



Institut für Makroökonomie  
und Konjunkturforschung  
Macroeconomic Policy Institute

# Working Paper

01/2008

Till van Treeck

## The political economy debate on 'financialisation' – a macroeconomic perspective

Hans-Böckler-Straße 39  
D-40476 Düsseldorf  
Germany  
Phone: +49-211-7778-331  
IMK@boeckler.de  
<http://www.imk-boeckler.de>

**Hans Böckler  
Stiftung** 

Fakten für eine faire Arbeitswelt.

## The political economy debate on ‘financialisation’ – a macroeconomic perspective

Till van Treeck\*

Macroeconomic Policy Institute (IMK) in the Hans Boeckler Foundation

### Abstract

A number of important contributions to the political economy literature have argued that changes in the financial sector have been amongst the main reflections, or even the driving forces, of recent transformations of capitalism in the rich countries. This hypothesis has been referred to as ‘financialisation’. We argue in this article that the interdisciplinary literature could be enriched if the macroeconomic dimension of financialisation was more explicitly taken into account. In particular, important macroeconomic constraints regarding the determination of profits, in the face of a decreasing importance of physical investment and an increased importance of financial operations, are often not explicitly considered. We compare our macroeconomic approach with contributions from different strands in the existing literature, including empirical analyses of new patterns of profit generation, the ‘varieties of capitalism’ approach, the British ‘social accounting’ literature, and the French ‘regulationist’ literature. Our theoretical framework is illustrated by means of an empirical comparison of the effects of financialisation in the USA and in Germany.

Key Words: Financialisation, political economy, varieties of capitalism, social accounting, regulationism.

JEL classifications: P16 G10 G30 E 21

---

\* IMK in the Hans Boeckler Foundation, Hans-Boeckler-Strasse 39, 40476 Duesseldorf, Germany. Email: Till-van-Treeck@boeckler.de. I am grateful to Eckhard Hein, Enrico Reuter and Engelbert Stockhammer for very helpful comments on earlier drafts of this paper. Of course, all errors and inaccuracies are mine. Financial support of the Hans Boeckler Foundation is gratefully acknowledged.

## 1. Introduction

A number of important contributions to the political economy literature have argued that changes in the financial sector have been amongst the main reflections, or even the driving forces, of recent transformations of capitalism in the rich countries. This hypothesis is often referred to as ‘financialisation’, although not all contributions use this term explicitly. We argue in this article that the emerging interdisciplinary research programme on financialisation<sup>1</sup> could be enriched if the macroeconomic dimension of financialisation, particularly in terms of the generation of profits, was more explicitly taken into account. We therefore compare our macroeconomic approach with important strands in the existing literature, including empirical analyses of new patterns of profit generation, the ‘varieties of capitalism’ approach, the British ‘social accounting’ literature, and the French ‘regulationist’ literature.

A remarkable macroeconomic phenomenon that has been recognised by various political economists is that profit rates have developed very favourably in many advanced economies over the past 20 or 30 years, while physical investment dynamics have tended to slow down (e.g. Krippner, 2005: 174; Duménil and Lévy, 2003, 2005; Höpner, 2003: 306, 2005: 346; Stockhammer, 2007; Boltanski and Chiapello, 2005: xxxvii). One popular explanation of this macroeconomic phenomenon is that increased shareholder value orientation, as an important constituent of financialisation, has induced firms to develop a larger preference for profitability at the expense of investment (and potentially jobs and growth). Indeed, such a conclusion appears logical from the point of view of a firm-centred political economy where firms are seen as ‘the key agents of adjustment ... whose activities aggregate into overall levels of economic performance’ (Hall and Soskice, 2001b: 6). Similarly, the observation that financial profits have increased relative to non-financial profits has led many authors to conclude that there has been some sort of ‘decoupling’ of the financial sphere of the economy from the real sphere in the sense that, with financialisation, ‘profits accrue primarily through financial channels rather than through trade and commodity production’ (Krippner, 2005: 174). Apparently, many firms have decided to abandon the real sector and ‘moved into financial operations to increase profits’ (Epstein, 2005: 7; see also Krippner, 2005; Crotty, 2005; Boltanski and Chiapello, 2005: 367).

In this article, we attempt to clarify some of the hypotheses sketched above from a macroeconomic perspective. In particular, we recall that macroeconomic profits must always be based on real income flows and that there is a positive, not a negative, relationship between

---

<sup>1</sup> An International Working Group on Financialization (IWGF) has recently been set up ‘to establish ... dialogue between researchers in different disciplines ... who ... had shared interests in financialization and could learn from each other.’ (<http://www.iwgf.org>).

profits and physical investment at the macroeconomic level. Hence, when firms in the aggregate reduce investment (the accumulation rate), perhaps as a result of shareholder value orientation, an increase in profits (the profit rate) is only possible if some other component of aggregate demand more than compensates for the decrease in investment (the accumulation rate). More precisely, macroeconomic profits are by definition equal to the sum of investment spending, consumption expenditure out of profits, the government deficit and the external surplus, less saving out of wage income (Kalecki, 1942; Cordonnier, 2006).

More generally, we also try to show how a systematic integration of (Post Keynesian) macroeconomic theory may fruitfully complement particular strands in the political economy literature on financialisation. For instance, we agree on the usefulness of the concept of ‘complementarity’, which is central to the varieties of capitalism approach.<sup>2</sup> In this literature, however, complementarity is understood mainly in terms of financial market and labour market institutions affecting individual firm behaviour. In our view, in order to obtain a coherent explanation of macroeconomic phenomena, it would be helpful to apply the complementarity concept (more systematically) to all social norms, cultural and ideological aspects and political power relations which affect private investment decisions, personal consumption behaviour, government policies, and international economic relations.

Our approach is in several respects similar to the structural analyses of financialisation in the British social accounting and the French regulationist literatures.<sup>3</sup> For instance, Froud et al. (2002: 140, 1) also remark a tendency among political economists to infer overall economic outcomes from the analysis of firm behaviour alone: ‘Political economists who understand that the behaviour of corporate managers matters, may still need to be persuaded about how the behaviour of individuals in households is equally important. .... This is an important institution, neglected since the decline of Keynesian macro economics and now mainly discussed by communitarians and the radical right.’ Nevertheless, the social accounting literature on financialisation seems to lack a coherent formulation of macroeconomic circuit relations, as becomes apparent e.g. in the otherwise seminal analysis of ‘coupon pool capitalism’ by Froud et al. (2002). On the other hand, regulationist models of ‘finance-led’ or ‘wealth-based’ growth appear to neglect potential macroeconomic instabilities linked to financialisation, that have, however, been highlighted in the Post Keynesian literature.

---

<sup>2</sup> The varieties of capitalism approach builds in particular on the seminal book edited by Hall and Soskice (2001a). For an overview, see Hall and Soskice (2001b). An important empirical analysis of institutional complementarity is Hall and Gingerich (2004). For a theoretical assessment of the complementarity concept, see Höpner (2005), Amable et al. (2005), Crouch et al. (2005).

<sup>3</sup> On the social accounting literature on financialisation, see Erturk et al. (2004, 2005, 2007), and Froud et al. (2000, 2002, 2007). On the regulationist literature on financialisation, see in particular Boyer (2000) and Aglietta (2000), Aglietta and Breton (2001), Aglietta (1999).

The article proceeds as follows. In the next section, we review ‘firm-centred’ political economy approaches to financialisation. These are grouped into two distinct strands: the first consists of primarily empirical analyses of structural change mainly in the US economy with a particular interest in the process of profit generation by firms in different sectors of the economy.<sup>4</sup> The second includes contributions heading under the labels varieties of capitalism and institutional complementarity. In the third section, we first briefly discuss formally why the process of profit generation and individual firm performance cannot be accurately understood without the notion of important macroeconomic constraints. Against this background, we then review existing structuralist accounts of financialisation, in particular the concept of ‘coupon pool capitalism’ developed by British social accountants, and the regulationist approach. We also briefly compare these literatures with existing macroeconomic models of financialisation. Our review of the literature is necessarily selective and incomplete, but we hope to grasp the essential conclusions from the respective approaches. In the fourth section, we develop our own macroeconomic perspective. Our theoretical considerations are illustrated empirically by means of a comparison of the political economy of financialisation in the USA and in Germany. This allows us to show that the ‘decoupling’ of profits and physical investment, observable in both countries, is compatible with very different social and macroeconomic environments, centred around a wealth- and debt-based consumption boom in the US on the one hand, and an increasing orientation towards foreign goods and financial markets in Germany on the other. We conclude that, despite an apparent ‘convergence’ to the Anglo-Saxon model in terms of financial and labour market institutions and corporate strategies, the macroeconomic effects of financialisation in Germany have been, and will arguably continue to be, very different from the US experience. We also assess the usefulness of the concept of ‘coupon pool capitalism’ for the US and German economies and discuss the macroeconomic instabilities involved with financialisation in both countries. In the concluding section, we summarise our results and identify potentially promising directions of future interdisciplinary research on financialisation.

## **2. Firm-centred analyses of financialisation in the political economy literature**

### **2.1 Profit generation, real and financial investment and structural change**

There is a range of recent and innovative work exploring how financialisation is linked to new patterns of production and profit generation. We refer here mainly to a number of widely

---

<sup>4</sup> One widely quoted contribution to this literature is Krippner (2005), who, in turn, draws on earlier work by e.g. Arrighi (1994), Magdoff and Sweezy (1987), Fligstein (2001). Further contributions with a similar focus can be found in the collected volume on financialisation by Epstein (2005), e.g. Epstein and Jayadev (2005), Duménil and Lévy (2005), and Crotty (2005).

quoted contributions by US economists and sociologists<sup>5</sup>, which have the primarily descriptive, and very important, objective to establish stylised facts supporting the hypothesis of financialisation in the US. However, many of these analyses are, at least implicitly, grounded in a firm-centred view of financialisation, potentially hiding the underlying macroeconomic mechanisms.

As mentioned in the introduction, one phenomenon that is usually ascribed to financialisation is that physical accumulation has generally been declining since the early 1980s, while at the same time corporate profit rates have developed very positively. Clearly, from the point of view of one firm, there may be a trade-off between profits and investment: (short-term) demand can be seen as exogenously given, so that reducing the costs of investment mechanically increases profits, given by the difference of receipts and costs. Besides, very fast expansion may be linked to inefficiencies in the production process (Penrose, 1959). Conversely, from the point of view of the aggregate business sector, investment expenditure constitutes not only costs, but also an important part of total demand so that, *ceteris paribus*, profits are *positively* related to investment.

Therefore, it is unclear, for example, what Krippner (2005: 174), in a frequently quoted article, means when she defines ‘financialisation as a pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity production (see Arrighi, 1994).’ Here, Krippner (2005: 182) follows ‘a number of researchers (who) suggest that the origins of the current turn to finance can be found in the crisis of profitability that beset US firms in the 1970s. ... nonfinancial firms responded to falling returns on investment by withdrawing capital from production and diverting it to financial markets.’

According to Crotty (2005: 104) (for similar conclusions, see Epstein, 2005: 7 and Epstein and Jayadev, 2005: 64),

(m)any NFCs (non-financial corporations) responded ... to the high returns they observed being made on financial assets and financial enterprises, in two innovative ways. First, an increasing per cent of NFC investment funds were used to acquire financial assets. Second, firms created or bought financial subsidiaries, and expanded those financial subsidiaries already in existence. These widely noted developments are sometimes referred to as the ‘financialization’ of the NFC in the neoliberal era.

