

Institute for International Political Economy Berlin

Financialization and the Crises of Capitalism

Author: Petra Dünhaupt

Working Paper, No. 67/2016

Editors: Sigrid Betzelt Birgit Mahnkopf

Trevor Evans Christina Teipen Eckhard Hein Achim Truger Hansjörg Herr Markus Wissen

Financialization and the Crises of Capitalism*

Petra Dünhaupt

Berlin School of Economics and Law and Institute for International Political Economy (IPE) Berlin, Germany

Abstract: Since the 1980s, the financial sector and its role have increased significantly. This development is often referred to as *financialization*. Authors working in the heterodox tradition have raised the question whether the changing role of finance manifests a new era in the history of capitalism. The present article first provides some general discussion on the term financialization and presents some stylized facts which highlight the rise of finance. Then, it proceeds by briefly reviewing the main arguments in the Marxian framework that proposedly lead to crisis. Next, two schools of thought in the Marxian tradition are reviewed which consider financialization as the latest stage of capitalism. They highlight the contradictions imposed by financialization that disrupt the growth process and also stress the fragilities imposed by the new growth regime. The two approaches introduced here are the Social Structure of Accumulation Theory and Monthly Review School. The subsequent part proceeds with the Post-Keynesian theory, first introducing potential destabilizing factors before discussing financialization and the finance-led growth regime. The last section provides a comparative summary. While the basic narrative in all approaches considered here is quite similar, major differences stem from the relationship between neoliberalism and financialization and, moreover, from the question of whether financialization can be considered cause or effect.

Keywords: Financialization, Crisis, Periods of Capitalism, Heterodox Economics

JEL Code: E02, E11, E12, P16, P51

Contact: Petra Dünhaupt Berlin School of Economics and Law Badensche Straße 52 10825 Berlin, Germany e-mail: <u>petra.duenhaupt@hwr-berlin.de</u>

* A revised version will be published in: Tae-Hee Jo, Lynne Chester and Carlo D'Ippoliti (eds), Handbook of Heterodox Economics, Routledge. I am most grateful to the Editors for helpful comments and suggestions. Further, I would like to thank Daniel Detzer and Nina Dodig for helpful comments and Finn Cahill-Webb for editing assistance.

Introduction

Marx highlighted the contradictions of capitalism, and argued that capitalism is but a stage on the way to a final societal form (Wallerstein 1974). Despite its contradictions and potential limits, capitalism continues to survive, by periodically redesigning and renewing its structure. Followers of Marx categorized these developments within capitalist history into different stages or periods, elaborating on the weaknesses of the system. Thus, the tendency of crisis plays a central role in Marxian tradition, exposing the limitations of the system and forcing new periods of capitalist development (Clarke 1994). The theory of capitalism can be approached by three different levels of analysis, one of which is stage theory, which analyzes the structural manifestations of the law of value in the stages of mercantilism, liberalism, and imperialism (Albritton 1986).¹ The analysis of different stages of development is also of central importance in the Post-Keynesian tradition. Institutions have a profound impact on economies and hence economies need to be regarded from an historical perspective (Kriesler 2013).

Since the 1980s, the financial sector and its role have increased significantly. This development is often referred to as *financialization*. Authors working in the heterodox tradition have raised the question whether the changing role of finance manifests a new era in the history of capitalism.

The first part of this paper provides some general discussion on the term financialization and presents some stylized facts which highlight the rise of finance. Then, it proceeds by briefly reviewing the main arguments in the Marxian framework that proposedly lead to crisis. Next, two schools of thought in the Marxian tradition are reviewed which consider financialization as the latest stage of capitalism. They highlight the contradictions imposed by financialization that disrupt the growth process and also stress the fragilities imposed by the new growth regime. The two approaches introduced here are the Social Structure of Accumulation Theory and Monthly Review School.²

¹ As highlighted by Albritton (1986), there are many more categorizations of capitalist history, as for example the classification into competitive and monopoly capitalism or laissez-faire, monopoly and state monopoly capitalism.

² For an excellent review on the French Regulationist School, Social Structures of Accumulation Theory and Post-Keynesian approaches, see Hein et al. 2015. See also Lapavitsas 2011, 2013 for a review of economic and sociological literature on financialization and his own analysis of financialization which draws on classical Marxism.

The subsequent part proceeds with the Post-Keynesian theory, first discussing potential destabilizing factors before discussing financialization and the finance-led growth regime. The last section provides a comparative summary.

The development of financialization

As stressed by Epstein (2005), financialization is one of three terms often used to describe the last three decades – the other two being neo-liberalism and globalization.

According to Dore (2008: 1097):

'Financialization' is a bit like 'globalization'—a convenient word for a bundle of more or less discrete structural changes in the economies of the industrialized world. As with globalization, the changes are interlinked and tend to have similar consequences in the distribution of power, income, and wealth, and in the pattern of economic growth.

The broadest and most often cited definition is one by Epstein (2005: 3):

Financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies.

Financialization has many dimensions and relates to numerous different economic entities (Epstein 2015; Stockhammer 2013). One key dimension is the spectacular rise of the financial sector. Greenwood & Scharfstein (2013) report a massive growth of the financial service sector during the last 30 years in the USA, measured either by the financial sector's share in GDP, the quantity of financial assets, employment and average wages in the financial sector. But the growth of finance is not confined to the USA; albeit to a lesser extent, similar developments can also be found in other OECD countries (Philippon & Reshel 2013). The rise of the financial sector also manifests itself in the profit share. In the USA, the share of financial corporations' profits in total profits increased constantly. Whereas its share amounted to 13 percent on average in the 1960s, in the 2000s this proportion increased to 28 percent, and reached a peak in 2002 when the financial sector's profit share reached 37 percent of total profits.^{3,4} Recent research reports a comparable trend for a multitude of

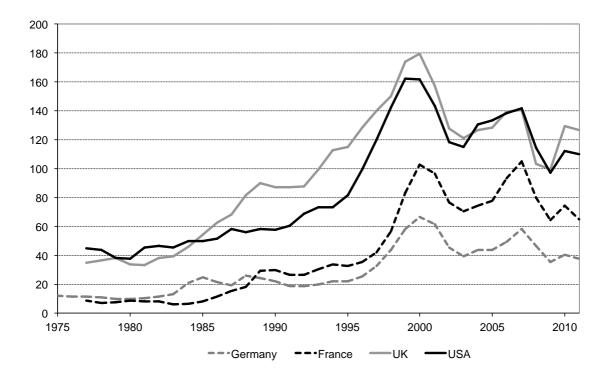
³ Bea NIPA Table 6.16. Online in internet: http://www.bea.gov/national/nipaweb/DownSS2.asp.

⁴ Compare Crotty (2007) for an elaboration on financial sectors' profits.

OECD countries⁵, though with a few exceptions. In Germany, for example, this was not the case (Detzer et al. 2013).

