Financialization, income distribution and the crisis

Engelbert Stockhammer*

Introduction

The advanced capitalist economies are experiencing the worst economic crisis since the Great Depression. The depth of the crisis as well as the ongoing hegemony of neoliberalism requires explanation. This paper argues a process of financialization has given rise to a finance-dominated regime of accumulation and that the crisis should be understood as the outcome of the process of financialization and the polarization of income distribution. The first part may be less controversial: financial deregulation is widely recognized as a cause of the crisis. We go further in arguing that financialization represents a profound transformation of the capitalist accumulation regime. The second part may be more innovative. We argue

Received July 2011; accepted February 2012.

^{*} Kingston University, <e.stockhammer@kingston.ac.uk>. This paper is based on a series of lectures held at Universidad Nacional Autónoma de México (UNAM), Mexico City, in September 2010, and on a presentation at the summer school of the European Association of Evolutionary Political Economy in Rome in July 2011. Some sections of this paper build closely on previous work by the author, in particular on Stockhammer (2008, 2010, 2011a). The author wish to thank two anonymous referees for their valuable comments and suggestions.

that the polarization of income distribution is a root cause of the crisis in the sense that it contributed to the imbalances that erupted in the crisis.

Epstein has described "financialization [as] the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies" (Epstein, 2005, p. 3). This definition may lack precision, but it gives a good impression of the ubiquity and pervasiveness of financialization and is thus a good starting point. We will maintain that financialization has micro economic as well as macro aspects. In other words: financialization has transformed how economic actors (households, workers, firms and financial institutions) perceive of themselves, what goals they pursue and what constraints they face. The macroeconomic transformations are no less profound: economies are increasingly driven by movements in the prices of real estate and financial assets and by the burden of servicing financial obligations, *i.e.* debt. And a change in the credit rating of a countries debt can horrify politicians and wreck public finances.

In discussing the finance-dominated accumulation regime, we highlight a further aspect: financialization, much like other incarnations of capitalism creates its own dynamics of differentiation. Rather than analyzing the United States (or United Kingdom) experience as the purest, most advanced form of financialization, we emphasize that their development is part of a differential process. Other countries' experiences are of empirical as well as of theoretical interest (Becker, 2002).

In a nutshell, our story is the following. Financialization has increased the size and the fragility of the financial sector (much like Keynes and Minsky would have predicted). How this impacted on the global accumulation regime turns out to be quite complex. Neoliberalism has led to a shift in power relations between capital and labour. As a consequence income distribution has shifted sharply in favour of capital. Socially this has left working class households struggling to keep up with consumption norms. Economically it had a potentially dampening effect on domestic demand (as demand is wage led in the world as a whole). Different countries have

developed different strategies of coping with this shortfall of demand. Everywhere households (including working class households) have experienced rising debt levels. In Anglo-Saxon countries debt-driven consumption turned into the main demand engine, usually in conjunction with real estate bubbles. Financial deregulation has an international as well as a domestic dimension. The liberalization of capital flows has allowed countries to temporarily sustain large current account deficits -as long as financial markets were willing to provide the corresponding capital inflows. Indeed, for many countries (in particular developing economies), boom-bust cycles driven by capital inflows and currency crises have been the most important feature of the finance-dominated accumulation regime. As countries have been able to run substantial current account surpluses (while others run deficits) international financial liberalization has created a new scope for different trajectories across countries. A second group of countries has relied on export-driven growth (and subdued domestic consumption) and run substantial current account surpluses. Two key sources of the crisis, debt-driven consumption and international imbalances, are thus linked to the interactions of financial liberalization and the polarization of income distribution.1

The remainder of this paper is structured as follows. Section 2 gives an overview of the present crisis and its metamorphoses. Section 3 visit debates around financialization and the nebulous borders between neoliberalism and financialization. Section 4 summarizes changes brought by financialization for the financial sector, businesses and households. Section 5 discusses changes in income distribution, financial globalisation and the characteristics of the finance-dominated accumulation regime. In particular it highlights the emergence of two different growth models. Section 6 discusses the channels by which income inequality has contributed to the crisis and section 7 concludes.

Horn et al. (2009) and Hein (2011a) develop a very similar argument.

THE CRISIS 2007-2011

In mid 2006 house prices in the United States started to decline. With hindsight, that marks the beginning of the crisis, even if it attracted little attention at the time. Rapidly rising house prices, and the mortgage lending that came with it, had been the basis of a boom driven by credit-financed consumption and construction investment in the United States. But this section will give a brief overview of the unfolding of the crisis itself.

The crisis broke out in a seemingly obscure niche of the United States financial system: the subprime market, which is the market on which derivatives on low-quality mortgage credit; thus the initial name of the crisis as subprime crisis. This is a rather small segment of the overall mortgage market, though it accounted for a substantial part of the credit growth in the years before the crisis. As subprime credit is, by definition, of low quality, it was the natural field for the kind of financial engineering, securitization, which was supposed to reduce risk. What was going on here was the extreme form of what happened on a much broader scale in the entire mortgage industry. In August 2007 the crisis spilt over into the interbank market, where banks lend to each other, usually very short term. The interbank market is at the very centre of the modern financial system. Interest rose to more than one percentage points above that of government bonds. This increase in the risk premium of lending meant that banks did not trust each other. And rightly so, as it turned out. Central banks reacted quickly and pumped billions (of dollars and Euros) into the market to maintain liquidity.

However, while the interbank market stabilized the crisis evolved. In spring 2008 Bear Stearns, one of the leading investment banks, was bankrupt and could only be sold with the Federal Reserve (FED) guaranteeing some 20 billion US\$ worth of assets. A first (small) fiscal stimulus packet was implemented in the United States, but the impact on the real economy outside the United States was limited. In August/September 2008 the crisis turned into a full scale *financial crisis*—and it did so with a bang: Lehman Brothers, one of Wall Street's leading investment banks, went bankrupt.

The end of the world (or at least of big finance) as we knew it, seemed to have arrived. Interest rates soared (interest spread rose to several percentage points) and liquidity froze.

Again economic policy reacted. The principles of neoliberal free-market economics were suspended for a few weeks. Central banks provided more liquidity, but that proved insufficient to stabilize markets. Governments had to intervene directly: AIG, an insurance firm that had insured huge volumes of credit derivates, was taken over by the state as were Fannie Mae and Freddie Mac, the two state-sponsored mortgage refinancing giants. Within a few weeks the recapitalization financial institutions and massive guarantees for interbank credits became mainstream economic policy. Recapitalization meant that governments effectively nationalized (fully or partly) financial institutions —but governments abstained from interfering with the management banks despite obvious management failures. In late October 2008 an European Union summit issued a statement that no systemically important financial institutions would be allowed to fail— a capitalism without bankruptcies (of big banks) was declared!