It is undoubtedly true that many profits are nowadays linked to financial activities. Yet, given the macroeconomic definition of profits provided in the introduction and to be developed more rigorously in section 3.1 below, aggregate profits ultimately rely on the production

---

<sup>5</sup> See the previous footnote. In his introduction, Epstein (2005: 3) refers to Krippner’s (2004) ‘excellent discussion of the history of the term (financialisation) and the pros and cons of various definitions’ and to Krippner’s own definition of financialisation, which we take as largely representative of this strand of the literature (see below).

and trade of real goods and services and firms in the aggregate can by no means autonomously choose either between real investment (production) and profits at large or even between non-financial and financial profits. Thus, it is in our view at least semantically, if not conceptually, problematic to consider ‘the financial sector as a source of profits for the economy’ (Krippner, 2005: 182).

## **2.2 Varieties of capitalism, institutional complementarity and financialisation**

The varieties of capitalism approach is ‘a firm-centered political economy that regards companies as the crucial actors in a capitalist economy’ (Hall and Soskice, 2001b: 6). Hence, it is argued, the main differences between developed economies are accounted for by the organisation of firms. Within the firm, particular attention is paid to financial and labour relations: ‘Corporate governance and labour relations (are) the two most important spheres of the economy.’ (Hall and Gingerich, 2004: 17) Moreover, it is argued that there is institutional complementarity between the two areas so that there are different internally coherent and efficient variants of capitalism. For example, when financial markets are ‘fluid’, labour markets typically are (and should be) deregulated as well. When labour markets are highly coordinated, financial markets typically are (and should be) highly regulated as well. Accordingly, ‘liberal market economies’ (LMEs) can be distinguished from ‘coordinated market economies’ (CMEs) (Hall and Soskice, 2001b; Aoki, 1994):

The logic is that firms that do not have to sustain current profitability in the face of a fluctuating economy are better placed to make credible commitments to their employees about wages and job security and therefore better able to realize the gains available from utilizing production regimes based on such commitments. This combination of institutions corresponds to the institutional patterns the varieties of capitalism perspective sees in CMEs. Conversely, where firms are more dependent on dispersed equity markets, face the prospect of hostile takeovers, and confront regulations that give shareholders more power relative to stakeholders, the autonomy of the firm and its managers will be more dependent on current profitability. Here, labor markets allowing for high levels of labor turnover and competitive wage-setting will be more efficient, because they enable managers to reduce wages or staffing levels more quickly in response to fluctuations in current profitability, and allow the kind of labor relations that permit firms to exploit the high levels of capital mobility available in such economies. This combination of institutional practices corresponds to the case of a classic LME. (Hall and Gingerich, 2004: 23)

Although the notion of financialisation has not been the primary concern in the varieties of capitalism literature, financialisation clearly seems more compatible with the LME model rather than with the CME model. This also follows from the analysis by Lazonick and O’Sullivan (2000) who have anticipated the link between investment behaviour and institutional complementarity, by contrasting the corporate policy ‘retain and invest’ (in non-

financialised economies) with the strategy ‘downsize and distribute’ (as a result of increased shareholder value orientation and higher profitability pressures). These different policies concern both ‘the money (firms) earn and the people whom they employ’, i.e. financial and labour markets (Lazonick and O’Sullivan, 2000: 14). At least implicitly, it is often held that this trade-off between investment (accumulation) and profits (the profit rate) at the firm level also feeds through to the aggregate level (see, e.g. Amable et al., 2005; Höpner, 2003: 306, 2005: 346; Höpner and Jackson, 2001: 12). As noted by Höpner (2005: 348) in his survey of the institutional complementarity literature, ‘shareholder-oriented restructuring promotes profitability by slowing down growth’ (in terms of the expansion of firms).

The varieties of capitalism approach has produced many valuable insights, which, as we shall argue below, can be readily included into a macroeconomic analysis of financialisation. However, it is our contention that whether particular labour and financial market institutions lead to higher or lower macroeconomic accumulation or profitability cannot be answered without an assessment of overall macroeconomic conditions. These are in turn linked to social norms and political power relations, concerning in particular income distribution, personal consumption behaviour, macroeconomic policies and foreign economic relations.

Of course, given space limitations, we cannot do justice to the full complexity of the varieties of capitalism literature here. To be fair, it should be noted that different attempts have been made to extend the notion of complementarity to a broader set of social specificities and institutions. As an example, and as reviewed by Höpner (2005: 339, 40), some authors argue that particular welfare state arrangements are also linked to different corporate governance systems. For instance, individualistic old age pension schemes are complementary to developed equity markets with influential institutional investors who in turn shape corporate strategies. On the other hand, solidaristic retirement systems are more likely to exist in countries with lower degrees of income inequality, where more individuals have a preference for less risky assets (see also Vitols, 2001; Jackson, 2001, 2004; Jackson and Vitols, 2001). However, such a view of complementarity remains somewhat ‘mechanic’ and does not take social norms into account that may persist in particular countries even as labour and financial market institutions and income distribution change and that affect the process of profit generation.

In section 4, we will develop these arguments with respect to financialisation in the USA and in Germany, which are (or used to be) seen as good examples of an LME and a CME respectively in the varieties of capitalism and institutional complementarity literature (e.g. Hall and Gingerich, 2004; Höpner, 2005). We will conclude that, even if there was (further) institutional convergence in Germany towards the US model, and even if Germany completely shifted to the LME model in terms of corporate governance and labour relations, the macro-



economic outcome of financialisation would still be likely to be very different from the US experience.

### 3. Structuralist views of financialisation in the political economy literature

#### 3.1 A reminder on some important macroeconomic relations

In this subsection, we aim to analyse the macroeconomic process of profit determination with more rigour. First, we define gross national income (GNI) at current market prices as

$$(1) \quad GNI_{MP} = C_W + C_{\Pi} + I^g + G + X - M + FI_{A-H} - FI_{H-A},$$

where  $C_W$  and  $C_{\Pi}$  respectively denote consumption out of wages and capital income,  $I^g$  is gross private investment,  $G$  is government expenditure,  $X$  and  $M$  are respectively exports and imports, and  $FI_{A-H} - FI_{H-A}$  is net factor income received from abroad.

Gross national income is distributed between wages and profits net of direct taxes,  $W^n$  and  $\Pi^n$ , capital allowances (depreciation),  $D$ , and the government's receipts from direct and indirect taxes,  $T_W$ ,  $T_{\Pi}$ , and  $T_{ind}$ , less subsidies,  $Z$ :

$$(2) \quad GNI_{MP} = W^n + T_W + \Pi^n + T_{\Pi} + D + T_{ind} - Z.$$

From identities (1) and (2) we obtain the following macroeconomic profit equation:

$$(3) \quad \begin{aligned} \Pi^n &= C_W - W^n + C_{\Pi} + I^g - D + G - T_W - T_{\Pi} - T_{ind} + Z + X - M + FI_{A-H} - FI_{H-A}, \\ &= C_{\Pi} + I^n + G^D + EXT - S_W. \end{aligned}$$

Net profits are the sum of consumption out of profits, net private investment ( $I^n = I^g - D$ ), the government deficit ( $G^D = G - T_W - T_{\Pi} - T_{ind} + Z$ ) and the external balance ( $EXT = X - M + FI_{A-H} - FI_{H-A}$ ), less net saving out of wages ( $S_W = W^n - C_W$ ).

Note that in the Post Keynesian literature, it is often assumed that, as a rule of thumb, the savings of ordinary, lower class, wage earners are negligible (apart from 'forced savings' through collective pension plans, etc.), while savings out of profits may be considerable. The group of, upper class, 'profit recipients' is composed not only of individual entrepreneurs and rentiers (shareholders and creditors) but also of higher business executives, whose salaries 'are rather akin to profits' (Kalecki, 1971: 76) (see Lavoie, 1992: 92).

Equation (3) contains a further macroeconomic restriction, which follows from the definition of savings out of capital income as the difference between profits and consumption out of capital income ( $S_{\Pi} = \Pi^n - C_{\Pi}$ ):

$$(4) \quad \begin{aligned} 0 &= (S_{\Pi} + S_W - I^n) - G^D + (M - X + FI_{H-A} - FI_{A-H}), \\ &= FB_{private} + FB_{public} + FB_{foreign}. \end{aligned}$$

This means that the financial balances (FB) of the private, public and foreign sectors necessarily sum to zero. When, for example, the private sector runs a deficit as a result of, say, very low personal savings rates, while the government balance is also negative, this will only be possible if the foreign sector (private or public) provides savings of the combined size of these two deficits to the domestic sectors of the economy. It is important to bear this fundamental macroeconomic restriction in mind, as it determines the boundaries within which financialisation can affect the process of profit determination, as defined formally in equation (3) and to be discussed in more detail below.

Linked to our exposition of national accounting identities is a demand side-oriented view of economic dynamics. In particular, in accordance with (Post) Keynesian theory, expenditure decisions are not constrained by the *ex ante* existence of savings, but savings (including profits) are created *ex post* via the income-generating process. While the supply of money is seen as endogenous, expenditure decisions may, however, be constrained by the availability of credit, or ‘initial means of finance’. Aggregate demand is seen to be a decisive driving force of macroeconomic dynamics not only in the short run, but also in the longer run, as not only the degree of utilisation but also the level of productive capacities are seen to be endogenous to demand, with physical investment being the basis for increases in the capital stock and productivity growth (for an overview of theories of ‘demand-led growth’, see Setterfield, 2002).

### 3.2 Social accounting and ‘coupon pool capitalism’

Froud et al. (2002) extensively discuss existing concepts of financialisation in the political economy literature. In particular, they discuss the similarities and differences between the regulationist and their own social accounting approach, on which they build the new concept of ‘coupon pool capitalism’.

The social accounting perspective is critical of exclusively firm-centred analyses (see Froud et al., 2000, 2002; Erturk et al., 2004, 2007) and also ‘identif(ies) the household as a key institution in a financialised economy’ (Froud et al., 2002: 125). However, while the institutional analyses of corporate governance structures and household behaviour by this group of authors (referred to as Erturk et al. from now on) are enlightening, they seem to lack a coherent macroeconomic framework, as proposed in the previous subsection. In particular, at the conceptual level it seems that not much emphasis is put on distinguishing between gross and net income flows between the different sectors of the economy. Partly as a result of this, Er-

turk et al.'s empirical account of 'macro trajectories' in financialised economies (US and UK) also diverges somewhat from our own view. In what follows, we focus our empirical remarks on the US economy.

Erturk et al. analyse financialisation along the concept of 'coupon pool capitalism':

In a productionist type of capitalism, the capital market is an unproblematic intermediary ... Coupon pool is a new generic type where the pool of new and issued coupons becomes a regulator of firm and household behaviour and a regulator of macro economic trajectory. .... The 'coupon pool' is not the secondary market in issued ordinary shares or the secondary and primary markets together because it includes all coupon investment opportunities, including bonds, venture capital and securitised paper. (Froud et al., 2002: 128)

The authors remind us that shareholder value orientation, which is at the heart of 'coupon pool capitalism', promised to increase firms' profitability. However, they argue that there is now disappointment about the effects of this corporate governance concept on real profitability:

Even with a decade long economic upswing, many blue chip corporations in the 1990s struggled to generate value through earnings by delivering returns greater than their cost of capital (Froud et al., 2000). .... After all, from an earnings point of view, shareholder value was an injunction to earn higher returns for shareholders which were practically interdicted by product market constraints and/or organisational politics. (Erturk et al., 2004: 689)

If shareholder value nevertheless was and continues to be created for the wealthy fraction of the population, the argument goes on, this is mainly due to the rise in share prices caused by personal savings flowing into the 'coupon pool': '(t)he structural explanation of the bull market is simply that, with financialisation, stock prices are driven by the pressure of middle class savings bidding for a limited supply of securities.' (Froud et al., 2002: 147) Because, it is argued, the stock market boom is not backed by equivalent economic value, '(s)uch household behaviour both delivers and frustrates security because it creates a stock market that operates like a giant Ponzi scheme.' (Froud et al., 2002: 148)

In view of the empirical studies of profit generation in the US quoted in section 2, it is striking that Erturk et al. qualify firms' performance as mediocre in terms of profitability, which is all the more surprising as they equally deplore a 'downspiral produced by a deterioration in wages and conditions for large groups in the population (that) is unlikely to be counteracted by wealth effects' (Froud et al., 2002: 133). After all, a long 'economic upswing' also implies a positive development in terms of aggregate real income.