The rise of the financial sector is also mirrored by the rise in financial activity compared to real economic activity, measured by GDP (Stockhammer 2013). Figure 1 shows the stock market capitalization as a share of GDP for Germany, France, the UK, and the USA for the years 1975 until 2011. Stock market capitalization has grown rapidly in all countries starting in the mid-1980s, and even more so by the mid-1990s. In the UK and in the USA, since the early/mid 1990s, stock market capitalization has outpaced GDP significantly.⁶

Figure 1: Stock market capitalization as a share of GDP; Germany, France, UK, and USA; 1975-2011



Source: Beck et al. (2000); latest version (2013); authors' calculation.

⁵ See various FESSUD country studies: http://fessud.eu/studies-in-financial-systems/.

⁶ Part of this rise can be attributed to the increase in financial innovation and the introduction of new financial instruments (Grabel 1997).

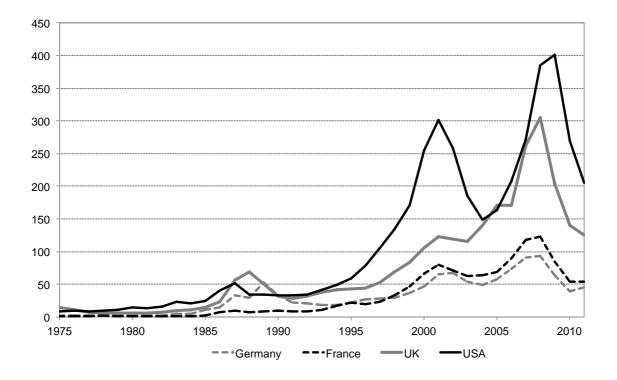


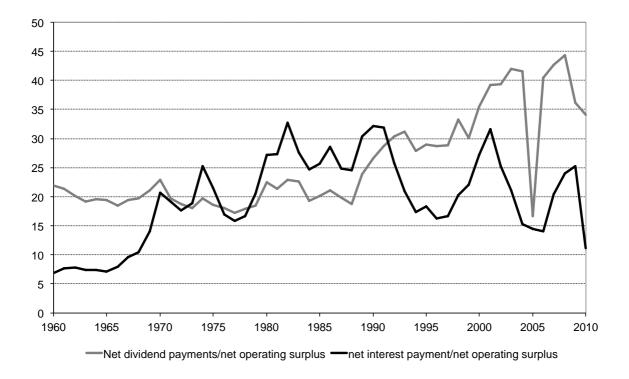
Figure 2: Stock value traded as a share of GDP; Germany, France, UK, and USA; 1975-2011

Source: Beck et al. (2000); latest version (2013); authors' calculation.

Figure 2 presents the stock value traded as a share of GDP for the same countries and the same time period. The development of this indicator is even more pronounced: since the mid-1990s, stock value traded as a share of GDP has risen in all countries. In the UK and especially in the USA, the trading activity has picked up tremendously, exceeding GDP many times over.

A further dimension of financialization relates to the rise in financial activity and financial orientation pursued by non-financial corporations. The rise in the shareholder value movement as a concept of corporate governance changed managers' focus from long-term growth objectives of the firm to a short-term focus on shareholders' interests (Epstein 2015; Lin & Tomaskovic-Devey 2013, Stockhammer 2004). The increase in non-financial corporations' engagement in financial activities is also reflected in the data.

Figure 3: Net dividend and net interest payments as a share of net operating surplus; non-financial corporations, USA; 1960-2010



Source: Bureau of Economic Analysis (BEA), NIPA Tables; author's calculation

Figure 3 presents net dividend and net interest payments as a share of net operating surplus for US non-financial corporations, 1960-2010. Starting in the 1980s and 1990s, managers increasingly distributed corporate profits to shareholders in the form of dividend payments. Until the mid-1980s, dividend payments as a share of net operating surplus fluctuated around 20 percent; by the mid-2000s, the value was twice as much. In contrast, net interest payments related to the net operating surplus tended to follow a downward trend starting in the 1990s after the end of the high interest rate policy in the USA. However, in 2000, the value of net interest payments had recovered, reflecting high debt levels related to the 'new economy boom' (ECB 2012). Moreover, non-financial corporations heavily relied on stock repurchases to increase stock prices. According to Lazonick (2010, 2011), between 2000 and 2009 S&P 500 companies invested 58 percent of their net income on stock buybacks and 41 percent on dividends. According to the ECB (2007), the increase in dividend payments and above all share buybacks are also common practice by Euro area firms. Moreover, they find that those companies that invested in their own equity curtailed real investment. Taken together,

managers replaced the old trajectory of 'retain and invest' by 'downsize and distribute' (Lazonick & O'Sullivan 2000).

Finally, a further development that relates to financialization and which can be found in many OECD countries is the rise in debt levels among different sectors (Epstein 2015). Especially household debt relative to disposable income has risen sharply, as illustrated in Table 1 for Germany, Greece, Japan, the UK, and the USA for the years 1995, 2000, 2005, and 2010.

	Germany	Greece	Japan	UK	US
1995	97.21		137.36		94.47
2000	116.52		140.74	118.94	103.50
2005	108.10	63.0	137.88	167.16	134.58
2010	98.25	101.1	131.90	158.73	127.23

Table 1: Debt of households and NPISHs, as a percentage of net disposable income

Source: OECD Financial Indicators; Greece: OECD (2014)

Financialization as a new stage of capitalism

The possibility of crises in the Marxian framework

Though Marx himself never developed a full-fledged crisis theory, he seems to "associate crises with the tendency of the rate of profit to fall, with tendencies to overproduction, underconsumption, disproportionality and overaccumulation with respect to labour ...". (Clarke 1994: 7).

Central to Marxian macro-theory are the capitalist mode of production and the 'circuits of capital'. The mode of production is made 'by the forces and social relations of production', whereas the circuits of capital describe the stages of the capital accumulation process (Crotty 1986; Foley & Dumenil 2008).

In the beginning of a production process (circuit one), the capitalist invests a certain amount of capital consisting of constant capital (M), i.e. the means of production, and variable capital, i.e. labor. During the production process (circuit two), the invested capital is transformed, creating surplus value, i.e. the value of the created commodity (C) exceeds the original value by a surplus. Finally, the commodities are sold and turned into money (M'; M'>M) (circuit three) (Marx 1887). From this follows Marx's famous short classification: M-C-M'.

