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Financialisation and demand and growth regimes - a review of post-Keynesian contributions[*]

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Abstract

We review post-Keynesian assessments of the macroeconomic demand and growth impacts of financialisation. First, we examine the channels of influence of financialisation on distribution and on the different components of private aggregate demand, i.e. investment, consumption and net exports. Since increasing shareholder power and shareholder value orientation of management has been viewed as key to understanding the macroeconomics of finance-dominated capitalism, we start with the effects of financialisation in the context of the post-Keynesian theory of the firm and explain the other channels from there. An important result is the emergence of 'profits without investment' demand and growth regimes, for which we point out the condition based on Kalecki's profit equation. The third section then turns to the post-Keynesian analysis of the different variants of 'profits without investment' demand and growth regimes in finance-dominated capitalism. We review the different levels of analysis, the national income and financial accounting de-composition approach as well as different attempts at identifying growth drivers. We argue that these different levels of analysis are complementary for our understanding of demand and growth regimes under financialisation.

JEL code: E12, E21, E22, E25, E44

Keywords: Financialisation, demand and growth regimes, stagnation, post-Keynesian distribution and growth models

[*] This chapter is a fundamentally revised, updated and extended version of Hein and van Treeck (2010a), our contribution to the first edition of Mark Setterfield's *Handbook of Alternative Theories of Growth*.

1. Introduction

Against the background of technological innovations in information and communication technologies, as well as national and international deregulation and liberalisation of financial markets and institutions since the late 1970s/early 1980s, we have seen a rapid increase in the overall importance of financial factors for distribution, consumption, investment and growth, as well as for international economic relations.[1] These developments and the related consequences and effects have been broadly characterised as 'financialisation', 'finance-dominated capitalism', 'finance-led capitalism', etc., in the political economy and structuralist macroeconomics literatures (Epstein, 2005; Hein 2012, 2014: ch. 10, Palley 2009, 2012, 2013, 2021a, 2021b, Stockhammer 2004, van Treeck 2009a, 2009b). In what follows, we will use these terminologies without distinction.

The post-Keynesian understanding of financialisation is grounded in a historical stages-of-development approach to the analysis of capitalism. In this view, 'finance-led' or 'finance-dominated' growth regimes can be understood as the successor model to the 'Golden Age of Capitalism' or the 'Fordist growth model' of the post-war decades (Hein 2023a, Hein et al. 2015). As such, the post-Keynesian concept of financialisation is a structuralist alternative to the largely ahistorical, orthodox notions of 'financial deregulation' or 'financial liberalization' that had dominated the mainstream economics literature during the decades before the Global Financial Crisis and the Great Recession 2007-9. Post-Keynesian macroeconomic analyses of financialization are closely related to comparative political economy approaches to national growth models in the post-Fordist period (Amable 2003, Boyer 2005, Baccaro and Pontusson 2016, Behringer and van Treeck 2022).[2] This interdisciplinary literature focuses on the 'growth drivers' in a context of sluggish wage increases and depressed business investment, as well as on the relation between financialization, financial crisis, and economic stagnation.

From a post-Keynesian macroeconomic perspective, we have suggested that financialisation affects the macro-economy through the following channels (Hein 2012). Basically, the distribution of income will be affected due to changes in power relations between shareholders, managers and workers, which leads to lower wage shares, higher wage dispersion and increasing household income inequality (Hein 2015, Kohler et al. 2019). These changes in income distribution together with other features of financialisation then affect the different components of aggregate demand, as we analyse in more detail below:

1. Both the objectives and the constraints of firms as a whole are affected and thus their investment in the capital stock. On the one hand, increasing shareholder power will subordinate managements' and workers' preference for (long-run) accumulation to shareholders' preference for (short-term) profitability. On the other hand, increasing dividend payments, share buybacks etc. will restrict the availability of finance for firms' investment projects.

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[1] For reviews, see, e.g., Guttmann (2016), Krippner (2005), Sawyer (2013/14) and van der Zwan (2014).

[2] For reviews, see Hein (2023a), Stockhammer (2022), and Stockhammer and Kohler (2022). See also Stockhammer in this volume.

2. New opportunities (and longer term risks) for households in terms of wealth-based and debt-financed consumption may arise. The reasons for this are financial asset price booms associated with the shareholder value orientation of firms on the one hand, and new credit instruments made available to households by profit-seeking banks on the other. Furthermore, the motives for consumption expenditures may change, depending on the institutional environments.

3. The liberalisation of international capital markets and capital accounts allows for persistent large current account deficits or surpluses at the global but also at regional levels.

