Radical economics, Marxist economics and Marx's economics

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The major global crises of the mid-1970s and 2008-9 provoked debates among the ruling class about the best economic policies to manage capitalism. For socialists and activists the question was different, and debates about whether and to what extent capitalism could be reformed to avert crisis and instil a more humane and fair system became even sharper. By the mid-1970s the end of the (not so) long boom of the 1950s and 1960s seemed to sound the death knell of Keynesian economics; in 2008 the shock of the near meltdown of global capitalism led commentators from a broad political spectrum to question the efficacy of neoliberal policies, particularly in relation to deregulated finance. Since 2008 it is hardly surprising that there has been a revival of radical economics and a proliferation of books and articles criticising neoliberal capitalism reflected, for example, in the popularity of the huge tome *Capital in the Twenty-First Century* by Thomas Piketty.1

Debates in economics have sharpened further as a group of mainstream, radical and Marxist economists have coalesced around the idea that the Great Recession of 2008-9 has morphed into a long depression.2 The "new normal" is reflected in the global capitalist economy crawling along at well below the post-war trend with little sign of improvement.3 This is despite low or zero interest rates and governments "printing money" on a massive scale through quantitative easing.

Criticism of neoclassical market-driven economics is also expressed in an increasing dissatisfaction with the way that the subject is taught in universities.4 This discontent was born in the world economics association, (formally known as the "post-autistic economics movement"), started by students in Paris in 2000, which quickly spread to other countries.5 In 2014 students at the University of Manchester formed the "post-crash economics society" to demand the hiring of lecturers with a broader outlook and the teaching of a wider range of ideas.6 The main complaints of these movements are that economics has become another branch of mathematics, has no links with other social sciences and is disconnected from reality. The nature of economics "research" in universities is that only publications in a narrow range of journals count,7 and these are dominated by ever more sophisticated mathematical models that are completely detached from the "real world" and exclude and are dismissive of any other perspective.

The position of the post-autistic economics movement was vindicated when the financial crisis broke out. Neoclassical economics provides an ideological justification for the free market in general and more specifically had promoted the deregulation of finance in the 1980s and 1990s. However, ideas like the "efficient market hypothesis", which asserted that financial markets would correct themselves, looked foolish and abstract as the financial sector imploded in 2008.

Varieties of radical economics

Radical economics is a loose collective term for those who are critical of the method and prescriptions of mainstream neoclassical economics. This school of economics dominates teaching in universities, provides the "theory" and justification for neoliberalism and underpins the policies of global financial institutions such as the World Bank and International Monetary Fund. For convenience in this article radical economists are divided into three groups.

First, the most high-profile and well-known "radical" economists in the United States, who provide explanations of capitalism, crisis and stagnation for a wider audience, are Paul Krugman, Joseph Stiglitz, and more recently Lawrence Summers.8 Collectively, these "modern avatars of Keynes" as James Galbraith labels them, see the problem as:

> *a shortage of effective aggregate demand. The cure is more spending by government, business, foreigners, and private households. This simple argument is aimed mostly at the deficit hawks and debt hysterics…who confect constraints out of accounting relationships and financial statements and live in awe of the bond markets or in fear of the central bank.9*

This has been reflected in the recent public joust between Summers and ex-chair of the Federal Reserve Ben Bernanke who have different interpretations of the crisis and therefore propose different solutions.10 In contrast to Bernanke's emphasis on market-based solutions whereby better government policies should stimulate global capital flows and trade, Summers proposed a "secular stagnation" thesis to account for economic weakness since the 2008 crisis.11 Summers notes falling private investment, which he attributes to slow population growth and poor predicted returns on investment. The solution he proposes is the traditional Keynesian recipe of encouraging governments to invest in the economy (infrastructure for example) in order to jump-start demand.

Between them Krugman, Stiglitz and Summers have authored numerous books and media articles, vociferously criticising austerity and unbridled markets. However, if you look at their publications before 1990 they come from a background of mainstream economics and eschew the radical aspects of post-Keynesian economics, which will be discussed later.

The second group of radical economists are those who take a more eclectic position on crisis and stagnation. For example, Robert Shiller, winner of the Nobel Prize for economics in 2013 for his book *Irrational Exuberance*, places much more importance on cultural and psychological factors in explaining how markets have become inflated and bubbles have developed in the stock exchange and property market.12 Shiller sees the interaction of capitalist triumphalism (after the "fall" of communism), the pro-market role of the media and the herd mentality of investors as lying at the heart of the crisis.

James Galbraith (who advised Yanis Varoufakis when he was Greek finance minister) argues that simply focusing on a lack of demand in the economy is too narrow a view and proposes four obstacles to stability and growth; uncertainty in energy markets and their high costs; competition from emerging economies and China in particular; radical labour saving technology and the end of the financial sector as a motor for growth.13 In the UK Ha-Joon Chang is the leading populist radical economist. He considers himself to be an eclectic economist who dips into a range of economic theory pragmatically, but is broadly a supporter of strong government intervention in the economy.14

A third group, post-Keynesian economists, are more rooted in academic than policy circles and are less high-profile than Krugman, Stiglitz and Summers. However, they are important because their ideas provide the underpinnings for progressive social democratic thinking. There are three generations of post-Keynesians. Those from the Cambridge School were contemporaries of John Maynard Keynes. The most well known of them was Joan Robinson but it also included such thinkers as Michal Kalecki and Thomas Balogh.15 They proposed a much more radical variant of Keynesianism and acknowledged insights from Marx.

The next generation of post-Keynesians broadly comprises academics such as Philip Arestis, Malcolm

Sawyer and Jan Toporowski in the United Kingdom, who extended Keynes's theories to include inequality and finance.[16] In the United States Hyman Minsky emphasised the fragility and instability of capitalism.[17] More recently another generation of post-Keynesians have focused on the origins of the 2008 crisis, emphasising the interaction of inequality and financialisation.[18] All these ideas will be explored more fully later in the article.

Therefore growing dissatisfaction with neoclassical economics and the crisis has opened the door for a resurgence of radical economics broadly based on the ideas of Keynes. Many of these ideas appear to be common sense. These economists argue that finance and banking are out of control and need to be reined in, and that austerity is not only an unfair burden on working class people, but that it is preventing the recovery of capitalism. These are not arcane debates, but rather raise fundamental questions about the role of finance and inequality and how far capitalism can be reformed or whether crisis is intrinsic to the system and therefore demands its complete abolition.

