



ECKHARD HEIN

The Macroeconomics of
Finance-dominated Capitalism –
and its Crisis



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Contents

<i>List of variables</i>	vi
<i>Preface and acknowledgements</i>	ix
1 Introduction	1
2 Finance-dominated capitalism and re-distribution of income	8
3 Finance-dominated capitalism, capital accumulation and macroeconomic regimes	36
4 Finance-dominated capitalism and long-run productivity growth	66
5 Finance-dominated capitalism, consumption, household debt and instability	83
6 Finance-dominated capitalism, global imbalances and crisis	116
7 Requirements for income-led recovery and a Global Keynesian New Deal	134
8 The European financial and economic crisis: alternative solutions from a Post-Keynesian perspective	144
9 Summary and conclusions	179
<i>References</i>	186
<i>Index</i>	207

Variables

a	Labour–output ratio
A_f	Net foreign assets of foreign economy
B	Debt, bonds
B_w	Workers' debt
c_R	Rentiers' propensity to consume
C_R	Rentiers' consumption
C_w	Workers' consumption
d	Dividend rate
D	Government deficits
e	Exchange rate
E_F	Equity held by firms/owner-managers
E_R	Equity held by rentiers
g	Rate of accumulation, long-run growth rate
G	Government spending
h	Profit share
i	Rate of interest
I	Investment
k	Capital–labour ratio
K	Real capital stock
L	Employment
L_d	Net foreign liabilities of domestic economy
m	Mark-up
M	Imports
p	Price
p_d	Domestic prices
p_f	Foreign prices in foreign currency
Q_1, Q_2	Positive constants in export and import functions
r	Profit rate
r_F	Firms' profit rate
r_R	Rentiers' profit rate
R	Rentiers' income
R_D	Rentiers' dividend income
R_I	Rentiers' interest income
s	Propensity to save

s_R	Propensity to save out of rentiers' income
S	Saving
S_R	Rentiers' saving
T	Tax revenues
u	Rate of capacity utilization
v	Capital-potential output ratio
w	Nominal wage rate
W	Wages
X	Exports
y	Labour productivity
Y	Output, income
Y_f	Foreign income
Y^P	Productive capacity given by the capital stock
z	Relationship between unit material costs and unit labour costs
$\alpha, \beta, \tau, \theta, \omega$	Coefficients in the investment function
$\eta, \varepsilon, \vartheta, \chi$	Coefficients in the productivity growth function
γ	Outside finance-capital ratio
δ	Proportion of rentiers' saving going to households as loans
ε	Income elasticity of demand for exports
η	Price elasticity of demand for exports
λ_W	Workers' debt-capital ratio
μ	Imported materials or semi-finished inputs per unit of output
π	Income elasticity of demand for imports
ρ	Rentiers' rate of return on equity and bonds
σ	Saving-capital rate
τ_W	Workers' debt-income ratio
ϕ	Inside finance-capital ratio
ψ	Price elasticity of demand for imports
Ω	Shareholder power
Π	Profits
Π_F	Retained profits by firms
Π_R	Dividend payments to rentiers
\hat{A}_f	Growth rate of net foreign assets of foreign economy
\hat{L}_d	Growth rate of net foreign liabilities of domestic economy
\hat{p}_d	Domestic inflation
\hat{p}_f	Foreign inflation
\hat{p}^T	Inflation target
\hat{y}	Growth rate of labour productivity

\hat{Y}_d	Growth rate of domestic GDP
\hat{Y}_d^b	Balance-of-payments constrained growth rate for domestic GDP
\hat{Y}_f	Growth rate of foreign GDP

Preface and acknowledgements

This book presents my latest research on the macroeconomics of finance-dominated capitalism and the recent financial and real crises of developed capitalist economies. This research started in late 2004/early 2005 when I prepared my oral ‘habilitation’ presentation for Carl von Ossietzky University, Oldenburg, as part of the German qualifying exam for becoming a full professor. I had to propose three topics to the ‘habilitation’ committee, and one of them was ‘Financial Structure and Economic Growth: Theoretical and Empirical Aspects’. Among the three topics I suggested this was the one I was least familiar with at that stage, but which for me seemed to be the most interesting. Quite unexpectedly to me, the committee thought so, too, and chose this subject for the presentation. This meant hard work for me over Christmas break 2004/05 catching up with the relevant literature in that area and preparing a kind of overview presentation with some conclusions for further research. Then, during the following years as a Senior Researcher at the Macroeconomic Policy Institute (IMK) at Hans Boeckler Foundation, Düsseldorf, Germany, I started to link the existing literature and empirical findings with the Kaleckian/Post-Keynesian approaches to distribution and growth, with which I was quite familiar and to which I had already contributed. This research agenda was supported and accelerated when Till van Treeck joined the IMK as my first PhD student in early 2007. We started to build different types of models in order to integrate financial topics, and what was by then called ‘financialization’ issues, either jointly or separately into the Post-Keynesian/Kaleckian approach. What initially looked like a rather academic exercise from the perspective of a research institute focussing on short-run forecasting and macroeconomic policies, became highly relevant when the financial and economic crisis finally hit in 2008/09. I am therefore most grateful to the IMK for providing the resources for this kind of research during the period from 2005 until 2009, when I left the institute in order to join the Berlin School of Economics and Law. In producing some of the research which has gone into this book, I have also benefited from the very pleasant and stimulating environment during my stays as a Visiting Professor at Vienna University of Economics and Business, Austria, in 2007 and 2008. Since 2009 my present institution, the Berlin

School of Economics and Law (BSEL), Germany, has supported my research on the macroeconomics of financialization, and my colleagues at the Institute for International Political Economy (IPE) at the BSEL have provided a friendly and stimulating environment and atmosphere for this kind of research. I am most thankful for all this, too.

Since most of my research on the macroeconomics of finance-dominated capitalism has already been published in journals or books – or has been accepted to be so – I am grateful to the editors and publishers of the journals and books named below for permissions to draw on some of my papers (to be) published in their academic outlets for the purpose of this book:

‘Financialization, re-distribution, and the financial and economic crisis – a Kaleckian perspective’, in T. Niechoj, Ö. Onaran, E. Stockhammer, A. Truger and T. van Treeck (eds), *Stabilising an Unequal Economy? Public Debt, Financial Regulation, and Income Distribution* (Marburg, Germany: Metropolis), 2011, 35–62 (Chapters 2, 6 and 7).

‘Redistribution, global imbalances and the financial and economic crisis – the case for a Keynesian New Deal’, *International Journal of Labour Research* (Geneva, Switzerland: International Labour Organization), 2011, **3** (1): 51–73, (Chapters 2, 6 and 7).

‘A Keynesian perspective on “financialization”’, in P. Arestis and M. Sawyer (eds), *21st Century Keynesian Economics. International Papers in Political Economy* (Basingstoke, UK: Palgrave Macmillan), 2010, 120–61 (Chapter 3).

“Financialization”, distribution, capital accumulation and productivity growth in a Post-Kaleckian model’, *Journal of Post Keynesian Economics* (Armonk, NY, USA: M.E. Sharpe), forthcoming (Chapter 4).

‘Financialization, re-distribution, household debt and financial fragility in a Kaleckian model’, *PSL Quarterly Review* (Rome, Italy: Paolo Sylos Labini (PSL) Association), 2012, **65** (260): 11–51 (Chapter 5).

‘Finance-dominated capitalism in crisis – the case for a Keynesian New Deal at the European and the global level’, in P. Arestis and M. Sawyer (eds), *New Economics as Mainstream Economics. International Papers in Political Economy* (Basingstoke, UK: Palgrave Macmillan), 2011, 190–230, with Achim Truger (Chapter 7).

‘Finance-dominated capitalism in crisis – the case for a global Keynesian New Deal’, *Journal of Post Keynesian Economics* (Armonk, NY, USA: M.E. Sharpe), forthcoming, with Achim Truger (Chapter 7).

'The European financial and economic crisis: Alternative solutions from a (Post-) Keynesian perspective', in P. Arestis and M. Sawyer (eds), *The Euro Crisis. International Papers in Political Economy* (Basingstoke, UK: Palgrave Macmillan), 2012, 35–78, with Achim Truger and Till van Treeck (Chapter 8).

I am heavily indebted to the editors and referees of these books and journals for helpful comments on the papers I submitted. In particular, however, I would like to thank Achim Truger and Till van Treeck for the fruitful collaboration on some of the issues dealt with in this book and for their helpful comments and suggestions on other parts. For comments and suggestions concerning different parts of the book, I am also most grateful to Philip Arestis, Giorgos Argitis, Amit Bhaduri, Laurent Cordonnier, Lilia Costabile, Jens Christiansen, Thomas Dallery, Amitava Dutt, Trevor Evans, Jesus Ferreiro, Giuseppe Fontana, Hansjörg Herr, Hagen Krämer, Dany Lang, Marc Lavoie, Sangheon Lee, Torsten Niechoj, Özlem Onaran, Thomas Palley, Jan Priewe, Claudio Sardoni, Malcolm Sawyer, Mark Setterfield, Peter Skott, Engelbert Stockhammer and Simon Sturn. I have also benefited from the discussions of some of the material contained in this book at conferences and in seminars in Athens, Berlin, Bilbao, Brussels, Cambridge/UK, Cottbus, Düsseldorf, Geneva, Karlsruhe, London, Lille, Linz, Oldenburg, Oslo, Ottawa, Paris, Roskilde, Salzburg and Vienna in the course of the recent years, and I would like to thank the participants in these events, too.