Marxian crisis theories address the variables in the circuits of capital framework as well as the institutional foundations of the circuits (Crotty 1986; Evans 2004; Kenway 1983). There are three major mechanisms, which supposedly lead to a crisis: The first mechanism relates to the 'law of the tendency of the rate of profit to fall'. Following Marx's reasoning, during the capital accumulation process, the organic composition of capital, which is defined as the ratio of constant capital to variable capital, increases. This, however, leads to a decline in the rate of profit, which is defined as the ratio of surplus value to total capital. Therefore, in the long run, a rise in the organic composition of capital results in a fall in the rate of profit. The second mechanism potentially leading to a crisis relates to the distribution of income and underconsumption. Generally, workers spend all of their income on consumption. Hence, redistribution of income at the expense of labor results in a decline in demand for the produced commodities and, given the mismatch in supply and demand, ultimately to a failure to realize surplus value. A third mechanism potentially contributing to crisis relates to the argument of power relations. Here, a decline in the 'industrial reserve army' strengthens workers' bargaining power vis-à-vis capitalists, probably leading to higher wages. A rise in the share of labor income potentially contributes to a decline in the rate of profit, i.e. a 'profit squeeze' and hence to a fall in the rate of accumulation (Weisskopf 1992).

In the following, two schools of thought in the Marxian tradition are reviewed which consider financialization as the latest stage of capitalism.

Social Structure of Accumulation Theory

Social Structure of Accumulation theory conceptualizes capitalism in consecutive cycles, each lasting about 50 to 60 years. These cycles, or stages, are divided into phases of growth and stagnation. A crisis follows from stagnation; it constitutes the beginning of a new Social Structure of Accumulation (SSA) (McDonough et al. 2010). SSA theory seeks to identify the institutional arrangements that support economic expansion. Here, institutions refer to a set of transnational and international organizations or customs, as for example the World Bank or the bargaining power of trade unions (Lippit 2010). Representatives of SSA theory describe their conceptualization as a mixture of Marxian and Keynesian economics. In line with Marxian economics, crisis tendencies emerge as a result of class struggle; i.e. conflicts between capitalists and workers or within the capitalist class, and constitute an obstacle to further accumulation. In respect to Keynesian economics, volatile investment decisions are acknowledged, which are shaped by expectations.

Recent work on SSA understands "an SSA as a coherent, long-lasting institutional structure that promotes profit-making and serves as a framework for capital accumulation" (Kotz & McDonough 2010: 98). Based on this definition, Kotz & McDonough (2010) argue that since the 1980s, a new SSA is in place, that of global neoliberalism. The neoliberal institutional structure is characterized by a free market ideology, which involves the demise of state regulatory structures and a shift of power from labor to capital. At an international level, the global neoliberal SSA is characterized by a tremendous rise in cross border movement of goods and capital and the geographical extension of global production chains. At a domestic level, the global neoliberal SSA changed the capital-labor relation; above all the weakening of trade union bargaining power, while labor relations also changed considerably. A further defining feature is the redefinition of the role of the state. The belief in the self-adjustment of markets has led to the dismantling of the welfare state, cutting down of taxes, deregulation, and privatization of state owned enterprises.

Kotz (2011) elaborates on historical circumstances that enabled the emergence of neoliberalism. The previous SSA is often referred to as 'regulated capitalism'⁷, given the eminent role of the state, which played an active role in regulating economic activity, both at the domestic and international level. Moreover, welfare states were well developed and there was a compromise between capital and labor (Kotz 2011). That SSA came into crisis by the 1970s and was replaced by the global neoliberal SSA. According to Kotz (2011), the crisis of the 'regulated capitalism' SSA together with the rise in global economic integration, the belief in the free market doctrine, and the declining threat from the Socialist countries are all key causes for the global neoliberal SSA to emerge. Further, he argues that the neoliberal institutional environment served as a favorable setting for financialization to develop. Though neoliberalism and the deregulation of the financial sector paved the way for financialization, it is argued that "financialization is an ever-present tendency in corporate capitalism" (Kotz 2011: 15). In this view, financialization refers to the rise of the financial sector and its changing role. In the past, the financial sector's core business involved activities supporting the non-financial sector, as for example the provision of loan-based finance. During the global neoliberal SSA, the financial industry detached from its core business and increasingly engaged in financial market-based activities. That way, financial corporations increased their share in corporate profits.

⁷ The regulated capitalist SSA, which is also called post-war SSA, lasted from the end of World War II until the late 1970s. Many authors (Gordon et al. 1987; Wolfson/Kotz 2010) argue that the crisis of the post-war SSA was one of profit squeeze, brought about by a relative rise in labor's power and rising real wages.

SSA theory suggests that each stage of capitalism has a main contradiction with respect to economic growth, which eventually leads to a crisis (Kotz 2008, 2011). The contradictions of the global neoliberal SSA are in one-way or the other related to financialization:

The institutional structure of the global neoliberal SSA provided on the one hand a favorable environment for the creation of surplus value, while on the other hand it created a problem for its realization, given the redistribution of income from labor to capital and the rise in personal income inequality. Two features that relate to financialization resolved the realization problem: first, the financial sector's increasing engagement in speculative and risky financial market activities, and second, the rising occurrence of asset price bubbles. The redistribution of income towards profits and top incomes resulted in a vast amount of investable funds which exceeded available productive investment opportunities and hence contributed to the emergence of asset bubbles. In light of these asset bubbles, households' consumption was increasingly financed through debt and was based on wealth effects (Kotz 2009).

Turning back to traditional Marxian crisis theories, at first glance the realization problem of surplus value during the global neoliberal SSA appears as a crisis of underconsumption. However, the lack in demand was compensated by debt-financed consumption. Thus, the structural crisis of the global neoliberal SSA can be rather considered as a crisis of over-investment (Kotz 2012). Over-investment refers to excess fixed capital in relation to the level of demand and can be prompted by the appearance of asset bubbles. In light of rising debt-financed consumption by households, firms' investment in capital stock rises to match the increase in consumption demand. Further, firms' excess expectation regarding future profitability might also lead to a rise in investment spending. However, when the bubble bursts, opportunities to get into debt diminish, consumer spending declines, but excess fixed capital remains (Kotz 2013).

During the neoliberal SSA, economic growth was generated on the one hand by the rise in debt-financed consumption to compensate for wage stagnation caused by neoliberalism and on the other hand by financial speculation and asset bubbles. That said, economic expansion in the neoliberal era depends on debt and asset bubbles (Kotz 2008) and the world economic crisis seems to mark the end of the global neoliberal SSA (Kotz 2011).

Monthly Review School

The Monthly Review School relates financialization to economic stagnation. Inspired by Kalecki's work on monopolization and investment, Steindl (1952) sought to explain economic stagnation by linking the progressive emergence of oligopolistic industries to a reduction in investment expenditure and hence to a decline in overall economic activity. Baran & Sweezy (1966) further elaborated on the stagnation thesis. In their view, the emergence of large corporate enterprises in oligopolistic and monopolistic industries leads not only to widening profit margins but also to a rise in the overall profit share and economic surplus⁸. However, corporations face a dilemma: On the one hand, they seek to maximize profits and accumulate capital. On the other hand, they face problems to maintain their profit margins and hence avoid overproduction and price reductions. This, however, results in a reduction in capacity utilization (Foster 2007). Ultimately, the economy faces stagnation. Though monopolistic corporate enterprises generate huge surpluses, investment in capital stock is low.