Although the focus of this article is to look at the main ideas from radical economics that have emerged since 2008, these ideas have to be set in historical context. There are two contributions that provide seminal accounts of bourgeois economics from a Marxist perspective before 2008. First, Chris Harman's article in this journal "The Crisis in Bourgeois Economics" traces the development of and criticises both neoclassical and Keynesian economics.[19] Second, Geoffrey Pilling's book *The Crisis in Keynesian Economics: A Marxist View* concentrates on the origins of Keynesianism and the role it played in the management of post-war capitalism.[20]

Bourgeois economics before Keynes

Before Keynes the ideas of the neoclassical (or marginalist) school, consolidated in the 1870s and 1880s, were dominant.[21] Economists before them had relied on Adam Smith[22] in the 18th century and David Ricardo[23] in the 19th who were interested in the big questions—what made economies grow and how what was produced should be distributed between the capitalist class and the landowners. They saw an objective measure of value as a precondition for coming to terms with these issues. The neoclassical school broke with the classical economists over what economics should be about. As Harman explains:

> *What mattered to them was not the creation of wealth and its distribution between classes, but rather showing that the fixing of prices through the market, without conscious human intervention, automatically led to the most efficient way of running an economy. And so they abandoned the old view of value, with its concentration on the objective necessity of labour for production.*[24]

This neoclassical school forms the basis of the microeconomics that dominates the study of the subject in schools and universities. Individuals make a subjective judgement of value in terms of how much satisfaction they get from a good or service (utility). Taking into account the cost of labour and capital, capitalists decide how much to supply at every price. Demand and supply curves are constructed and the point at which they intersect is the equilibrium—the price where the amount that consumers want to buy is exactly the same amount that capitalists are willing to supply. If "consumer choice" or the costs of production change then these curves shift and there is a new equilibrium.

Labour and employment are treated in exactly the same way as apples and oranges on a street market. If workers demand higher wages (than the equilibrium) then fewer of them will be employed and there will be

unemployment. However, if they were prepared to accept lower wages then supply and demand would once again coincide and full employment would return. All that is necessary is for Say's law to operate. Say's law states that the wages and profits paid out during production are equal to the total sum required to buy the goods produced, which therefore can always be sold. In effect production is the source of demand and aggregate production necessarily creates an equal quantity of demand. For Say's law to work there should be no "artificial" interference in labour markets—such as minimum wages, welfare benefits or pressure from trade unions.

The logic of neoclassical economics is that the existing economic system is the best in the best of all possible worlds, providing the "optimal" conditions for production and laying down the rules for any situation in which "scarce resources" have to be allocated between "competing ends". For free market advocates such as Friedrich von Hayek, Ludwig von Mises and Milton Friedman[25] this was nothing less than the economic expression of democracy as consumers voted with their money through the price mechanism.[26]

This simple and crude understanding of markets is central to neoliberal thinking under the banner of consumer choice and provides the justification for marketisation, privatisation and for so-called "flexible" labour markets. Ideologically, neoclassical economists argue that the market is a disembodied and neutral arbiter of the wishes of consumers and producers; no account is taken of class, inequality and the power of big firms. However, far from being neutral and automatic, markets are organised, regulated and controlled by the state in the broad interests of capital.[27]

Keynes's revolutionary contribution

Keynes's *A General Theory of Employment, Interest, and Money*, published in 1936, was revolutionary in attacking the neoclassical orthodoxy of labour markets, which was used to justify wage cuts in the depression of the 1930s. He challenged Say's law, which underpinned the idea that wage-cutting was the way to restore full employment. Keynes pointed out that people might save money rather than spend or invest it, and if this was the case then firms would be left with goods that they could not sell, reducing output and paying out less in wages and profits. Keynes argued that the level of investment depended on the profits that capitalists believed that they could make. He emphasised the importance of "animal spirits", confidence and gut instincts in guiding the actions of capitalists. If future expected profits were low then investment would not take place. Cutting wages would not restore full employment because if wages were cut workers would have less money to spend. This would lead to a fall in demand in other parts of the economy where wages would fall or workers would lose their jobs. This is the "multiplier effect" working in reverse.[28] This process would lead to a downward spiral in demand which would leave the economy in an "equilibrium" with high unemployment.

Therefore Keynes was a fierce critic of the notion, popular among the ruling classes, that the free market system would ultimately solve all economic problems, including unemployment. He advocated that governments should intervene in money markets to drive down the rate of interest, encourage people to save less and firms to invest more. Governments could also undertake direct investment through running a deficit which would have a (positive) multiplier effect as extra workers would spend their wages and produce demand for the output of other workers.[29]

However, although Keynes's ideas represented a radical break from the dominant economic orthodoxy of the time, he was very far from being a socialist. Keynes himself was not sympathetic to Marx and was almost completely ignorant of his work. Marxism had become very attractive to students in the early 1930s and Keynes's mission was to restore and rescue capitalism because he was worried that his students would become infected by the "dreaded and ridiculous ideas of Marxism". He told students that Marxism was

"complicated hocus pocus, the only value of which was its muddleheadedness".[30] He dismissed Marxist and socialist ideas as "exalting the boorish proletariat above the bourgeoisie and the intelligentsia, who…are the quality in life and surely carry the seeds of all human advancement".[31] Keynes refused to support the Labour Party in the 1930s siding with the Liberals because Labour was "a class party and the class is not my class… The class war will find me on the side of the educated bourgeoisie".[32]

Keynesianism and the post-war boom

Influence on social democratic thinking

Although Keynes was not a socialist, he had more influence on post-war socialists than any other economist. His ideas considerably influenced some sections of the left in Britain in the 1950s and 1960s, particularly in the Labour Party and among writers such as Anthony Crosland and John Strachey (a former Marxist). As Pilling argues:

> *It is easy to see what attached radical thought to Keynesianism… A trenchant defender of private property, he none the less held that the 'socialisation of investment' would make capital abundant… While private capital would continue, the claims of rentier capital would be destroyed.*[33]

In the Fabian-type world that would follow the implementation of Keynesian policies the grosser inequalities of wealth would be removed by fiscal means (Keynes supported some redistribution through taxation to boost consumption). No reward would be extracted by unproductive capital (the financial sector) and employment would be preserved at a near maximum by the manipulation of state investment. Capital left unregulated might still prove crisis-prone, but given social and economic state policies any instabilities could be kept within socially and politically acceptable limits.

So-called Keynesianism dominated all teaching and the main textbooks from the 1950s to the early 1970s. It held that governments could intervene in economies, through taxation and government spending, to create sufficient demand to have full employment. Economists were technicians who tweaked and fine-tuned these macro elements in the economy—ultimately capitalism could be managed. However, as is discussed in the next section—these policies were never practised the way that Keynes advocated.