At different stages of the research presented in this book I could rely on extremely helpful research assistance, provided by Nina Dodig, Katharina Dröge, Petra Dünhaupt, Matthias Mundt, Oliver Picek, Christian Schoder, Artur Tarassow and Klara Zwickl. Many thanks go to them, too. I am particularly grateful to Nina Dodig and Matthias Mundt who read the whole manuscript, compiled the lists of variables and checked the references and quotations. Furthermore, I am grateful to the staff of Edward Elgar for support throughout this project. It goes without saying that the people mentioned above are not responsible for any remaining errors in the book. For these I am alone responsible.

Eckhard Hein
Berlin

1. Introduction

In 2008/09 the world economy was hit by a decline in real gross domestic product (GDP), which had not been seen for generations. The so-called ‘Great Recession’ started with the collapse of the subprime mortgage market in the US in summer 2007, and it gained momentum with the breakdown of Lehman Brothers in September 2008. Under the conditions of deregulated and liberalized international financial markets, the financial and real crises rapidly spread all over the world and reached another climax with the euro crisis which started in 2010. Although some countries quickly recovered from the recession of 2008/09, others did not. The world economy in late 2011 is still suffering from this deep crisis and, moreover, is threatened by another slowdown in growth and increasing fiscal and financial uncertainty, according to the latest outlook of the IMF (2011).

The world economy is hence far from having overcome the causes of the crisis, which in our view are rooted in the long-run developments since the early 1980s. It is by now widely accepted that the financial crisis has been caused by liberalized financial markets, wrong incentives, personal greed, fraud, naive beliefs, and herding behaviour of economic actors.¹ However, several authors have made clear that this is only part of the story and that the severity of the financial and economic crises can only be understood if the changes in income distribution over the last decades and the emerging global imbalances are taken into account.² We subscribe to this perspective and we hold that the following medium- to long-run developments since the early 1980s, in particular in the advanced capitalist economies but also affecting the emerging market economies, have been responsible for the crisis: inefficient regulation of financial markets, increasing inequality in the distribution of income, and rising imbalances at the global (and at the Euro area) level. These developments have been dominated by the policies aimed at deregulation of labour markets, reduction of government intervention into the market economy and of government demand management, redistribution of income from (lower) wages to profits and top management salaries, and deregulation and liberalization of national and international financial markets. In what follows, we will call this broad policy stance ‘neo-liberalism’, describing the policies implemented – to different degrees in different capitalist economies – since the early 1980s.

‘Financialization’ or ‘finance-dominated capitalism’ – we use these terms interchangeably – is interrelated and overlaps with neo-liberalism, but is not identical with it.³ Epstein (2005, p. 3) has presented a widely accepted definition, arguing that ‘[. . .] financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies’. The instabilities and crises the world economy is presently facing can therefore be understood as a crisis of neo-liberalism and finance-dominated capitalism.

The detailed features of financialization or finance-dominated capitalism have been described and analysed extensively and in detail by several authors.⁴ This book does not aim to add to these descriptive studies and analyses. We rather attempt to develop a macroeconomic perspective on finance-dominated capitalism and its crisis. In the present book we will argue that from a macroeconomic point of view financialization has affected long-run economic developments through the following three channels:

1. With regard to distribution, financialization has been conducive to a rising gross profit share, including retained profits, dividends and interest payments, and thus a falling labour income share, on the one hand, and to increasing inequality of wages and top management salaries, on the other. The major reasons for this have been falling bargaining power of trade unions, rising profit claims imposed in particular by increasingly powerful rentiers, and a change in the sectoral composition of the economy in favour of the financial corporate sector.
2. Regarding investment in capital stock, financialization has been characterized by increasing shareholder power vis-à-vis management and workers, an increasing rate of return on equity and bonds held by rentiers, and an alignment of management with shareholder interests through short-run performance related pay schemes, bonuses, stock option programmes, and so on. On the one hand, this has imposed short-termism on management and has caused decreasing managements’ animal spirits with respect to real investment in capital stock and long-run growth of the firm. On the other hand, it has drained internal means of finance for real investment purposes from the corporations, through increasing dividend payments and share buybacks in order to boost stock prices and thus shareholder value. These ‘preference’ and ‘internal means of finance’ channels have each had partially negative effects on firms’ real investment in capital stock and hence on long-run growth of the economy to the extent that productivity growth is capital embodied.

3. Regarding consumption, financialization has generated increasing potential for wealth-based and debt-financed consumption, thus creating the potential to compensate for the depressing demand effects of financialization, which were imposed on the economy via redistribution and the impact on real investment. Stock market and housing price booms have each increased notional wealth against which households were willing to borrow. Changing financial norms, new financial instruments (credit card debt, home equity lending), deterioration of creditworthiness standards, triggered by securitization of mortgage debt and 'originate and distribute' strategies of commercial banks, made increasing credit available to low income, low wealth households, in particular. This allowed for consumption to rise faster than median income and thus to stabilise aggregate demand. But it also generated increasing debt-income ratios of private households and thus increasing financial fragility.

Against the background of these basic macroeconomic tendencies of finance-dominated capitalism, rising current account imbalances at the global, but also at the European level, have developed and contributed to the severity of the Great Recession and to the euro crisis. Some countries relied on debt-led soaring private consumption demand as the main driver of aggregate demand and GDP growth, generating and accepting concomitant rising deficits in their trade and current account balances. Other countries focussed on mercantilist export-led strategies as an alternative to generating demand, in the face of redistribution at the expense of (low) labour incomes, stagnating consumption demand and weak real investment, and have hence accumulated increasing surpluses in their trade and current account balances.

In this book we will develop and analyse the basic macroeconomic features and tendencies of financialization and their contributions to the crisis of finance-dominated capitalism. In Chapter 2, three dimensions of re-distribution – functional distribution, personal distribution and the development of top incomes – taking place in the course of financialization and neo-liberalism since the early 1980s, will be outlined and examined for the major Euro area countries, Austria, Belgium, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, and Spain; Sweden and the UK as EU countries outside the Euro area; and the US, Japan and China. In examining the effects of financialization on distribution we focus on the determinants of functional income distribution, because we consider the development of functional income distribution as the key to changes in personal distribution and to the understanding of the macroeconomic effects of distributional changes. We will identify the potential channels

through which financialization and neo-liberalism have affected the share of direct labour in national income in the negative. Three channels are of particular interest here: first, the change in the sectoral composition of the economy in favour of the high profit share financial corporations and at the expense of the non-financial corporate sector and the government sector; second, the rise in overhead costs, in particular top management salaries and interest payments, and the increase in profit claims imposed on the corporate sector by shareholders; third, the weakening of bargaining power of workers and trade unions triggered by shareholder value orientation and short-termism of management, increasing relevance of the financial sector with weak trade unions, the threat-effect of liberalization and globalization of finance and trade, deregulation of the labour market, and downsizing of the government sector and abandoning government demand management policies.

Chapter 3 will deal with the effects of financialization on investment in real capital stock. We will start with a detailed examination of the effects of financialization and increasing shareholder power on corporate investment in capital stock, supplying theoretical and empirical evidence for the ‘preference’ and ‘internal means of finance’ channels. In order to derive the macroeconomic results, we will integrate the effects of financialization on distribution discussed in Chapter 2 and also briefly consider some effects of financialization on consumption without, however, dealing explicitly with household debt, which is discussed in Chapter 5. We will summarise the macroeconomic results of increasing financialization and shareholder power as they have been derived in the previous literature, before integrating some main channels of influence of financialization into a simple analytical Kaleckian stock-flow consistent model. This will enable us to outline the short- and medium-run effects with respect to the rates of capacity utilization, profits and capital accumulation, as well as to stability of the financial structure of the corporate sector. We will show that, depending on the constellation of parameters, our model gives rise to three different macroeconomic regimes in the face of rising shareholder power: ‘finance-led growth’, ‘profits without investment’ and ‘contractive’ regimes may emerge. We will show that only the ‘finance-led growth’ regime yields a medium-run stable financial structure of the corporate sector, whereas the other two regimes are prone to financial instability.

In Chapter 4 we will focus on the long-run effects of financialization on capital accumulation and productivity growth – and hence on potential growth. On the one hand, the early orthodox proponents of shareholder value orientation have argued that increasing shareholder power would induce managers to make more efficient use of the funds at their disposal and thus reduce the inefficiencies inherent in the ‘principal-agent’ conflict

of modern corporations (Jensen/Meckling 1976). This should have a positive effect on productivity growth and the growth potential of the economy. On the other hand, to the extent that financialization, increasing shareholder power and rising shareholder value orientation of management causes a policy of 'downsize and distribute' (Lazonick/O'Sullivan 2000), in order to satisfy shareholders' demand for distributed profits and high stock and share prices, low capital stock growth will have negative effects on productivity growth and thus on long-run potential growth of the economy. We will address these potentially contradicting effects of financialization on capital accumulation and productivity growth in a simple Kaleckian distribution and growth model for a closed private economy with endogenously determined productivity growth. We will show that depressed capital accumulation caused by financialization and increasing shareholder power is also very likely to feed back negatively on productivity growth and hence on long-run potential growth of the economy.

Chapter 5 will explicitly address the effects of finance-dominated capitalism on private household consumption and indebtedness. We will examine in this chapter whether an economic boom based on debt-financed consumption and thus increasing household debt is necessarily bound to collapse for systemic reasons related to stock-flow or stock-stock dynamics. We will specify the conditions under which household debt-income or debt-capital ratios become unstable, triggering increasing financial fragility and finally financial crisis. These issues will be addressed in a simple Kaleckian distribution and growth model, in which we allow for debt-financed consumption of workers' households, along with redistribution at the expense of labour income and weakened animal spirits of the firm sector with respect to real investment, each caused by finance-dominated capitalism and neo-liberalism. We will show that increasing lending to private households will not necessarily trigger an unstable process of increasing debt-income or debt-capital ratios. However, such a process may arise, if lending to workers exceeds some threshold, and/or animal spirits of the firm with respect to investment in capital stock decline, and/or the rate of interest rises by too much such that it exceeds the endogenously determined rate of profit.