More fundamentally, considering equations 3 and 4 from the previous subsection, an empirical account of 'macro trajectories' should in our view be based on an analysis in terms of

*net* income flows between the different sectors of the economy. In one of their contributions, Erturk et al. (2005: 12) recognise themselves that ‘it is misleading to concentrate exclusively on the asset side of the household balance sheets because assets need to be considered in the context of liabilities.’ Yet, they somewhat half-heartedly conclude that ‘we cannot cover liabilities comprehensively but do need to make some basic points so that our story is not biased by its concentration on assets’. To give a concrete example of the problems involved with the concentration on assets, Froud et al. (2002: 141) report the following savings rates (‘savings and investment as per cent of disposable income’) for the different income quintiles of the private household sector in the US for the year 1996/7: 2.3, 4.7, 8.0, 14.7, 35.7. They conclude that ‘only the relatively affluent households can afford to forego current consumption, defer wages and put ten per cent of their income into shares and other coupons through pensions, insurance and savings plans’ (Froud et al., 2002: 142). However, while it is undeniable that high income households have bought large amounts of financial assets during the past decades, they have also increasingly, via the ‘coupon pool’, sold financial assets to the business sector and received loans from financial institutions. Noting that, according to national accounts data (NIPA, table 2.1), the aggregate personal net savings rate in the US was 3.7 per cent in 1997 and -1.1 per cent in 2006, we can conclude that the net flow of domestic personal savings into the ‘coupon pool’ has been much smaller than suggested by Erturk et al.

More generally, the following clarifications of or additions to the different empirical conclusions drawn by Erturk et al. regarding financialisation in the US (since the early 1980s) seem warranted from our point of view and will be discussed in greater depth in section 4:

- Firms’ performance, measured in rates of profit, has been relatively good in the aggregate, not bad.
- Private *net* savings flowing into the ‘coupon pool’ have not been the only (nor even the most systematic) source of shareholder value creation. Rather, the business sector has also increased dividend payouts and bought back shares. Private purchases of financial assets have increasingly been debt-financed.
- Dividend payments, share buybacks and rising stock prices benefited primarily upper class households (managers and rentiers). Therefore, it is true that there has been no ‘democratisation of finance’ (Erturk et al., 2007). But the net personal savings rate (particularly of rich households) has heavily declined, partly as a result of increasing financial wealth, and private consumption has stimulated growth and profits despite sluggish physical investment activity.
- Financialisation in the US seems indeed likely to produce ‘disappointment’ and ‘frustration’, as argued by Erturk et al. But the main reason is not so much that domestic personal

net savings flowing into financial markets have led to overvalued asset prices, but rather that both households' and firms' indebtedness has increased as a result of credit-financed consumption and financial speculation as well as share buybacks. Additionally, systematic deficits of both the private and public sectors in the US imply, by equation 4, that enormous amounts of capital had to be imported from abroad into the US 'coupon pool'. This may become a threat to the stability of the international financial system.

### **3.3 Regulationism and 'finance-led growth regime' and alternative macroeconomic models of financialisation**

Froud et al. (2002: 135) characterise their story line as 'the opposite of regulationism'. In effect, they may have a point by saying that the regulationist approach to financialisation tends to downgrade the issue of macroeconomic instability arising from 'contradictions and ... incoherence at the level of firms and households': 'the confusing succession of putative growth regimes and insistent preoccupation with the restoration of coherence have now become constraints on our understanding' (Froud et al. 2002: 135). Nevertheless, Boyer's (2000) concept of a 'finance-led', or 'wealth-based accumulation regime' (see also Aglietta, 2000) has, in our view, been a seminal starting point for the systematic analysis of the interaction between, on the one hand, firm behaviour increasingly shaped by the profitability norms set by financial markets and, on the other hand, household consumption behaviour increasingly affected by changes in financial wealth. Boyer (2000) shows that, under certain conditions, a higher financial norm can have overall expansionary effects on the economy, based in particular on the wealth effect on consumption. Yet, Boyer's (2000) model is incomplete in some respects, such as the absence of a public and a foreign sector, the omission of firms' and households' financial decisions (share issues or buybacks, debt-financing of investment or consumption, distribution of dividends, interest payments), and the absence of an asset price determination mechanism. As discussed in the next section, these omissions may in part be linked to the downgrading of the potential instability of finance-led economies, arising, amongst other things, from increases in private indebtedness (relative to income). As recognised by Boyer (2000: 140), '(t)he viability of any equity-based economy cannot be assessed without dealing explicitly with the role of credit'. More fundamentally, Skott and Ryoo (2007: 1, 2) conclude that 'a more careful modeling of the stock-flow relations ... would have been desirable' in Boyer's (2000) and other regulationist models.

Potentially negative effects of financialisation for investment and growth have been discussed by Stockhammer (2004, 2005-6). However, as Boyer's (2000) model, these macroeconomic models are also set in the context of a closed economy and do not contain a theory of

firms' financial policies and financial asset price determination. In Stockhammer (2007), a broader, political economy perspective is adopted, and the implications of a 'finance-dominated accumulation regime' for each of the different components of aggregate demand are discussed. Yet, the purpose of that contribution is not to focus explicitly on the process of profit determination, based on macroeconomic circuit relations, nor on a systematic discussion of the interaction of real and financial stocks and flows.

The formal integration of stock and flow variables in the context of financialisation is the object of the theoretical models by Skott and Ryoo (2007) and van Treeck (2007).<sup>6</sup> While these are in many aspects similar to our informal approach developed here, they are also set in the framework of a closed economy and they are not designed to describe the empirical cases of particular economies over certain periods of time.

Macroeconomic circuit relations are explicitly addressed in the enlightening contributions by Van de Velde (2005) and Cordonnier (2006), who argue that as part of financialisation fixed capital investment is increasingly substituted for by capitalist consumption as a source of macroeconomic profits.<sup>7</sup> The present analysis is largely inspired by the insights of these contributions. Cordonnier (2006) proposes an alternative to the regulationist notion of a 'finance-led growth regime',<sup>8</sup> and argues that the phenomenon 'profits without investment', which he analyses rudimentarily for the US and for France, may best be understood in terms of a 'consumption-based capitalism' (*capitalisme consommatoire*).

#### **4. Financialisation in the USA and in Germany – a macroeconomic analysis**

##### **4.1 Defining the concepts: the implications of financialisation for the business and personal sectors**

Before discussing the political economy of financialisation in the US and Germany, we need to complement the macroeconomic framework set out in section 3.1 with a number of behavioural assumptions regarding in particular the implications of financialisation for firms and private households.

To begin with, in accordance with the literatures sketched above, we assume that an individual firm faces a 'growth-profit trade-off' over a wide range of its investment possibilities (see also Lavoie, 1992; Stockhammer, 2005-6) and that shareholders have a larger preference for profitability than managements.

---

<sup>6</sup> For a systematic presentation of stock-flow consistent modelling, see Godley and Lavoie (2007).

<sup>7</sup> Van Treeck (2008) and Hein and van Treeck (2007) have also formally analysed this mechanism in the framework of Post Keynesian models of growth and distribution.

<sup>8</sup> For other critical discussions of Aglietta's and Boyer's interpretations of financialisation, see, e.g., Plihon (2002), Colletis (2004), Hoang-Ngoc and Tinel (2003).

In the ‘New Institutional Economics’ (NIE) literature various proposals have been made to alleviate the alleged problem of ‘overinvestment’, which is ascribed to undisciplined managements pursuing their personal objectives (‘empire building’) at the expense of shareholders and, due to inefficiencies of production, of society as a whole (e.g. Jensen and Meckling, 1976). In particular, by imposing a high distribution rate of profits and high leverage on firms, their ‘free cash flow’ and capacity to invest will be reduced. At the institutional level, managements should be disciplined by a liberalised capital market, in which the threat of hostile takeovers is permanent (Manne, 1965), which penalises bad but rewards good management practices, and channels savings into the most profitable investment opportunities (Fama, 1980).

One problem with this view, however, is that managements whose remuneration is closely pegged to financial results and who are disciplined by the permanent threat of hostile takeovers may be subject to the problem of ‘short-term performance obsession’ (Rappaport, 2006). For instance, a recent, comprehensive survey of management practices in the US documents ‘unambiguous managerial intent to burn economic value’ and finds that a majority of managers would ‘give up positive NPV [net present value] projects, to meet short-term earnings benchmarks’ (Graham et al., 2005: 66; for similar conclusions, see, e.g., Porter, 1992, Cheng et al., 2005). One explanation for this, now endorsed also by early proponents of shareholder value orientation, is that shareholders tend to focus on short-term financial returns (in particular, ‘earnings per shares’, EPS) in their decisions to buy or sell particular stocks, while the costs of acquiring sufficient information about the ‘actual’ long-term potential of a firm are often prohibitive (Jensen, 2005; Rappaport, 2006). The destruction of long-term economic value can therefore partly be explained by managers’ fear of ‘severe stock market reactions to small EPS misses’ (Graham et al., 2005: 5). As a further result of information asymmetries between managers and shareholders, firms may have strong incentives to buy back their own equities in order to spur earnings per share and satisfy shareholders. However, share buybacks (as well as dividend payments), while increasing the return on equity, at least in the short run, reduce the means of finance available to firms for (potentially very profitable) investment spending (table 1). The strong positive correlation between internal means of finance and firms’ investment expenditures is a long-established conclusion in macroeconomic theory (e.g. Kalecki, 1937; Stiglitz and Weiss, 1981; Myers and Majluf, 1984; Hubbard, 1998; Akerlof, 2007).

It seems that in the varieties of capitalism literature such potentially negative effects of ‘fluid’ financial markets tend to be somewhat downgraded.

**Table 1:** The distribution of profits and the financing of investment

From the net operating surplus to internal means of finance	The financing of capital investment
Net operating surplus	Internal means of finance
– Net interest payments	– Net financial investment
= Corporate profits before tax	= Net increase in credit
– Corporate taxes	+ Net issuance of equities
– Net dividend payments	+ Net issuance of bonds
= Corporate savings	+ Net increase in other liabilities
+ Capital consumption allowances	– Gross capital investment
= Internal means of finance	= 0

**Source:** Author's representation on the basis of Flow of Funds Accounts.

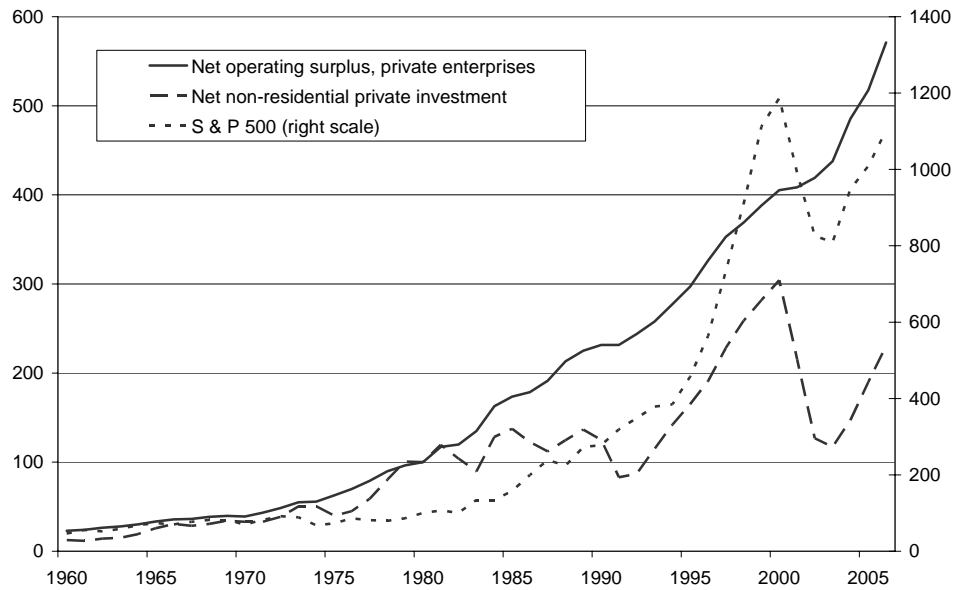
As for private households, financialisation implies that financial wealth as well as the receipts from capital income (and management salaries) increase relative to (ordinary) wages. Many authors have pointed at the possibility of a 'wealth effect', implying that rising wealth can be expected to be linked to higher consumer spending, *ceteris paribus*, and hence to expansionary effects for aggregate demand and profits. An important macroeconomic implication of the wealth effect, which is sometimes neglected (e.g. in some regulationist models), is that rising wealth is typically also linked to rising personal debt. Clearly, financial wealth is by its very nature 'virtual' and capital gains cannot be realised on a collective scale, as massive sales of financial assets would trigger a decline in their price and hence destroy the virtual wealth (Bhaduri et al., 2006). Yet, financial deregulation has increased individuals' opportunities to use their wealth as collateral to borrow from financial institutions such as banks. Of course, this then has longer-term implications for personal debt servicing obligations and, in general, financial fragility in the economy (Parenteau, 2006; Godley et al., 2007).