Was Keynesianism responsible for the "long boom"?

A version of the strong belief that Keynes's ideas were responsible for the long boom is accepted even by some Marxists. As Chris Harman points out:

> *David Harvey presents a picture of capitalism expanding on the basis of "a class compromise between capital and labour" in which "the state could focus on full employment, economic growth and the welfare of its citizens", while "fiscal or monetary policies usually dubbed 'Keynesian' were widely deployed to dampen business cycles and to ensure reasonably full employment".*[34]

Yet, as Harman argues, the most staggering fact about the period in which Keynesian ideas ruled as the

official ideology was that the measures that were championed for keeping crisis at bay were not actually deployed.[35] Rather than bosses signing up to Keynesian policies of raising wages and welfare provision in practise they "[never] failed to fight tooth and claw to limit the degree to which wages kept up with the cost of living or with productivity".[36] It was the high rate of profit in the post-war period that explained why capitalists kept investing on a large scale. In the US, massive levels of military expenditure compared with the pre-war years was responsible for the fiscal stimulus. Further, during the Second World War much capital had been written off, which according to Harman, was equal to one-fifth of the pre-existing accumulated surplus value; in the defeated states of Japan and Germany the figure was much higher.[37] However, arms expenditure was not a stimulus in the Keynesian sense. As Harman points out the starting point for examining the impact of waste expenditure on arms by Michael Kidron (who referred to a permanent arms economy), was not an underconsumptionist explanation of crises.[38] Rather, in the long term the arms economy had the effect of reducing the funds available for further accumulation and therefore slowing down the rise in the ratio of investment in technology to the employed labour force (the "organic composition of capital") and therefore slowing down the tendency for the rate of profit to fall (this is discussed more fully in a later section).[39]

The end of the Keynesian consensus and the rise of neoliberalism

In 1976 what had supposedly been the tried and tested way of managing capitalism, by Labour and Conservative governments alike, no longer worked. The emergence of stagflation—that is both rising unemployment and inflation—sounded the death knell of Keynesianism as the dominant ideology espoused by governments of the left and the right. The space was open for economists who saw the market as the solution.

Although the end of Keynesian economics is often associated with Margaret Thatcher, it was James Callaghan, then Labour Prime Minister, that signalled its demise in a much quoted speech from the 1976 Labour Party conference:

> *We used to think that you could spend your way out of a recession and increase employment by cutting taxes and boosting government spending. I tell you in all candour that that option no longer exists, and that in so far as it ever did exist, it only worked on each occasion since the war by injecting a bigger dose of inflation into the economy, followed by a higher level of employment as the next step.*[40]

The interlinking of monetarism (cutting the money supply to reduce inflation) and more market-driven policies such as privatisation and "flexible" labour markets were then systematically and enthusiastically pursued by Thatcher after 1979. The lineage of these ideas lay in the neoclassical and Austrian schools of economics and the work of Friedrich von Hayek and Ludwig von Mises in particular. Basing their ideas on extreme individualism they were fierce critics of Keynes and Keynesianism. Milton Friedman made an even more significant attack arguing that anything beyond minimum state intervention distorted market signals. According to him, the market is fundamentally sound and only malfunctions if there are disturbances in the monetary sphere. This heavily influenced Thatcher in adopting monetarism at the end of the 1970s, which helped push interest rates to historically high levels, compounding the lack of competitiveness of British manufacturing and contributing to its contraction.

Radical economics from 1945 to 2008

A number of economists, most notably Joan Robinson from Cambridge University, argued that the Keynesianism that emerged in the post-war period was not the real thing and scathingly termed it "bastard Keynesianism". Her view was that what were passed off as Keynesian techniques were used to keep the capitalist system going after the war and obscured the revolutionary character of the real Keynesianism. She described it as "married to a discredited and ideologically bankrupt neoclassical economics and was thereby transformed into a new form of apologetics".[41]

Similarly the American economist Hyman Minsky said of the *The General Theory* that:

> *The work contains the seeds for a deep intellectual revolution in economics and in the economist's view of society. However, these seeds never fulfilled their full fruition. The embryonic scientific revolution was aborted as the ideas were interpreted and analysed by academics and then applied by these same academics as a guide to public policy.*[42]

Robinson and Minsky and other post-Keynesians were critical of the idea that appeared in the textbooks of the time that likened the economy to a machine governed by a series of laws, the relationship between which is highly stable, in principle knowable and therefore in principle predictable from previous experience. If one economy-wide flow fails to occur at an appropriate rate (consumer spending for example), the deficiency can be repaired by government intervention and regulation of those flows over which it does have control—the levels of taxation and public spending. There are known, stable relationships between government spending and income (and by extension employment); by appropriate manipulation of such flows the volume of employment may be adjusted in line with policy objectives.

Thomas Balogh called this "hydraulic Keynesianism":[43]

> *A new theoretical edifice was erected which could be reconnected to the neoclassical theory of harmony and just shares in the distribution of income. The old optimism about this being the best (and just) world was reasserted. The classical automatism of the market economy, maintaining full employment and ensuring optimal allocation of resources was just replaced by the deus ex machine consisting of the treasury and the central bank… The new self-consistent and determinate system was completed by the idea that politicians could choose at their discretion the level of unemployment—from a menu served up by econometricians—and that this level would be an expression of the will of the community and depend on how much inflation they were prepared to tolerate.*[44]

These criticisms reflected the views of post-Keynesians, who object to the orthodox textbook interpretation of *The General Theory*. However, Keynes had opened himself up to the textbook interpretation by basing his work on a version of marginalism (neoclassical economics), rather than the value theory of Ricardo and Marx. Joan Robinson argued that Keynesian economics (properly interpreted) belongs to the classical tradition of Adam Smith and Ricardo because of its concern with aggregates such as demand and employment, rather than the narrow neoclassical concerns with individual choice and markets.