In Chapter 6 we will focus on the global imbalances which have arisen, in particular in the latter period of finance-dominated capitalism, and which have contributed to the severity of the recent crises. It will be argued that, against the background of partially depressing effects of finance-dominated capitalism via redistribution of income and via investment in capital stock, some countries have relied on debt-led soaring consumption demand as the main driver of aggregate demand and gross

domestic product (GDP) growth, whereas others have focussed on mercantilist export-led strategies as an alternative to generating demand. We will examine the set of countries introduced in Chapter 2, derive an *ex post* typology along the lines mentioned above, and discuss the related global current imbalances.

The economic policy conclusions from our analysis of the macroeconomic channels of transmission of financialization and of the recent crisis can be found in Chapter 7. We will argue that a medium- to long-run sustainable recovery strategy for major parts of the world economy can neither follow the ‘debt-led consumption boom’ type nor the ‘export-led mercantilist’ type. We will rather make the case for an income- or wage-led recovery strategy embedded in a Global Keynesian New Deal, which tackles the main causes of the recent crisis, that is, inefficient regulation of financial markets, increasing inequality in the distribution of income and rising imbalances at the global (and at the Euro area) level. In particular, we will elaborate on the three main pillars of the policy package of a Global Keynesian New Deal: first, the re-regulation of the financial sector in order to prevent future financial excesses and financial crises; second, the re-orientation of macroeconomic policies, in particular in the current account surplus countries; and third, the re-construction of international macroeconomic policy co-ordination and a new world financial order.

In Chapter 8 we will turn to the euro crisis as the latest fallout of the crisis of finance-dominated capitalism. We will analyse the institutional and economic policy deficiencies of the Euro area and the European Union, which are at the roots of the euro crisis that started in 2010: the lack of an explicit guarantee of public debt of member countries by the European Central Bank, the exclusions of fiscal transfers among Euro area member countries, in principle, and the current account imbalances which have built up in the Euro area since 1999. Against the background of this analysis, we will describe some key ingredients of an alternative macroeconomic policy model for Europe based on Keynesian and Post-Keynesian principles. We will argue that stabilizing wage and expansive fiscal policies will have major roles to play in order to cope with the current account imbalances and to initiate recovery for the Euro area as a whole. We will derive a criterion for acceptable current account deficits for macroeconomic policy coordination within the Euro area. Finally, we will argue that the European Union and the Euro area will have to develop institutions and policies which, on the one hand, guarantee public debt of all the member countries, and which, on the other hand, provide the stable financing of acceptable current account deficits and thus a stable transfer of current account surpluses of the mature more slowly growing

countries to the more rapidly growing and catching-up member countries. In Chapter 9 we will finally summarize our main findings and conclude.

NOTES

1. See, in particular, the overview in Akerlof/Shiller (2009, pp.29–40, 149–56), but also Baker (2009).
2. On global imbalances and unequal distribution as causes for the present crisis, on top of the widely accepted inefficient regulation of the financial sector, see for example, with different emphasis, Bibow (2008), Horn et al. (2009), Fitoussi/Stiglitz (2009), Sapir (2009), Stockhammer (2010a, 2010b), UNCTAD (2009), and Wade (2009). In particular, see the early pre-crisis analysis by van Treeck et al. (2007) focussing on the effects of financialization on distribution, aggregate demand, global imbalances and the resulting potential for instability. For a review of the changes in world wide financial markets and related imbalances which fed the financial crisis see, for example, Guttman (2009).
3. See Stockhammer (2010a, 2010b) for a similar distinction and Palma (2009) for a more extensive discussion of the relationship between neo-liberalism and the present crisis.
4. See, for example, Krippner (2005), Palley (2008), and the contributions in Epstein (2005) for a detailed treatment of the development of financialization in the US, van Treeck (2009b) and van Treeck et al. (2007) for a more detailed comparison of the macroeconomics of financialization in the US and Germany, and Stockhammer (2008) for the development in Europe.

2. Finance-dominated capitalism and re-distribution of income¹

2.1 INTRODUCTION

The neo-liberal period since the early 1980s and the emergence of finance-dominated capitalism in major OECD countries have been associated with a massive re-distribution of income. This is true for functional income distribution which has shifted at the expense of wages as well as for personal distribution of income which has become more unequal over time. This chapter will start with outlining the trends of redistribution since the early 1980s and will make use of different indicators for this. Then, the Kaleckian theory of distribution will be presented and the main channels of influence of neo-liberalism and finance-dominated capitalism on the falling labour income share will be identified within this approach. Finally, some empirical evidence for these channels of influence will be reviewed.

2.2 TRENDS OF RE-DISTRIBUTION SINCE THE EARLY 1980s

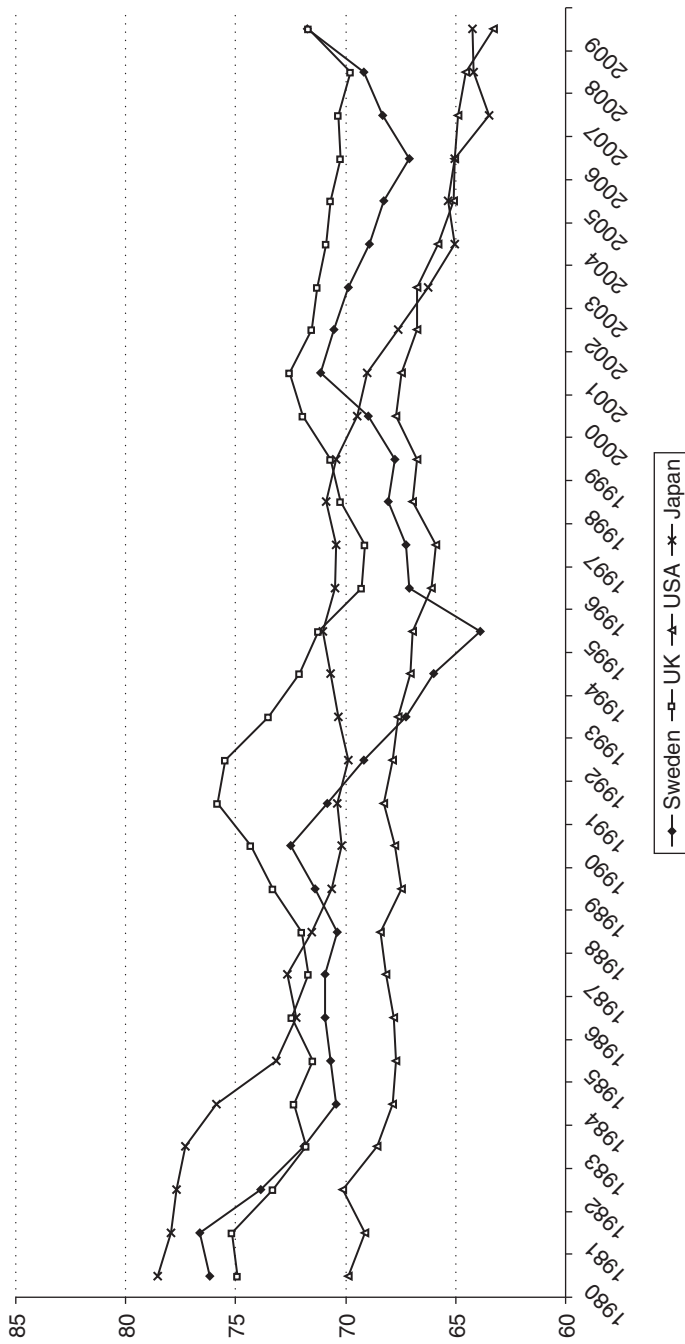
The trend towards re-distribution under the conditions of finance-dominated capitalism has several dimensions which will be examined here for the major Euro area countries, Austria, Belgium, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, and Spain; Sweden and the UK as EU countries outside the Euro area; and the US and Japan.² Data are mainly from European Commission and Organization for Economic Co-operation and Development (OECD) sources. Lack of reliable data is the reason why China had to be excluded from part of the analysis of distribution trends.

First, we observe that functional income distribution has changed at the expense of labour and in favour of broad capital income in the period of neo-liberalism and finance-dominated capitalism. The labour income share, as a measure taken from the national accounts and corrected for the changes in the composition of employment regarding employees and self-employed,³ has shown a falling trend in the developed economies

considered here since the early 1980s, with cyclical fluctuations due to the well known counter-cyclical properties of the labour income share (Figures 2.1a–2.1c). In order to eliminate cyclical fluctuations of the labour income share, we have calculated cyclical averages for the three trade cycles from the early 1980s until 2008 (Table 2.1). On average over the cycle, the labour income share has fallen in all countries but Portugal, from the first cycle (early 1980s to the early 1990s) to the third cycle (early 2000s until 2008). The fall has been most substantial in Austria and Ireland with more than 10 percentage points of GDP at factor costs, and in Greece, France, Italy, Spain and Japan with more than 5 percentage points of GDP. In Belgium, Germany, the Netherlands, Sweden, the UK and the US the labour income share has fallen by less than 5 percentage points of GDP at factor costs. The reasons for this long-run development and its relationship with neo-liberalism and finance-dominated capitalism will be examined more closely in the next section.