#### **4.2 USA: an ideal type of financialisation in an exceptional macroeconomic environment**

Financialisation in the US is typically seen to have its starting point in the early 1980s (e.g. Krippner, 2005). The early 1980s also mark the beginning of a remarkable 'decoupling' of aggregate profit income and investment spending (figure 1).<sup>9</sup> Of course, this phenomenon may also be linked to factors other than financialisation (e.g. technological change or globalisation), but financialisation seems to have played a major role in it.

<sup>9</sup> Much of the empirical material presented in this and the next subsection is based on van Treeck et al. (2007).



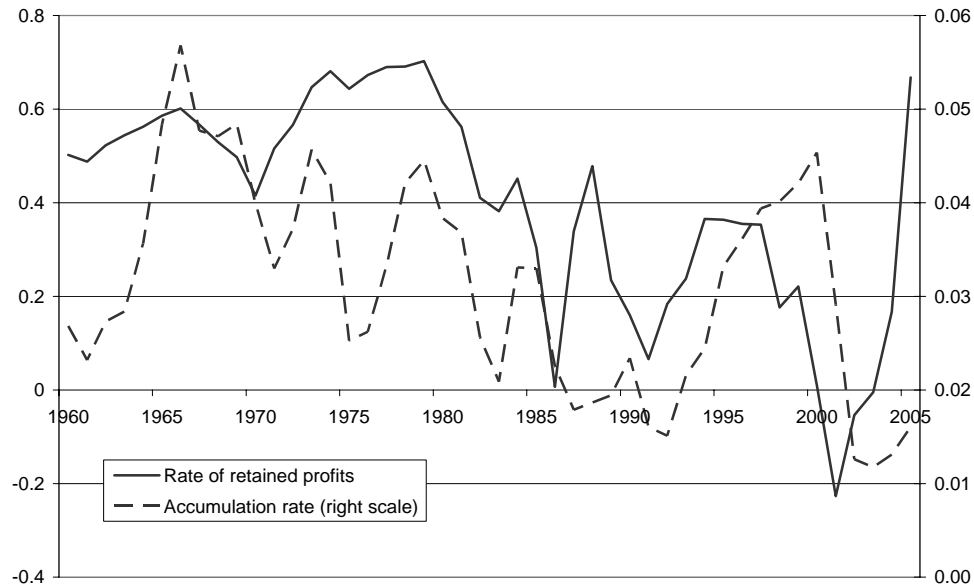
**Figure 1:** Investment, profits, and share prices, USA, since 1960, 1980 = 100

**Source:** NIPA (Bureau of Economic Analysis), table 1.10; Fixed Assets Tables (Bureau of Economic Analysis), table 5.9; author's calculations.

Figure 2 and table 2 show important changes in the financial policies of US non-financial corporations since the early 1980s. While in the 1970s around 70 per cent of after-tax profits were retained by firms, we observe a falling trend in the retention rate since the early 1980s. In some years, 100 per cent or more of after-tax profits were distributed as dividends. Similarly, while the contribution of equity issues to the financing of investment has been small (but positive) before the 1980s, since then the non-financial corporate sector has, in the aggregate, massively bought back its own shares. This is apparent from the calculations summarised in table 2, which also confirm and update the widely noticed results by Corbett and Jenkinson (1997). These showed that firms finance the overwhelming part of their investments by internal means of finance, also and particularly in countries with so-called 'market-based' financial systems (for similar conclusions, see Mayer, 1988; Rajan and Zingales, 1995; Corbett et al., 2004).

The extent to which firms' 'short-termism' and liquidity constraints limit investment spending is, of course, likely to vary over time. For example, during the 'New Economy' boom in the late 1990s, euphoric expectations about future profit opportunities in an allegedly completely new technological era, together with rising share prices, apparently contributed to a remarkable hike in business investment. Yet, this relatively short and very exceptional period certainly cannot be seen as representative of the financialisation era in the US.

**Figure 2:** Accumulation rate and rate of retained profits, private non-financial corporations, USA, since 1960



*Note:* Rate of retained profits = undistributed profits/profits after tax, net of interest payments; accumulation rate = Growth rate of net non-residential capital stock (quantity index).

**Source:** Flow of Funds Accounts (Federal Reserve), table F. 102; Fixed Assets Tables, table 4.2; author's calculations.

**Table 2:** Proportion of different means of finance in the financing of gross capital investment, non-financial corporations, USA, since 1960

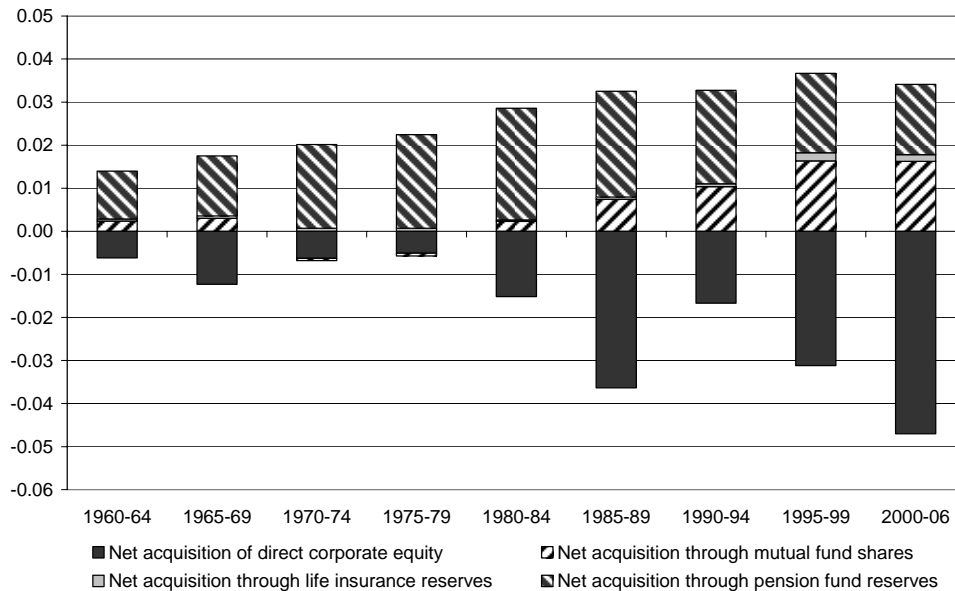
	1960-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-06
Internal	1.06	0.90	0.82	0.93	0.90	1.01	1.01	0.93	1.02
Equities	0.02	0.01	0.08	0.02	-0.04	-0.26	-0.03	-0.17	-0.26
Bonds	0.13	0.17	0.16	0.16	0.12	0.24	0.12	0.24	0.20
Credit	0.05	0.14	0.21	-0.03	0.07	0.13	-0.06	0.07	0.06
from banks	0.10	0.18	0.23	0.05	0.14	0.19	-0.06	0.10	0.04
trade credit	-0.05	-0.04	-0.03	-0.08	-0.07	-0.06	0.01	-0.03	0.01
Other	-0.02	-0.08	-0.18	0.13	0.05	0.17	-0.05	-0.15	-0.07
Stat. Dis-crepancy	-0.23	-0.14	-0.09	-0.21	-0.10	-0.29	0.01	0.07	0.07

*Note:* Calculations based on 'net-flow methodology' (see table 1 and, for further details, Corbett and Jenkinson, 1997). Increase in liabilities denoted by '+' sign, increase in assets by '-' sign. Internal funds = retained earnings + capital consumption allowance + foreign earnings retained abroad + inventory valuation adjustment (IVA) + net capital transfers; equities = net new equity issues - money market fund shares - security RPs - mutual fund shares; bonds = municipal securities + corporate bonds - treasury securities - agency- and GSE-backed securities - municipal securities; credit from banks = bank loans n.e.c. + other loans and advances + mortgages - foreign deposits - checkable deposits and currency - time and savings deposits - mortgages; trade credit = trade payables - consumer credit - trade receivables; other = miscellaneous liabilities - miscellaneous assets + commercial paper - commercial paper.

**Source:** Flow of Funds, table F. 102; author's calculations.

The observations made above confirm our theoretical considerations from the previous subsection and they also complement the story of ‘coupon pool capitalism’, according to which the rise in share prices over the past decades is mainly explained by ‘middle- and upper-class households’ savings flowing into the “coupon pool” (Froud et al., 2002: 148). In our view, an at least equally important explanation is that firms actively have reduced the supply of equities, whereas households, according to our rough calculations (figure 3), have repeatedly been a net seller of corporate equities since the 1980s. Recently, the personal net savings rate even turned negative (figure 4), although households were still a net buyer of financial assets at large (according to the Flow of Funds definition), while they accumulated debt (see Parenteau, 2006).<sup>10</sup>

**Figure 3:** Net acquisition of direct and indirect corporate equity by private households as a share of disposable income, USA, since 1960



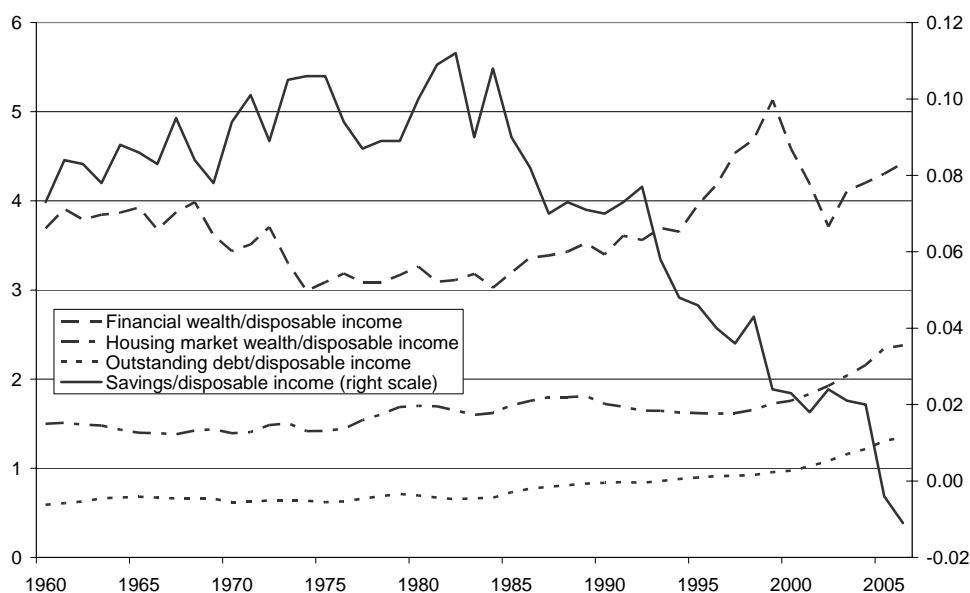
*Note/Source:* Net acquisition of direct corporate equity taken directly from Flow of Funds, table F. 100. Net acquisition of mutual fund shares, life insurance reserves and pension fund shares taken from table F. 100 and weighted with share of corporate equities in total assets of mutual funds, life insurances and pension funds, given in tables L. 117, L. 118, L. 122, respectively. Holdings of mutual fund shares by life insurances and pension funds weighted with share of corporate equities in total assets of mutual fund shares.