Post-Keynesianism has developed as a significant and progressive strand in current bourgeois economics.[45] From the 1970s onwards the tradition of first wave post-Keynesians (who were his contemporaries) was continued and developed by a second wave. Both generations have been much less

dismissive of Marx and have drawn on and integrated some of his ideas. Despite internal divisions and different perspectives, they were united by seeing themselves as promoting a radical tradition within economics in relating economic analysis to real economic problems. The ideas which are classified as post-Keynesian have a long history and post-Keynesian economics reflects the classical tradition and Marx as much as it does Keynes and Kalecki.46

The main tenets of post-Keynesianism are; first, that the default position of the economy is not one of equilibrium, rather that economies are dynamic and therefore always in a state of flux or disequilibrium. Second, neoclassical economics is dominated by the idea of "rational man" who is predictable and immune from history and socialisation. For post-Keynesians the formation of decisions under uncertainty is a crucial aspect of reality as well as how economic behaviour is influenced by institutions and social structures. Third, they are critical of neoclassical analyses of markets and argue that the law of demand does not even apply at the level of a single market and therefore a macroeconomic economic picture cannot be built upward from microeconomics. Fourth, while neoclassical economists assume that money is neutral, post-Keynesians argue money and debt matter and can lead to changes in employment. Fifth, the role of the failure of demand, with investment demand as the driving force, is seen as a primary source of crisis and stagnation. Therefore the government should intervene during a recession to ensure that there is spending.47

Further, Arestis argues that post-Keynesianism has a radical spin because:

> *Its point of departure is a distinction between social classes rather than the neoclassical classless and atomistic base. Social relations are thus essential to the analysis and the tradition is broadly Marxist in that it adapts his reproduction scheme to tackle the realisation problems.*48

But although there is a recognition of class and a commitment to social justice, the major flaw in post-Keynesian thinking is that the state is seen as neutral with the potential to be harnessed and to deliver reforms that are more widely in the interests of working class people. Labour and capital are not intrinsically antagonistic with distinct interests, rather they can be reconciled and work in the interests of the common good.

Radical economics after the 2008 crisis

The crisis of 2008 led to renewed and more vociferous criticisms of the neoclassical economics that underpinned neoliberalism. Economists such as Krugman and Stiglitz were elevated to the role of trenchant critics of the US government's role in causing the crisis and perpetuating the austerity that followed (although it is worth noting that some right wing economists took the view that the crisis was caused by markets not being free enough).

This section outlines the arguments of radical economists, from the post-Keynesian perspective and also from the perspective of those Marxists who reject or sideline the notion of the falling rate of profit. Although it is difficult to draw hard and fast lines between the different elements of their arguments, for convenience I focus on three strands of thinking that have dominated radical economics and importantly influenced progressive thinking and anti-austerity organisations such as the People's Assembly against Austerity. First, there has been a focus on financialisation—not surprising since many have seen the crisis as being caused by the deregulation of finance and the proliferation of financial instruments. Second, the gross and increasingly evident presence of inequality has received much attention both in terms of it being "bad" for

capitalism and as the underlying cause of the crisis. Third, both the post-Keynesian school and some Marxists have put forward a synthesis, which sees the crisis as the outcome of the interrelationship between inequality *and* financialisation.

Financialisation

The notion of financialisation as the cause of the crisis has been proposed by post-Keynesians and some Marxist economists and some who do not fall into either camp.

The term financialisation is used to summarise a broad set of changes in the relation between the financial and the real sectors of the economy. Financialisation encompasses diverse phenomena such as shareholder value (discussed later in this section), increasing household debt, increasing income from financial activity, an increase in the mobility of capital, the importance of an array of new financial instruments such as derivatives and securitisation. More generally it refers to the way in which working class people have been increasingly drawn in to the financial sector through mortgages, loans and pensions. In the words of Costas Lapavitsas: “The term reflects the ascendancy of the financial sector. Even more important, it conveys the penetration of the financial system into every nook and cranny of society, including housing, education, health and other areas of life that were previously relatively immune”.49

These developments have been hailed by some as a new stage of capitalism—“financialised capitalism” or a “finance dominated accumulation regime”—that is qualitatively different from what has gone before.50

There is nothing new about these ideas; theoretically they have some continuity with those of Rudolf Hilferding, who saw a new stage of capitalism at the beginning of the 20th century, characterised by complex financial relationships and the domination of industry by finance.51 Keynes also emphasised the role of “whirlwinds of optimism and pessimism” in terms of the way that capitalists valued firms. He warned that: “The position is serious when enterprise becomes a bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of the casino, the job is likely to be ill-done”.52

Minsky emphasised the instability and fragility of the system and the growth of money-managed capitalism.53 He argued that financial crises are endemic to capitalism because periods of economic prosperity encourage borrowers and lenders to become progressively more reckless. This excess optimism creates financial bubbles which sooner or later burst. The “Minsky moment” refers to the point where the financial system moves from stability to instability when lending and debt levels have built up to unsustainable levels. At this point over-indebted borrowers start to sell off their assets to meet other repayments, which in turn causes a fall in asset prices and loss of confidence. It can cause financial institutions to “dry up” and become illiquid because they cannot meet the demand for cash and may cause a run on the banks as people seek to withdraw their money. Post-Keynesians have referred to the 2007-8 crisis as a Minsky moment.54

Some contemporary accounts of financialisation emphasise the rise of “shareholder value”—ie prioritising share prices and dividends, which was enabled by the growth of big institutional investors in the 1970s and by private equity firms (especially before 2008). In addition, the huge increase in the remuneration of CEOs (chief executive officers) is partly comprised of blocks of shares, which ties their bloated salaries to the performance of the firm. The massive growth in corporate bonds since 2009 also gives bosses the incentive to focus on the short-term performance of their firms. According to this argument firms have become more predatory in “Anglo-Saxon” less regulated capitalist countries such as the United States and Britain. Rather than retaining and reinvesting profits (long-term) under a more benevolent capitalism it results in downsizing

and asset stripping of firms (short-term) to maximise the returns to shareholders.

There is also an emphasis on the growth and plethora of new financial instruments such as derivatives and securitisation. Derivatives are financial instruments whose value derives from some underlying asset such as interest rates and exchange rates. From the 1980s and 1990s there has been a huge growth in securitisation—that is when an asset such as a mortgage is turned into something that can be traded on financial markets. It was the securitisation of toxic sub-prime mortgages that were then sliced, diced and sold on that triggered the 2007-8 financial crisis. All of this was made possible by a series of measures to deregulate the financial sector and to liberalise international flows of capital.