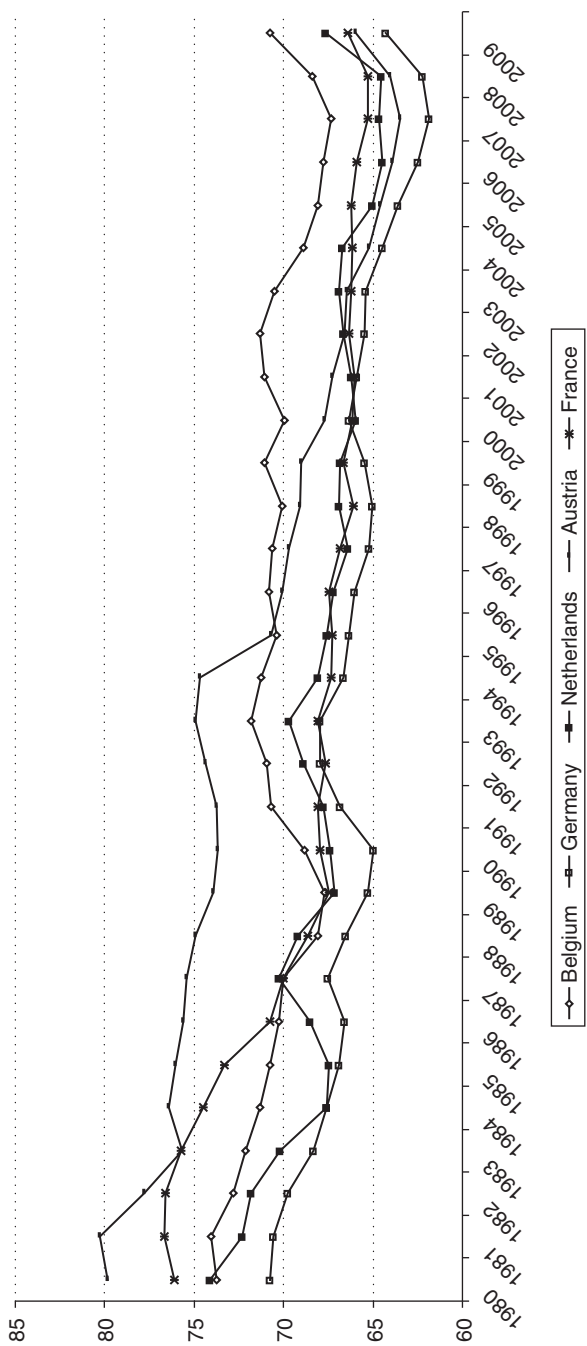
Second, personal income distribution has become more unequal in most of the countries from the mid 1980s until the mid 2000s. Taking the Gini coefficient as an indicator, this is true for the distribution of market income, with France and the Netherlands being exceptions in our data set (Table 2.2).⁴ In some countries this rise in inequality has been considerable, in particular in Germany, Italy, Portugal, the UK and the US. Also in China inequality increased until the mid 1990s. If we include redistribution via taxes and social policies by the state, Belgium, France, Greece, Ireland and Spain have not seen an increase in their Gini coefficients, with considerable declines in France, Greece and Spain. The other countries, however, have also experienced an increasing inequality in disposable income in the period of neo-liberalism and finance-dominated capitalism. This increase was particularly pronounced in Germany, Italy, the UK, the US and China. Although tax and social policies have reduced income inequality in all of the countries under investigation but China, in most countries this has not prevented an increase in inequality over time. This is also the conclusion the OECD (2008) has drawn for a broader set of countries and from the application of further measures of income inequality.

This picture regarding personal income distribution, however, remains incomplete, because Gini coefficients or other measures of inequality of personal income distribution are usually based on data from household and consumer surveys which do not include top incomes and thus underestimate the development at the top of the income hierarchy (OECD 2008). Bach et al. (2009) in a study on income distribution in Germany from 1992–2003 report an increase of the Gini coefficient for gross market incomes from 0.62 in 1992 to 0.65 in 2003, merging household and consumer survey data from the German Socio Economic Panel with data



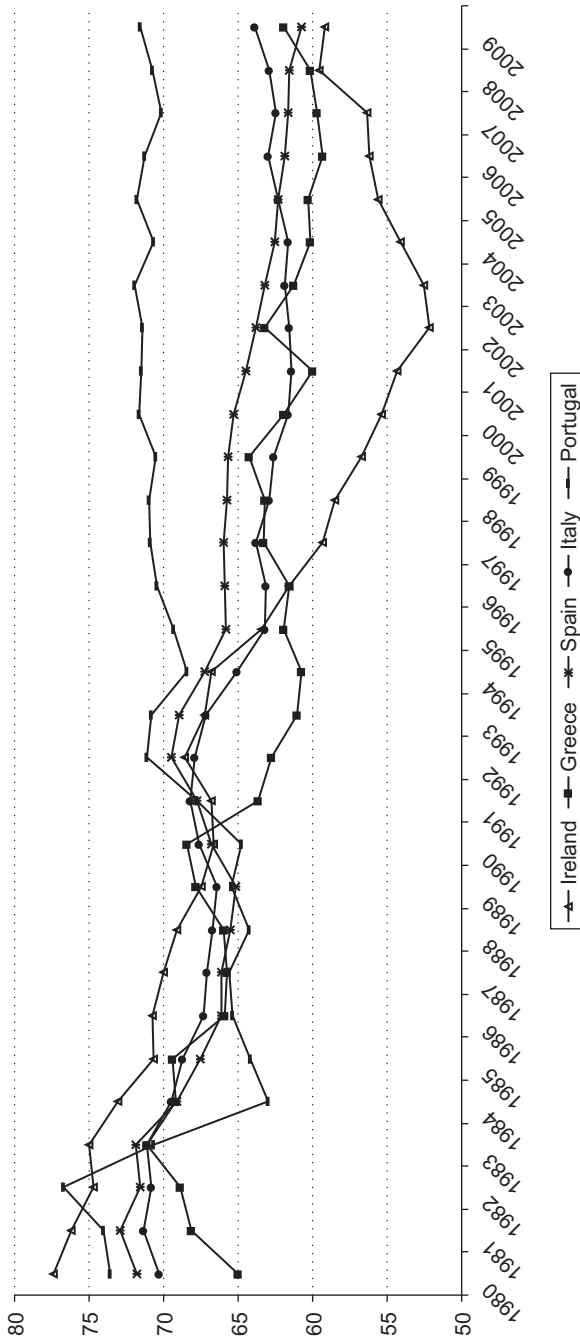
Source: European Commission (2010).

Figure 2.1a Labour income share as percentage of GDP at current factor costs in Japan, Sweden, the UK and the US, 1980–2009



Source: European Commission (2010).

Figure 2.1b Labour income share as percentage of GDP at current factor costs in Austria, Belgium, France, Germany and the Netherlands, 1980–2009



Source: European Commission (2010).

Figure 2.1c Labour income share as percentage of GDP at current factor costs in Greece, Italy, Ireland, Portugal and Spain, 1980–2009

Table 2.1 Labour income share as percentage of GDP at current factor costs, average values over the trade cycle, early 1980s–2008

	1. Early 1980s – early 1990s	2. Early 1990s – early 2000s	3. Early 2000s – 2008	Change (3. – 1.), percentage points
Austria	75.66	70.74	65.20	–10.46
Belgium	70.63	70.74	69.16	–1.47
France	71.44	66.88	65.91	–5.53
Germany	67.11	66.04	63.34	–3.77
Greece ^a	67.26	62.00	60.60	–6.66
Ireland	70.34	60.90	55.72	–14.61
Italy	68.31	63.25	62.37	–5.95
Netherlands	68.74	67.21	65.57	–3.17
Portugal	65.73	70.60	71.10	5.37
Spain	68.32	66.13	62.41	–5.91
Sweden	71.65	67.04	69.16	–2.48
UK	72.79	71.99	70.67	–2.12
US	68.20	67.12	65.79	–2.41
Japan ^a	72.38	70.47	65.75	–6.64

Notes:

The labour income share is given by the compensation per employee divided by GDP at factor costs per person employed.

The beginning of a trade cycle is given by a local minimum of annual real GDP growth in the respective country.

^a adjusted to fit in 3 cycle pattern.

Source: European Commission (2010), author's calculations.

from official income tax statistics, thus creating a data base for the entire income distribution. Their Gini coefficient for Germany including top incomes is thus substantially higher than the one included in the OECD database referred to above.