Considering equation 3 from section 3.1 again, it seems that the increase in firms’ rate of distributed profits together with the decline in households’ savings rate have allowed for the relatively robust development of both business profits and output despite relatively weak investment activity. Interestingly, some authors have found that during the 1990s especially the richest income quintile has reduced its savings rate significantly (table 3; see also IMF, 2002; Duménil and Lévy, 2003). This income group held approximately 80 or 90 per cent of house-

<sup>10</sup> The savings rate reported in national accounts is subject to some measurement problems (e.g. Harvey, 2006).

holds' equity ownership in the late 1990s (according to the Survey of Consumer Finances), and can be seen as corresponding roughly to the group of 'profit recipients' within the personal sector.

**Figure 4:** Personal wealth and debt relative to disposable income and net personal savings rate, USA, since 1960



**Source:** Flow of Funds, table B.100; NIPA, table 2.1; author's calculations.

**Table 3:** Net worth-to-income ratio and net savings rate, private households (income quintiles), USA, 1992-2000

Quintile	Net worth/disposable income		Net savings rate (in per cent)*	
	1992	2000	1992	2000
Total	468.6	612.7	5.9	1.3
Richest quintile	639.5	869.2	8.5	-2.1
4 <sup>th</sup> quintile	332.2	417.1	4.7	2.6
3 <sup>th</sup> quintile	326.7	364.9	2.7	2.9
2 <sup>th</sup> quintile	328.2	414.5	4.2	7.4
Poorest quintile	411.3	512.3	3.8	7.1

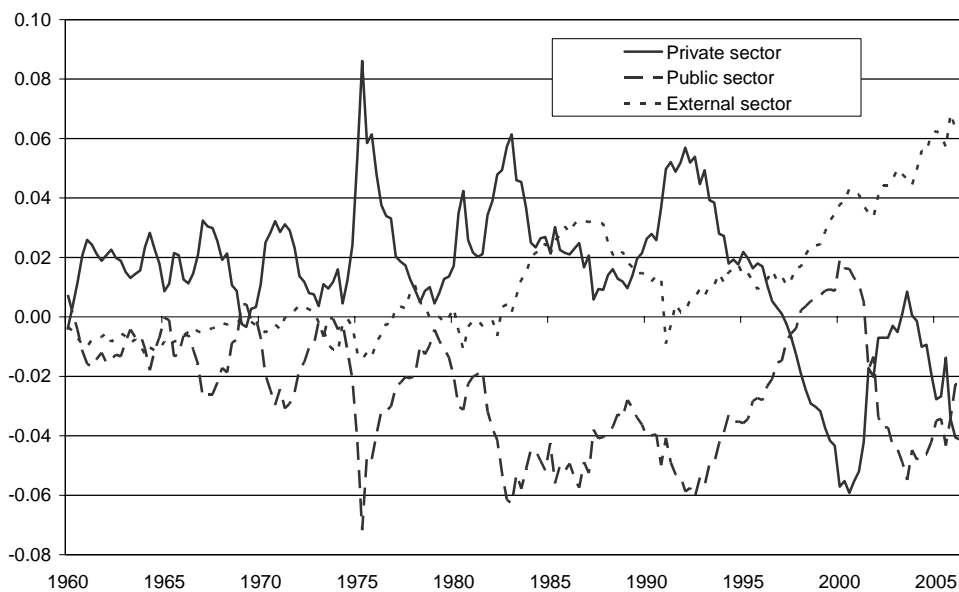
\* includes defined benefit pension plans.

**Source:** Maki and Palumbo (2001: 25).

The rise in private consumption can partly be explained by the rise in personal wealth, as argued e.g. in Boyer (2000). Although Froud et al. (2002: 133) downgrade the importance of wealth effects, econometric estimations typically find that a one dollar wealth increase is linked to an increase in consumption of 2 to 7 cents (e.g. Boone et al., 1998; Altissimo, 2005). At the same time, however, household indebtedness also rapidly increased (figure 4). Of course, this can be a source of financial fragility, which is especially true for the more recent

hike in personal debt that can in large part be attributed to increased borrowing and consumption opportunities also of low-income households who benefited from the latest housing market boom (Joint Center for Housing Studies, 2006). Note, however, that despite the apparent significance of the wealth effect in the US, the declining personal savings rate and the rising debt-to-income ratio do not seem to be fully explained by mainstream macroeconomic theories alone (e.g. Guidolin and La Jeunesse, 2007). Rather, one may suspect that the increased desire to consume must also be linked to some fundamental changes in social norms, often neglected in standard economic models<sup>11</sup> (see, however, Lavoie, 1994, 2004; Akerlof, 2007).

**Figure 5:** Financial balances as a share of nominal GDP, USA, since 1960



**Source:** NIPA, tables 5.1, 1.1.5; author's calculations.

The US government has contributed to the phenomenon 'profits without investment' in a number of significant ways. As figure 5 shows, large government deficits have been allowed for in the face of declining private investment dynamics throughout the 1980s, but also after the end of the 'New Economy' boom in the early 2000s. Besides, financial deregulation, starting in the 1970s and culminating in, amongst other things, the repeal of the Glass-Steagall Act of 1933 in 1999, as well as accommodating interest rate policies have supported the expansion

<sup>11</sup> A thorough analysis of such changes in social norms is well beyond the scope of this paper. A promising indication is given by Boltanski and Chiapello (2005: 154) who argue that a 'new spirit of capitalism' has emerged over the past decades, based on the replacement of the 'industrial city' by the 'projective city' and linked to new patterns of consumption: 'Connexionist human beings are the owners of themselves ... inasmuch as they are the product of a labour of self-fashioning. The advent of the projective city is thus closely bound up with another striking feature associated with the current change in conceptions of ownership and, in particular, the ownership we have over bodies ... This is the very significant growth in industries whose purpose is the exhibition of a self-image, from fashion, health, dietics or cosmetics, through the rapidly expanding personal development industry which ... accompanied the reorganization of firms with the emergence of new professions, like that of a coach. .... everyone is responsible for their bodies, their image, their success, their destiny.'

of credit flowing to the personal sector (Chancellor, 2005; Kuttner, 2007). The ‘government-sponsored enterprises’ Fannie Mae and Freddie Mac have directly contributed to the housing market boom of the early 2000s by providing households with important amounts of mortgages (up to 70 per cent of all mortgages in some years, according to Bloomberg, 6 September 2007). Additionally, private spending on consumption and housing was supported by large multi-year tax cuts and interest rate cuts immediately after the burst of the ‘New Economy’-bubble in 2000 (Parenteau, 2006).

**Table 4:** Trade balances of selected countries, in billions of US Dollars, 1996-2006

	1996	2000	2006
USA	-124.8	-415.2	-877.6
UK	-10.5	-37.4	-55.6
Spain	-1.4	-23.0	-107.0
Germany	-13.8	-33.9	116.8
Japan	65.1	118.7	164.9
China (without Hong Kong)	7.2	20.5	211.3
‘Dynamic Asia’*	-8.1	61.2	116.8
Central and South America	-36.1	-28.3	45.3
Middle East/Africa	1.3	79.3	280.0
Central and Eastern Europe	-0.3	42.4	69.6

\*Taiwan, Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand.

**Source:** OECD Economic Outlook No. 80.

The deterioration of the private financial balance, which was in the main part due to the decline in the personal savings rate (see also Godley et al., 2007), together with the almost permanent government deficit imply that the US external balance has been massively negative in recent times (see equation 4 from section 3.1 and figure 5). Hence, if the image of ‘coupon pool capitalism’ is to be maintained as a description of the US economy, an important part of this story would have to be the substantial net inflow of foreign savings. From an international political economy perspective, this dimension of the financialisation of the US economy cannot be highlighted enough. As table 4 shows, especially emerging economies in Asia and Latin America turned from net importers of capital in the mid-1990s to net exporters in the mid-2000s. When these economies were hit by the consecutive financial and currency crises in the 1990s, the concomitant capital outflows were in large part directed to the US, where they contributed to the ‘New Economy’ boom by supporting the rise in stock prices and offering attractive borrowing opportunities to the US personal and business sectors. The continuing efforts of these emerging economies to accumulate foreign currency reserves (‘war chests’) can partly be understood as a pre-emptive measure against potential future currency crises (e.g. Bernanke, 2005). Other important exporters of capital were developed economies

with weak internal growth dynamics, such as Germany, where no significant wealth effect operates and personal savings rates are high (see next subsection).

We agree with Erturk et al. that financialisation in the US is likely to create (even more) ‘disappointment’ and ‘frustration’ in the future. However, in our view the main reason is that financialisation, although compatible so far with relatively robust economic growth, has contributed to creating massive macroeconomic imbalances, especially a one-sided dependence on consumption. Although US growth may have been ‘finance-led’ in some sense in the past, it is doubtful whether a coherent novel ‘regulation mode’ is now in place and whether a considerable wealth effect will still operate in the future, given the increased indebtedness of many private households. What is more, an asset price deflation may undermine the credit-worthiness or even the solvency of many private households, as the recent ‘subprime’ mortgage crisis reveals. Similarly, firms’ indebtedness has also increased substantially over the past decades, partly as a result of debt-financed share buybacks. Another source of instability is the external deficit of the US. As capital imports have primarily been used for consumption purposes, serious doubts about the ability of the US to service foreign debt in the future may arise and threaten the stability of the international financial system. Even a substantial depreciation of the US dollar may not be sufficient for US firms to recover the market share losses that have accompanied the de-industrialisation of the business sector as a result of weak manufacturing investment apparently linked to financialisation (e.g. Hersh, 2003; Weller, 2003). Of course, all these elements of fragility have not been prevented by the institutional complementarity of ‘fluid’ financial and labour markets in the US ‘liberal market economy’.

Finally, note that the aforementioned developments are also linked to the observation by Krippner (2005) and others of a rising proportion of profits accruing through financial activities. In particular, financial institutions have benefited from the fees involved with the managing of personal wealth and debt (e.g. Chancellor, 2005). Yet, as argued above, the underlying reason for the positive development of aggregate profits despite sluggish investment activity is to be found in real income flows, especially the changed patterns of private consumption.

#### **4.3 Germany: financialisation in an adverse macroeconomic environment**

Germany has traditionally been considered as a typical example of a ‘coordinated market economy’ in terms of the varieties of capitalism approach. However, while Germany’s labour market was indeed seen, in the past, as highly regulated and the financial system characterised as ‘bank-based’, financialisation has brought about substantial changes also in this country, at least since the mid- or late 1990s.