The policy prescriptions that flow from this are summarised by James Crotty:

> *To force financial markets to play a more limited but more productive and less dangerous role in the economy, we need a combination of aggressive financial regulation coordinated across national markets as well as nationalisation of financial institutions where appropriate… For such a transition to be effective, two difficult tasks must be accomplished. Efficient financial theory must be replaced as the guide to policy making by the more realistic theories associated with Keynes and Minsky, and domination of financial policy making by the Lords of Finance must end.*[55]

However, beyond theoretical criticisms about the role of finance, which are dealt with in the next section, Marxist economist Andrew Kliman points to problems with the notion that regulation can prevent financial crisis.[56] First, regulations are always fighting the "last war" and the source of the next crisis is unlikely to be the same as the last one. For example, since the 2008 crisis there has been an explosion in the purchase of corporate bonds. This has been fuelled by demand from Brazil, Russia and China and expansionary monetary policies in the core economies (such as quantitative easing). However, as the former countries are experiencing a slowdown and credit is less expansionary in the latter these assets are now being flagged as a new source of instability.[57]

Second, banks and the financial system have always been adept at getting round regulations—in the 1970s when lending was restricted shadow banking developed as a way of circumventing the system. Shadow banks are non-bank institutions (intermediaries) that provide similar services to traditional investment banks, but do not face the same regulation. For example, they are not required to keep particular ratios between lending and deposits. In this way they traded much more risky assets and transactions. A headline study of shadow banking by the International Monetary Fund defined their key functions as securitisation and collateral intermediation (to reduce the risks of the parties). In the US before the crisis the shadow banking system overtook the regular banking system in supplying loans to various borrowers (business, home and car buyers, students).

But it is important not to see shadow banking as completely separate from mainstream banking. It was common practice for "regular" banks to conduct more risky transactions in ways that did not show up on their balance sheets through Special Purpose Vehicles (SPVs). Preceding the last crisis banks created SPVs specifically with the intention of undertaking risky investments, which then contaminated the whole system. By moving assets off their balance sheets banks could escape reserve and capital requirements, as well as regulation and oversight, and could sell assets to investors who wanted a higher yield than could be earned on traditional investment.

The volume of transactions in shadow banking grew dramatically after 2000, was checked by the 2008 crisis and then continued to grow. In 2007 the value of transactions was estimated to be $50 trillion. This fell to $47 trillion in 2008 and subsequently increased to $67 trillion by 2012. This reflects the continued lack of control of this sector.[58]

Third, some on the left have called for the nationalisation of banks. This may be a political demand that we raise under particular circumstances, but it is not a solution to preventing crises from reoccurring. A state-run bank is still embedded in the global capitalist system. It has to get money in before it can lend it out, and therefore has to provide a rate of return to attract people to deposit with them and therefore it cannot be driven by what would be good for workers or the "public good". That is why, for example, institutions that promise "ethical" investments offer much lower rates of return. There is no escaping from the logic of the system. As Marx put it in the *Grundrisse*, "competition executes the inner laws; makes them compulsory laws toward the individual capital".[59] However benevolent their intentions, putting different people in control of banks cannot undo the inner laws of capitalism.

Underconsumption and inequality

Arguments focussing on underconsumption and those stressing inequality as a cause of financial crises are different takes on the same underlying argument—that is that a lack of collective spending power (aggregate demand) lies at the heart of explaining the stagnation of economies.

Pilling points out that those Marxists who did continue their work in political economy after the Second World War were influenced by the prevailing Keynesian wisdom.[60] This led to a reading of Marx's *Capital* through the prism of one variant or other of underconsumption. One of the most famous works was *Monopoly Capital* by Paul Baran and Paul Sweezy, which appeared in the mid-1960s.[61] This saw capitalism's problem not as the inability of the system to generate surplus value, but rather its creation of excess surplus. Their argument was that there had been a shift from a competitive to a monopoly economy dominated by giant corporations. By effectively banning price competition, these firms were able to drive up the economic surplus, which could not be absorbed by consumption. The result was economic stagnation.

Piketty's argument contributes more indirectly to underconsumptionist theories. His book provides forensic detail and exhaustive statistical evidence of social inequality over the last two centuries in a variety of countries. His basic thesis is that the central crisis for capitalism is a distributional one as the net rate of return on capital outstrips the growth of net national income. The principal destabilising force in his analysis and the central contradiction of capitalism is that the private return on capital (r), can be significantly higher for long periods of time than the rate of growth of income and output (g). If the rate of return on private capital is greater than the growth of income and output then this implies that wealth accumulated in the past grew more rapidly than output and wages:[62]

> *This inequality expresses a fundamental logical contradiction. The entrepreneur inevitably tends to become a rentier, more and more dominant over those that own nothing but their labour. Once constituted, capital reproduces itself faster than output increases. The past devours the future.*[63]

The link between inequality and underconsumption is that as inequality grows and income becomes more polarised, people on lower incomes and/or the growing numbers of the poor have less money to spend and therefore overall demand in the economy is reduced. The way that a lack of effective demand is cited as the

critical cause of stagnation in the post-Keynesianism view is explicit in the solution proposed by Philip Arestis:

> *The major objective is to complete the unfinished Keynesian revolution, to generalise The General Theory… The principle of effective demand is the backbone of its analysis as it was in Keynes's General Theory (1936). Effective demand in post-Keynesian analysis implies that it is scarcity of demand rather than scarcity of resources that is to be confronted in modern economics.64*

A synthesis of inequality and financialisation in explaining the crisis

While the previous two schools of thought privilege either financialisation or underconsumption as the root cause of capitalist crisis and stagnation, recent explanations from both post-Keynesians and some Marxists provide a synthesis of these two elements.

From the post-Keynesian perspective there is a link between the financialisation school and the notion that rising inequality should be regarded as the root cause of crisis.65 This finds its clearest expression in the work of Englebert Stockhammer who argues that the crisis should be understood as a result of the interaction of financialisation with the effects of rising inequality. There are four major ways in which he argues that financialisation and inequality are linked.66

First, he argues that rising inequality creates a downward pressure on demand in an economy—especially as poor people spend a higher proportion of their income. Second, he argues that international financial deregulation has allowed countries to run large deficits (or surpluses) on their balance of payments current accounts and on government spending. Simply put, if their goods are less competitive in comparison with those of other countries, imports will be higher than exports and they will be in deficit. Because it is much easier to borrow in international markets this means that they can carry this "overdraft" (although not indefinitely as we have seen with Greece and Spain for example) and has led to a debt-led model (Greece, Portugal, Spain and Ireland) and an export-led model (Germany). Third, in debt-led economies higher inequality has led to higher household debt as working class families try and keep up with social consumption norms or even to access necessities and maintain their standard of living in the face of stagnating or falling wages. Fourth, rising inequality has increased the propensity to speculate as richer households hold riskier financial assets. The rise of hedge funds and subprime derivatives in particular has been linked to the super-rich.

Some Marxists link inequality and financialisation with a different story. They argue that the rate of profit fell from the start of the post-Second World War boom through the downturns of the 1970s and 1980s. By that time economic policy had become neoliberal and this led to the increased exploitation of workers. US workers (and workers in general) faced stagnating or falling real incomes and their share of total income has fallen. Therefore the increase in exploitation led to a significant rebound in the rate of profit.67

Writers from the *Monthly Review* are proponents of underconsumption as an explanation of crisis and have fused financialisation with underconsumptionism in their interpretation of 2007-8 and since.68 According to them the "new financialised capitalist regime" was unable to sustain economic advance for any length of time and a key element in explaining the whole dynamic is to be found in the falling ratio of wages and salaries as a percentage of national income.