Third, the path-breaking research by Piketty/Saez (2003, 2006) based on tax data for the US has shown that, with regard to changes in personal income distribution, the share of top incomes in national income has increased significantly since the early 1980s in this country.⁵ Studies based on tax data, which have by now been extended to several other countries and have been reviewed in Atkinson et al. (2011), focus on the distribution of market income prior to taxation and government re-distribution. Making use of the data supplied by Atkinson et al. (2010) we take a look at the developments of the income shares of the top 0.1 per cent in 11 countries in Figures 2.2a–2.2d.⁶ The US and the UK have seen an explosion of the shares of the very top incomes since the early 1980s, which prior

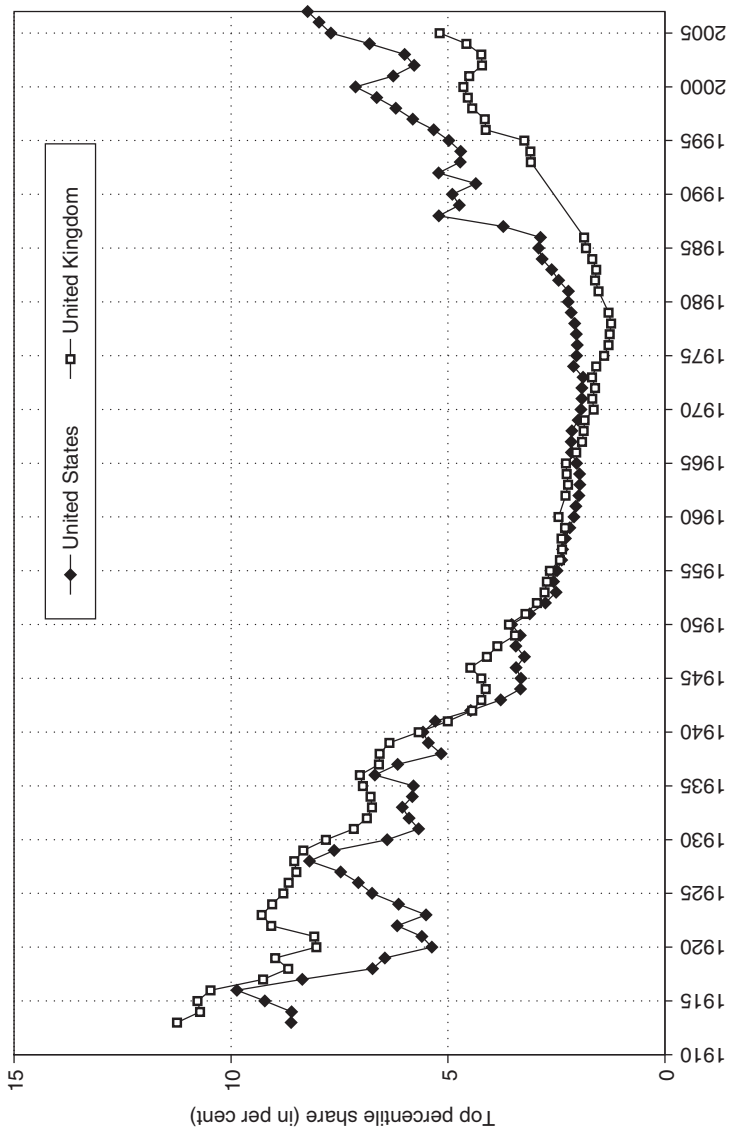
Table 2.2 Gini coefficient before and after taxes

Gini coefficient before taxes							
Country	mid-70s	mid-80s	around 1990	mid-90s	around 2000	mid-2000s	Change from earliest to most recent value
Austria	...	...	...	...	...	0.43	...
Belgium	...	0.45	...	0.47	0.46	0.49	0.04
France	...	0.52	0.51	0.48	0.50	0.48	-0.04
Germany	...	0.44	0.42	0.46	0.48	0.51	0.07
Greece	...	...	...	...	...	...	...
Ireland	...	...	...	...	0.43	0.42	...
Italy	...	0.42	0.44	0.51	0.52	0.56	0.14
Netherlands	0.42	0.47	0.47	0.48	0.42	0.42	0.00
Portugal	0.46	...	0.44	0.49	0.48	0.54	0.08
Spain	...	...	...	...	...	...	...
Sweden	0.39	0.40	0.41	0.44	0.45	0.43	0.04
UK	0.36	0.44	0.46	0.48	0.48	0.46	0.10
US	0.37	0.40	0.42	0.45	0.45	0.46	0.09
Japan	...	0.35	...	0.40	0.43	0.44	0.04
China	0.29	0.30	0.34	0.36	...	...	0.07
Gini coefficient after taxes							
Country	mid-70s	mid-80s	around 1990	mid-90s	around 2000	mid-2000s	Change from earliest to most recent value
Austria	...	0.24	...	0.24	0.25	0.27	0.03
Belgium	...	0.27	...	0.29	0.29	0.27	0.00
France	...	0.31	0.30	0.28	0.28	0.28	-0.03
Germany	...	0.26	0.26	0.27	0.27	0.30	0.04
Greece	0.41	0.34	...	0.34	0.34	0.32	-0.09
Ireland	...	0.33	...	0.32	0.30	0.33	0.00
Italy	...	0.31	0.30	0.35	0.34	0.35	0.04
Netherlands	0.25	0.26	0.28	0.28	0.28	0.27	0.03
Portugal	0.35	...	0.33	0.36	0.36	0.38	0.03
Spain	...	0.37	0.34	0.34	0.34	0.32	-0.05
Sweden	0.21	0.20	0.21	0.21	0.24	0.23	0.02
UK	0.28	0.33	0.37	0.35	0.37	0.34	0.06
US	0.32	0.34	0.35	0.36	0.36	0.38	0.06
Japan	...	0.30	...	0.32	0.34	0.32	0.02
China	...	...	0.38	0.45	0.45	0.45	0.07

Notes:

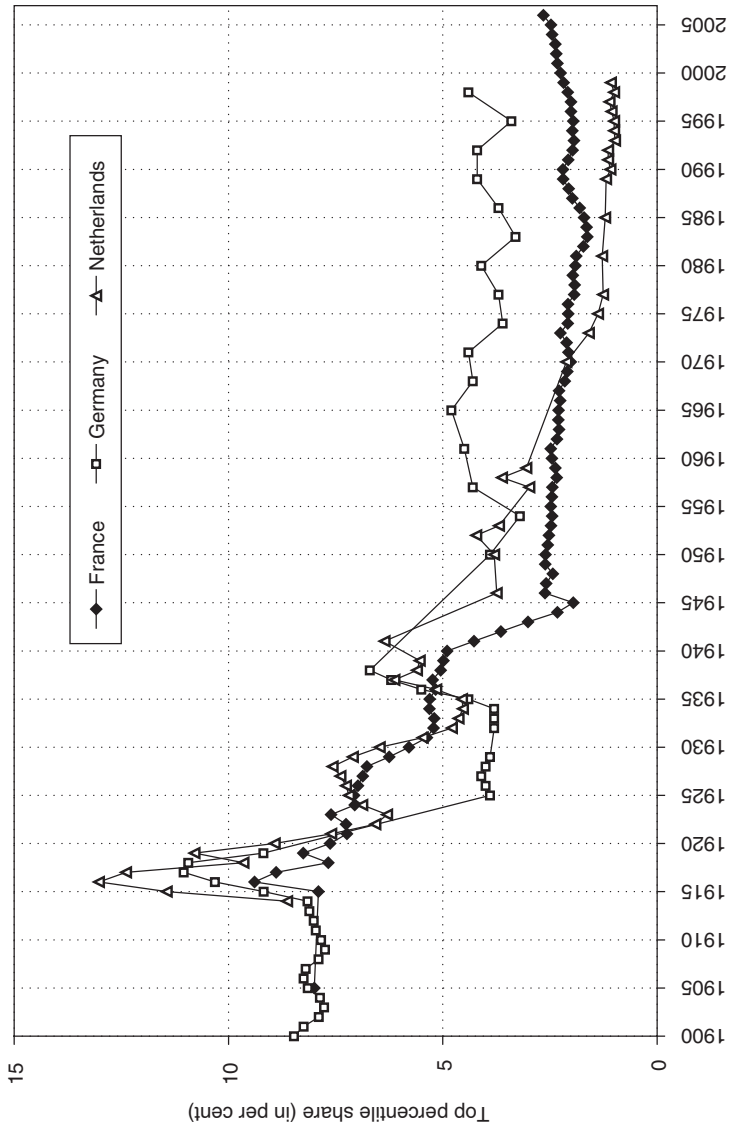
Data refer to cash income of households and are broken down to individuals. The income attributed to each individual is adjusted for household size, but does not distinguish between adults and children.

Source: OECD (2010) for all countries but China, WIDER (2011) for China, author's calculations.



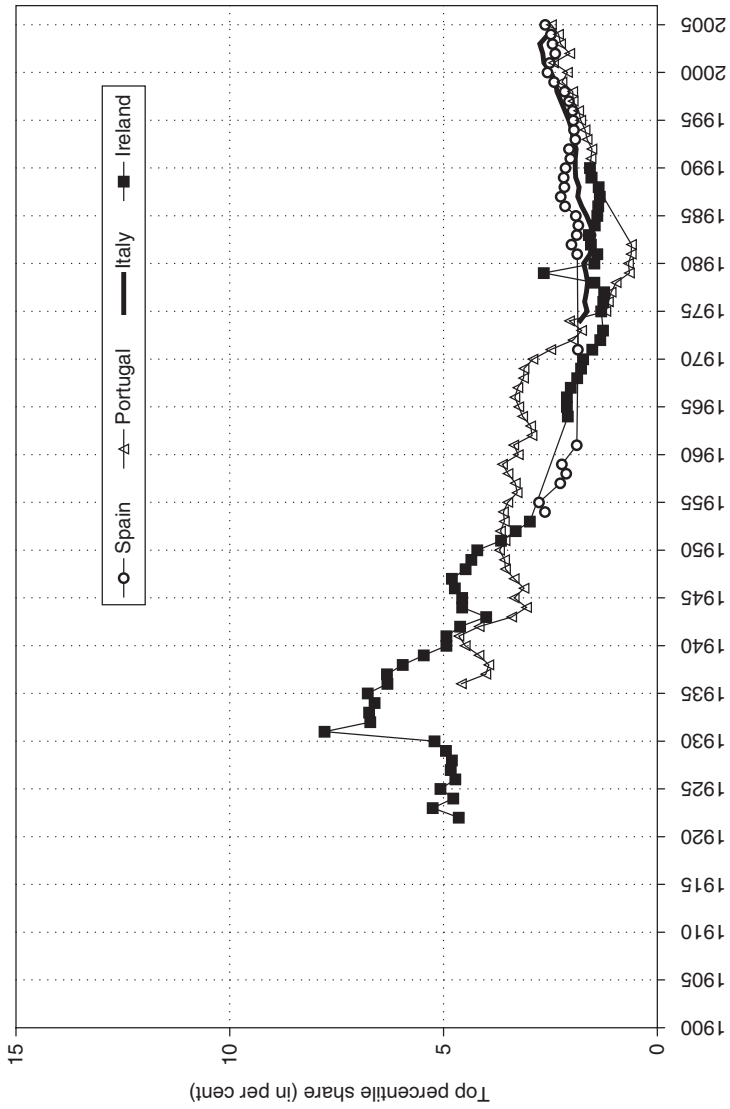
Source: Atkinson et al. (2010).

