism', 27 May 2014) that the finance industry is responsible for the lack of meaningful banking sector reforms in view of their 'fierce industry fightback'. Indeed, the absence of action on this score has meant that 'non-banks colonise former bank territory' (Financial Times, 2 June 2014), which is vacated by traditional banks in view of 'increased' regulation. Such territory comprises of private debt, property debt and trade finance, where banks used to lend money. In view of the new regulations that banks have to hold more capital against such debt, they no longer participate in these activities; or when participating they only do so as originators with selling on the debt to other such as non-bank asset entities.

The unregulated shadow banking sector is thereby increasing substantially in size. In the case of the US, this development could very well be due to the fact that the Dodd-Frank Act of July 2010 has failed so far to fix properly the US regulatory system. The reason could be that the Fed is not responsible for monitoring systemic risk. It is instead the Financial Stability Oversight Council, which sits under the umbrella of the Treasury. Be that as it may, it is the case that it is not just in the US that such inactivity is in place, but elsewhere too. For it is true that worldwide progress on financial reform is extremely slow; and worrying poverty of action is in place. The IMF managing director (Lagarde, 2014) suggests that "the behaviour of the financial sector has not changed fundamentally in a number of dimensions since the financial crisis"; and proceeds to complain that "The bad news is that progress is still too slow, and the finish line is still too far".

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