According to Foster & McChesney (2009), in the 1970s a crisis of overaccumulation and stagnation appeared, while at the same time a financial superstructure emerged. From the 1970s onwards, corporations started to channel surpluses into financial products instead of investing in fixed capital investment (Magdoff & Sweezy 1987). The money that was channeled into financial markets contributed to asset price inflation. In light of low investment in capital stock, growth was mainly generated through debt-financed consumption of the household sector via the 'wealth effect'. However, debt levels of other sectors of the economy increased as well, leading to a rise in instability (Foster 2008).

Foster (2006, 2007, 2008, 2010a, 2010b) argues that by the late 1970s, capitalism entered a new phase, which he calls 'monopoly-finance capital'. The defining features of this phase are, amongst others, the accelerating increase in financial bubbles and financial speculation. Though profits of financial corporations have risen as a share of total corporations' profits, Foster argues that the divide between financial and non-financial corporations became less clear, given the increasing reliance of non-financial corporations on financial activities. Moreover, he mentions the rise in income inequality as another defining feature, which generated a rise in households' indebtedness to compensate for stagnating or falling real wages. According to Foster, a more unequal distribution of income is a prerequisite for the functioning of monopoly-finance capital, given the "demand for new cash infusions to keep

⁸ Economic surplus is defined as the difference between "what a society produces and the costs of producing it" (Baran & Sweezy 1966: 9).

speculative bubbles expanding" (Foster 2007). Foster (2007) regards neoliberalism as "the ideological counterpart of monopoly-finance capital"... reflecting "to some extent the new imperatives of capital brought on by financial globalization."

In summary, the main argument brought forward by the Monthly Review School is that it is stagnation that generates financialization. The genuine problem, from this point of view, is "the system of class exploitation rooted in production" (Foster 2008). Recalling Marx's formula, it appears that M leads to M', leaving out the production of commodities (Foster & McChesney 2009).

Destabilizing factors in the Post-Keynesian School

Post-Keynesian economics rests on the principle of effective demand, which determines the level of output and employment. Fundamental uncertainty and expectations are defining features of the monetary capitalist economy, which is shaped by social norms and institutions. Class and power relations determine income and wealth distribution (Arestis 1996; Stockhammer 2015b). There are three main factors which can potentially destabilize the economy (Goda 2013): an increase in uncertainty, the endogeneity of money and financial fragility, and changes in the distribution of income.

In a world of uncertainty, entrepreneurs' investment decisions are subject to expectations about future profitability. In a monetary economy, individuals might restrain from consumption and investment and rather hold their money in liquid assets (Ferrari-Filho & Camargo Conceicao 2005).

With his financial instability hypothesis, Hyman Minsky (1986) developed a model that links the role of pro-cyclical credit to the business cycle, thereby detecting the financial instabilities that make an economy prone to crisis. When an economy is booming, investors become more optimistic concerning their future investments and are keen to borrow, thus creating an increase in credit. The lenders also have positive expectations about the future and become more willing to lend, even for high-risk projects. Minsky emphasizes the behavior of the borrowers, whose indebtedness increases in the boom phase in order to buy assets. The underlying motive is to exploit short-term capital gains that result from the difference in increasing asset prices and the interest rates paid on the borrowed funds. However, the investors' sentiments change when the economy slows down, because the interest paid on the borrower funds might possibly exceed the increase in asset prices. Borrowers start to sell off their assets. In an economic downturn, credit decreases due to the investors' expectations of the future becoming more pessimistic. This causes not only the investors to proceed with greater caution, but also the lenders due to the increase in loan losses. (Kindleberger & Aliber 2005). That way, financial fragility might arise and an economy moves from 'hedge finance' through 'speculative finance' and finally end with 'Ponzi finance' (Palley 2009).

Further disruptions might emerge from changes in the distribution of income. In Post-Keynesian models of distribution and growth, the redistribution between wages and profits feeds back on consumption demand, given different propensities to save from rentiers', managers', and workers' income, thereby affecting overall aggregate demand and hence growth (Hein & van Treeck 2010a; Hein 2010; Hein & van Treeck 2010b; Onaran et al. 2011). However, redistribution also impacts firms' investment through different channels, either directly or indirectly via profits or capacity utilization, respectively. Based on these contradictory effects of redistribution between capital and labor, Bhaduri & Marglin (1990) suggest that aggregate demand and long-run growth may either be 'wage-led' or 'profit-led'. In recent years, multiple studies based on this framework were conducted (see for instance Hein & Vogel 2008; Naastepaad & Storm 2007) which show that in the medium to long run, demand in most OECD countries seems to be wage-led. Therefore, a decline in labor's income share causes a reduction in aggregate demand, and hence also in GDP growth.

The macroeconomics of financialization

A categorization of stages of development of capitalism is also inherent to the Post-Keynesian approach. The most recent phase of capitalism is often referred to as 'finance-dominated' capitalism. In regard to financialization, above all, demand side and distributional implications are considered in a macroeconomic framework. In this framework, financialization is defined as a combination of three phenomena: a rise in shareholder value orientation of the firm, redistribution of income and wealth in favor of shareholders and managers at the expense of ordinary workers and employees, and more opportunities for debt financed consumption (van Treeck 2012).

On theoretical grounds, it is argued that financialization might impact investment, consumption, and distribution as follows:

With regard to firms' investment in capital stock, it is argued that an increase in shareholdervalue orientation might have two effects on the management: first, given shareholders increasing demand for higher dividends, internal funds necessary for investment purposes decline. Moreover, investment is increasingly financed through debt⁹, leading to rising obligations in interest payments. Second, the alignment of shareholders and managers interest through variable remuneration in the form of stock options changes managers' preferences from high growth rates to high short-term profitability. Thereby, financialization depresses management's animal spirits (Hein 2009). In regard to consumption, financialization has opened up the possibilities for consumption based on wealth effects and financed by debt. Finally, it is argued that financialization impacts on the distribution of income. Regarding functional income distribution, it is argued that at least in the medium term, shareholders rising demand for dividend payouts come at the expense of the share of wages in national income. This notion is based theoretically on Kalecki's mark-up pricing. Here, it is assumed that in the medium-term, the mark-up becomes dividend-elastic and hence firms are able to pass on dividend payments, constituting an increase in overhead costs to a rise in the mark-up in firms' price setting (Hein 2014).

During the last years, numerous empirical studies were conducted which analyze the theoretical reasoning. With regard to investment, the empirical evidence lends support to the hypothesis that financialization has indeed contributed to a slowdown in accumulation through the 'preference channel' and 'internal means of finance channel': Firms that pursue short-term profits substitute financial investment for real investment in capital stock (Stockhammer 2004; Orhangazi 2008). Moreover, real investment is also dampened by a rise in interest and dividend payments (van Treeck 2008; Orhangazi 2008). However, the negative impact of financialization on real investment seems to concern larger firms rather than small firms (Davis 2013).