By fall 2008 the financial crisis had turned into a full blown *economic crisis*. Income in most developed countries shrank at a speed not seen since the 1930s (in most countries by around 5%). And it not only hit those countries that had experienced property bubbles, but also countries like Germany and Japan (where property prices had been practically flat) and it spread to the emerging countries. Eastern European countries were particularly bad hit, with the Baltic countries suffering Gross Domestic Product (GDP) declines by around 20%. The International Monetary Fund (IMF) had to be called in to save Hungary, Pakistan and the Baltic states. But the most conspicuous symbol of the downturn was certainly the fall of General Motors (GM): once the world's largest firm and employer, it now had to be rescued by the state.

While complete meltdown seemed imminent in fall 2008, in the course of spring 2009 it became clear that the –historically unprecedented– scale of government intervention had prevented outright collapse. A cascade of bank breakdowns could be prevented by rescue packages that amounted

to 80% of GDP in the United States and the United Kingdom (UNCTAD, 2009, Table 1.8) and by the FED expanding its balance sheet by a trillion US\$, mostly by acquiring assets that it would not have touched in normal times. Risk premia remained elevated, banks were making phenomenal losses, unemployment started rising, but normality of a sort returned. And, apparently, the pressure to reform the system had receded. Earlier declarations of a fundamental restructuring of the financial system had been forgotten and the debate on reform turned into specialists' debate into technicalities, with all but private bankers and central bankers being excluded from the decision making circles. The arrogance of the financial elite, however, is best captured by the fact that, despite of the obvious disaster in finance, bankers' bonuses are back to pre-crisis levels.

But the normality that was about to restore itself was not quite the normality of before the crisis. After all, the crisis was by no means over. Indeed, for large parts of the population, it only had begun, when for the bankers it was almost over. Production fell and unemployment rose. In the United States foreclosures were rising. People lost their jobs and their homes. And there was another devastating effect of the crisis: budget deficits were increasing, surpassing 10% of GDP in many cases. So in the course of 2009 the crisis thus took its next turn: a *fiscal crisis*. This has been lingering for several months, but its most prominent victim in winter 2009-2010 was Greece and with it the Euro system.

In January-February 2010 Greece faced punitive interest rates on its (public) debt issues. Greece had fudged public debt statistics (with the help of leading Wall Street banks) and now had difficulties refinancing its debt. Indeed, what had been exposed was fundamental flaw in the construction of the Euro system. With exchange rates frozen, the southern countries had, despite much lower inflation since adopting the Euro, slowly, but steadily lost competitiveness to Germany and its economic satellites. Germany's net exports (mostly to other Euro countries) amounted to more than 5% of GDP. This was achieved by wage suppression and, consequently, low inflation rates (Lapavitsas *et al.*, 2010). The Euro area had no instruments to deal with internal imbalances, other than trusting labour market flexibility to

adjust the price levels. Greece received a € 110 billion loan from the newly instituted European Financial Stability Facility (EFSF).

While it was relatively simple to blame the Greek crisis on irresponsible fiscal policy the structural problems of the Euro area were illustrated by the Irish crisis shortly thereafter. Ireland had government surpluses before the crisis, but still needed a huge rescue package (€ 85 billion, more than half of Irish GDP). Like in Greece, the rescue package is really a rescue package for the European financial sector rather than for states. Ireland had experienced an enormous real estate bubble that burst and effectively bankrupted its banks. Because of the bank bailouts, Irish debt soared by 40%-points of GDP from 2007 to 2010. Literally all of the obligations of the Irish banking system were guaranteed, which led to an angry article by Eichengreen (2010).

The Euro crisis is far from over (indeed at the time of writing it seems that Italy is engulfed next) and in the United States economics news indicates stagnation. What is somewhat euphemistically called 'deleveraging' has begun. Meantime fiscal policy has switched into reverse in all countries. What is more, in several cases (most notably the United Kingdom and Greece) it is becoming clear that the battle cry of sound fiscal policy is used to cover a re-structuring of the role of the state: a second wave of neoliberalism!

FINANCIALIZATION: CONCEPT, DEBATE, DELINEATION

Financialization has profoundly transformed advanced economies. The term used to summarize a broad set of changes in the relation between the 'financial' and 'real' sector which give greater weight than heretofore to financial actors or motives. The debate on financialization draws a range of different theoretical and methodological approaches and is thus difficult to summarize.² Cultural economists have highlighted the incompleteness and

One of the first prominent works to use the term financialization was Arrighi (1994) who identified long waves of economic development in global capitalism that involve hegemonic and geographic

contradictions of the discursive strategies of financialization (Froud, Johal, Leaver and Williams, 2006), while macroeconomists have tried to identify the conditions for viable growth regimes; economic sociologists have argued that (financial) markets have to be constructed by specific actors with specific interest (MacKenzie and Millo, 2003), while post-Keynesian economists have highlighted the fragile nature of finance-led growth (see Ertürk *et al.*, 2008, for a useful collection of seminal contributions and Stockhammer, 2010, as a short survey).³

Before we turn to specific changes for different economic actors, let us highlight a common theme of the transformation brought about by financialization: actors increasingly perceive of themselves like financial institutions manipulating their balance sheets, as if they were managing a portfolio of assets. They compare relative rates of return and want to be able to trade in liquid assets. This represents an increasing commodification of social relations. These transformations have different implications for different sectors in the economy: financial institutions have shifted towards liquid assets; within firms this represents a shift in power relations from labour to capital, but the rule of capital has taken a new guise, that of shareholder value; for households, in particular working class households the transformation dissolved previous notions of working class consciousness and opened new ways for exploitation.

Let us illustrate these last points by quoting from Foucault's summary of labour in neoliberal analysis: "An income is quite simply the product or return on a capital. Conversely, we call 'capital' everything that in one way or another can be source of future income. Consequently, if we accept on this basis that the wage is an income, then the wage is therefore the income of

shifts. While the upswings of these long waves are characterized by increased manufacturing and trade activity, in the downturns a process of financialization occurs: the leading power had initially established a competitive advantage in terms of production, but it shifts towards financial activities as its growth model gets exhausted and other players catch up. In contrast to Arrighi most of the recent debate uses the term more narrowly to refer to the period since the 1970s.

³ For contributions on the macroeconomics of financialization see Boyer (2000), Stockhammer (2005/06), Dutt (2006), van Treeck (2009) and Hein (2011b).

a capital" (Foucault, 2008, p. 224). The worker becomes "an entrepreneur of himself" (Foucault, 2008, p. 226). Bowles (1975) had offered asimilar analysis of the ideological content of human capital theory earlier.

This represents an important shift in the ideological justification of capitalism. While, according to Marx' analysis of commodity fetishism, the wage contract appears as 'fair' as it is agreed-up exchange of labour for money (Marx 1976, Chapters 1.4 and 6), it implicitly acknowledges the existence of a working class. In Foucault's analysis of neoliberalism, the worker himself becomes an entrepreneur. Modern capitalism isn't just fair; we're all capitalists now!