While each of these channels through which 'finance' can affect the real economy have been extensively researched in both the mainstream economics and broader social sciences literatures, the post-Keynesian approach to financialisation focuses on the conditions under which economies can generate profits and growth and maintain acceptable levels of employment, when wages are stagnant and investment spending is low, which then generates 'profits without investment' regimes (Cordonnier 2006).

The remainder of the chapter is structured as follows. In the second section, we review the impact of financialisation, including the re-distribution of income, on the different components of private aggregate demand. Since increasing shareholder power and shareholder value orientation of management has been viewed as key to understanding the macroeconomics of finance-dominated capitalism, we start with the effects of financialisation in the context of the post-Keynesian theory of the firm and explain the other channels from there. The third section then turns to the post-Keynesian analysis of demand and growth regimes in finance-dominated capitalism and reviews the different levels of analysis, the national income and financial accounting de-composition approach, the Sraffian supermultiplier demand-led growth accounting approach, as well as different attempts at identifying growth drivers. The fourth section briefly summarises and concludes.

2. The post-Keynesian macroeconomics of financialisation

2.1 Financialisation and the post-Keynesian theory of the firm: 'profits without investment'

In the traditional post-Keynesian theory of the firm, rentiers/shareholders are seen as playing only a minor role in corporate governance. The typical post-Keynesian firm is a large corporation, operating in imperfectly competitive markets (Eichner's (1976) 'megacorp'). The main interest of the management of such firms (Galbraith's (1967) 'technostructure') has traditionally been seen to be the growth of the firm, subject to only loose profitability constraints enforced by shareholders.[3]

In light of the financialisation tendencies, this post-Keynesian theory of the firm has been reconsidered by, e.g., Crotty (1990), Dallery (2009), and Stockhammer (2005-6). They

[3] For a review of the Post-Keynesian theory of the firm, as developed by, amongst others, Galbraith (1967), Eichner (1976), and Wood (1975), see Lavoie (1992, pp. 94-118), who could still argue in 1992 that: 'Whether the owners are still in control or not is irrelevant: those individuals taking decisions within the firm are in search of power; and their behaviour and motivations will reflect that fundamental fact' (Lavoie, 1992, p. 102).

have highlighted the importance of the 'owner-manager conflict' inherent to large corporations. This conflict arises from a 'growth-profit trade-off', implying that shareholder value orientation is likely to be associated with a high preference for short-term profitability and with a low propensity to invest in real capital stock. Due to diversified portfolios, 'stockholders typically have only a fleeting relation with any particular enterprise' (Crotty, 1990, p. 534) and care much more about the current profitability than the long-term expansion and survival of a particular firm.[4] In fact, with financialisation, various mechanisms have been designed to impose restrictions on managements' ability to seek expansion and to change managements' preferences themselves and align them to shareholders' profit maximisation objective.[5] Managements' desire for growth is constrained through, in particular, higher dividend payouts demanded by shareholders, a weaker ability of firms to obtain new equity finance through stock issues (which tend to decrease share prices), a larger dependence on leverage, and an increased threat of hostile takeovers in a liberalised market for corporate control. Simultaneously, financial market-oriented remuneration schemes have been developed to align management preferences to shareholders' objectives. The traditional managerial policy of 'retain and invest' has been replaced by the shareholder-oriented strategy 'downsize and distribute' (Lazonick and O'Sullivan, 2000).

< Figure 1 around here >

Graphically, these developments can be analysed on the basis of Figure 1. The lines given by FF_i reflect different finance constraints faced by the managers of the firm in their investment decision. These finance frontiers indicate the maximum rate of accumulation (g) that firms can finance with a given profit rate (r). Assuming that investment (I) can be financed either by retained earnings or by external finance, the finance frontier can be derived algebraically as follows:

$$(1) \qquad I = s_f\left(\Pi - i_b K_b\right) + x_b I + x_s I\,,$$

with Π as profits, s_f as the share of retained profits in profits net of interest payments (the retention ratio), i_b as the interest rate paid by firms, K_b as firms' outstanding bonds or loans, and x_b and x_s respectively as the proportions of investment financed by bond issues/bank

[4] In the New Institutional Economics literature, the 'owner-manager conflict' is interpreted as a 'principal-agent problem' involving shareholders and managers. In this literature, however, the focus is not primarily on managers' preference for growth and on the related effects on aggregate demand, but on managements' shirking and interest in 'benefits in kind', such as 'physical appointments of the office', the 'attractiveness of the secretarial staff', or 'a larger than optimal computer to play with' (Jensen and Meckling, 1976, p. 312).