Concerning consumption, financialization has opened up the possibilities for consumption based on the wealth effect and financed by debt. Empirical studies have shown that the 'wealth effect' of either stock market or housing price changes substantially alters consumer spending (Slacalek 2009; Sousa 2009). However, there exist regional differences. The wealth effect from changing house prices appears to be more relevant in Anglo-Saxon countries compared to countries like France, Germany, Spain, and Japan (Girouard et al. 2006). There seems to be consensus in the literature that rising household indebtedness is related to income inequality (Kumhof & Ranciere 2010; Rajan 2010). In times of stagnating or declining

⁹ This theoretical claim was called into question by recent research. See, for example, Kliman & Williams 2015 and Jo 2015.

incomes, households increasingly went into debt to preserve their standard of living (Goldstein 2012) and to finance conspicuous consumption in order to 'keep up with the Joneses' (Frank 2007). At the same time, households took advantage of new financial opportunities to finance consumption and hence it is argued that the rise in borrowing reflects a broader transformation in household behavior towards more risk taking. Empirical evidence suggests that household indebtedness and the use of financial products has risen among all income recipients (Fligstein & Goldstein 2015).

Empirical studies suggest that financialization also impacts upon income distribution. First, in most OECD countries, financialization favored the recipients of property income, which is mirrored by a rise in rentier income shares (Power et al. 2003; Epstein & Jayadev 2005; Dünhaupt 2012). Moreover, it appears that financialization also contributed to the decline in labor's share of income (Dünhaupt 2013; Lin & Tomaskovic-Devey 2013; Stockhammer 2015a; Köhler et al. 2015) and to the rise in personal income inequality (Dünhaupt 2014; Kus 2012).

Post-Keynesian authors have incorporated elements of financialization into macroeconomic models of distribution and growth. The crux of the matter, however, is the development of functional income distribution and the responsiveness of consumption out of labor and rentier income, and the investment activity of corporations.¹⁰ In theory, under financialization, different growth regimes can emerge with more or less favorable outcomes (Boyer 2000; Hein 2012). In a 'finance-led growth' regime, the spread of the shareholder value doctrine has a positive effect on growth: Though redistribution from labor to rentier income takes place, consumption is strong due to a high propensity to consume out of rentiers' income and due to debt-financed consumption related to a strong wealth effect. Moreover, investment is stimulated via the accelerator mechanism. The second growth regime is called 'profits without investment' and resembles the first regime with the only difference being that in this case, there is no stimulation of investment. The third growth regime is called the 'contractive' regime. As the name already suggests, the rise in firms' payout ratio has a negative effect on capacity utilization, profit, and capital accumulation. Moreover, consumption is low (Hein 2014).

¹⁰ Certainly, financialization might also impact aggregate demand and growth via its direct effects on consumption and investment behavior. Further influences relate to macroeconomic policies, government demand management, and the overall macroeconomic policy regime (Hein & Mundt 2012).

The empirical literature suggests that before the crisis 2007, many OECD countries pursued a 'profit without investment' regime, which is characterized by rising levels of profits in spite of weak investment activity in capital stock (van Treeck et al. 2007; van Treeck & Sturn 2012; Hein & Mundt 2012; Hein 2014).

From a macroeconomic perspective, a 'profits without investment' regime is only possible if demand is generated by another component, i.e. consumption, government deficits, or export surpluses. This becomes apparent from Kalecki's (1965) famous profit equation:

Gross profits net of taxes = Gross investment + Export surplus + Budget deficit - Workers' saving + Capitalists' consumption

Since the early 1980s, in the USA GDP growth was mainly driven by private consumption, whereas investment in capital stock developed rather moderately, except during the New Economy boom. Hence, until the Great Recession, the US growth model relied mainly on debt-led consumption, expansionary fiscal policy, and capital imports. According to Palley (2009), Minsky's financial instability hypothesis can be considered an explanation why the US economy did not end up in stagnation much earlier: the tremendous rise in borrowing was enabled by financial innovation and deregulation, which increased financial fragility.

However, the debt-led consumption boom growth model was not only practiced by the US but also by other countries as for example the UK, Spain, Ireland, and Greece. As a counterpart, in light of falling labor shares and low investment in capital stock, another growth model emerged in other countries, labeled export-led mercantilist. Countries that relied on this growth model experienced only weak domestic demand and were strongly dependent on international trade, running current account surpluses. Here, Japan and Germany can be mentioned as prominent examples. However, there are also countries that run intermediate systems (Hein 2012).¹¹

Both growth models contributed to the rise in global imbalances until the beginning of the Great Recession in 2008/09. Enabled by the liberalization of international capital markets and the removal of capital controls, countries that pursue the 'debt-led consumption boom' strategy depend, on the one hand, on world markets' credit supply resulting in current account deficits, while on the other hand, they depend on domestic demand through households'

¹¹ A very good overview and a range of specific country studies on this topic is provided by Hein et al. (2016).

borrowing against rising house and asset prices. 'Export-led mercantilist' countries, however, run current account surpluses and depend strongly on global demand.

Many authors¹² argue that in light of falling labor shares and rising income inequality, financialization fostered the emergence of these highly fragile growth regimes through its effects on investment and consumption. The world economic and financial crisis that started in the US in 2007 has undermined the sustainability of both systems. Apparently, the debt-led consumption boom came to a halt, as household indebtedness became unsustainable. On the flipside, export-mercantilist countries were affected as well, given the decline in global demand and the devaluation of their capital exports (Hein 2014).

Comparative summary

The topic of financialization encompasses many themes and can be addressed from a number of angles. The purpose of this paper has been to review and introduce the literature on financialization focusing on financialization as the latest stage of capitalism. All approaches considered here agree that since the late 1970s or early 1980s capitalism has entered a new stage. However, already from the different designations – 'global neoliberalism', 'monopoly finance capitalism', and 'finance-led capitalism', it becomes apparent that each approach has a special focus of attention.

The basic narrative in all approaches is based on the same elements: In the era of neoliberalism and financialization, wages stagnated and income was redistributed from labor to capital. However, the rise in income inequality did not lead to a decline in consumption demand and a crisis of underconsumption: Demand was generated via debt-financed consumption in light of asset price inflation. At the same time, the financial sector was liberalized and deregulated and financial speculation increased.

While the basic narrative is quite similar, major differences stem from the relationship between neoliberalism and financialization and, moreover, from the question of whether financialization can be considered cause or effect.

Proponents of the SSA School (Kotz 2008, 2011) argue that neoliberalism is the main characteristic of the recent phase of capitalism. According to this view, neoliberalism fostered the emergence of inequality, the shift in financial practices, and asset bubbles (Kotz 2014).