There are multiple overlaps between the concepts of financialization and that of neoliberalism. Various (Marxist) authors have highlighted that financialization is one of the core parts of neoliberalism (Harvey, 2005; Glyn, 2006; Duménil and Lévy, 2004) and that profits increasingly accrue in the form of financial incomes or in the forms of capital gains. In this analysis neoliberalism is essentially the latest offensive of capital to restore profitability.

This may understimate the novelty of neoliberalism. Already in the late 1970s Michel Foucault (2008) had suggested an interpretation of neoliberalism as a form of *governance by competitive subjectification*. Based on a careful reading of the German ordo-liberal school and the United States-Chicago School he argues that neoliberalism differs radically from classical liberalism in that it does not aim at liberating markets, but at *creating* markets and subordinating government activity under this goal. Markets do not spontaneously spring into being, but have to be constructed and maintained *-by governments*. Contrary to classical liberalism neoliberalism thus requires permanent and profound state intervention.

Stockhammer and Ramskogler (2009) reached a similar conclusion based on an analysis of recent economic policy and of New Keynesian and Neo-Institutionalist developments in mainstream economics and call these developments *enlightened neoliberalism*. Many recent mainstream economics approaches differ from the old neoclassical general equilibrium theory not in their trust in the efficiency of markets, but argue that they have to be

created and maintained rather than posited. The title of the World Bank (2002)'s *World Development Report 2002* encapsulates this approach: Building Institutions for Markets.

Our approach in the following will make use of the regulationist framework.⁴ Before proceeding, three clarifications are in place. First, I am purposefully using the term regulationist 'framework' rather than regulationist 'theory' as the Regulation School, in my view, does not qualify as theory in the strong sense of the word, *i.e.* as positing specific causal explanations of a range of social or economic phenomena. Rather I regard it as an 'intermediate theory' that offers a platform to analyze historically specific eras by encompassing socio-institutional as well as economic aspects and allows potentially for the (historically specific) integration of (among others) Keynesian and Marxian arguments. In this view the theoretical scope of Regulation Theory, is limited; its practical usefulness, however, has been undervalued since its boom in the 1980s.

Second, we will use the term accumulation regime to describe the macroeconomic pattern of phases of capitalism, based on specific institutions settings or trajectories. The meaning of accumulation requires some discussion. Regulation theory was originally (Aglietta, 1979) based on Marxian analysis. In Marxian analysis there is a certain ambiguity in the term accumulation as it can refer to the growth of profits or to the growth of capital stock (*i.e.* reinvested profits). As we shall see financialization drives a wedge between the two. One of the features of the finance-dominated accumulation regime is that there has been an increase in profits while, at the same time, there is sluggish growth of investment.

Third, our discussion will be structured by economic sectors instead of following the standard Regulationist script of the analysis of the mode of regulation and its institutional structures. This may reflect my

Classical works of the (French) Regulation Theory include Aglietta (1979), Lipietz (1985) and Boyer (1990). There are similarities between the Regulation Theory and the (American) Social Structure of Accumulation approach (Gordon, Edwards and Reich, 1982; Bowles, Gordon and Weisskopf, 1983).

macroeconomic interests, but it is mainly a device to highlight the effects of financialization. As any light also casts a shadow, this comes at a cost. Compared to a proper regulationist analysis the transformation of the capital-labour relation, the impact of globalization and the changes in the state get insufficient attention.⁵

Transformations brought about by financialization

Financialization was made possible by a series of measures to deregulate the financial sector and to liberalize international capital flows. Many of these measures were themselves reactions to increasing activities on the part of private agents to circumvent financial regulation. This section aims to give an overview over how financialization has affected different sectors of the economy. In doing so, we highlight changes in the constraints as well as in the aims of economic actors and we try to document differences across countries.

The financial sector

Changes in the financial sector have been quite dramatic. The first set of changes is about the actors and institutions, which make up the financial sector. Non-bank financial institutions ranging from insurance firms to investment funds, money market funds, hedge funds, private equity funds and special purpose vehicles have gained weight. Typically these institutions are much less regulated than banks, though, thanks to financial innovation, they perform similar functions as banks and are thus often referred to as shadow banking system (Pozsar, Adrian, Ashcraft and Boesky, 2010). The shadow banking system has also been an engine for financialization and in the form of offshore finance parts of it blatantly serve for tax evasion and money laundering (Shaxson, 2010). One important aspect of the emergence of the shadow banking sector is financial innovation, *i.e.* the

⁵ Vidal (2010) offers an interpretation of post-Fordism as Waltonism.

development of new financial instruments that often helped to circumvent traditional banking regulation. Pozsar, Adrian, Ashcraft and Boesky (2010) estimate that in the United States the shadow banking system is now larger than the regular banking sector (measured in terms of assets).

Within the banking sector there has been a shift towards fee-generating business rather than traditional banking that generates income as a result of the interest differential between rates on deposits and on loans. Part of this has been the emergence of what has been called the originate-and-distribute model of banking (in particular in the United States), where mortgages were quickly sold in the form of asset backed securities. In terms of lending, there has been a shift to lending to households rather than to firms. In particular mortgages are now by far the largest loan positions (Ertürk and Solari 2007, Lapavitsas, 2009).

Supporters of financial deregulation have argued that financialization will provide a superior way of dealing with risk; e.g. securitization was supposed to slice risk into different parts (by means of different securities) and allocate it to those who were best equipped to hold it. The financial system would thus be more stable (e.g. IMF, 2006, p. 51) and society better off, a claim that sounds plainly embarrassing after the events of the last years. In contrast Keynesians have long argued that financial markets are intrinsically unstable and tend to generate endogenous boom-bust cycles (Minsky, 1986). More recently, they have highlighted conflicts of interest and the dangers of the belief that risk could easily be sliced by means of looking at past correlations (Aglietta and Rebérioux, 2005).

There are long-standing differences between financial systems across countries, that are often grouped into market-based and bank-based system (e.g Allen and Gale, 2000; Schaberg, 1999). While financialization has increased the size of financial sectors (as measure by assets as well as by the profits) in all countries, strong differences across countries persist e.g. in the size of stock markets, banks and institutional investors (Davis, 2003), though in some areas the international activities of financial institutions may render these differences less important. The spread of the subprime crisis to the balance sheet of financial institutions across the globe is a case

in point, though (national) banking regulation and governance did make a difference for how banks were affected (Beltratti and Stulz, 2009).

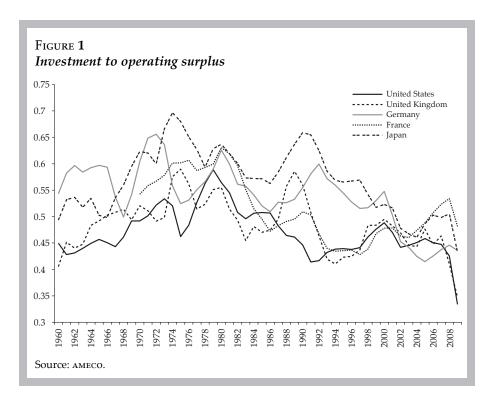
Non-financial businesses

One of the most important changes in the non-financial business sector is due to the increased role of shareholders. Lazonick and O'Sullivan (2000) argue that a shift in management behaviour from 'retain and reinvest' to 'downsize and distribute' has occurred. While there is broad agreement (in heterodox economics) that financial motives and actors have become more important within firms, there is a subtle difference in interpretation. Firms could be the victims of institutional investors; or shareholder value orientation could be a strategy of increasing exploitation. Either way, it is clear that interest and dividend payments have increased (Duménil and Lévy, 2001; Crotty, 2003). However only for few countries, namely for the United States, are data readily available.