As a reflection of this, equity repurchases have become increasingly important since the late 1990s. More generally, as shown in table 5, the proportion of internally financed investment has increased in the recent past. Referring to the euro area, the European Central Bank notes that ‘firms that have undertaken share buybacks over the past few years have, on average, invested less than firms not undertaking any share buybacks’ (ECB, 2007: 103), although it argues that the direction of causality is unclear. In this context, it is important to note that share buybacks had been completely banned in Germany prior to 1998 (as a consequence of the financial crisis of 1931). Also, the 2002 taxation reform abolished the previously very important tax on capital gains from equity sales for corporations so that the risk of hostile takeovers has considerably increased. Partly as a result of these two important reforms, shareholder value orientation and high stock prices have become a major objective of managements (ECB, 2007: 110), potentially at the expense of physical investment. One could also mention a range of further reforms introducing, e.g., the legalisation of hedge funds (2003), preferential tax treatment for investment funds, hedge funds, private equity funds and REITs (2007–8), reducing the corporate tax rate by more than half (2002, 2007), or abolishing the tax on stock exchange dealings (1991) (for an overview, see Hein and van Treeck, 2008). In sum, it seems well possible that financialisation, amongst important other factors, in particular a restrictive macroeconomic policy mix (Hein and Truger, 2005), has contributed to the breakdown of the investment-profit nexus in Germany since the mid-1990s, apparent in figure 6.

**Table 5:** Proportion of different means of finance in the financing of gross capital investment, non-financial corporations\*, Germany, since 1960

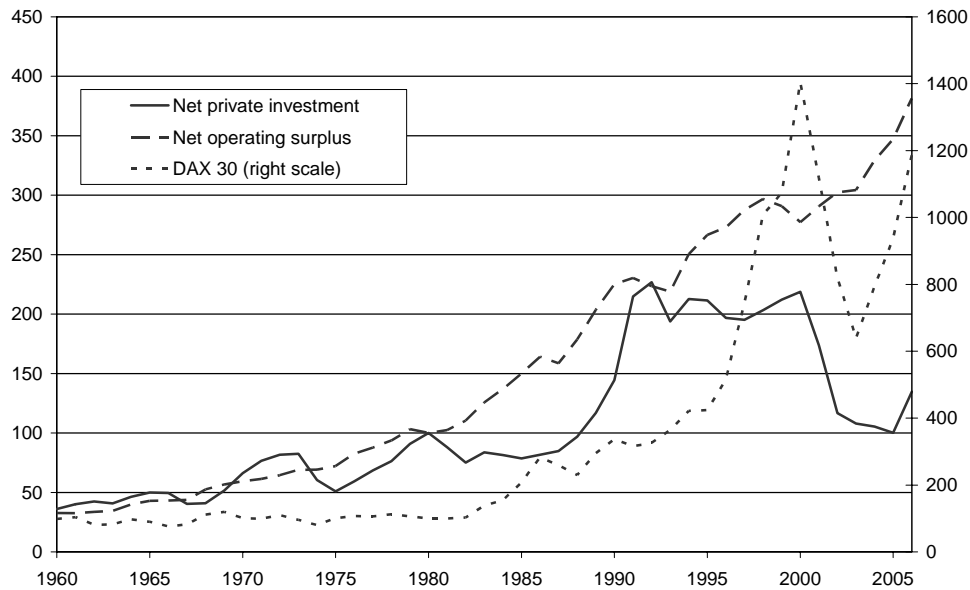
	1960-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-05
Internal	0.74	0.79	0.68	0.83	0.79	0.88	0.72	0.81	0.88
Equities	0.03	0.02	0.01	0.01	0.00	0.02	0.00	-0.03	-0.10
Bonds	0.02	0.00	0.02	-0.03	-0.02	0.00	0.03	-0.09	0.13
Credit	0.16	0.13	0.19	0.09	0.12	0.11	0.16	0.26	-0.01
Capital transfers	0.04	0.04	0.06	0.09	0.09	0.08	0.07	0.17	0.07
Other	0.01	0.01	0.04	0.00	0.01	-0.10	-0.02	-0.14	0.05
Stat. Discrepancy	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.01

\* until 1991 all non-financial businesses.

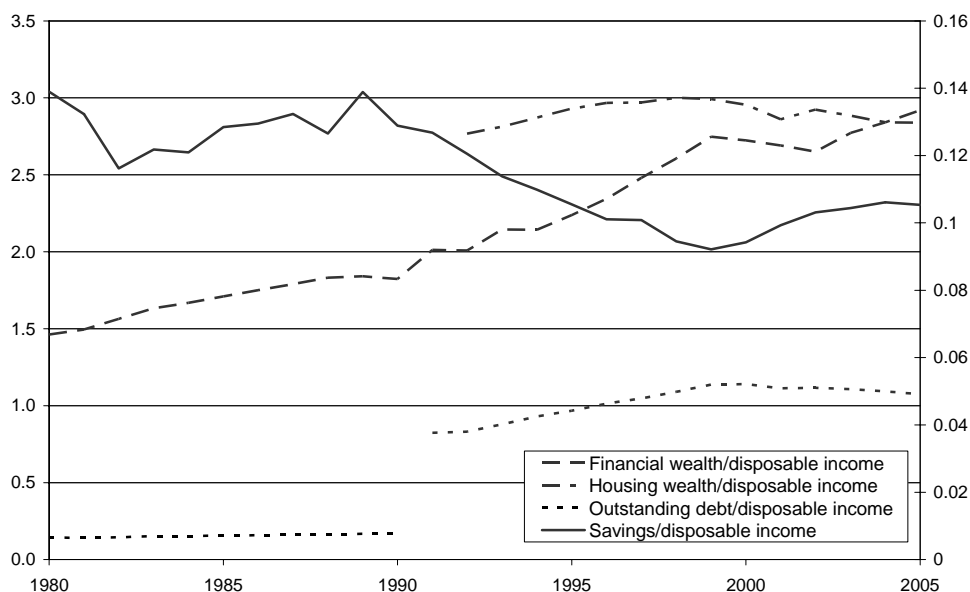
*Note:* Calculations based on ‘net-flow methodology’ (see table 2). *Internal funds* = retained earnings + depreciation + pension funds; *equities* = Shares – Shares; *bonds* = bonds – bonds (incl. money market paper); *credit* = long- and short-term bank credit + insurance loans – cash and deposits – credit; *capital transfers* = different forms of subsidies; *other* = other equities – other equities – insurance shares – financial derivatives – investment certificates + other liabilities – other assets.

**Source:** Flow of Funds (Deutsche Bundesbank); author’s calculations.



**Figure 6:** Investment, profits, and share prices, Germany, since 1960, 1980 = 100

**Source:** AMECO; Ecowin; author's calculations.

**Figure 7:** Personal wealth and debt relative to disposable income and net personal savings rate, Germany, since 1980

*Note:* Household sector includes personal firms since 1991.

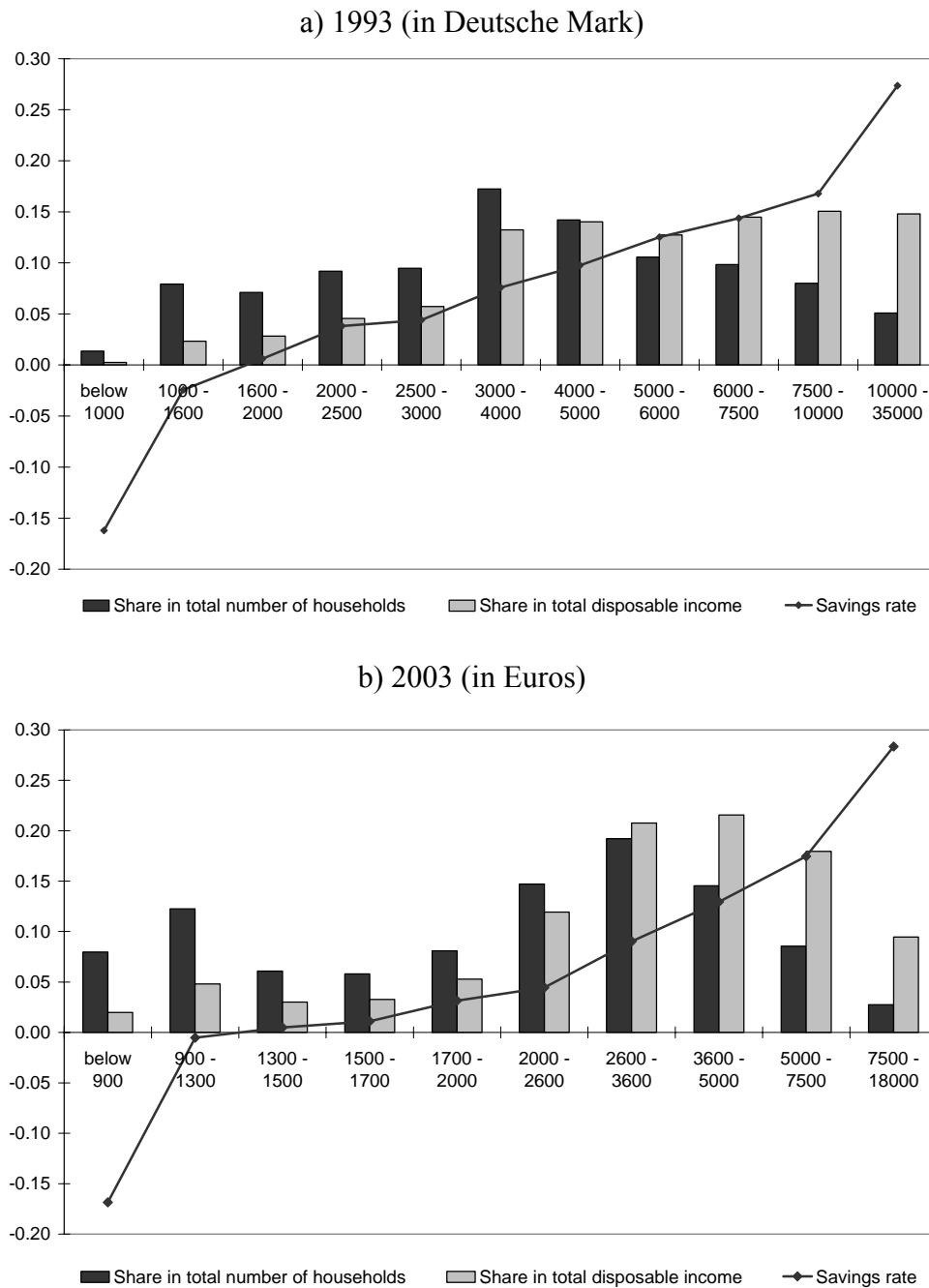
**Source:** Flow of Funds; National Accounts (Statistisches Bundesamt); author's calculations.

The deregulation of the financial system has been accompanied by the deregulation of the labour market, in particular since the early 2000s. The replacement rate and duration of unemployment benefits have been significantly reduced, the degree of wage bargaining coordination has heavily declined together with trade union power, and temporary employment contracts as well as wage dispersion are heavily on the rise (e.g. Hein and Truger, 2005; Bellmann and Kuehl, 2007; Schettkat, 2006; Dustmann et al., 2007). As an exception to this proc-

ess of deregulation, the traditional institution of co-determination has been maintained in Germany. This leads Höpner (2005: 350) to conclude: 'Elective affinities between institutions actually exist. But the interplay of shareholder orientation and co-determination in Germany shows that the range of possible complementarities may be larger than the number of already existing configurations.' We agree that particular national traditions may be very persistent. But, for the purposes of the present analysis and for the reasons mentioned above, it seems fair to conclude that Germany has indeed been undergoing a process of convergence towards a 'liberal market economy', in which both financial and labour markets are increasingly 'fluid'.