[5] OECD (1998, p.17) saw this as a decisive change in the transition from Fordism to neoliberalism: 'Among the manifestations of this lack of control over management were the pursuit of market share and growth at the expense of profitability […]'.

credit and equity issues. Defining the profit rate as r = Π/K, and the leverage ratio as LEV = K_b/K, from equation (1) it follows that:

$$(2) \qquad g = \frac{I}{K} = \frac{s_f\left(r - i_b LEV\right)}{1 - x_b - x_s}.$$

This implies that for a given profit rate (r) managers can finance a higher accumulation rate, the lower the dividend payments and interest obligations and the higher the proportion of externally financed investment that is tolerated by creditors as well as the firm itself under conditions of asymmetric information, considering Kalecki's (1937) 'principle of increasing risk'. Graphically, if creditors and/or firms tolerate a higher proportion of investment financed by external means [$\Delta\left(1 - x_s - x_b\right) < 0$] and/or the leverage ratio, the interest rate or the dividend payout ratio declines ($\Delta s_f > 0$ or $\Delta i_b LEV < 0$), the firm's finance frontier in Figure 1 rotates clockwise and shifts downwards.

The second constraint faced by managers is the expansion frontier (*EF*). It indicates the profit rate that can be realised with a particular growth strategy. The expansion frontier is assumed to be upward sloping for low accumulation rates (due to efficiency gains resulting from the implementation of new production technologies, etc.), and downward sloping for higher rates (due to technical and logistical inefficiencies, etc.) (Lavoie, 1992, pp. 114-116).

In the traditional post-Keynesian analysis of the firm, the accumulation decision is determined by the point of intersection of the finance frontier and the expansion frontier (Lavoie 1992, p. 117). In this view, firms are interested in the profit rate only insofar as a higher profit rate eases the finance constraint and hence allows for faster expansion. As suggested by Lavoie (1992, p. 106): 'Put briefly, growth is the objective, and profits are the means to realize this objective.' In contrast, with financialisation the desired accumulation rate, given by preferences, is below the maximum rate, given by the finance constraint: 'profits are no longer a means to an end, but they become an end in itself' (Dallery, 2009, p. 495). Therefore, Figure 1 is completed by a set of indifference curves, U_i, reflecting different preferences of managers faced with the growth-profitability trade-off in the downward-sloping segment of the expansion frontier (see also Dallery, 2009; Stockhammer, 2005-6).[6] With higher shareholder value orientation, one may expect two things to happen:

1. Shareholders impose a higher distribution of profits by firms: $\Delta s_f < 0$ (higher dividend payout ratio and hence lower retention ratio) and $\Delta x_s < 0$ (lower contribution of new equity issues to the financing of investment or share buybacks).
2. Managers' (firms') preference for growth is weakened as a result of remuneration schemes based on short-term profitability and financial market results.

The first effect will imply a counter-clockwise rotation and an upward shift of the finance frontier in Figure 1. These movements may even be more pronounced in the longer run, because

[6] One may also interpret the indifference curves as reflecting the preferences of the firm as a whole, determined by a compromise between shareholders and managers.

the leverage ratio may increase as a result of lower profit retention and lower equity issues. This, however, can be expected to further reduce firms' ability to secure external means of finance. The second effect means a flattening of the indifference curve in Figure 1.

Starting from a situation (point A) in which shareholders' influence on the firm's preferences is very weak (U_0) and the firm's accumulation decisions are restricted only by a relatively loose finance constraint (FF_0), the effects of increasing shareholder value orientation can be interpreted as follows. The new accumulation decision will be determined either by the new preferences alone (U_2 with FF_0 or FF_1 (point C) or U_1 with FF_0 (point B)), or by the new finance constraint alone (U_0 with FF_1 (point B) or U_0 or U_1 with FF_2 (point C)), or by preferences fully compatible with constraints (U_1 with FF_1 (point B) or U_2 with FF_2 (point C)). Note that when the finance constraint remains binding (e.g., U_1 with FF_2), shareholders are not able to impose their preferred investment strategy as a result of a shareholder-creditor conflict, with banks refusing to provide the required amount of credit necessary to realise shareholders' claims in terms of both profit distribution and investment policy.

Davis (2017) has surveyed empirical evidence on the financialisation of non-financial corporations and its effects on corporate investment decisions. Firstly, she finds that the literature has highlighted that financial assets and incomes crowd out real investment. Secondly, the growth of payments by non-financial corporations to creditors and shareholders in the form of interest and dividend payments appears to be negatively related to investment expenditures. Thirdly, different proxies have been used to document that shareholder value orientation of firms depresses business investment.