More formally, Stockhammer (2004) shows that an increase in shareholder power will modify the desired profit-growth frontier for the firm and presents econometric evidence that financialization may explain a substantial part of the slowdown in accumulation. However, results vary widely across countries (strong effects in the United States and France, weak effects in Germany). Orhangazi (2008) finds evidence for this channel based on firm-level data for the United States. Onaran, Stockhammer and Grafl (2011) present econometric evidence for the negative effect of dividend and interest payments on investment.

A second change for investment behaviour has been in the economic environment that firms face. Volatility of financial markets has increased substantially in the course of financial deregulation. As a consequence firms face a higher degree of uncertainty which may make physical investment projects less attractive. In particular volatility of exchange rates seems to have had some effects on manufacturing investment. However, uncertainty is hard to measure and estimation results from the existing literature are not conclusive enough to suggest a clear order of magnitude of the effect (Carruth, Dickerson and Henley, 2000; Stockhammer and Grafl, 2011).

The weak performance of investment compared to profits can be seen in figure 1. The decline in the investment-to-profits ratio can be observed in all major economies, even if the peak values differ across countries (the mean peaks in 1980). The measure of operating surplus used in figure 1 is based on the National Accounts and thus a broad one that includes all non-wage income. Part of the reason for the declining trend in the investment operating surplus ratio is due to a change in the composition of the operating surplus. Perhaps surprisingly stock market prices have very little effect on investment. Already in the early 1990s (Chirinko, 1993), most empirical economists would have agreed that share prices have little, if any, effect on investment. In our view financialization has had a dampening effect on business investment due to negative effects of shareholder value orientation and increased uncertainty.



Households

Financialization has increased the access of households to credit, the most important form of which has been mortgage credit, which typically makes up 80% of household credit. In combination with real estate booms this has often led to credit-financed consumption booms. 6 In the United States consumption expenditures have become the main driving force in GDP growth in the 1990s. Mainstream economists try to explain this increase in consumption assuming rational behaviour (in Anglo-Saxon countries). The falling saving rates were first explained by a wealth effect due to the rise in the value of financial assets because of the stock market boom. In the late 1990s a 5% marginal propensity to consume out of financial wealth was often quoted (with some more qualification for European countries; e.g. Boone, Giorno and Richardson, 1998). The stock market crash in 2000, however, did not result in a slowdown in consumption growth. The unabated consumption boom in the United States was then explained by booming house prices. Residential property was now identified as the key source of the wealth effect as is more frequently accepted as collateral. Case, Shiller and Quigley (2001), Catte, Girouard, Price and André (2004), and Girouard, Kennedy and André (2006) find substantially higher marginal propensity to consume out of property wealth than out of financial assets.7

There are two areas of disagreement between the mainstream economics and heterodox approaches regarding the analysis of household

⁶ There is an additional channel through which financialization may have affected consumption expenditures. In many countries the pay-as-you-go pension systems are being reformed or have been questioned. Typically some version of a capital-based system is envisioned in which households have to invest their savings (usually via funds) in the stock market. This should lead to an increase in savings as households have to put more aside for retirement. I am not aware that this channel has been investigated empirically.

While there is substantial evidence for the United States (albeit based on a short period of observations!) to back up this story, the evidence on European economies was always much thinner. Typically the wealth effects estimated for European economies were not statistically significant or much smaller.

debt. First, the mainstream literature usually assumes that households rationally increased their debt ratios as their wealth increased. From a heterodox point of view a substantial part of the accumulated debt is due to households maintaining consumption levels that are unsustainable (and could therefore be considered irrational). As wages have stagnated in many countries consumption norms as represented in mass media have arguably increased, many households could have been driven into debt (Cynamon and Fazzari, 2009). The second major disagreement is about the role of income distribution. Several heterodox authors have argued that the increase in household debt should be regarded as a substitute to increases in wages (Barba and Pivetti, 2009). While consumption norms have increased, wages have not to the same extent. Consequently working class households were driven into debt.

Household debt is difficult to measure and international comparisons chronically suffer from deficiencies in comparability of data due to different financial institutions and practices in different countries. Table 1 reports a wide range of debt to GDP ratios across countries. However most European countries have experienced rising debt ratios since 1995, though at quite different levels. While the United Kingdom, the Netherlands and Denmark have debt ratios similar to those of the United States, most continental European countries have much lower levels. It is also clear, with hindsight, that strong increases in household debt ratios were driven by property bubbles (in the United States, the United Kingdom, Ireland and Spain).

Within the (OLD) European Union, debt levels have been rising most dramatically in the Mediterranean countries and in Ireland –exactly the group of countries that is now experiencing the crisis (see table 1).

THE FINANCE-DOMINATED ACCUMULATION REGIME

Changes in income distribution

One of the hall marks of neoliberalism has been the polarization of the distribution of income. The shift in power from labour to capital is clearly reflected in wage developments. Wage shares have been falling across

	2000	2008	2009	Change 2000-2008
United States	70.21	96.35	96.34	26.13
United Kingdom	75.16	107.43	110.00	32.27
Ireland		114.26	124.93	114.26
Greece	19.83	55.29	57.24	35.46
Spain	54.22	88.06	89.88	33.84
Portugal	74.96	102.34	107.48	27.38
Italy	35.29	53.61	56.54	18.32
Germany	73.41	61.70	63.91	-11.71
Austria	47.13	55.04	56.92	7.91
Switzerland	74.76	77.70	82.08	2.94
France	47.46	64.56	69.46	17.10
Belgium	40.85	50.25	54.08	9.40
Netherlands	86.98	119.81	130.45	32.83
Bulgaria	4.32	35.07	50.06	30.75
Estonia	12.14	61.35	69.27	49.21
Latvia	7.08	48.65	53.88	41.57
Lithuania	2.11	35.46	42.09	33.35
Hungary	9.04	39.51	40.65	30.47
Poland	8.29	32.77	33.03	24.48
Romania	3.28	29.24	31.23	25.96
Slovakia	12.70	38.29	47.77	25.59

Europe and in Japan and, to a lesser extent, in the United States and the United Kingdom. The Anglo-Saxon countries have, however, witnessed a strong increase of inequality in personal income distribution (Atkinson, Piketty and Saez, 2010). Arguably, the exorbitant management salaries in the Anglo-Saxon countries should be considered a form of profits rather than wages. Indeed, subtracting the top 1% of wage earners from

Source: Eurostat, except the United States (flows of funds).

the United States wage share, a strong decline can be observed. Based (consumer price index-adjusted) data available from the Organization for Economic Co-operation and Development (OECD, 2008), median weekly wages in the United States have grown by a mere 2.8% from 1980 to 2005, the bottom quartile of wages fell by 3.1% and the top10% increased by 21 per cent.