¹² Compare, for example, Hein (2012); Hein & Mundt (2012); Stockhammer (2013); and van Treeck & Sturn (2012).

While a crisis of underconsumption could be avoided by the rise of debt-financed consumption, at the same time a crisis of over-accumulation of fixed capital emerged, which can be considered a crisis of capitalism in general. Further, it is argued that "financialization is an ever present tendency in corporate capitalism and, once neoliberalism released the constraints against it, it developed rapidly in the favorable neoliberal institutional context" (Kotz 2011:15). Even though neoliberalism is identified as the root problem which allowed financialization to appear and which furthered a structural crisis of capitalism, it is argued that a reversal towards a more social-democratic form capitalism is insufficient, since it is capitalism that is unstable.

The position of the Monthly Review School (Foster 2006, 2007, 2008, 2010a, 2010b, 2010c) is reminiscent of the position taken by the SSA School in the sense that the contradictions of capitalism are considered the main problem. In the era of monopoly-finance capitalism, the high degree of monopolization and industrial maturity result in deep-seated stagnation tendencies. Consumption and investment are not sufficient to absorb the high surpluses that are generated. These surpluses are channeled into debt-leveraged speculation. It is argued that capitalist economies are trapped in a circle of stagnation and financialization. In contrast to proponents of the SSA School, here it is financialization leading to neoliberalism. Financialization is considered a response to a stagnation prone economy, while neoliberalism is considered as the ideological counterpart of monopoly-finance capitalism. Further, and most importantly, there is no cure to the system, since "the fault is in the system" (Foster 2010c).

For Post-Keynesian authors, financialization and neoliberalism are two complementary concepts. According to Palley (2013: 1),

... financialization corresponds to financial neoliberalism which is characterized by domination of the macro economy and economic policy by financial sector interests. According to this definition, financialization is a particular form of neoliberalism. That means neoliberalism is the driving force behind financialization and the latter cannot be understood without an understanding of the former.

In this view, the rise of finance emanates from the deregulation and liberalization of the financial (and economic) system. A major difference compared to the other approaches stems from the fact that in this view, financialization is the cause rather than the effect. Financialization affects the macro-economy via four channels, i.e. income distribution, investment in capital stock, household debt, and net exports and current account balances. In

light of falling labor income shares and depressed investment in capital stock, it is argued that 'profits without investment' regimes emerged, which are either driven by debt-led consumption or rising export surpluses. Both systems, however, are prone to crisis. As a remedy, it is argued that economic structures dominated by financialization should be addressed on four dimensions: re-regulation and downsizing of the financial sector, redistribution of income from top to bottom and from capital to labor, re-orientation of macroeconomic policies towards stabilizing domestic demand at non-inflationary full employment levels, and re-creation of international monetary and economic policy coordination.¹³

¹³ Compare Hein (2016) and the literature quoted in the document.

References

- Albritton, R. 1986. 'Stages of Capitalist Development.' *Studies in Political Economy*, 19: 113-139.
- Baran & Sweezy 1966. Monopoly Capital. New York: Monthly Review Press.
- Beck, T., Demirgüc-Kunt, A. & Levine, R. 2000. 'A new database on financial development and structure.' *World Bank Economic Review*: 597-605.
- Bhaduri, A. & Marglin, S. 1990. 'Unemployment and the real wage: the economic basis for contesting political ideologies.' *Cambridge Journal of Economics*, 4: 375-93.
- Boyer, R. 2000. 'Is a finance-led growth regime a viable alternative to Fordism? A preliminary analysis.' *Economy and Society*, 29(1): 111-45.
- Clarke, S. 1994. Marx's Theory of Crisis. Macmillan Press: Basingstoke.
- Crotty, J. 1986. 'Marx, Keynes and Minsky on the instability of the capitalist growth process and the nature of government economic policy', *in*: D. Bramhall & S. Helburn (eds.), *Marx, Keynes and Schumpeter: A Centenary Celebration of Dissent*, Armonk: M.E Sharpe, 297-326.
- Crotty, J. 2007. If financial market competition is so intense, why are financial firm profits so high? Reflections on the current 'golden age' of finance'. PERI Working Paper Number 134.
- Davis, L. 2013. Financialization and the nonfinancial corporation: an investigation of firmlevel investment behavior in the U.S., 1971-2011. University of Massachusetts Amherst Working Paper 2013-08.
- Detzer, D., Dodig, N., Evans, T., Hein, E. & Herr, H. 2013. The German financial system. FESSUD Studies in Financial Systems no. 3.
- Dünhaupt, P. 2012. 'Financialization and the rentier income share-evidence from the USA and Germany.' *International Review of Applied Economics*, 26: 465-87.
- Dünhaupt, P. 2013. The effect of financialization on labor's share of income, IPE Working Paper 17/2013.
- Dünhaupt, P. 2014. An empirical assessment of the contribution of financialization and corporate governance to the rise in income inequality, IPE Working Paper 41/2014.
- Dore, R. 2008. 'Financialization of the global economy.' *Industrial and Corporate Change*, 17 (6): 1097-1112.
- ECB. European Central Bank. 2007. Share buybacks in the Euro area, ECB Monthly Bulletin, May: 103-11.
- ECB. European Central Bank. 2012. Corporate indebtedness in the Euro area, ECB Monthly Bulletin, February 2012: 87-103.
- Epstein, G. (ed.) 2005. Financialization and the World Economy. Cheltenham: Edward Elgar.
- Epstein, G. 2015. Financialization: there's something happening here. PERI Working Paper 394.
- Epstein, G. & Jayadev, A. 2005. 'The rise of rentier incomes in OECD countries: Financialization, central bank policy and labor solidarity,' in: G. Epstein (ed.), *Financialization and the World Economy*, Cheltenham: Edward Elgar.