Figure 2.2a Top 0.1% share in national income: UK and US



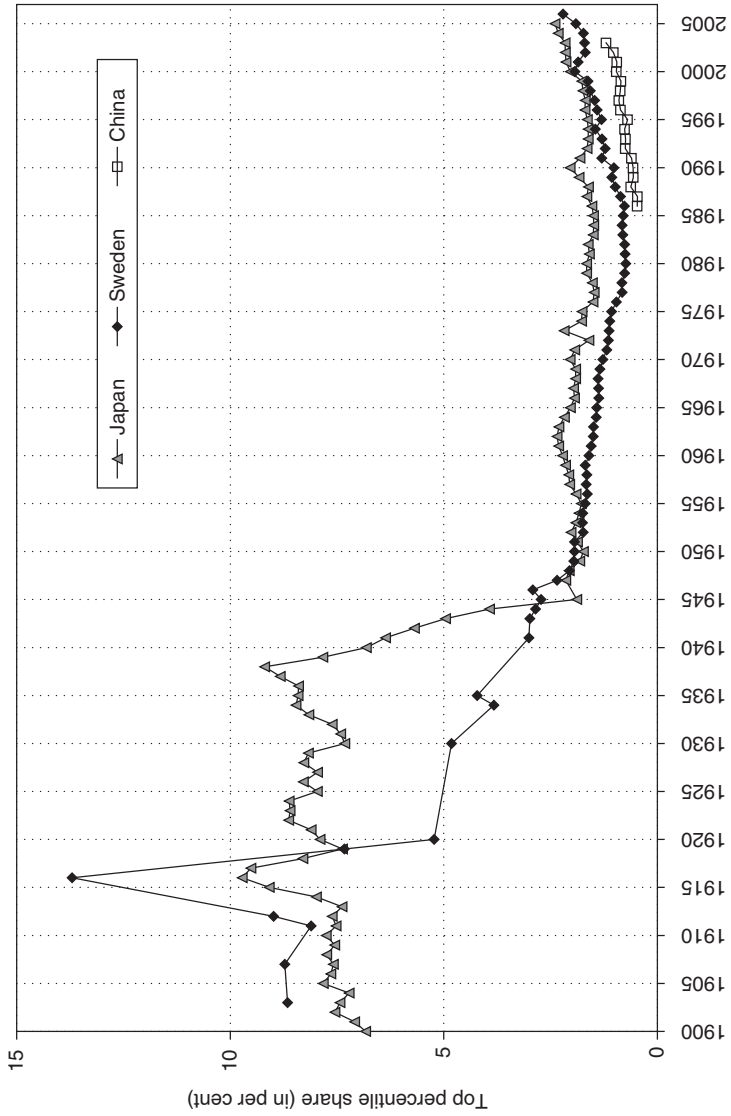
Source: Atkinson et al. (2010).

Figure 2.2b Top 0.1% share in national income: France, Germany, the Netherlands



Source: Atkinson et al. (2010).

Figure 2.2c Top 0.1% share in national income: Ireland, Italy, Portugal, Spain



Source: Atkinson et al. (2010).

Figure 2.2d Top 0.1% share in national income: China, Japan, Sweden

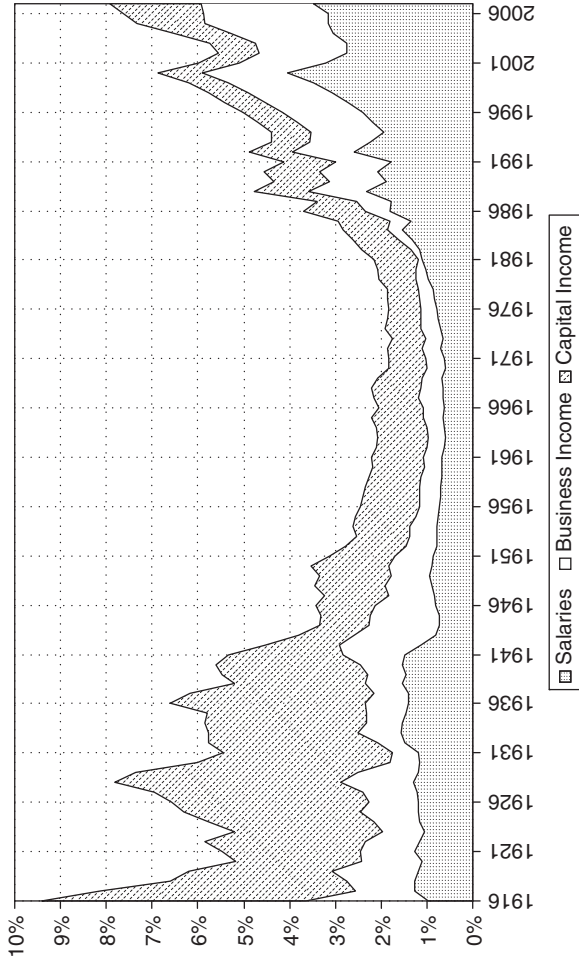
to the present crisis have again reached levels of the 1920s in the US and the late 1930s in the UK.⁷ In France, Germany, the Netherlands, Spain, Portugal, Italy, Ireland, China, Japan and Sweden, however, the shares of the top 0.1 per cent have remained roughly constant or only slightly increased in the neo-liberal period and have not returned to the high levels prior to World War II.⁸ But note that the share of the top 0.1 per cent in Germany is substantially higher than in the other countries and has only been surpassed by the US and the UK since the late 1980s and the mid 1990s, respectively.

Furthermore, in the data set provided by Atkinson et al. (2010) for Germany, the top 1 per cent, top 0.1 per cent and the top 0.01 per cent income shares do not show any pronounced rising trend until 1998. Bach et al. (2009), in their study for Germany already referred to above, confirm this result also for the respective values until 2003. However, they find a remarkable growth of the income share accruing to the richest 0.001 per cent of the population (about 650 persons), which managed to increase its share of gross market income – excluding capital gains – from 0.55 per cent in 1992 to 0.82 per cent in 2003.

The increase in the income share of the top 0.1 per cent in the US is mainly driven by an increase in business income (profits from sole proprietorship, partnerships and so on) and by the increase in top salaries, including wages and salaries, bonuses, exercised stock-options and pensions, whereas the share of capital income (interest, dividends, rents, royalties and so on) in the top 0.1 per cent income share has remained roughly constant (Figure 2.3). Remuneration of top management ('working rich') has therefore contributed significantly, but not exclusively, to rising inequality in the US from the early 1980s until 2006.⁹

Top management salaries have contributed around 50 per cent to the income of the top 0.1 per cent income share in the US since the mid 1970s. In Germany, however, the main income of the top 0.1 per cent income share derived mainly from business activity (64.1 per cent in 1992, 58.5 per cent in 2003) and capital income (20.9 per cent in 1992, 19.2 per cent in 2003), with a decreasing trend each (Bach et al. 2009).¹⁰ Top management salaries have played a minor role. However their share has increased from 15 per cent in 1992 to 22.4 per cent in 2003.¹¹ Therefore, the 'working rich' phenomenon seems to arise in Germany as well. The same seems to be true for some other countries for which data are available. Atkinson et al. (2011) mention Italy, the Netherlands, Spain, the UK and Japan. For the Nordic countries, however, notably Sweden, the share of top management salaries in top income shares has decreased in the neo-liberal period, according to their review.

Since top management salaries are part of compensation of employees



Notes:

Income is defined as market income excluding capital gains (excludes all government transfers).

Salaries include wages and salaries, bonus, exercised stock-options, and pensions.

Business income includes profits from sole proprietorships, partnerships, etc.

Capital income includes interest income, dividends, rents, royalties, and fiduciary income.

Source: Atkinson et al. (2010).

Figure 2.3 *The top 0.1% income share and its composition, US, 1916–2007*

in the national accounts and are thus included in the wage share considered above, the increase in top management salaries in the period of neo-liberalism and financialization has dampened the fall in the measured wage share since the early 1980s. Excluding top management salaries from the wage share would therefore give an even more pronounced fall in the share of 'ordinary labour'.¹²

In the following section we will address the causes for the change in functional income distribution or in factor shares for several reasons. On the one hand, the analysis of factor shares provides the link between incomes at the macroeconomic or the national accounting level and incomes at the level of the household, thus helping to understand the development of inequality in personal distribution, and providing an indicator of the relative powers of different groups, according to Atkinson (2009). On the other hand, the analysis of functional income distribution allows for a straightforward integration of changes in distribution into a macroeconomic framework.

2.3 FINANCIALIZATION AND CHANGES IN FUNCTIONAL DISTRIBUTION: POTENTIAL CHANNELS OF INFLUENCE

2.3.1 A Kaleckian Approach

In order to discuss the long-run effects of neo-liberalism and financialization on functional income distribution, we start with a Kaleckian approach (Kalecki 1954, pp.11–41, 1971, pp.43–77). According to Kalecki, functional income distribution in the industrial sector of the economy is determined by mark-up pricing of firms in incompletely competitive markets (monopoly, oligopoly, monopolistic competition and so on). Whereas in the primary sector (agriculture, fishing, mining) with inelastic supply in the short run, changes in demand cause changes in prices, in the industrial sector changes in demand trigger changes in output and thus the rate of capacity utilization with prices being more or less rigid. The rate of capacity utilization therefore becomes endogenous in the Kaleckian models of distribution and growth focussing on industrial economies, both in the short run and in the long run.¹³ Since we are mostly dealing with developed capitalist economies with dominating industrial and service sectors we apply Kalecki's approach. In the labour intensive service sector, below full employment supply can be considered to be variable, too, and prices can be assumed to be set by means of marking up unit costs.