While mainstream economics tends to identify the role of technological change has been the main cause of the decline in the wage share and that globalization has been a secondary cause (IMF, 2007a; European Commission, 2007), political economy approaches tend to highlight the financial globalization, trade globalization and the decline in union density. Rodrik (1998), Harrison (2002), and Jayadev (2007) econometric evidence for the effects of capital controls and capital mobility on income distribution. Stockhammer (2009) finds for oecd countries that financial globalization, trade globalization and the decline in union density have been the main forces behind the falling wage share. International Labour Organization (ILO, 2008) argues that financial globalization has contributed to the decline in the wage share, but does not provide econometric evidence. Onaran (2009) shows that financial crisis have long-lasting distributional effects for several developing countries.

What are the likely macroeconomic effects of this redistribution on aggregate demand? From a Kaleckian point of view, one would expect a dampening effect on aggregate demand. As wage incomes are typically associated with higher consumption propensities than profit incomes, this ought to lead to a decrease in the consumption share. Stockhammer, Onaran and Ederer (2009) find a saving differential of around 0.4 for the Euro area.⁸ Given that wage shares have declined by some 10% points since 1980, consumption shares ought to have declined by some 4% points (of GDP) over this period due to changes in income distribution. The background

⁸ This value is in line with comparable studies for other groups of countries (Naastepad and Storm, 2006/07; Hein and Vogel, 2008).

for macroeconomic developments in the neoliberal era is one of potentially stagnant demand.

International capital flows

For many countries, in particular in the developing world, the main experience of financialization has been that of exchange rate crises: Latin America in the 1980s and again in 1994, South-east Asia in 1997-1998. Typically these crises were preceded by periods of strong capital inflows and were triggered by a sudden reversal of capital flows (Reinhart and Reinhart, 2008). All of them have led to severe recessions (at times with double digit declines in real GDP). The European Monetary System (EMS) crisis 1992-1993 also shook developed economies and it led European countries to speed up monetary unification and introduce a common currency, the Euro. At first, the Euro appears to have been a success. Not only was the new currency accepted by the public. It also substantially decreased inflation and (real) interest rates in the former soft-currency countries. However, since inflation differentials persist across European countries, there have been creeping changes in real exchange rates that have accumulated over the years. Real exchange rates have diverged since the introduction of the Euro. Germany has devalued by more than 20% in real terms vis a vis Portugal, Spain, Ireland or Greece since 1999 and, unsurprisingly these countries have had large current account deficits (whereas Germany had large surpluses). Rather than preventing internal imbalances, the Euro system has changed the nature of the ensuing crisis: Rather than an exchange rate crisis, the imbalances now lead to a sovereign debt crisis in a situation where the affected country has neither the possibility to devalue its currency nor does it have a central bank of its own that could rescue its banks or finance its government.

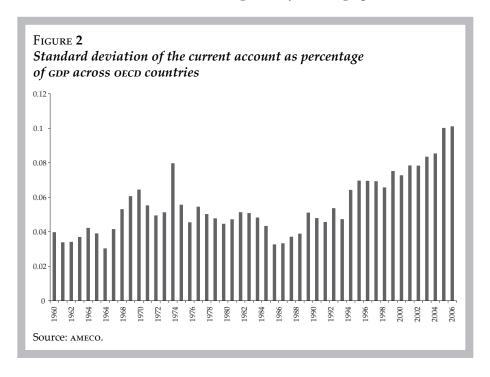
When politicians like Jacques Delors pushed for the introduction of the Euro, what they had in mind was the creation of a European state. While they have not succeeded in this, they have come rather close to destroying some of the old nation states. Monetary unification has thus in an ironic

way politicized the crisis while at the same time there is no European polity to debate the crisis.

The flaw of the Euro system is basically the following: There is a common monetary policy and fiscal policy is severely restricted. Exchange rate realignments are by definition not available to adjust to divergences across the Euro zone. So how can countries adjust? Basically through wage moderation. But this fails to work in practice. First, labour markets simply are not as flexible as economic textbooks and European Union treaties would like them to be. Second, the adjustment via labour markets has a clear deflationary bias -the country with the current account deficit will have to adjust and it has to adjust by wage restraint and disinflation. However, as overall inflation is limited to two percent, any country that seriously wants to improve competitiveness would have to go through an extended period of deflation, which would require mass unemployment and falling wages. The present model requires that the deficit countries restrain inflation and growth whereas the surplus countries are allowed to proceed running surpluses (Stockhammer, 2011b). But beyond its failure to deliver stability, this arrangement also has severe distributional consequences. Simply put, under the present arrangement Greek wages have to fall, but German wages do not have to rise. The system worked badly enough during the good times (in particular for the working classes), it's proving lethal in bad times.

International imbalances in trade balances (and the corresponding capital flows) are widely recognized as having played an important role in the building up of the bubble in the United States. Capital flows have provided vast amounts of capital in search of yield in US\$ assets. These they found in various derivatives based on mortgage and commercial credit, thereby fuelling the credit-financed consumption boom. However, we want to highlight a more structural feature of financial globalization: it has increased the potential for different developments across countries—if only as long as international financial markets remain calm. Financial liberalization and globalization have allowed countries to run larger current account deficits, provided that they can attract the corresponding capital inflows. Figure 2 plots the standard deviation of the current account as a ratio to GDP (for

OECD countries) as a measure of international imbalances. This shows that international imbalances have increased substantially since the mid 1980s.⁹ Two things are remarkable about figure 2. First, imbalances in the early 2000s were above the levels of the mid 1970s when the oil price shock gave rise to strong changes in current accounts across many countries; second the rise in international imbalance has been gradually building up since 1980.



The regime of fragile and slow accumulation

The debate on financialization is fuelled by the perception that finance is increasingly dominating real activity, with the exact meaning of this

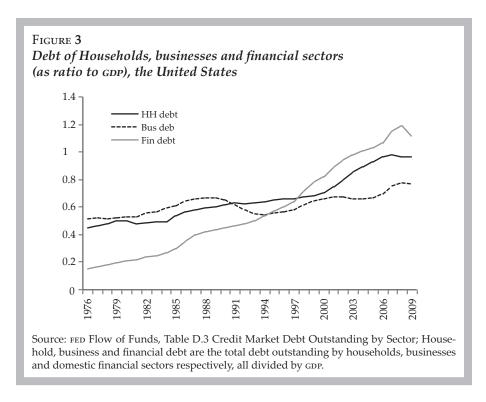
⁹ As our measure only includes OECD countries China as well as some other South-East Asian countries that run substantial current account surpluses are not included. Our measure thus underestimates the full extent of international imbalances.