However, this apparent process of convergence to the US (or Anglo-Saxon) model takes place in a very different macroeconomic environment. As for households' consumption behaviour, we observe that the personal net savings rate is substantially higher in Germany than in the US (figure 7). After fluctuating around 12 to 14 per cent from the 1960s to the early 1990s, the personal savings rate decreased somewhat during the (modest) boom of the late 1990s, only to start increasing again in the early 2000s. Beyond the general influence of consumption norms, this seems in part due to the widespread feeling of insecurity caused in particular by the deregulation of the labour market and the partial privatisation of the pension system (Klär and Slacalek, 2006). Also, income inequality is massively on the rise (e.g. Bach and Steiner, 2007) and higher income groups have very high savings rates (figure 8). Therefore, Erturk et al.'s image of ever-increasing middle- and upper-class savings flowing into the 'coupon pool' appears appropriate for Germany. As can be seen from figure 7, financial wealth has risen substantially, while personal debt has stagnated, despite financial deregulation. Econometric studies confirm that the propensity to consume out of wealth has so far been very weak (e.g. Boone et al., 1998; Altissimo et al., 2005).

As aggregate demand, and hence profits, were only weakly supported by domestic private consumption, the 'decoupling' of investment and profits has taken place in a low growth environment in Germany and is to a large part accounted for by the external surplus (table 4, figure 9). While Germany's export performance can partly be attributed to the, by international comparison, exceptional wage restraint over the past years, the financial side of the foreign account surplus is that personal savings (by upper-class households) were too large to be absorbed by the business and public sectors. As investment spending was weak, and the public sector unwilling or, constrained by the Maastricht regime, unable to play a similarly active role in sustaining aggregate demand as the US government, excess private savings were exported to the rest of the world (Hein and Truger, 2007).

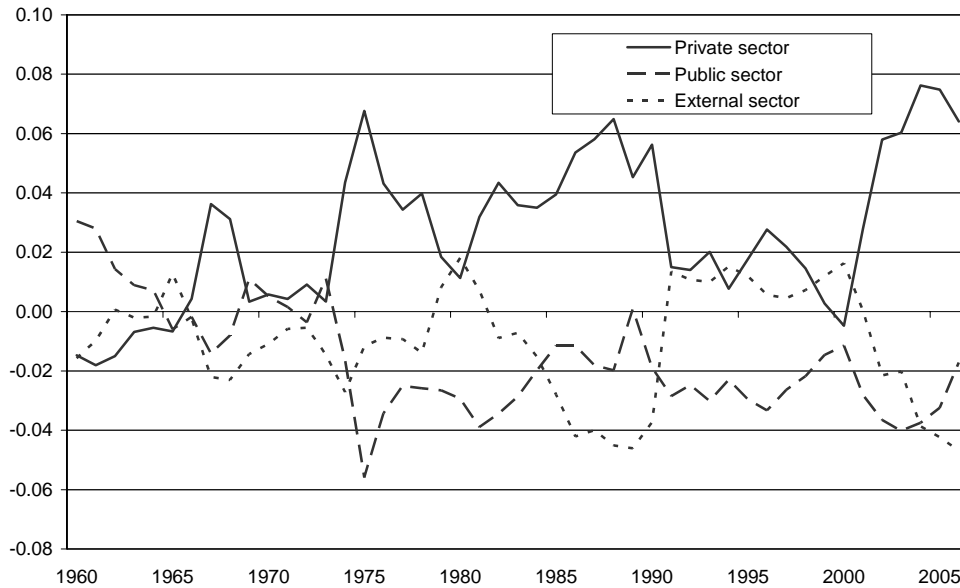
**Figure 8:** Net savings rate, private households (income fractiles), Germany, 1993-2003

**Source:** Survey of Consumer Finances (EVS, Statistisches Bundesamt); author's calculations.

Erturk et al. concluded that financialisation was (going to be) producing disappointment and frustration in the US and UK. This may be true also for Germany, albeit for somewhat different reasons. Income inequality has significantly increased, economic growth has been sluggish and unemployment high in recent times, given weak domestic demand. At the same time, due to the large relative contribution of net exports to economic growth, an economic downturn abroad has immediate repercussions on the German economy via the export channel. Simultaneously, as German financial institutions, constrained domestically by the weak credit demand of both the business and the personal sector, are strongly oriented towards fi-

financial investments abroad, they are particularly subject to the risk of contagion in case of a financial crisis abroad. As an example, German banks were particularly hit by the recent US subprime mortgage crisis (e.g. SVR, 2007, ch. 3).

**Figure 9:** Financial balances as a share of nominal GDP, Germany, since 1960



**Source:** National Accounts; author's calculations.

Froud et al. (2000: 105) argued that

(t)he financialization of other national economies (outside the UK and US) is possible but only when a series of national conditions are met and institutional resistances are overcome. These preconditions include: first, the existence of value-oriented investors (of domestic and/or foreign origin) making the appropriate calculations; second, a throw weight for value investment so that it can influence market sentiment and corporate conduct through mechanisms such as hostile takeover; third, management prerogatives which allow labour shedding for rapid cost reduction.

It is our contention that all of these conditions are nowadays met in Germany (and many other countries), but for the reasons stated above, financialisation leads to very different results than in the US. The same conclusion applies to the effects of institutional complementarity in the financial and labour markets, which seem to depend crucially on whether particular institutions are complementary also to social norms and macroeconomic conditions. As recognised by Hall and Gingerich (2004: 8),

the complementarities may still be operative but their impact on cross-national differences in growth overwhelmed by recent developments for which we do not control in these equations. The latter could include cross-national differences in economic policy, confidence effects arising from asset booms, or technology races that privilege first movers. We cannot currently discriminate between these explanations.

## 5. Final remarks: towards an interdisciplinary, structuralist analysis of financialisation

In this paper, we have tried to illustrate how different strands in the political economy literature on financialisation may be enriched by an explicitly macroeconomic perspective.

To begin with, such a perspective may help prevent potentially erroneous conclusions about the causalities involved with e.g. the generation of profits, or the increasing importance of financial operations.

Also, the explicit focus on net income flows and holdings of assets and liabilities may help to refine empirical analyses based on the concept of ‘coupon pool capitalism’, developed by British social accountants, in that it makes explicit how financial markets connect (or shape) the behaviour of different sectors in the economy that is relevant for macroeconomic outcomes.

Similarly, the analysis of financial fragility arising from potentially unsustainable changes in the relations between real and financial flows and stocks allows putting in perspective the regulationist concept of a stable and coherent ‘wealth-based accumulation regime’.

The varieties of capitalism approach, with its sophisticated tools regarding the analysis of institutions, may also benefit from a more explicitly macroeconomic focus. In particular, complementarity in our view concerns not only financial and labour market institutions, but, more generally, social norms and cultural habits (e.g. regarding the risk-taking involved with wealth-based and credit-financed personal consumption), political power relations (e.g. income distribution or the power to sustain current account deficits over extended periods of time), and macroeconomic policy (e.g. the willingness of the government to use fiscal and monetary policies to boost and sustain aggregate demand, asset prices, etc.). As an illustration, we have argued that although Germany seems to be currently in the process of transformation from a ‘coordinated’ to a ‘liberal market economy’ in terms only of financial and labour market regulation, the macroeconomic effects of financialisation are and will arguably continue to be very different from its effects in the US.

We hope that the present analysis, although it is far from comprehensive and its conclusions far from definite, contributes to an interdisciplinary research programme in which the political economy, cultural, social and institutional underpinnings of different macroeconomic outcomes of financialisation are investigated as parts of a coherent structuralist analysis.

## References

- Aglietta, M. (1999) Les transformations du capitalisme contemporain, in B. Chavance, E. Magnin, R. Motamed-Nejad and J. Sapir (eds), Capitalisme et socialisme en perspective. Evolutions et transformations des systèmes économicques, Paris: La découverte.

- Aglietta, M. (2000) 'Shareholder value and corporate governance: some tricky questions', Economy and Society, 29(1): 146–159.
- Aglietta, M. and Breton, R. (2001) 'Financial Systems, Corporate Control and Capital Accumulation', Economy and Society, 30(4): 433–66.
- Akerlof, G. (2007) 'The missing motivation in macroeconomics', American Economic Review, 97(1): 5–36.
- Altissimo, F., Georgiou, E., Valderrama, M. T., Sterne, G., Stocker, M., Wet, M., Whelan, K. and Willman, A. (2005) Wealth and Asset Price Effects on Economic Activity, ECB Occasional Working Paper Series, 29.
- Amable, B., Ernst, E., and Palombarini, S. (2005) 'How do financial markets affect industrial relations: an institutional complementarity approach', Socio-Economic Review, 3(2): 311–330.
- Aoki, M. (1994) The Japanese firm as a system of attributes: a survey and research agenda, in M. Aoki and R. Dore (eds), The Japanese Firm: Sources of Competitive Strength, Oxford: Oxford University Press.
- Arrighi, G. (1994) The Long Twentieth Century: Money, Power, and the Origins of Our Times, London: Verso.
- Bach, S. and Steiner, V. (2007) Zunehmende Ungleichheit der Markteinkommen: Reale Zuwächse nur für Reiche, DIW Wochenbericht, 13.
- Bellmann, L. and Kühl, A. (2007) Weitere Expansion der Leiharbeit? Eine Bestandsaufnahme auf Basis des IAB–Betriebspanels, Studie im Auftrag der Hans-Böckler-Stiftung.
- Bernanke, B. (2005) The Global Saving Glut and the U.S. Current Account Deficit, Remarks at the Homer Jones Lecture, St. Louis, Missouri, 14/04/2005.
- Bhaduri, A., Laski, K. and Riese, M. (2006) 'A model of interaction between the virtual and the real economy', Metroeconomica, 57, 412–27.
- Boltanski, L. and Chiapello, E. (1999) Le Nouvel Esprit du capitalisme, Paris: Gallimard. English edition (2005) The new spirit of capitalism, London, New York: Verso.
- Boone, L., Giorno, C. and Richardson, P. (1998) Stock Market Fluctuations and Consumption Behaviour: Some Recent Evidence, OECD Working Paper, 208.
- Boyer, R. (2000) 'Is a finance-led growth regime a viable alternative to Fordism? A preliminary analysis', Economy and Society, 29(1): 111–45.
- Chancellor, E. (2005) Crunch Time for Credit? An inquiry into the state of the credit system in the United States and Great Britain, Petersfield, Harriman House.
- Cheng, Mei, Subramanyam, K.R. and Zhang, Y. (2005) Earnings Guidance and Managerial Myopia, Working Paper, University of Southern California, Columbia University.
- Colletis, G. (2004) 'Evolution du rapport salarial, financiarisation et mondialisation', Cahiers du GRES, 15.
- Corbett, J. and Jenkinson, T. (1997) 'How is investment financed? A study of Germany, Japan, the United Kingdom and the United States', Manchester School, 65: 69–93.
- Corbett, J., Edwards, J., Jenkinson, T., Mayer, C., Sussman, O. (2004) A Response to Hackett and Schmidt (2003) 'Financing patterns: measurement concepts and empirical results', Saïd Business School, Oxford University: mimeo.
- Cordonnier, L. (2006) 'Le profit sans l'accumulation: la recette du capitalisme dominé par la finance', Innovations, Cahiers d'économie de l'innovation, 23(1): 51–72.
- Crotty, J. (2005) 'The neoliberal paradox: the impact of destructive product market competition and 'modern' financial markets on nonfinancial corporation performance in the neoliberal era', in G. Epstein (ed) Financialization and the World Economy, London: Edward Elgar.
- Crouch, C., Hall, P. A., Streeck, W., Boyer, R. and Amable, B. (2005) 'Dialogue on "Institutional complementarity and political economy"', Socio-Economic Review, 3: 359–82.
- Duménil, G. and Lévy, D. (2003) Neoliberal Dynamics – Imperial Dynamics, Conference on Global Regulation, University of Sussex, Brighton, UK, May 29-31.