Post-Keynesians have proposed different cost plus pricing procedures: mark-up pricing, full cost or normal cost pricing and target rate of return pricing.¹⁴ For the sake of simplicity, we start with Kalecki's (1954, pp. 11–41, 1971, pp. 43–77) mark-up pricing approach. What follows is not meant to present a detailed and exact analysis of pricing procedures in certain periods of development of modern capitalism, but rather to identify channels of influence of financialization on pricing and distribution in a stylized way. We are interested in the potential medium- to long-run effects of financialization on distribution, but not so much on the causes of short-run, cyclical fluctuations of functional income distribution. With Kalecki we assume that firms mark up marginal costs which are roughly constant up to full capacity output given by the available capital stock. This implies that the mark-up is applied to constant average variable costs. Unit variable costs are composed of unit direct labour costs and unit material costs. To the extent that raw materials and semi-finished products are imported from abroad, international trade is also included into our model.

In this approach, the mark-up has to cover overhead costs, that is, depreciation of fixed capital and in particular salaries of overhead labour, on the one hand, and firms' gross profits, that is, interest and dividend payments as well as retained profits, on the other hand. As will be seen below, this approach is thus well suited to take the explosion of top management salaries observed in the US and other countries into account.¹⁵ With a given mark-up and constant unit variable costs up to full capacity output, gross and also retained unit profits will vary pro-cyclically, because unit overhead costs will move counter-cyclically, that is, they will fall (rise) with fixed overhead costs spreading over increasing (decreasing) output.¹⁶

For a vertically integrated domestic industrial or service sector j , which uses fixed capital, labour and imported raw materials and semi-finished goods as inputs, we get the following pricing equation:

$$p_j = (1 + m_j) (wa_j + p_f e \mu_j), m > 0, \quad (2.1)$$

with p_j denoting the output price in sector j , m_j the mark-up, w the nominal wage rate, a_j the labour–output ratio, p_f the unit price of imported material or semi-finished products in foreign currency, e the exchange rate, and μ_j imported materials or semi-finished inputs per unit of output. Since the relationship between unit material costs and unit labour costs (z_j) is given by:

$$z_j = \left(\frac{p_f e \mu_j}{wa_j} \right), \quad (2.2)$$

the price equation can also be written as:

$$p_j = (1 + m_j) \left[wa_j \left(1 + \frac{p_j e \mu_j}{wa_j} \right) \right] = (1 + m_j) [wa_j(1 + z_j)]. \quad (2.3)$$

The gross profit share (h_j), including overhead costs and thus also management salaries, in gross value added of sector j is given by:

$$h_j = \frac{\Pi_j}{(\Pi + W)_j} = \frac{1}{\frac{1}{(1 + z_j)m_j} + 1} = \frac{(1 + z_j)m_j}{(1 + z_j)m_j + 1}, \quad (2.4)$$

with Π denoting gross profits including overhead costs and W representing wages for direct labour. For the corresponding share of wages for direct labour in gross value added ($1 - h_j$) we obtain:

$$(1 - h_j) = \frac{W_j}{(\Pi + W)_j} = \frac{1}{(1 + z_j)m_j + 1}. \quad (2.5)$$

The gross profit share (h) including overhead costs for the economy as a whole is given by the weighted average of the sectoral profit shares, the wage share of direct labour ($\omega = 1 - h$) for the economy by the weighted average of the sectoral wage shares:¹⁷

$$h = \frac{\Pi}{(\Pi + W)} = \frac{1}{\frac{1}{(1 + z)m} + 1} = \frac{(1 + z)m}{(1 + z)m + 1}, \quad (2.6)$$

$$1 - h = \frac{W}{(\Pi + W)} = \frac{1}{(1 + z)m + 1}. \quad (2.7)$$

Functional income distribution is thus determined by the mark-up in pricing of firms, by the relationship of unit material costs to unit labour costs, and by the sectoral composition of the economy. With constant technical conditions of production (constant a and μ), an increasing gross profit share including overhead costs (a decreasing wage share of direct labour) can either be caused by rising mark-ups, a falling nominal wage rate, rising prices of imported materials or semi-finished goods in foreign currency, a depreciation of the domestic currency (thus a rising exchange rate), and/or a change in the sectoral composition of the economy in favour of high profit share sectors.

Before discussing the potential channels of influence of financialization

and neo-liberalism on functional income distribution, the determinants of the mark-up have to be examined more closely. According to Kalecki (1954, pp. 17–18, 1971, pp. 49–52) the mark-up, or what he calls the ‘degree of monopoly’, has several determinants.

First, the mark-up is positively related to the degree of concentration within the respective industry or sector. A high degree of concentration within an industry makes price leadership by the most important firms, tacit agreements or more or less formal cartels more likely. Second, the mark-up is negatively related to the relevance of price competition relative to other forms of competition (product differentiation, marketing and so on). We summarize these two determinants as the ‘degree of price competition among firms in the goods market’. These determinants of the mark-up have been highlighted, in particular, in the works by Steindl (1976) and Baran/Sweezy (1966) focussing on the tendencies towards ‘monopoly capital’.¹⁸ They have been integrated into the modern Kaleckian/Steindlian distribution and growth models starting with the works by Rowthorn (1981) and Dutt (1984).

Third, Kalecki claims that the power of trade unions has an adverse effect on the mark-up. In a kind of strategic game, firms anticipate that strong trade unions will demand higher wages if the mark-up and hence unit profits exceed ‘reasonable’ or ‘conventional’ levels, so that the high mark-up can only be sustained at the expense of ever rising prices and finally a loss of competitiveness of the firm.¹⁹ This will induce firms to constrain the mark-up in the first place. Starting with Rowthorn (1977), in the Post-Keynesian literature the effect of trade union bargaining power has been integrated into conflict claims inflation models, in which workers/trade unions and firms have conflicting and potentially inconsistent income claims generating inflation, on the one hand, and affecting income distribution, on the other hand (see for instance Lavoie 1992, pp. 372–421, Hein/Stockhammer 2010).

Fourth, Kalecki argues that overhead costs may affect the degree of monopoly and hence the mark-up. Since a rise in overhead costs squeezes gross profits, ‘there may arise a tacit agreement among the firms of an industry to ‘protect’ profits, and consequently to increase prices in relation to unit prime costs’ (Kalecki 1954, p. 17).²⁰ Lavoie (2009) recently discussed the effects of shifting managerial staff costs to prices in a Kaleckian distribution and growth model. From the perspective of the firm, interest payments on debt are also part of overhead costs, and thus the idea of an interest rate or interest payments elastic mark-up has been introduced into Kaleckian models of distribution and growth (Lavoie 1993, Hein 2006, 2007, 2008a, pp. 102–23).²¹ A permanent increase in interest rates (or interest payments) would thus induce firms on average

to increase the mark-up in order to survive. Recently, this idea has been further extended arguing that from the perspective of the management of the firm dividend payments are as well a kind of overhead obligation. A permanent increase of dividend payments could therefore induce management to recover this drain of funds for real investment or other purposes by means of increasing the mark-up, that is, raising prices or forcing down unit labour costs if market conditions and relative bargaining power of firms and labour unions allow (Hein 2010a, 2010b, Hein/van Treeck 2010a, 2010b).

Making the mark-up elastic with respect to different types of overheads and gross profit claims means that firms need to have a notion of normal or long-run average levels of output or rates of utilization of capacity given by the capital stock, because unit overhead costs decrease with output. The mark-up approach becomes thus equivalent to a target rate of return approach (Lavoie 1992, p.135), and the mark-up in equation (2.1) can be understood as being determined by a target rate of return at long-run average levels of output or rates of capacity utilization. In the early target rate of return approaches by Eichner (1976), Harcourt/Kenyon (1976) and Wood (1975) it was assumed that the mark-up set by the firm is determined by the required internal means of finance for real investment purposes – under the conditions of incomplete credit markets characterized by asymmetric information, which do not allow firms to borrow without any own means of finance, according to Kalecki's (1937) 'principle of increasing risk'. Therefore, in these approaches it was growth expectations of firms which determine the target rate of return and thus the mark-up. Recently, this approach has been extended by allowing for different target rates of return by different stakeholder groups within a firm. Lavoie (2002) presented a model of target rate of return pricing with different target rates of workers and firms, generating conflict inflation and an endogenous normal rate of capacity utilization. Dallery/van Treeck (2011) have included shareholders and their target rate of return into the model and have derived different outcomes depending on the relative powers of each group. Their model allows for the analysis of the effects of various features of financialization, in particular the effects of the dominance of shareholders over other groups imposing their target rate of return, or 'financial norm' (Boyer 2000), on the firm as a whole. Taking these recent extensions into account, the mark-up in equation (2.1) can be seen as reflecting the target rate of return as an outcome of distribution struggle within the firm, at a long-run average rate of capacity utilization being itself an endogenous outcome of the distribution struggle, on the one hand, and interacting with aggregate demand in the goods market, on the other.