statement often being hard to pin down. However, there is ample evidence that financial activity has grown faster than real activity (as measured for example by GDP). For example, in the United States stock market capitalization has increased from 58% of GDP in 1988 to 163% in 1999. The rise in stock market turnover is even more spectacular, rising from 33% (of GDP) in 1988 to 383% in 2008 (according to the World Bank Financial Structure Data Set). The ratio of financial and international profits to total corporate profits has risen from just above 12% in 1948 to a peak at 53% in 2001 (Bureau of Economic Analysis, National Income and Product Accounts, Table 6.16B-D). Finally, financialization has come with a dramatic increase in debt levels across different sectors. Figure 3 shows the debt of households, businesses and the financial sector (as a ratio to GDP). While the business sector has increased its debt from 52% of GDP (in 1976) to 77% (2009), household debt has increased from 45% (1976) to 96% (2009), with a clear acceleration in the early 2000s. Most spectacularly, the debt of the financial sector has increased from 16 to 111 per cent (2009). 10 The popular perception of the increasing role of finance is clearly substantiated by economic data: activity of financial markets has increased faster than real activity; financial profits make up an increasing share of total profits; and households as well as the financial sector are taking on a lot more debt.

While there is evidence for a consumption boom in the United States (and previously for limited periods in some developing countries), for continental European countries one does not find the strong evidence of a consumption boom (related with a property price bubble) –despite the fact that household debt levels increased substantially.¹¹ Investment

¹⁰ These figures refer to gross debt. Typically debt will be used to acquire assets. The difference between the value of the assets and gross debt is net debt. It is useful to look at gross debt as the valuation of assets that may at times change dramatically as happened in 2008-2009, whereas the nominal value of debt is fixed.

However, given that income distribution has changed at the expense of labour, which should have decreased consumption ratios, it is plausible that debt-driven consumption has also fuelled demand in Europe to some extent.



performance has been weak. In particular rising profits have not translated into rising investment. Presumably (but hardly conclusively) this is related to shareholder value orientation and increased uncertainty due to volatile financial markets. The liberalization of capital flows has relaxed current account constraints on countries and led to volatile exchange rates and frequent financial crises.

Overall the effects of financialization thus give rise to a finance-dominated accumulation regime that is one of *slow* and *fragile* accumulation. There are two related reasons to expect the finance-dominated accumulation regime to come with more volatility in output growth (and other macroeconomic variables). First, macroeconomic shocks from the financial sector have become more severe and more frequent. There is ample evidence that financial markets generate highly volatile prices. Overshooting is well

established for exchange rates and the boom bust cycles of share prices has become evident (again) in the past years. Second, because of high debt levels, the fragility of the economy has increased. Financialization has encouraged households to take on more debt. This debt presumably either has fuelled consumption expenditures or was necessary to buy property in the face of soaring house prices. Either way, debt has to be serviced out of current income (or by ever increasing debt). Even temporary reductions in income may thus escalate if households have to default on their loans. While this need not happen necessarily, the *fragility* of the system has increased as the resilience of households against temporary shocks has decreased.

One would expect that this combination of more frequent crises on financial markets and high fragility of households to translate into macroeconomic volatility. IMF (2007b) presents evidence that business cycles have become more *moderate* since the 1970s. The devil, however, lies in the detail. While "output volatility [...] has been significantly lower than during the 1960s" (IMF, 2007b, p. 85), recessions have become harsher in the Post-Bretton Woods era than in the Bretton Woods era (IMF, 2002, Table 3.1). As output growth (and expansions) was much higher in the Fordist era than in the post-Fordist era, the IMF is correct in concluding that volatility has decreased. But this does not mean that recession have become less severe! Moreover, financial crises have become more frequent and more severe (Eichengreen and Bordo, 2003). The present crisis is not a rare exception, but only one of many in the age of deregulated finance.

It is important to note that state shares in GDP are still substantially higher than at the time of Great Depression. Automatic stabilizers are thus in place and government consumption forms a sizable part of value added. Moreover, central banks in developed countries (in particular the Fed) have been pro-active in reacting to dangers of financial crisis. The resilience of a sizable government sector and (by historical standards) a functional welfare state combined with active monetary policy may be the reason why financial

¹² In particular Eichengreen and Bordo (2003) report that there had been *no* banking crises in the 1945-1973 period.

crises have so far not had a devastating effect on (advanced) economies and why the Great Recession has not yet turned into a Great Depression.

INCOME DISTRIBUTION AND THE UNDERLYING CAUSES OF THE PRESENT CRISIS

Financialization and the rise in inequality have interacted in complex ways to provide the preconditions of the present crisis. The starting point for our discussion is the assertion that, other things equal, an increase in inequality leads to a lack of consumption demand. In the period of financialization, the increase in inequality and profits did not translate into an increase in investment expenditures. We highlight three channels through which inequality has contributed. First, in the United States, the median working class household has experienced stagnant wages. Consumption norms have increased faster than median wages and household debt has increased sharply. The property boom allowed households to take out loans that they could not afford given their income, but that seemed reasonable to banks which assumed that property prices would continue to increase. The United States (and other Anglo-Saxon countries) has developed a credit-driven consumption boom growth model -and debt-to-income ratios have increased faster for lower income groups than for higher ones. Typically these countries had current account deficits.

Other countries have also, albeit in somewhat different forms, experienced an increase in inequality. But some of them have developed a different strategy of copying with the shortfall in domestic demand that came with the polarisation of income distribution. Here net exports played the key component of demand growth. Thus these countries developed an *export-led growth model*. The resulting capital outflows fuelled the property bubble and bubbles in other financial markets. Thus the second channel is the development of two growth models that were made possible by financial globalisation. It's important to realise that the export-oriented model is also, in part, a response to macroeconomic problems caused by a rise in inequality.

A third channel is that a rise in inequality, more precisely a rise in wealth inequality, leads to an increase of the social propensity of speculation in the sense that the rich households will hold a riskier portfolio. Lysandrou (2011) provides more specific evidence for this channel. He argues that the rise of high net wealth individuals has fuelled the hedge funds that cater the very rich and hedge funds contributed to financial instability, first by their high degree of leverage and second by being the prime demand for subprime securities.

Conclusion

The paper has argued that the crisis should be understood as the outcome of a process of financialization that has shaped the accumulation regimes in advanced economies and that has interacted with the effects of the polarization of income distribution. This analysis lends itself to two central demands for economic policy: a de-financialization of the economy and a pro-labour shift in the distribution of income. While there will be little disagreement that something needs to change in the realm of finance, the scope of the necessary changes is subject to disagreement. We go beyond the familiar call for more and better regulation and advocate definancialization. This would imply a shrinking of the financial sector, a stronger voice of stakeholders, such as labour unions, at the expense of shareholders in corporate governance; it would also aim at replacing the logic of profit (or shareholder value) maximization in many social areas by a democratically determined policy priorities and principles of solidarity.