- Evans, T. 2004. 'Marxian and post-Keynesian theories of finance and the business cycle.' *Capital and Class*, 3: 47-100.
- Ferrari-Filjo, F. & Camargo Conseicao, O.A. 2005. 'The concept of uncertainty in Post Keynesian theory and in institutional economics. *Journal of Economic Issues*, XXXIX (3): 579-594.
- FESSUD. Studies in Financial Systems. Available from http://fessud.eu/studies-in-financialsystems/ [Accessed April 26, 2016]
- Fligstein, N. & Goldstein, A. 2015. 'The emergence of a finance culture in American households, 1989-2007.' *Socio-Economic Review*, doi: 10.1093/ser/mwu035.
- Foley, D. & Dumenil, G. 2008. 'Marxian transformation problem,' in: S.N. Durlauf & L.E. Blume (eds.), *The New Palgrave Dictionary of Economics*. 2nd ed. Palgrave Macmillian.
- Foster, J.B. 2006. 'Monopoly-finance capital.' Monthly Review, 58 (7).
- Foster, J.B. 2007. 'The financialization of capitalism.' Monthly Review, 58 (11).
- Foster, J.B. 2008. 'The financialization of capital and the crisis.' Monthly Review, 59 (11).
- Foster, J.B. 2010a. 'The age of monopoly-finance capital.' Monthly Review, 61 (9).
- Foster, J.B. 2010b. 'The financialization of accumulation.' Monthly Review, 62 (5).
- Foster, J.B. & McChesney, R.W. 2009. 'Monopoly-finance capital and the paradox of accumulation.' *Monthly Review*, 61 (5).
- Frank, R. 2007. *Falling Behind: How Rising Inequality Harms the Middle Class*. Berkeley: University of California Press.
- Girouard, N. Kennedy, M., van den Noord, P. & Andre, C. 2006. Recent house price developments: the role of fundamentals', OECD Economics Department Working Papers, No. 475, OECD Publishing.
- Goda, T. 2013. The role of income inequality in crisis theories and in the subprime crisis. Post Keynesian Economics Study Group Working Paper 1305.
- Goldstein, A. 2012. Income, consumption, and household indebtedness in the U.S., 1989-2007. Department of Sociology, University of California. Unpublished Manuscript.
- Gordon, D, Weisskopf, T. & Bowles, S. 1987. 'Power, accumulation and crisis: the rise and demines of the postwar social structure of accumulation,' *in*: R. Cherry & T. Michl (eds.), *The Imperiled Economy: Book I, Macroeconomics from a Left Perspective*. New York: The Union for Radical Political Economics.
- Grabel, I. 1997. 'Savings, investment, and functional efficiency: a comparative examination of national financial complexes,' *in*: R. Pollin (ed.), *The Macroeconomics of Saving, Finance and Investment*. Ann Arbor: The University of Michigan Press.
- Greenwood, R. & Scharfstein, D. 2013. 'The growth of finance.' *Journal of Economic Perspectives*, 27 (2): 3-28.
- Hein, E. 2010. 'Shareholder value orientation, distribution and growth short- and mediumrun effects in a Kaleckian model.' *Metroeconomica*, 61: 302-32.
- Hein, E. 2012. *The Macroeconomics Of Finance-Dominated Capitalism And Its Crisis*. Cheltenham: Edward Elgar.
- Hein, E. 2014. *Distribution and Growth after Keynes: A Post-Keynesian Guide*. Cheltenham: Edward Elgar.

- Hein, E. 2016. Causes and consequences of the financial crisis and the implications for a more resilient financial and economic system. IPE Working Paper 61/2016.
- Hein, E., Detzer, D. & Dodig, N. (eds.) 2016. *Financialization and the Financial and Economic Crises – Country Studies*. Cheltenham: Edward Elgar.
- Hein, E., Dodig, N. & Budyldina, N. 2015. 'The transition towards finance-dominated capitalism: French Regulation School, Social Structures of Accumulation and post-Keynesian approaches compared', *in*: E. Hein, D. Detzer & N. Dodig (eds.), *The Demise of Finance-dominated Capitalism Explaining the Financial and Economic Crises*. Cheltenham: Edward Elgar. 7-53.
- Hein, E. & Mundt, M. 2012. Financialisation and the Requirements and Potentials for Wage-Led Recovery – A Review Focusing on the G20, Conditions of Work and Employment Series No. 37, International Labour Organisation.
- Hein, E. & van Treeck, T. 2010a. 'Financialisation' in post-Keynesian models of distribution and growth – a systematic review, *in*: M. Setterfield (ed.), *Handbook of Alternative Theories of Economic Growth*, Cheltenham: Edward Elgar.
- Hein, E. & van Treeck, T. 2010b. "Financialisation' and rising shareholder power in Kaleckian/post-Kaleckian models of distribution and growth." *Review of Political Economy*, 22: 205–33.
- Hein, E. & Vogel, L. 2008. 'Distribution and growth reconsidered empirical results for six OECD countries.' *Cambridge Journal of Economics*, 32: 479-511.
- Jo, T.-H. 2015. 'Financing investment under fundamental uncertainty and instability: a heterodox microeconomic view.' Bulletin of Political Economy, 9 (1): 33-54.
- Kalecki, M. 1965. *Theory of Economic Dynamics*. 2nd edition, London: George Allen and Unwin.
- Kenway, P. 1983. 'Marx, Keynes and the possibility of crisis,' *in*: J. Eatwell & M. Milgate (eds.), *Keynes's Economics and the Theory of Value and Distribution*, New York: Oxford University Press, 149-166.
- Kindleberger, C & Aliber, R. 2005. Maniacs, Panics, and Crashes. A History of Financial Crises. 5th ed. Hoboken: John Wiley & Sons.
- Kliman, A. & Williams, S. D. 2015. 'Why "financialization" hasn't depressed US productive investment.' *Cambridge Journal of Economics*, 39: 67-92.
- Köhler, K., Guschanski, A. & Stockhammer, E. 2015. How does financialization affect functional income distribution? A theoretical clarification and empirical assessment. Kingston University Economics Discussion Paper 2015-5.
- Kotz, D. 2008. 'Contradictions of economic growth in the neoliberal era: Accumulation and crisis in the contemporary U.S. economy.' *Review of Radical Political Economics*, 40 (2): 174-188.
- Kotz, D. 2009 'The financial and economic crisis of 2008: A systemic crisis of neoliberal capitalism.' *Review of Radical Political Economics*, 41 (3): 305-317.
- Kotz, D. 2011. 'Financialization and neoliberalism,' in: G. Teeple & S. McBride (eds.), *Relations of Global Power: Neoliberal Order and Disorder*. Toronto: University of Toronto Press.
- Kotz, D. 2012. Social Structures of Accumulation, the Rate of Profit, and Economic Crises, Department of Economics University of Massachusetts Amherst.