Other Marxists, generally sympathetic to the theory of the falling rate of profit, nevertheless do not think that the current crisis is a crisis of profitability. This is reflected for example in the account of Gérard Duménil and Dominique Lévy who argue that while the crises of the 1890s and 1970s can be explained by the declining rate of profit, the Great Depression and the current crisis came out of a period of rising profitability.

In general these Marxist accounts blame financialisation for the failure of the rate of accumulation to rise in line with the recovery of profits. It is argued that financialisation (another component of neoliberalism) has meant that firms have invested an increasing share of their profits in speculation and financial instruments rather than in productive capital assets and that this has been the root cause of weaker growth in the past three decades. However, Andrew Kliman and Shannon Williams demonstrate that there has been no diversion of profit from production to financial markets under neoliberalism.69 They present data that shows that the share of profit that was productively invested was actually slightly higher during the first two decades of neoliberalism than during the prior three decades:

> *Our analysis demonstrates that, in the era of "neoliberalism" and "financialisation", corporate profit has become less important and borrowing has become more important as a source for funds for financial expenditures. Additionally, we find that higher dividend payments do not lead to a statistically significant decline in productive investment, and that corporations' access to and use of borrowed funds accounts for the absence of a tradeoff between paying dividends and investing in production.70*

These data undercut the financialisation argument that profit is being diverted to the financial sector at the expense of the real goods sector.

Marx's economics

Post-Keynesians and some Marxists have usefully and painstakingly set out the changes that have taken place in capitalism over the past three decades with regard to inequality and financialisation. However, acknowledging these developments is not the same as attributing the *cause* of the crisis of 2007 to these changes. As Joseph Choonara points out, there is a very clear dividing line between those economists who put the falling rate of profit at the centre of their analysis and those that either dispute or sideline it.71 This section builds an alternative to radical economics (and some Marxist accounts) by reasserting the falling rate of profit in Marx's analysis of the capitalist system. This underpins an understanding of the role of credit and finance in crisis, capital and value and enables a critique of the underconsumption debate.

Marx and the falling rate of profit

The tendency of the rate of profit to fall (TRPF) is one of the most contentious and contested elements of Marx's work. It is rejected or ignored completely by contemporary non-Marxist economists, but even Marxist economists who accept Marx's theory of value and many other aspects of his theory are dismissive of it. These debates have been very well rehearsed elsewhere and therefore the argument is only briefly restated here.72

The argument for the falling rate of profit is as follows. Each capitalist tries to increase their own competitiveness through increasing the productivity of workers. The way to do this is to increase the "means of production"—for example investment in machinery, robots and computers. Marx called this change in the relationship between the means of production and the labour power using it the "technical composition of

capital". This expansion in the ratio of investment to workforce is reflected in the value of the means of production rising compared with wages—what Marx referred to as an increase in "organic composition of capital", that is the relationship between the means of production and labour power translated into value terms. However, the only source of value and surplus value for the system as a whole is labour. Therefore, if investment grows faster than the labour force, it must also grow more rapidly than the creation of new value, from which profit comes. Therefore there will be downward pressure on the rate of profit.

There are implications for the capitalist class collectively. The reason for the growth of investment is competition between capitalists as they push for greater productivity in order to stay ahead of competitors. But, however much competition may compel the individual capitalist to take part in this process in order to make short-term gains, from the point of view of the capitalist class as a whole it leads to a tendency for the rate of profit to fall.

Alex Callinicos quotes Ben Fine and Lawrence Harris to argue how Marx identifies counter-tendencies to the TRPF (the tendency of the rate of profit to fall) at a high level of abstraction:

> *As Marx puts it "the same influences which produce a tendency in the general rate of profit to fall also call forth counter-effects" (emphasis added). In the light of this we think that the name "law of the TRPF" is something of a misnomer. The law in its broad definition is in fact "the law of the tendency of the rate of profit to fall and its counteracting influences".*[73]

Translated into more concrete terms one of the most important strategies that a capitalist might use to counteract the falling rate of profit is increasing the rate of exploitation—in other words cutting wages or increasing the intensity of work (although there are limits to this).

Marx, credit and finance

Theories and research that analyse the significant changes in finance in contemporary capitalism are very valuable. In this context the contributions of Costas Lapavitsas, Gérard Duménil, Dominique Lévy and Jan Toporowski are helpful and important.[74] However, there are two problems with the financialisation account. First finance and credit are viewed as the direct causes of the 2008 crisis and as such seen as providing an alternative explanation of the crisis. Second, and related, finance is seen as an autonomous driver that is external to capitalism rather than an integral part of it. In Marx's scheme finance is not a direct cause of crisis, but it is a key intermediary between falling profitability and economic crisis. Kliman quotes the following passage from Marx:

> *If the credit system appears as the principal lever of overproduction and excessive speculation in commerce, this is simply because the reproduction process, which is elastic by nature, is now forced [once the credit system has developed] to its extreme limits; and this is because a great part of the social capital is applied by those who are not its owners, and who therefore proceed quite unlike owners who, when they function themselves, anxiously weigh the limits of their private capital.*[75]

This passage points to finance as a driver of overaccumulation—in other words it enables capitalists to grow more rapidly than otherwise. In the process of competition production can be expanded and investment in

the means of production accelerated. The reference to “anxiously weigh” refers to the increase in risky investment behaviour when the person making the decisions will not suffer the losses—in that they are not gambling with their own money—what economists refer to as “moral hazard”. This is taken to extremes by some city traders who have lost eye-watering amounts of the money of the capitalists who employ them to gamble it on their behalf.

Marx argued that a decline in the rate of profit leads to a crisis indirectly by encouraging speculation and over-production:

> *If the rate of profit falls…we have swindling and general promotion of swindling, through desperate attempts in the way of new production methods, new capital investment and new adventures, to secure some kind of extra profit, which will be independent of the general average [profit determined by the average rate of profit] and superior to it.*76

When debts finally cannot be repaid a crisis erupts and then that crisis leads to stagnation:

> *The chain of payment obligations at specific dates is broken in a hundred places, and this is still further intensified by an accompanying breakdown of the credit system, which had developed alongside capital. All of this therefore leads to a violent and acute crisis, sudden forcible devaluations, an actual stagnation and disruption in the reproduction process, and hence to an actual decline in reproduction.*77

This has a very familiar ring and could easily be a description of the 2007-8 crisis.