Empirical research on corporate investment behaviour under financialization is, however, complicated by the fact that financialization occurred simultaneously to the 'de-nationalization' in production, so that domestic investment as measured by the national accounts may underestimate the investment activity of firms located in any given country (Fiebiger, 2016). Similarly, the rise of intangibles and the decrease of relative prices of investment compared to other components of GDP may lead to a further downward bias in the measurement of investment. However, the comparatively sophisticated analysis of private fixed investment in the United States since 1980 by Gutierrez and Philippon (2017) supports the hypothesis of negative effects of financialisation on investment in the capital stock. The study uses aggregate, industry-level and firm-level data (the latter including overseas investments) to explain why investment has fallen relative to what the conventional q-theory would predict. It finds that decreased competition and tightened corporate governance or increased short-termism can explain about two thirds of the drop in investment, while the rise of intangibles explains only one third.

2.2 The macroeconomics of 'profits without investment': Kalecki's profit equation and financialisation

Even although individual firms may seek, under conditions of financialization, to raise profitability at the expense of accumulation, this may not be possible to achieve for all firms at the same time. As recognized by the Kaldor-Robinson and Kalecki-Steindl traditions in the post-

Keynesian distribution and growth theory, there is a two-sided relationship between investment and profits (Hein 2014, Chapters 4-6, Setterfield in this volume). With financialisation, the positive relationship between profits and investment may be weakened, as shown above. Nevertheless, investment and profits are still positively related at the macroeconomic level, as investment is a source of aggregate demand and hence total income, of which profit is a part. We may thus observe micro-macro fallacies of composition, as shown by Hein and van Treeck (2010b) in simple Kaleckian distribution and growth models. A 'paradox of profits' may arise, in which firms attempt an increase of the profit rate at the firm level but generate a lower profit rate at the macroeconomic level, or a 'paradox of accumulation', in which firms constrain accumulation at the firm level but generate a higher rate of accumulation and growth at the macroeconomic level. The reason for these paradoxes is that while for the individual firm the expansion frontier is given, it varies for the firm sector as a whole due to the macroeconomic feedbacks of financialisation and shareholder dominance via the different components of aggregate demand.

Without making use of complex models, the conditions for 'profits without investment' regimes at the macroeconomic level can simply be clarified by using Kalecki's (1954, Chapter 3) profit equation derived from national income accounting (Cordonnier, 2006). The expenditure side of the gross domestic product (GDP) is defined as:

$$Y = C_W + C_P + I + G + (X - M), \tag{3}$$

where C_W is consumption from wages, C_P is consumption from capital income, I is private investment, G is government final demand, and $(X - M)$ is net exports. The national income equation can be written as:

$$Y = W^{net} + \Pi^{net} + T, \tag{4}$$

where W^{net}, Π^{net} and T are after-tax wages, after-tax profits and government tax income, respectively. If, for simplicity, we abstract from international income flows (i.e., net exports = current account balance), total output (equation 3) and national income (equation 4) are equivalent so that:

$$\Pi^{net} = C_P + I + (C_W - W^{net}) + (G - T) + (X - M). \tag{5}$$

Dividing by the capital stock and rearranging we obtain:

$$r - g = \frac{C_P}{K} - \frac{S_W}{K} + \frac{G-T}{K} + \frac{X-M}{K}. \tag{6}$$

The net rate of profit ($r = \Pi^{net}/K$) to increase relative to the accumulation and growth rate ($g = I/K$) at the macroeconomic level requires either a rise in consumption from capital income (C_P), or a reduction of saving from wage income ($S_W = W^{net} - C_W$), or a rise in the government deficit ($G - T$), or a rise in net exports ($X - M$), all relative to the capital stock.

To the extent that financialisation tends to lead to a higher profit share and a more unequal personal income distribution, it may be expected that private consumption demand will be negatively affected by the redistributive effects of financialisation (Hein 2012, Chapter 2, 2015). The main reason for this redistribution have been the falling bargaining power of trade unions, rising profit claims imposed in particular by increasingly powerful rentiers/shareholders, stock-market oriented remuneration schemes for top management, and a change in the sectoral composition of the economy in favour of the financial corporate sector at the expense of the non-financial corporate sector or the public sector with higher labour income shares.