- Dumenil, G. and Levy, D. (2005) 'Costs and benefits of neoliberalism: a class analysis', in G. Epstein (ed) Financialization and the World Economy, London: Edward Elgar.
- ECB, European Central Bank (2007) Share Buybacks in the Euro Area, ECB Monthly Bulletin, May: 103–111.
- Dustman, C., Ludsteck, J. and Schönberg, U. (2007) Revisiting the German Wage Structure, IZA Diskussion Paper, 2685.
- Epstein, G. (2005) 'Introduction: Financialization and the World Economy', in G. Epstein (ed) Financialization and the World Economy, London: Edward Elgar.
- Epstein, G. A. and 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, London: Edward Elgar.
- Erturk, I., Froud, J., Johal, S. and Williams, K. (2004) 'Corporate governance and disappointment', Review of International Political Economy, 11(4): 677–713.
- Erturk, I., Froud, J., Solari, S. and Williams, K. (2005) The Reinvention of Prudence: Household Savings, Financialisation and Forms of Capitalism, CRESC Working Paper, 11.
- Erturk, I., Froud, J., Johal, S., Leaver, A. and Williams, K. (2007) 'Democratisation of Finance? Promises, Outcomes and Conditions', Review of International Political Economy, 14(4): 553–75.
- Fama, E. F. (1980) 'Agency problems and the theory of the firm', Journal of Political Economy, 88(2): 288–307.
- Fligstein, N. (2001) The Architecture of Markets: An Economic Sociology of Twenty-First Capitalist Societies, Princeton: Princeton University Press.
- Froud, J., Haslam, C., Johal, S. and Williams, K. (2000) 'Shareholder Value and Financialization: Consultancy Promises, Management Moves', Economy and Society, 29(1): 80–120.
- Froud, J., Johal, S. and Williams, K. (2002) 'Financialisation and the coupon pool', Capital and Class, 78: 119–51.
- Godley, W. and M. Lavoie. (2007) An Integrated Approach to Credit, Money, Income, Production and Wealth, Basingstoke: Palgrave Macmillan.
- Godley, W. Papadimitriou, D., Hannsgen and Zezza, Z. (2007) The U.S. Economy: Is There a Way Out of the Woods?, Strategic Analysis 11/2007, Levy Institute of Economics.
- Graham, J. R., Harvey, C.R. and Rajgopal, S. (2005) 'The economic implications of corporate financial reporting', Journal of Accounting and Economics, 40(1–3): 3–73.
- Guidolin, M. and La Jeunesse, E. (2007) The Decline in the U.S. Personal Saving Rate: Is It Real and Is It a Puzzle ? Federal Reserve Bank of St. Louis Review, 89(6): 491–514.
- Hall, P. A. and Gingerich, D. (2004) varieties of capitalism and Institutional Complementarities in the Macroeconomy: An Empirical Analysis, MPIfG Discussion Paper, 04/5.
- Hall, P. A. and Soskice, D. (2001a) 'An Introduction to varieties of capitalism', in P. A. Hall and D. Soskice (eds) varieties of capitalism: The Institutional Foundations of Comparative Advantage, Oxford: Oxford University Press.
- Hall, P. A. and Soskice, D. (eds) (2001b) varieties of capitalism: The Institutional Foundations of Comparative Advantage, Oxford: Oxford University Press.
- Harvey, R. (2006) Comparison of Household Saving Ratios: Euro Area/United States/Japan, OECD Statistics Brief, 8.
- Hein, E. and Truger, A. (2005) 'What ever happened to Germany? Is the decline of the former European key currency country caused by structural sclerosis or by macroeconomic mismanagement?', International Review of Applied Economics, 19: 3–28.
- Hein, E. and Truger, A. (2007) 'Germany's post-2000 stagnation in the European context – a lesson in macroeconomic mismanagement', in P. Arestis, E. Hein, E. Le Heron (eds) Aspects of Modern Monetary and Macroeconomic Policies, Basingstoke: Palgrave Macmillan, 2007: 223–247.

- Hein, E., van Treeck, T. (2007): Financialisation in Kaleckian/Post-Kaleckian Models of Distribution and Growth, IMK Working Paper, 7/2007.
- Hein, E. and van Treeck, T. (2008) Finanzmarktorientierung – ein Investitions- und Wachstumshemmnis?, IMK Report, 26.
- Hersh, A. (2003) The Visible Hand of U.S. Deindustrialization, The Industrial Relations Research Association Proceedings 2003: 141–147.
- Hoang-Ngoc, L. and Tinel, B. (2003) ‘La régulation du “nouveau capitalisme”. Analyses positives et recommandations normatives comparées’, Communication pour le Forum de la Régulation 9 et 10 octobre 2003.
- Höpner, M. (2003) ‘Der organisierte Kapitalismus in Deutschland und sein Niedergang’, in: R. Czada and R. Zintl (eds) Politik und Markt, PVS-Sonderheft 34/2003, Wiesbaden: VS Verlag.
- Höpner, M. (2005) ‘What connects industrial relations with corporate governance? Explaining complementarity’, Socio-Economic Review 3(2): 331–358.
- Hubbard, R. (1998) ‘Capital-market-imperfections and investment’, Journal of Economic Literature, 36: 193–225.
- IMF, International Monetary Fund (2002) Recessions and recoveries, World Economic Outlook, April, Washington D.C.
- Jackson, G. and Höpner, M. (2001) An Emerging Market for Corporate Control? The Mannesmann Takeover and German Corporate Governance, MPIfG Discussion Paper, 01/4.
- Jackson, G. (2001) ‘The Origins of Nonliberal Corporate Governance in Germany and Japan’, in W. Streeck and K. Yamamura (eds) The Origins of Nonliberal Capitalism: Germany and Japan, Ithaca: Cornell University Press.
- Jackson, G. and Vitols, S. (2001) ‘Pension regimes and financial systems: between financial commitment, market liquidity and corporate governance’, in B. Ebbinghaus and P. Mano (eds) The Varieties of Welfare Capitalism: Social Policy and Political Economy in Europe, Japan and the USA, London: Routledge.
- Jensen, M. (2005) ‘Agency costs of overvalued equity’, Financial Management, 34: 5–19.
- Jensen, M. C. and Meckling, W. H. (1976) ‘Theory of firm – Managerial behavior, agency costs and ownership structure’, Journal of Financial Economics, 3(4): 305–60.
- Joint Center for Housing Studies (2006) The State of the Nation’s Housing, Report of the Joint Center for Housing Studies of Harvard University, Cambridge, MA.
- Kalecki, M. (1937) ‘The principle of increasing risk’, Economica, 4: 440–47.
- Kalecki, M. (1942) ‘The determinants of profits,’ Economic Journal, 52: 258–67.
- Kalecki, M. (1971) Selected Essays in the Dynamics of the Capitalist Economy, Cambridge: Cambridge University Press.
- Krippner, G. (2005) ‘The financialization of the American economy’, Socio-Economic Review, 3: 173–208.
- Kuttner, R. (2007) Testimony Before the Committee on Financial Services, U.S. House of Representatives, Washington, D.C., October 2, 2007.
- Lavoie, M. (1992) Foundations of Post-Keynesian Economic Analysis, Aldershot: Edward Elgar.
- Lavoie, M. (1994) ‘A Post Keynesian theory of consumer choice’, Journal of Post Keynesian Economics, 16: 539–62.
- Lavoie, M. (2004) ‘Post Keynesian consumer theory: Potential synergies with consumer research and economic psychology’. Journal of Economic Psychology, 25, 639–49.
- Lazonick, W. and O’Sullivan, M. (2000) ‘Maximizing shareholder value: a new ideology for corporate governance’, Economy and Society, 29(1): 13–35.
- Magdoff, H. and Sweezy, M. (1987) Stagnation and the Financial Explosion, New York: Monthly Review Press.



- Maki, D. M. and Palumbo, M. G. (2001) Disentangling the Wealth Effect: A Cohort Analysis of Household Saving in the 1990s, Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series.
- Manne, H.G. (1965) 'Mergers and the market for corporate control', Journal of Political Economy, 73(2):110–120.
- Mayer, C. (1988) 'New issues in corporate finance', European Economic Review, 32: 1167–89.
- Myers, S. C. and Majluf, N.S. (1984) 'Corporate finance and investment decisions when firms have information that investors do not have', Journal of Financial Economics, 13, 187–221.
- Parenteau, R. W. (2006) U.S. Household Deficit Spending. A Rendezvous with Reality, Public Policy Briefs 11/2007, Levy Institute of Economics.
- Penrose, E. T. (1959) The Theory of the Growth of the Firm, New York: John Wiley.
- Plihon, D. (2002) 'Finance et croissance : des relations ambivalentes', Alternatives économiques, Hors-série, 53(3).
- Porter, M. E. (1992) Capital Choices: The Causes and Cures of Business Myopia, Research Report to the U.S. Government's Council on Competitiveness, Washington D.C.
- Rajan, R. and Zingales, L. (1995) 'What do we know about capital structure? Some evidence from international data', Journal of Finance, 50: 1421–60.
- Rappaport, A. (2005) 'The economics of short-term performance obsession', Financial Analysts Journal, 61(3), 65–79.
- SVR (Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Lage) (2007) Das Erreichte nicht verspielen, Wiesbaden.
- Schettkat, R. (2006) Lohnspreizung: Mythen und Fakten, Düsseldorf: Edition der Hans-Böckler-Stiftung, 183.
- Setterfield, M. (2002) The Economics of Demand-Led Growth: Challenging the Supply Side Vision of the Long Run, Cheltenham: Edward Elgar.
- Skott, P. and Ryoo, S. (2007) Macroeconomic Implications of Financialization, Amherst: mimeo
- Stiglitz, J. and Weiss, A. (1981) 'Credit rationing in markets with imperfect information', American Economic Review, 71: 393–410.
- Stockhammer, E. (2004) 'Financialisation and the slowdown of accumulation', Cambridge Journal of Economics, 28: 719–41.
- Stockhammer, E. (2005–6) 'Shareholder value orientation and the investment-profit puzzle', Journal of Post Keynesian Economics, 28(2): 193–215.
- Stockhammer, E. (2007) Some Stylized Facts on the Finance-Dominated Accumulation Regime, PERI Working Paper, 142.
- Van de Velde, F. (2005) Monnaie, Chômage et Capitalisme, Villeneuve d'Ascq: Septentrion.
- van Treeck, T. (2007) A Synthetic Stock-Flow Consistent Macroeconomic Model of Financialisation, IMK Working Paper, 6/2007.
- van Treeck, T., Hein, E., Dühaupt, P. (2007) Finanzsystem und wirtschaftliche Entwicklung: Tendenzen in den USA und in Deutschland aus makroökonomischer Perspektive, IMK Studies, 5/2007.
- van Treeck, T. (2008) 'Reconsidering the investment-profit nexus in finance-led economies: an ARDL-based approach', Metroeconomica, forthcoming.
- Vitols, S. (2001) 'The origins of bank-based and market-based financial systems: Germany, Japan, and the United States', in W. Streeck and K. Yamamura (eds) The Origins of Nonliberal Capitalism: Germany and Japan, Ithaca: Cornell University Press.
- Weller, C. (2003) The Stock Market Boom and Manufacturing Investment, The Industrial Relations Research Association Proceedings 2003: 148–155.

---

**Publisher:** Hans-Böckler-Stiftung, Hans-Böckler-Str. 39, 40476 Düsseldorf, Germany

**Phone:** +49-211-7778-331, [IMK@boeckler.de](mailto:IMK@boeckler.de), <http://www.imk-boeckler.de>

**IMK Working Paper is an online publication series available at:**

<http://www.boeckler.de/cps/rde/xchg/hbs/hs.xls/31939.html>

**ISSN:** 1861-2199

The views expressed in this paper do not necessarily reflect those of the IMK or the Hans-Böckler-Foundation.

All rights reserved. Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

**Hans Böckler  
Stiftung** 

Fakten für eine faire Arbeitswelt.

---