Therefore, as Kliman points out, Marx’s theory implies that a fall in the rate of profit leads to crisis only indirectly and with a time lag.78 The fall in profits leads to increased speculation and the increase in debt that cannot be repaid is the immediate cause of the crisis. The implications of this are that the recent crisis is not reducible to finance, rather phenomena specific to the financial sector (excessive leverage, risky mortgage lending and the lack of transparency in balance sheets) were the trigger. Financialisation therefore concentrates on the proximate causes of the crisis rather than the longer-term underlying weaknesses in the capitalist system that enabled the financial sector to trigger an especially deep and long recession with persistent after-effects.

Lack of profitability or lack of demand?

As we have seen the underconsumptionist view is that economic crises, recessions and stagnation are caused by a lack of spending as a result of workers being paid too little to buy what is produced—this may result from a polarisation of income and inequality.79

The logic of Keynesian interventionism in stimulating demand is that greater consumption causes greater production of goods, greater employment and growth. But capitalism prospers, not if production rises, but if profitability rises. Production only increases if profitability rises *and* if there is demand for the extra output—that is if surplus value can be both produced and realised. For Keynesians, profitability is not the essential determinant of production. They see profitability as a consequence of greater demand-induced production; in the Marxist approach higher production is a consequence of higher profitability. In the Keynesian view the

demand for consumer goods sets a rigid limit to investment demand, therefore total demand is held down by the restricted growth of consumption demand. A chronic structural tendency therefore exists for aggregate supply to exceed aggregate demand. This leads to a crisis of overproduction.

Writing in 1958 Raya Dunayevskaya explains how underconsumptionists wrongly invert the order of causation:

> *The crisis…is not caused by a shortage of "effective demand". On the contrary, it is the crisis that causes a shortage of "effective demand". A crisis occurs not because there has been a scarcity of markets. As we saw in theory, and as 1929 showed in practice, the market is largest just before the crisis. From the capitalist point of view, however, there is occurring an unsatisfactory distribution of "income" between the recipients of wages and those of surplus value or profits. The capitalist decreases his investments and the resulting stagnation of production appears as overproduction. Of course, there is a contradiction between production and consumption. Of course there is [an] "inability to sell". But the inability to sell manifests itself as such because of the antecedent decline in the rate of profit which has nothing whatever to do with the inability to sell.*[80]

Marx does not dispute the tendency towards underconsumption, but shows that it is not an insurmountable obstacle to the expansion of production. What actually drives productive investment is profitability—past profits fund investment spending and expectations of future profitability provide the incentive.

The anarchic nature of capitalism means that a tendency to overproduction is intrinsic to the system. Individual capitalists expand production, but without knowing what other capitalists are doing. This leads to a fall (in the case of some goods, a collapse) of prices and profitability and weaker capitals going out of business. Overproduction, therefore, has different causes and is not the same as underconsumption.

Capital, exploitation and accumulation

A critical difference between radical economists and classical Marxism is in the treatment of capital. For Piketty capital is defined as

> *the sum total of nonhuman assets that can be owned and exchanged on some market. Capital includes all forms of real property (including residential real estate) as well as financial and professional capital (plants, infrastructure, machinery, patents and so on) used by firms and government agencies.*[81]

In effect, for Piketty, capital and wealth (mainly personal wealth) are the same.The post-Keynesian school is influenced by and sympathetic to Marx, and Malcolm Sawyer defines capital as a "shorthand for the owners of the means of production (and their representatives) under the specific condition of capitalism".[82] This leads him to argue, in contrast to the mainstream economists, that there is an intrinsic conflict between the owners of capital and labour. However, post-Keynesians treat capital as an autonomous force. For Joan Robinson capital is equated with "efficient machinery" and the "application of science to industry",[83] while for Malcolm Sawyer "the pace and form of change are largely determined by capital".[84]

As Callinicos argues, this "abstract[s] labour from its relationship with capital, and thereby transform[s] capital into an external force".85 This is very different from Marx's definition of capital which sees it as a social relation specific to the capitalist mode of production. It is self-expanding value, which comes from the exertion of labour and is realised on a market. It is measured in labour time (and in its monetary expression).

As Tomáš Tengely-Evans points out, Marx writes in the third volume of *Capital*:

> *The relation between capital and wage labour determines the whole character of the mode of production…the capitalist and the wage labourer are, as such, embodiments of and personification of capital and wage labour—specific social characteristics that the social process stamps on individuals, products of these specific social relations of production.86*

Capital is value accumulated through the exploitation of workers' labour and then set in motion to expand further exploitation. Therefore Marx's definition of capital provides a link to the production process, as opposed to assuming that wealth acts as capital. Whereas Piketty starts with inequality—Marx starts with exploitation and accumulation.

For Marx, capital only exists within the process of economic exchange. Capital is a flow or circuit through which money and commodities move in order to produce value. This circuit is the primary source of value creation in a capitalist society. Studying this circuit allows us to understand how value is produced and distributed throughout our economy.

Benjamin Kunkel spells out the political implications of understanding capital and value in this way:

> *If, on the other hand, capital aka the means of production, owes its value to past labour on a natural world that bears no title deed…then all income by rights belongs, one way or another, to labourers or producers… To argue that value derives from labour is ultimately to consider the successive labours that make up history; conflict and change emerge as the essence of economics as they are of history. To focus instead on the instantaneous balance of one person's wish to sell with another's wish to buy is to abstract a moment of harmony from the ongoing clangour and flux.87*

The logic of the post-Keynesian view that sees capital as autonomous and as a source of the creation of value, justifies policies that enhance capital and ultimately defends capitalism. The argument that capital is a social relation and that labour is the only source of value leads to the political conclusion that workers should reclaim what is theirs in a process of struggle.