However, the negative re-distribution effect on consumption may be (over-) compensated in various ways. There are several reasons to expect that consumption out of profits may increase, and the propensity to save out of wages may fall and even become negative, at least temporarily. First, consumption out of profits will increase to the extent that companies distribute a higher share of their profits to shareholders through dividends and share buybacks. Hence, a decoupling of profitability from accumulation on the macroeconomic level can be analyzed in simple models of distribution, accumulation and finance (Lavoie 1995; Cordonnier 2006, Hein 2007, 2010). Second, as included in models with consumption out of wealth, an increase in financial wealth may increase capitalists' consumption spending (Lavoie 2008, van Treeck, 2009a; Stockhammer and Wildauer, 2016). Third, increasing personal income inequality may further lower the saving rates of both capitalist and worker households if households in lower income brackets are reluctant to lower absolute consumption in the face of declining real incomes ('ratchet effect'), and/or emulate the consumption norms set by households above them in the income distribution ladder ('keeping up with the Joneses'). Increasingly, post-Keynesian macroeconomic models have integrated such concepts as Veblen's (1899) 'conspicuous consumption', Duesenberry's (1949) 'relative income hypothesis' and the 'expenditure cascades' proposed by Frank et al. (2014) (see van Treeck, 2014, for a survey). Of course, financialisation facilitates consumption emulation if it implies easier access to credit even to lower income workers and by creating a 'debt culture', i.e., an increased willingness of ordinary households to go into debt. Different types of post-Keynesian macroeconomic models have included interdependent consumption and financing norms and have analysed the possible implications for 'profits without investment' regimes as well as the associated long-run financial (in)stability (Belabed et al. 2018, Detzer 2018, Kapeller and Schütz 2014, 2015, Prante et al. 2022, Setterfield and Kim 2017, and Setterfield et al. 2016).

There is no consensus in empirical research regarding the relative importance of the above-mentioned mechanisms for the more or less sharp decline in private household saving rates in many countries. This decline was stronger in the Anglo-Saxon countries, where debt-financed consumption tended to emerge and dominate in the era of financialization, than in the continental European countries. In the United States, the saving rates of poorer households have fallen significantly by more than those of wealthier households, but even upper middle class households have lowered their saving rates significantly before the financial crisis starting in 2007 (Saez and Zucman, 2016). This has contributed to higher profits, but also to the persistently large current account deficit in the United States.

Government deficits and export surpluses are further channels through which high profit rates can be maintained despite low accumulation rates in terms of equations (5) and (6). Again, different countries displayed different trends in sectoral financial balances during the era of financialization, resulting in different 'growth regimes'. Especially in cases where macroeconomic profits derive from either the debt-financed consumption of low-income worker households or a large export surplus (implying rising indebtedness for international trading partners), a rising r-g-differential can be indicative of increased macroeconomic instability (van Treeck, 2015). Based on the macroeconomic channels of influence of financialisation presented in this section, we will turn to the post-Keynesian assessment of demand and growth regimes in finance-dominated capitalism in the next section.

3. Financialisation and 'profits without investment' demand and growth regimes[7]

3.1 The national income and financial accounting decomposition approach: sources and financing of demand and growth as regime determinants

A first attempt at classifying demand and growth regimes under the conditions of the dominance of finance, income re-distribution at the expense of labour and low income households, and weak investment in the capital stock, which gives rise to profits without investment regimes, is a national income and financial accounting decomposition approach, initially introduced by Hein (2011a, 2011b). This approach looks at the sources of demand and at the way demand is financed and it has then been used in several studies with slightly differing labelling of regimes for the period before the Global Financial Crisis and the Great Recession (2007-9).[8] In these studies, the following regimes have been distinguished: (1) an export-led mercantilist (ELM) regime, (2) a weakly export-led (WEL) regime, (3) a domestic demand-led (DDL) regime, and (4) a debt-led private demand (boom) (DLPD) regime. Empirically, these demand and growth regimes have been assessed by considering, first, the financial balances of the main macroeconomic sectors, which have to sum up to zero:

$$(7) \qquad \mathrm{FB_P} + \mathrm{FB_G} + \mathrm{FB_E} = 0,$$

with $\mathrm{FB_P} = \mathrm{S} - \mathrm{I}$ as the private sector financial balance given by the difference between private saving (S) and private investment (I), $\mathrm{FB_G} = \mathrm{T} - \mathrm{G}$ as the government sector financial balance given by the difference between tax revenues and social security contributions (T) and government expenditures (G), and the external sector financial balance $\mathrm{FB_E} = -\mathrm{CAB}$, the negative current account balances (CAB) of the domestic economy. Second, the growth contributions of the main demand components, private consumption (C), public consumption

[7] This section draws on Hein's (2023a) review of post-Keynesian contributions to demand and growth regime analysis. Here, we only focus on those contributions, which directly link these regimes with issues of financialisation.

[8] See also Hein (2012, Chapters 6 and 8, 2013/14) and Hein et al. (2012).

(G), and private and public investment (I), which sum up to the growth contribution of domestic demand, and of net exports (NX = X - M) are considered:

$$(8) \qquad \hat{Y}_t = \frac{\Delta Y_t}{Y_{t-1}} = \frac{\Delta C_t}{Y_{t-1}} + \frac{\Delta G_t}{Y_{t-1}} + \frac{\Delta I_t}{Y_{t-1}} + \frac{\Delta NX_t}{Y_{t-1}} .$$

Applying these two sets of indicators provides some information on the main sources of demand and growth, on how demand is financed, and countries can be allocated to the regimes applying the criteria summarised in Table 1.