The second part of our policy conclusions is even less conventional (by today's standards): wage moderation has been one of the structural causes underlying the present crisis, therefore higher wage growth is one condition for re-establishing a viable growth regime. Wages have to increase at least with productivity growth. This would stabilize domestic demand in the surplus countries and allow avoiding a collapse of consumption demand in the deficit countries. A more egalitarian income distribution is not luxury that can be dealt with once the economy has been stabilized; it is an integral part of a sound macroeconomic structure.

REFERENCES

- Aglietta, M., 1979. A Theory of Capitalist Regulation. The US Experience. London: Verso.
- Aglietta M. and Rebérioux, A., 2005. Corporate Governance Adrift. A Critique of Shareholder Value. Cheltenham: Edward Elgar.
- Allen, F. and Gale, D., 2000. *Comparing Financial Systems*. Cambridge, MA: The MIT Press.
- Arrighi, G., 1994. The Long Twentieth Century. London: Verso.
- Atkinson, A., Piketty, T. and Saez, E., 2010. Top incomes in the long run of history. *Journal of Economic Literature*, 49(1), pp. 3-71.
- Barba, A. and Pivetti, M., 2009. Rising household debt: Its causes and macroeconomic implications –a long-period analysis. *Cambridge Journal of Economics*, 33, pp. 113-37.
- Becker, J., 2002. Akkumulation, Regulation Territorium. Zur kritischen Rekonstruktion der französischen Regulationstheorie. Marburg: Metropolis Verlag.
- Beltratti, A. and Stulz, R., 2009. Why did some banks perform better during the credit crisis? a cross-country study of the impact of governance and regulation. National Bureau of Economic Research (NBER) Working Paper no. 15180. Cambridge, MA: NBER.
- Boone, L., Giorno, C. and Richardson, P., 1998. Stock market fluctuations and consumption behaviour: some recent evidence. Organization for Economic Cooperation and Development (OECD) Economics Department Working Papers no. 208. France: OECD.
- Bowles, S., 1975. The problem with human capital theory: a Marxian critique. *American Economic Review*, 65(2), pp. 74-82.
- Bowles, S., Gordon, D. and Weisskopf, T., 1983. Beyond the Waste Land. A Democratic Alternative to Economic Decline. New York: Anchor Press.
- Boyer, R., 1990. *The Regulation School: A critical introduction*. New York: Columbia University Press.
- Boyer, R., 2000. Is a finance-led growth regime a viable alternative to Fordism? A preliminary analysis. *Economy and Society*, 29(1), pp. 111-45.
- Carruth, A., Dickerson, A. and Henley, A., 2000. What do we know about investment under uncertainty? *Journal of Economic Surveys*, 24(2), 119-53.
- Case, K., Shiller, R. and Quigley, J., 2001. Comparing wealth effects: the stock market versus the housing market. NBER Working Paper no. 8606. Cambridge, MA: NBER.

- Catte, P., Girouard, N., Price R. and André, C., 2004. *Housing markets, wealth and the business cycle*. OECD Economics Department Working Paper no. 394. France: OECD.
- Chirinko, R., 1993. Business fixed investment spending: modeling strategies, empirical results and policy implications. *Journal of Economic Literature*, 31(4), pp. 1875-911.
- Crotty, J., 2003. The neoliberal paradox: the impact of destructive product market competition and impatient financial markets on nonfinancial corporations in the neoliberal era. *Review of Radical Political Economics*, 35(3), pp. 271-79.
- Cynamon, B. and Fazzari, S., 2009. Household debt in the consumer age: source of growth –risk of collapse. *Capitalism and Society*, 3(2), [online] Available at: http://www.bepress.com/cas/vol3/iss2/art3/>.
- Davis, E.P., 2003. Institutional investors, financial market efficiency, and financial stability. *EIB Papers*, 8(1), pp. 77-107.
- Duménil, G. and Lévy, D., 2001. Costs and benefits of Neoliberalism: a class analysis. Review of International Political Economy, 8(4), pp. 578-607.
- Duménil, G. and Lévy, D., 2004. *Capital Resurgent. Roots of the Neoliberal Revolution*. Cambridge, MA: Harvard University Press.
- Dutt, A., 2006. Maturity, stagnation and consumer debt: a Steindlian approach. *Metroeconomica*, 57(3), pp. 339-64.
- Eichengreen, B., 2010. *Ireland's reparations burden*. (Original appeared as Jämmerliches Versagen, Handelsblatt, December 1, 2010), [online] Available at: http://www.irisheconomy.ie/index.php/2010/12/01/barry-eichengreen-on-the-irish-bailout/ [Accessed 21 Jan 2011].
- Eichengreen, B. and Bordo, M., 2003. Crises now and then: what lessons for the last era of financial globalization? In: P. Mizen, ed. *Monetary history, Exchange Rates And Financial Markets. Essays In Honour of Charles Goodhart.* Volume two. Cheltenham: Edward Elgar.
- Epstein, G. ed., 2005. Financialization and the World Economy. Cheltenham: Edward Elgar.
- Ertürk, I. and Solari, S., 2007. Banks as continuous reinvention. *New Political Economy*, 12(3), pp. 369-88.
- Ertürk, I. et al. eds., 2008. Financialization At Work. Key Texts and Commentary. London: Routledge.
- European Commission, 2007. The labour income share in the European Union. *Employment in Europe 2007*. Luxembourg: European Commission. Ch. 5.

- Foucault, M., 2008. The Birth of Biopolitics: Lectures at the College de France, 1978-1979. Houndsmills: Palgrave MacMillan.
- Froud, J., Johal, S., Leaver, A. and Williams, K., 2006. *Financialization and Strategy:* Narrative and numbers. London: Routledge.
- Girouard, N., Kennedy M. and André, C., 2006. *Has the rise in debt made households more vulnerable?* OECD Economics Department Working Paper no. 535, ECO/WKP(2006)63. France: OECD.
- Glyn, A., 2006. *Capitalism unleashed: Finance, Globalization and Welfare*. United States: Oxford University Press.
- Gordon, D., Edwards, R. and Reich, M., 1982. Segmented Work, Divided Workers. The Historical Transformation of Labour in the United States, Cambridge: Cambridge University Press.
- Harrison, A, 2002. Has globalization eroded labor's share? Some cross-country evidence. [mimeo] 2002 ed. Berkeley, CA: University of California Berkeley.
- Harvey, D., 2005. A Short History of Neoliberalism. Oxford: Oxford University Press.
- Hein, E., 2011a. Distribution, 'financialisation' and the financial and economic crisis implications for post-crisis economic policies. Munich Personal RePEc Archive (MPRA) Paper no. 31180, [online] Available at: http://mpra.ub.uni-muenchen.de/31180/.
- Hein, Eckhard, 2011b. 'Financialisation', distribution and growth. In: E. Hein and E. Stockhammer, eds. *A New Guide to Keynesian Economics and Economic Policies*. Cheltenham: Edward Elgar.
- Hein, E. and Vogel, L., 2008. Distribution and growth reconsidered –empirical results for Austria, France, Germany, the Netherlands, the UK and the USA. *Cambridge Journal of Economics*, 32(3), pp. 479-511.
- Horn, G. et al., 2009. From the financial crisis to the world economic crisis. The role of inequality. IMK Policy Brief Report no. 41, [online] Available at: http://www.boeckler.de/show_product_imk.html? productfile=HBS-004528.xml>.
- ILO (International Labour Organization), 2008. World of Work Report 2008. Income inequalities in the age of financial globalization. Geneva: ILO.
- IMF (International Monetary Fund), 2002. Recessions and recoveries. *World Economic Outlook 2002/1*. Washington: IMF. Ch. 3
- IMF, 2006. Global Financial Stability Report April 2006. Washington: IMF.
- IMF, 2007a. The globalization of labor. World Economic Outlook April 2007. Washington: IMF. Ch. 5