- Kotz, D. 2013. 'The current economic crisis in the U.S.: A crisis of over-investment.' *Review* of *Radical Political Economics*, 45 (3) 284-294.
- Kotz, D. 2015. Roots of the current economic crisis: capitalism, forms of capitalism, politics, and contingent events. Available from https://thenextrecession.files.wordpress.com/2015/01/rootsofthecurrenteconomiccrisis _preview.pdf [Accessed April 26, 2016]
- Kotz, D. & McDonough, T. 2010. 'Global neoliberalism and the contemporary social structure of accumulation,' *in*: T. McDonough, M. Reich & D. Kotz, (eds.), *Contemporary Capitalism and its Crises Social Structure of Accumulation Theory for the 21st Century*. New York: Cambridge University Press, 93-120.
- Kriesler, P. 2013. 'Post-Keynesian perspectives on economic development and growth,' *in*:
 G.C. Harcourt & P. Kriesler (eds.), *The Oxford Handbook of Post-Keynesian Economics, Volume 1 Theory and Origins*, New York: Oxford University Press, 539-555.
- Kumhof, M. & Ranciere, R. 2010. Inequality, leverage and crises. IMF Working Paper 10/268.
- Kus, B. 2012. 'Financialisation and income inequality in OECD nations: 1995-2007'. *The Economic and Social Review*, 43 (4): 477-95.
- Lapavitsas, C. 2011. 'Theorizing financialization.' Work, Employment and Society, 25 (4): 611-626.
- Lapavitsas, C. 2013. 'The financialization of capitalism: 'Profits without producing'.' *City: Analysis of Urban Trends, Culture, Theory, Policy, Action*, 17 (6): 792-805.
- Lavoie, M. 2014. Post-Keynesian Economics New Foundations. Cheltenham: Edward Elgar.
- Lazonick, W. 2010. 'The explosion of executive pay and the erosion of American prosperity.' *Entreprises et Histoire*, 57: 141-64.
- Lazonick, W. 2011. 'The Innovative Enterprise and the Developmental State: Toward an Economics of 'Organizational Success'', paper presented at the conference of the Institute for New Economic Thinking, Bretton Woods, NH, April 10.
- Lazonick, W. & O'Sullivan, M. 2000. 'Maximizing shareholder value: a new ideology for corporate governance.' *Economy and Society*, 29 (1): 13-35.
- Lin, K.-H. & Tomaskovic-Devey, D. 2013. 'Financialization and US income inequality 1970-2008.' *American Journal of Sociology*, 118: 1284-329.
- Lippit, V. 2010. 'Social structure of accumulation theory,' in: T. McDonough, M. Reich & D. Kotz, (eds.), Contemporary Capitalism and its Crises Social Structure of Accumulation Theory for the 21st Century. New York: Cambridge University Press, 45-71.
- Magdoff, H. & Sweezy, P.M. 1987. *Stagnation and the Financial Explosion*. New York: Monthly Review Press.
- Marx, K. 1887. *Capital A Critique of Political Economy*, Volume 1, Moscow: Progress Publisher.
- McDonough, T., Reich, M. & Kotz, D. 2010. 'Introduction: Social structure of accumulation theory for the 21st Century,' *in*: T. McDonough, M. Reich & D. Kotz, (eds.),

Contemporary Capitalism and its Crises - Social Structure of Accumulation Theory for the 21st Century. New York: Cambridge University Press.

- Minsky, H. 1986. *Stabilizing an Unstable Economy*. New Haven and London: Yale University Press.
- Naastepad, C.W.M. and Storm, S. 2007. 'OECD demand regimes (1960-2000).' Journal of Post Keynesian Economics, 29: 211-46.
- OECD 2015. Financial Indicators. Available from https://stats.oecd.org/Index.aspx?DataSetCode=FIN_IND_FBS [Accessed April 26, 2016]
- OECD 2014. Household debt. In Nationals Accounts at a Glance 2014, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/na_glance-2014-23-en.
- Onaran, Ö., Stockhammer, E. & Grafl, L. 2011. 'Financialization, distribution, and aggregate demand in the US.' *Cambridge Journal of Economics*, 35 (4): 637 62.
- 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: 863-86.
- Palley, T. 2009. The limits of Minsky's financial instability hypothesis as an explanation of the crisis. IMK Working Paper 11/2009.
- Palley, T. 2013. Financialization: The Economics of Finance Capital Domination. Palgrave.
- Philippon, T.& Reshel, A. 2013. 'An international look at the growth of modern finance.' *Journal of Economic Perspectives*, 27 (2): 73–96.
- Power, D., Epstein, G. & Abrena, M. 2003. Trends in rentier incomes in OECD countries. 1960-2000. PERI Working Paper Number 58a.
- Rajan, R. 2010. *Fault Lines: How Hidden Fractures Still Threaten The World Economy*. Princeton University Press.
- Sawyer, M. 2013/2014. 'What is financialization?' *International Journal of Political Economy*, 42 (4): 5-18.
- Slacalek, J. 2009. What drives personal consumption? The role of housing and financial wealth. ECB Working Paper, no. 1117/November 2009.
- Steindl, J. [1952] 1976. Maturity and Stagnation. New York: Monthly Review Press.
- Sousa, R. 2009. Wealth effects on consumption evidence from the Euro area. ECB Working Paper, no. 1050/May 2009.
- Stockhammer, E. 2004. 'Financialisation and the slowdown of accumulation.' *Cambridge Journal of Economics*, 28: 719-41.
- Stockhammer, E. 2013. 'Financialization and the global economy', in: M Wolfson & G. Epstein (eds.), *The Handbook of the Political Economy of Financial Crises. New York: Oxford University Press*, 512-525.
- Stockhammer, E. 2015a. 'Determinants of the wage share: a panel analysis of advanced and developing countries.' *British Journal of Industrial Relations*, doi: 10.1111/bjir.12165.
- Stockhammer, E. 2015b. Neoliberal growth models, monetary union and the Euro crisis. A Post-Keynesian perspective. Post Keynesian Economics Study Group Working Paper 1510.

- van der Zwan, N. 2014. 'Making sense of financialization.' *Socio-Economic Review*, 12: 99-129.
- van Treeck, T. 2008. 'Reconsidering the investment-profit nexus in finance-led economies: an ARDL-based approach.' *Metroeconomica*, 59: 371-404.
- van Treeck, T. 2009. 'The political economy debate on 'financialisation' a macroeconomic perspective.' *Review of International Political Economy*, 16 (5): 907-944.
- van Treeck, T. 2012. 'Financialization,' *in*: J. King (ed.), *The Elgar Companion to Post Keynesian Economics*. 2nd ed., Northhampton: Edward Elgar.
- van Treeck, T., Hein, E. & Dünhaupt. P. 2007. Finanzsystem und wirtschaftliche Entwicklung, neuere Tendenzen in den USA und in Deutschland. IMK Studies 5/2007.
- van Treeck, T. & Sturn, S. 2012. Income inequality as a cause of the great recession? A survey of current debates. Conditions of Work and Employment Series 39, International Labor Organisation.
- Wallerstein, I. 1974. 'The rise and future demise of the world capitalist system: concepts for comparative analysis.' *Comparative Studies in Society and History*, 16 (4): 387-415.
- Weisskopf, T. 1992. 'Marxian crisis theory and the contradictions of late twentieth-century capitalism.' *Rethinking Marxism*, 4 (4): 368-391.
- Wolfson, M & Kotz, D. 2010. 'A reconceptualization of social structure of accumulation theory,' in: T. McDonough, M. Reich & D. Kotz, (eds.), Contemporary Capitalism and its Crises - Social Structure of Accumulation Theory for the 21st Century. New York: Cambridge University Press.

Imprint

Editors: Sigrid Betzelt Birgit Mahnkopf

Trevor Evans Christina Teipen Eckhard Hein Achim Truger Hansjörg Herr Markus Wissen

ISSN 1869-6406

Printed by HWR Berlin

Berlin April 2016