< Table 1 around here >

Some recent studies have examined the shift of regimes from the period before the Global Financial Crisis and the Great Recession to the period after these crises for developed capitalist economies:[9] Most ELM countries before the 2007-09 crises have maintained this regime or have become WEL in the course of and after the crises, and most WEL regimes before the crises kept this regime or even became ELM. Several DDL regimes before the crises moved towards WEL or even ELM regimes after the crises, with a few exceptions. Finally, DLPD countries before the crisis either shifted to WEL or even ELM regimes after the crisis. Alternatively, they turned towards DDL regimes stabilised by high government deficits. This polarisation of post-crisis regimes in the developed OECD countries, with ELM or WEL regimes, on the one hand, and DDL regimes stabilised by government deficits, on the other hand, has been accompanied by a tendency of major emerging capitalist economies to remain DDL or even move towards DLPD regimes (Akcay et al. 2022).

The national income and financial accounting decomposition approach has provided several important insights for demand and growth regime research. First, it allows for the analysis of the structure of demand dynamics behind output dynamics (or the lack thereof) and to discover related imbalances, both nationally within countries and internationally between countries. Second, it has an eye on financial balances and thus on related debt dynamics, which may not be sustainable and lead to financial crisis, as in 2007-09. Third, taking these two dimensions together, global or regional imbalances and the related instability potentials are put into focus. Fourth, the demand and growth regime approach based on the decomposition of national income and financial accounting has been used to link finance-dominated capitalism with the post-crises stagnation tendencies, pointing out that each of the pre- and

[9] See Dodig et al. (2016), Hein (2019), Dünhaupt and Hein (2019), Hein et al. (2021), and Hein and Martschin (2020). For an overview table, see Akcay et al. (2022) and Hein (2023b, Chapter 8). Prante et al. (2022) have modelled these regime shifts in a two country SFC model, and Hein et al. (2023) have made use of that model to discuss economic policies leading to an alternative demand and growth regime, a progressive equality-, sustainability-and domestic demand-led regime.

post-crises regimes in the developed capitalist economies have been 'profits without investment' regimes with weak capital stock growth and productivity growth – and thus low potential growth (Hein 2019, 2022).

3.2 Focussing on demand and growth drivers

At a more concrete level post-Keynesian contributions have explicitly focussed on economic, social and political drivers of demand and growth. Different lenses have been applied in this context.

3.2.1 The type of redistribution and the presence/absence of relative income concerns for consumption determine the regime

Behringer and van Treeck (2018, 2019, 2022) have extended the traditional Varieties of Capitalism approach (Hall and Soskice 2001) in order to explain debt-led consumption-driven and export-driven regimes, with a focus on the period before the 2007-09 crises. In their view, it is the type of redistribution, rooted in the institutional structure of an economy, which then determines the demand and growth regime. Coordinated market economies (CME), with Germany as a typical example, are characterized by organised labour markets, relatively strong trade unions, more regulated bank-based financial systems with tighter creditworthiness standards and an important role of public provision of positional goods (education, health, housing). These economies have seen a considerable fall in the wage share in the context of wage moderation, but only small increases in household income inequality and only slight increases in top income shares. They have generated export-led regimes with current account surpluses, with profits without investment features. Liberal market economies (LME), with the USA as a typical example, are characterized by flexible labour markets and weak trade unions, more deregulated market-based financial systems with loose creditworthiness standards and little relevance of public provision of positional goods. These economies have seen considerable increases in top income shares, and a more stable functional income distribution, because high management salaries enter the wage share. They have generated current account deficits and the dominance of a debt-financed consumption-led regime. The latter is explained by the dominance of relative rather than absolute income concerns for the determination of households' consumption expenditures, i.e. 'expenditure cascades' (Frank et al. 2014) in the middle and upper-middle income class. They thus generate profits without investment regimes, driven by debt-financed consumption expenditures.

3.2.2 Regime shifts and growth drivers

The authors making use of the national income and financial accounting decomposition approach have usually embedded this approach into the consideration of growth drivers, too, by looking at income distribution, housing and financial asset prices, private households' debt-income ratios, international competitiveness indicators, etc.. This is also true for those studies concerned with the regime shifts in the course of and after the 2007-09 crises. Hein (2019), Hein and Martschin (2020) and Hein et al. (2021) have argued that the type of shift of the previously DLPD economies has depended, on the one hand, on the requirements of private

sector deleveraging after the financial crisis, and, on the other hand, on the ability and willingness to run deficit-financed and stabilising fiscal policies. Hein et al. (2021) have also related these shifts of macroeconomic regimes to the welfare models approach based on Esping-Andersen (1990) and Hay and Wincott (2012).