- IMF, 2007b. The changing dynamics of the global business cycle. World Economic Outlook 2007/2. Washington: IMF. Ch. 5
- Jayadev, A., 2007. Capital account openness and the labour share of income. *Cambridge Journal of Economics*, 31, pp. 423-43.
- Lapavitsas, C., 2009. Financialised capitalism: crisis and financial expropriation. *Historical Materialism*, 17, pp. 114-48.
- Lapavitsas, C. et al., 2010. Eurozone crisis: Beggar Thyself and Thy Neighbour. [online] London: Research on Money and Finance. Available at: http://researchonmoneyandfinance.org/media/reports/eurocrisis/fullreport.pdf>.
- Lazonick, W. and O'Sullivan, M., 2000. Maximising shareholder value: a new ideology for corporate governance. *Economy and Society*, 29(1), pp. 13-35.
- Lipietz, A., 1985. The Enchanted Word. London: Verso.
- Lysandrou, P., 2011. Global inequality, wealth concentration and the subprime crisis: a Marxian commodity theory analysis. *Development and Change*, 42(1), pp. 183-208.
- MacKenzie, D. and Millo, Y., 2003. Constructing a market, performing theory: the historical sociology of a financial derivates exchange. *American Journal of* Sociology, 109, pp. 107-45.
- Marx, K., 1976. Capital. *A Critique of Political Economy*. Volume One. London: Penguin Books.
- Minsky, H., 1986. *Stabilizing an Unstable Economy*. New Haven: Yale University Press.
- Naastepad, C. and Storm, S., 2006/07. OECD demand regimes (1960-2000). *Journal of Post-Keynesian Economics*, 29(2), pp. 213-248.
- OECD, 2008. Growing Unequal? Income Distribution and Poverty in OECD Countries. Paris: OECD.
- Onaran, Ö., 2009. Wage share, globalization, and crisis: The case of manufacturing industry in Korea, Mexico, and Turkey. *International Review of Applied Economics*, 23(2), pp. 113-34.
- Onaran, Ö., Stockhammer, E. and Grafl, L., 2011. The finance-dominated growth regime, distribution, and aggregate demand in the US. *Cambridge Journal of Economics*, 35(4), pp. 637-61.
- Orhangazi, Ö., 2008. Financialisation and capital accumulation in the non-financial corporate sector: A theoretical and empirical investigation on the US economy: 1973-2003. *Cambridge Journal of Economics*, 32, pp. 863-86.

- Pozsar, Z., Adrian, T., Ashcraft, A. and Boesky, H., 2010. Shadow banking. Federal Reserve Bank of New York Staff Report No. 458. New York: Federal Reserve Bank of New York.
- Reinhart, C. and Reinhart, V., 2008. Capital flow bonanzas: an encompassing view of the past and present. NBER Working Paper no. W14321. Cambridge, MA: NBER.
- Rodrik, D, 1998. Capital mobility and labor. [manuscript] Available at: http://ksghome.harvard.edu/~drodrik/capitalm.pdf>.
- Schaberg, M., 1999. Globalization and the Erosion of National Financial Systems. Is Declining Autonomy Inevitable? Cheltenham: Edward Elgar.
- Shaxson, N., 2010. Treasure Islands: Tax Havens and the Men who Stole the World. London: Bodley Head.
- Stockhammer E., 2004. Financialization and the slowdown of accumulation. *Cambridge Journal of Economics*, 28(5), pp. 719-41.
- Stockhammer, E., 2005/06. Shareholder value-orientation and the investment-profit puzzle. *Journal of Post Keynesian Economics*, 28(2), pp. 193-216.
- Stockhammer, E., 2008. Stylized facts on the finance-dominated accumulation regime. *Competition and Change*, 12(2), pp. 189-207.
- Stockhammer, E., 2009. Determinants of functional income distribution in OECD countries. IMK Studies, 5/2009.
- Stockhammer, E., 2010. Financialization and the global economy. Political Economy Research Institute (PERI) Working Paper no. 242. Amherst, MA: PERI.
- Stockhammer, E., 2011a. Neoliberalism, income distribution and the causes of the crisis. In: P. Arestis, R. Sobreira and J. Oreiro, eds. *The 2008 Financial Crisis, Financial Regulation and Global Impact.* Volume 1 The Financial Crisis: Origins and Implications. London: Palgrave Macmillan.
- Stockhammer, E., 2011b. Peripheral Europe's debt and German wages. *International Journal of Public Policy*, 7, 1(3), pp. 83-96.
- Stockhammer, E. and Grafl, L., 2011. Financial uncertainty and business investment. Review of Political Economy, 22(4), pp. 551-68.
- Stockhammer, E., Onaran, Ö. and Ederer, S., 2009. Functional income distribution and aggregate demand in the Euro area. *Cambridge Journal of Economics*, 33(1), pp. 139-59.
- Stockhammer, E. and Ramskogler, P., 2009. Post-Keynesian economics how to move forward. *Intervention*, 5(2), pp. 227-46.

- UNCTAD (United Nations Conference on Trade and Development), 2009. Trade and Development Report 2009. New York: United Nations.
- Van Treeck, T., 2009. The political economy debate on 'financialisation' a macroeconomic perspective. Review of International Political Economy, 16(5), pp. 907-44.
- Vidal, M., 2010. On the persistence of labour market insecurity and slow growth in the US: Reckoning with the Waltonist growth regime. [manuscript] London: King's College London.
- World Bank, 2002. Building Institutions for Markets. World Development Report 2002. Washington, DC: World Bank.

WEB SITES

- AMECO: http://ec.europa.eu/economy_finance/db_indicators/ameco/index_en.htm>.
- World Bank Financial Structure Data Set: http://econ.worldbank.org/wbsite/ external/extdec/extresearch/contentMDK:20696167~pagePK:64214825~piPK:64214943~theSitePK:469382,0.html>.
- Bureau of Economic Analysis, National Income and Product Accounts, Table 6.16B-D: http://www.bea.gov/national/nipaweb/TableView.asp?SelectedTable=237&Freq=Qtr&FirstYear=198&LastYear=1987>.
- FED Flow of Funds, Table D.3 Credit Market Debt Outstanding by Sector: http://www.federal reserve.gov/releases/z1/current/accessible/d3.htm>.