Conclusion

Any theories that trace crises to low productivity, sluggish demand, the anarchy of the market, state intervention, high wages, low wages and so on, suggest that capitalism's crisis tendencies can in principle be substantially lessened or eliminated by fixing the specific problem that is making the system perform poorly. But the tendency for the rate of profit to fall suggests that economic crises are inevitable under capitalism because they are not caused by factors that are external to it—that is, factors that can be eliminated while keeping the system intact. As Marx put it: "the violent destruction of capital" will not come

about “by relations external to it, but rather as a condition of its self-preservation”.88

Some of these ideas may seem either arcane or difficult or both. But the political implications of these debates are profound. If the long-term cause of the crisis is irreducibly financial then recurrent crises can be prevented by doing away with neoliberalism and “financialised capitalism”. It is no longer necessary to “do away with the capitalist system of production—that is, production driven by the aim of ceaselessly expanding value, or abstract wealth”.89 This puts on the agenda, instead of changing the socioeconomic nature of the system itself, the need for financial regulation, fiscal and monetary policies to stimulate the economy and nationalisation of parts of the financial system. Of course, we support these demands as a challenge to capitalism and the state—their success as a result of struggle would increase the confidence and combativeness of workers. But at the same time we need to defend the core ideas of Marx from those that have reinterpreted his ideas to project a view of the world in which capitalism can be reformed. If a persistent fall in the rate of profit is an important (if indirect) cause of crisis and recession then these proposals are not solutions; at best they will delay the next crisis. Any artificial stimulus that produces unsustainable growth threatens to make the next crisis deeper and more protracted. To eliminate crises it is therefore necessary to do away with the capitalist system of production.

Notes

1: Piketty, 2014.

2: Roberts, 2015.

3: Roberts, 2015.

4: Skidelsky, 2014.

5: See www.paecon.net; they are associated with a journal *The Real World Economics Review*.

6: Inman, 2014.

7: In UK universities, journals in economics (and other subjects) are given a ranking. Publication in high-ranking journals determines the reputation of the department and the career progression and job opportunities for individuals. Academics who are heterodox economists (who depart from mathematical modelling and neoclassical economics) find it much more difficult to get work.

8: See for example Krugman, 2012; Stiglitz 2010 and 2012.

9: Galbraith, 2014, p238.

10: Larry Summers is a professor at Harvard, was secretary of the treasury in the Clinton administration in 1999 and a key economic advisor in the Obama administration. Ben Bernanke did two terms as chairman of the Federal Reserve, the central bank of the United States, between 2006 and 2014.

11: The thesis of “secular stagnation” is confirmed by a recent IMF Report (IMF, 2015), which argues that global growth is moderate and uneven with weak investment and lack lustre growth in total factor productivity.

12: Shiller, 2015.

13: Galbraith, 2014, p240.

14: Chang, 2011.

15: See Marcuzzo, 2012, for an account of the Cambridge economists.

16: Arestis, 1996; Sawyer, 1989; Toporowski, 2005.

17: Minsky, 1986.

18: For example, Stockhammer, 2015, and Keen, 2013.

19: Harman, 1996.

20: Pilling, 1986.

21: This was associated with Carl Menger and Eugen Boehm-Bawerk (Austrian), William Jevons and Alfred Marshall (English), Léon Walras (French), Vilfredo Pareto (Italian) and John Bates Clark (American).

22: Smith, 2014 [1776].

23: Ricardo, 2004 [1851].

24: Harman, 1996, pp7-8.

25: Von Mises, 1998; Von Hayek, 1944; Friedman, 2002.

26: Harman, 1996.

27: For a good critique of the idea of the market see Sayer, 1995, and Chang, 2002.

28: Kahn, 1931 (Richard Kahn was one of Keynes's students).

29: Kahn, 1931.

30: Marcuzzo, 2012, p67.

31: Mulholland, 2012, p208.

32: Moggridge, 1992, p453.

33: Pilling, 1986, p3.

34: Harman, 2009, p163.

35: Harman, 2009, p163.

36: Harman, 2009, p165.

37: Harman, 2009, p168.

38: Kidron, 1965.

39: Harman, 2009, pp168-169.

40: Go to www.britishpoliticalspeech.org/speech-archive.htm?speech=174. Also quoted in Harman, 1996, p33 and Pilling, 1986, p7.

41: Pilling, 1986, p12.

42: Minsky quoted in Pilling, 1986.

43: Thomas Balogh was a Professor at Oxford University, President of the Fabian Society in 1970 and an advisor to Labour governments in 1964 and 1974. See Balogh, 1982, for a critique of conventional economics.

44: Balogh quoted in Pilling, 1986, p13.

45: This tradition has a dedicated publication. The *Journal of Post-Keynesian Economics* and the *Cambridge Journal of Economics* also reflects this school of thought. A useful map of post-Keynesian scholars and their perspective can be found at https://en.wikipedia.org/wiki/Post-Keynesian_economics

46: Arestis, 1996, 112.

47: See Keen, 2013 for an extensive discussion of these points.

48: Arestis, 1996, p113.

49: Lapavitsas, 2013a.

50: Stockhammer, 2015; Lapavitsas, 2013b.

51: Hilferding, 1981; see Choonara, 2014.

52: Keynes, 1936, p164 quoted in Wray, 2009, p159.

53: Minsky, 1986.

54: Wray, 2009.

55: Crotty, 2009, p577.

56: Kliman, 2011.

57: *Economist*, 2014.

58: Moshinsky and Brunsden, 2012.

59: Marx, 1973, p752, quoted in Kliman, 2011, p196.

60: Pilling, 1986.

61: Baran and Sweezy, 1966.

62: See Kunkel, 2014 and Tengely-Evans, 2014 for critiques of Piketty.

63: Piketty, 2014, p571.

64: Arestis, 1996, p115.

65: Stockhammer, 2015.

66: Stockhammer, 2015.

67: See McNally, 2011, Choonara, 2009a, and the debate between David McNally and Joseph Choonara (McNally, 2012; Choonara, 2012).

68: Foster and McChesney, 2012.

69: Kliman and Williams, 2014, p2.

70: Kliman and Williams, 2014, p2.

71: Choonara, 2009a.

72: See Harman, 2009; Choonara, 2009b; Carchedi, 2011; Roberts, 2009; Kliman, 2011.

73: Quoted in Callinicos, 2014, pp268-269.

74: Lapavitsas, 2009; Duménil and Lévy, 2013; Toporowski, 2010.

75: Marx, 1991, p572, quoted in Kliman, 2011, p19.

76: Marx, 1991, p367, quoted in Kliman, 2011, p21.

77: Marx, 1991, p363, quoted in Kliman, 2011, p21.

78: Kliman, 2011.

79: See Kliman, 2011, for a detailed empirical refutation of the underconsumptionist argument in relation to the 2008 crisis and Carchedi, 2011, for a summary of the theoretical objections.

80: Dunayevskaya, 2000, pp142-143.

81: Piketty, 2014.

82: Sawyer, 1989, p50.

83: Quoted in Pilling, 1986, p16.

84: Sawyer, 1989, p51.

85: Callinicos, 2014, p211.

86: See Tengely-Evans, 2014, p182.

87: Kunkel, 2014.

88: Marx, 1973, pp749-750, quoted in Kliman, 2011, p26.

89: Kliman, 2011.

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