Kohler and Stockhammer (2022) have provided a systematic cross-country empirical analysis of the underlying growth drivers before and after the 2007-09 crises in 30 OECD countries. To explain the emergence of the post-crises patterns, they consider the requirements of deleveraging in the context of a financial boom-bust cycle, the role of fiscal policies and the relevance of price and non-price competitiveness for exports. Generalising the claims being made in Hein (2019), Hein and Martschin (2020), and Hein et al. (2021), they find that the former two drivers have had a major role to play, i.e. the need for deleveraging generated by high private debt and the (lack of) expansionary deficit-financed fiscal policies. They also find that differences and changes in international price competitiveness are not systematically related to growth performance. Since the authors assume that the regime distinction in the national income and financial accounting decomposition approach is referring to growth drivers, they abandon this regime distinction, which had been developed for the pre-crisis period. They rather focus on the distinction of the different growth drivers for the clustering of countries in the post-crises period.

Jungmann (2023) has extended and applied the growth driver approach by Kohler and Stockhammer (2022) to a set of 19 emerging capitalist economies, including indicators for income distribution, FDI as well as commodity price dynamics as further determinants of GDP growth. Non-price competitiveness is found to have been a significant driver. Furthermore, private debt and expansionary fiscal policy has become more important for growth after the 2007-09 crises in these countries. This seems to be in line with the findings of Akcay et al. (2022) regarding the different pattern of regime changes of emerging capitalist economies as compared to advanced capitalist economies referred to in Section 3.1.

3.2.3 Macroeconomic policy regimes and demand and growth regimes

Hein and Martschin (2021) have focussed on macroeconomic policies as growth drivers and have kept the typology for macroeconomic regimes in finance-dominated capitalism, based on the national income and financial accounting decomposition approach. In an attempt at understanding the role of macroeconomic policies for regime shifts of the big four Eurozone countries, Germany, France, Italy and Spain, and extending the policy dimension of the research by Kohler and Stockhammer (2022), they have linked this approach with the post-Keynesian notion of macroeconomic policy regimes developed and applied in the early 2000s (Hein and Truger 2005, 2009, Herr and Kazandziska 2011).

The concept of a ‘macroeconomic policy regime’ describes the set of monetary, fiscal, and wage or income policies, as well as their coordination and interaction, against the institutional background of a specific economy, including the degree of openness and the exchange rate regime. This concept supposes that macroeconomic policies and aggregate demand have not only short-run effects on economic performance, as in orthodox new consensus macroe-

conomics, but also have a long-run impact on output, income, employment, inflation, distribution and growth. The post-Keynesian macroeconomic policy mix proposed by Hein (2023b, Chapter 6) and Hein and Stockhammer (2010) is used as a benchmark supporting a stable DDL regime, whereas deviations from this benchmark contribute to moving to the long-run unstable DLPD or ELM regimes with detrimental long-run effects on macroeconomic performance.

For assessing the effect of monetary policies of the central bank, the focus is on the relationship between long-term real interest rates and real GDP growth, assuming that a long-term rate of interest lower than GDP growth should support growth. Wage policies conducive to a stable DDL regime would have to stabilise the inflation rate, as well as functional income distribution. Therefore, it is examined whether unit labour costs in the four countries under review have grown at the ECB target rate of inflation for the Eurozone as a whole. Furthermore, also changes in functional income distribution, i.e. in the labour income share, are considered. For the assessment of the effects of wage policies via functional income distribution, the type of distribution-led demand and growth regime is taken into account, which has been estimated to be wage-led for the four countries (Onaran and Obst 2016). For fiscal policy, which should stabilise aggregate demand at non-inflationary full employment in a stable DDL regime, Hein and Martschin (2021) use the changes of the cyclically adjusted budget balance-potential GDP ratio of the government and relate this to the change in the output gap to assess the short-run discretionary responsiveness of fiscal policies. Furthermore, the share of public investment in GDP as an indicator for the growth orientation of fiscal policies is considered. Finally, Hein and Martschin (2021) also consider the open economy conditions, since they have an impact on the effectiveness of domestic macroeconomic policies and also directly affect the demand and growth regime via the price and non-price competitiveness of exports and imports. They look at the degree of openness measured by export and import shares of GDP, the development of price competitiveness, measured by real effective exchange rates, as well as an economic complexity index as indicator for non-price competitiveness.

Applying these indicators, Hein and Martschin (2021) have shown how the macroeconomic policy regimes in the four Eurozone countries, Germany, France, Italy and Spain, have contributed to the respective demand and growth regimes before and after the 2007-09 crises. Ianni (2024) has provided a similar analysis for Argentina, Klassen (2024) for Canada, and Kühnast (2024) for Hungary and Poland.

3.3 Links between the different levels of PK comparative demand and growth regime analysis

The two levels of analysis presented in this section, the national income and financial accounting decomposition approaches and the different lenses of looking at growth drivers, are in principle not mutually exclusive or even contradictive, but rather complement each other. On the one hand, the national income and financial accounting decomposition approach as such does not include an analysis of growth drivers and can thus be linked with the different types of growth driver lenses. On the other hand, growth driver analyses should be based on the more basic national income and financial accounting decomposition approaches to avoid unnecessary accounting inconsistencies and misunderstandings.

4. Summary and conclusions

In this contribution, we have reviewed post-Keynesian assessments of the macroeconomic demand and growth impacts of financialisation. In the second section, we have looked at the channels of influence of financialisation on distribution and on the different components of private aggregate demand, i.e. investment, consumption and net exports. Since increasing shareholder power and shareholder value orientation of management has been viewed as key to understanding the demand and growth effects of finance-dominated capitalism, we have started with the effects of financialisation in the context of the post-Keynesian theory of the firm and we have explained the other channels from there. An important result has been the emergence of 'profits without investment' demand and growth regimes, for which we have pointed out the condition based on Kalecki's profit equation. The third section has then turned to the post-Keynesian analysis of the different variants of 'profits without investment' demand and growth regimes in finance-dominated capitalism. We have reviewed the different levels of analysis, the national income and financial accounting de-composition approach, as well as different attempts at identifying growth drivers and their respective changes in the course of the Global Financial Crisis and the Great Recession. We have concluded that these different levels of analysis are complementary, rather than mutually exclusive, for our understanding of demand and growth regimes under financialisation.

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Figure 1: Shareholder value orientation and investment decisions at the firm level

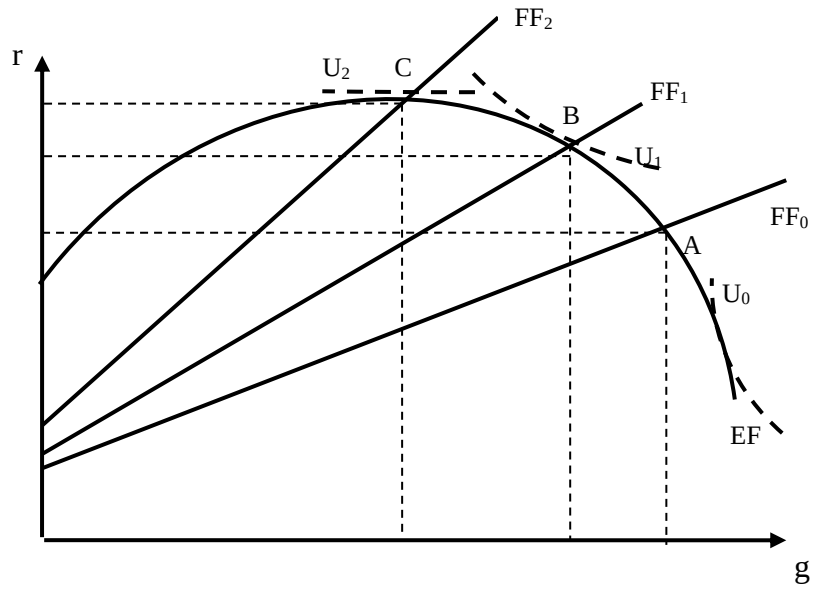

Table 1: Classification of demand-led growth regimes according to sources and financing of demand components	
Export-led mercantilist (ELM)	• positive financial balances of the private sector, and the private household sector • negative financial balances of the external sector • positive balance of goods and services • positive growth contributions of net exports
Weakly export-led (WEL)	Either • positive financial balances of the private sector • negative financial balances of the external sector • positive balance of goods and services • negative growth contributions of net exports Or • negative but improving financial balances of domestic sectors • positive but declining financial balances of external sector • negative but improving net exports • positive growth contributions of net exports
Domestic demand-led (DDL)	• Positive financial balances of the private household sector and positive or balanced financial balances of the private sector as a whole • balanced or positive financial balances of the external sector • growth is almost exclusively driven by domestic demand • around zero growth contribution of net exports
Debt-led private demand boom (DLPD)	• negative or close to balance financial balances of the private sector • positive financial balances of the external sector • significant growth contributions of domestic demand, and private consumption demand in particular • negative growth contributions of net exports
Source: Based on Dünhaupt and Hein (2019, p. 458).	

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