Having so far identified the main channels of influence on the labour income share of direct labour, respectively on the gross profit share including management salaries, we shall now discuss the potential effects of financialization and neo-liberalism on functional income distribution via the channels identified above. We consider the three determinants of the mark-up: the degree of price competition in the goods market, bargaining power and activity of trade unions in the labour market, and overhead costs and gross profit targets. Furthermore, we consider the prices of imported raw materials and semi-finished goods (in relation to direct labour costs) and the sectoral composition of the domestic economy. From the enormous recent literature on financialization,²² we can derive the following seven ‘stylized facts’ which may have exerted a direct impact on income distribution, if we follow the Kaleckian approach: increasing shareholder value orientation and increasing short-termism of management; rising dividend payments; increasing interest rates and interest payments, in particular in the 1980s; increasing top management salaries; increasing relevance of financial as compared to real investment and hence of the financial sector relative to the non-financial sector; hostile takeovers, mergers and acquisitions; and liberalization and globalization of international finance and trade. We have added two further developments since the early 1980s which might have affected functional income distribution, and which are part of neo-liberalism: deregulation of the labour market and the attempts at downsizing of the share of government activity in real GDP, of government intervention in the private sector of the economy, and of government aggregate demand management. In Table 2.3 we summarize the potential effects of these developments on the gross profit share including top management salaries via the channels proposed by the Kaleckian theory of distribution and in the following section we discuss the relevance of each of these potential effects taking a look at the related empirical literature.

2.3.2 Evidence

The degree of price competition in the goods market has been affected in an ambiguous way so that the overall effect remains unclear, a priori. Hostile takeovers, mergers and acquisitions may have increased industrial concentration and, *ceteris paribus*, allowed for higher mark-ups, whereas liberalization and globalization of international trade and finance obviously increase the degree of price competition and thus impose a downward pressure on the mark-up. The overall effect thus remains unclear. A similar result holds for the prices of imported raw materials and semi-finished goods (relative to wage costs) as a determinant of the profit share. They may be affected by globalization and liberalization of international

Table 2.3 *Financialization and the gross profit share – a Kaleckian perspective*

Stylized facts of financialization (1.–7.) and neo-liberalism (8.–9.)	Determinants of the gross profit share (including (top) management salaries)				
	Mark-up				
	1. Degree of price competition in the goods market	2. Bargaining power and activity of trade union	3. Overhead costs and gross profit targets	4. Price of imported raw materials and semi-finished products	5. Sectoral composition of the domestic economy
1. Increasing shareholder value orientation and short-termism of management	...	+	+
2. Rising dividend payments	+
3. Increasing interest rates or interest payments	+
4. Increasing top management salaries	+
5. Increasing relevance of financial to non-financial sector (investment)	...	+	+
6. Mergers and acquisitions	+
7. Liberalization and globalization of international finance and trade	-	+	...	+/-	+/-
8. Deregulation of the labour market	...	+
9. Downsizing of government	...	+	+

Note: + positive effect on the gross profit share, - negative effect on the gross profit share, ... no direct effect on the gross profit share.

trade and finance, but in an ambiguous way. Whereas prices of labour intensive reproducible semi-finished goods have a tendency to decline due to increased international competition and relocation of production towards low wage regions, prices of non-reproducible raw materials, in particular energy, have a tendency to rise due to the industrialization of China and India and the respective increase in world demand, in particular. The overall effect is again unclear. In what follows, we will therefore focus on the other three channels in Table 2.3 and we will treat them in reverse order.

The sectoral composition of the economy is affected by an increasing share of the financial sector in value added as compared to the non-financial sector, on the one hand, and by downsizing government activity in GDP, on the other hand. The effect of the latter is obvious, because in the national accounts the government sector is a ‘non-profit’ sector; government owned corporations are part of the corporate sector. And even if we include top management salaries into the profit share, this will only have a minor effect for the government sector as compared to the private sectors of the economy in which these salaries usually exceed those in the public sector. Therefore, downsizing government will, *ceteris paribus*, reduce the economy-wide wage share and increase the profit share. An increasing share of value added of financial corporations relative to the non-financial corporations will push up the economy-wide gross profit share, too, if the sectoral wage share in the financial sector falls short of that in the non-financial sector. In a decomposition study for Germany (1980–2008) and the US (1970–2008), Dühaupt (2012) shows that in these two countries this has been indeed the case: In the US, the wage share according to the national accounts, thus including top management salaries, has been fluctuating around slightly less than 75 per cent in the non-financial corporate sector and around 65 per cent in the financial corporate sector, each without a clear tendency to fall. It has been the increase in the share of the financial sector in value added of the corporate sector which has caused the wage share in the US corporate sector to fall. In Germany, where the share of the financial sector in value added of the corporate sector has only slightly increased in the 2000s, the wage share in the financial sector has been fluctuating around 70 per cent without any long-run downward or upward tendency, whereas the wage share in the non-financial sector having been around 77 per cent until the mid 1990s has shown a considerable downward tendency since then and has fallen to the level of the financial corporate sector. Therefore, in Germany the fall in the wage share in the corporate sector has been dominated by the falling wage share in the non-financial corporations, with the sectoral shift towards the financial sector contributing to this decline since the early 2000s.

With regard to overhead costs and gross profit targets, in the previous section of this chapter we have already discussed increasing top management salaries, showing how significant this development has been in the US, but recently also in other countries including Germany. Excluding top management salaries from the wage share taken from the national accounts would therefore make the latter fall even more, that is, there is at least a correlation of a rising share of top management salaries in GDP and a falling tendency of the share of direct labour. In this section we shall now focus on interest and dividend payments. Studying the development of the profit rate of non-financial corporations in France and the US (1960–2001), Dumenil/Levy (2005) have found that the rise in this profit rate since the early 1980s has been mainly due to the rise in net real interest payments. Excluding these payments from profits, the profit rate of the non-financial corporate sector has remained constant in France and has increased only slightly in the US.²³ Therefore, rising interest payments have had to be paid for by a reduction in the labour income share and it has thus been mainly the rentiers class which has benefited from re-distribution at the expense of labour. In a more general study on 29 OECD countries (1960–2000) focussing on the development of the share of rentiers' income in GDP, Epstein/Power (2003) confirm the results by Dumenil/Levy. They show that the share of rentiers' income in GDP increased at the expense of the wage share in most countries during the 1980s, remaining on the high level through the 1990s. In their study, rentiers' income is defined as the sum of profits of the financial sector plus interest income of the non-financial sector and households. Since nominal interest payments also compensate for capital losses due to inflation, Epstein/Jayadev (2005) have extended the analysis for 15 OECD countries (1960–2000), correcting the share of rentiers' income in GDP for inflation. Applying this method, they mainly confirm the earlier results by Epstein/Power (2003). These studies, however, only partially cover the distributive effects of financialization, because they do not include dividend payments of non-financial corporations to private households in their definition of rentiers' income.

Dünhaupt (2012) has therefore redefined rentiers' income as net property income of private households, including thus net interest and net dividends received, and she has examined the development of the rentiers' share in net national income and of its components for Germany (1980–2008) and the US (1970–2008). For the US she finds an increase in the rentiers' share in the early 1980s, which then remains roughly constant over the next 25 years, and a corresponding decline in the wage share, whereas the share of retained earnings shows no marked trend. The decomposition of the rentiers' share reveals that the spike in the

early 1980s was mainly driven by net interest income and that since the late 1980s net dividend income has increased its share tremendously. In Germany, the rentiers' share has increased continuously since the early 1990s with a corresponding fall in the wage share, whereas the share of retained earnings shows marked fluctuations but no trend. The increase in the rentiers share has almost exclusively been driven by an increase in the share of dividend income.

Econometric evidence on the effects of rentiers' income claims on the wage share or the gross profit share is rather limited and is focussed on the effects of interest rates or interest payments. Marterbauer/Walterskirchen (2002) have estimated the determinants of the adjusted wage share for the overall economy in Austria, Germany, Denmark, Finland, Ireland, Italy, the Netherlands and Sweden from 1970–2000. They find significant effects with the expected sign almost uniformly for each of the countries for GDP growth indicating the effect of the trade cycle, the unemployment rate representing trade union bargaining power, and inflation capturing the effect of changes in prices of imported raw materials and semi-finished products. For Austria they also include the real long-term interest rate which is taken to reflect rentiers' income claims. Although the variable shows the expected sign it is not statistically significant.

Argitis/Pitelis (2001) obtained for the non-financial corporate sector in the US and the UK in the period 1965–97 that the nominal interest rate negatively affects the share of industrial profits in gross value added of the non-financial corporate sector in both countries. Further determinants of the share of industrial profits are nominal wages and the bargaining power of labour unions, measured by unemployment and strike intensity. Therefore, according to these results, a rise in the interest rate does not seem to affect the mark-up and thus does not harm the wage share directly, but rather seems to compress industrial profits. However, if rising interest rates are accompanied by weakened bargaining power of labour unions and lower wage demands, re-distribution will take place at the expense of labour income, according to the results by Argitis/Pitelis.

Marterbauer/Walterskirchen (2002) and Argitis/Pitelis (2001) have thus found no significant direct impact of overhead costs associated with financialization on the wage share or the gross profit share. However, they have only introduced real or nominal interest rates into their regressions and have not controlled for indebtedness of the business or corporate sector.²⁴ Hein/Schoder (2011) have therefore included net interest payments of the non-financial business sector in relation to the nominal capital stock of this sector into their estimations of a profit share function for the total economy for Germany and the US from 1960–2007.²⁵ The following control variables have been applied: the unemployment rate indicating the

relative powers of workers and firms in the distribution struggle, consumer price inflation indicating exogenous price shocks, and the growth rate of real net domestic income as an indicator for demand affecting the short-run room of manoeuvre of firms for price setting. They find a highly significant and strong effect of net interest costs on the profit share thus confirming the notion of an interest payments elastic mark-up affecting distribution between capital and labour.²⁶ Unemployment has a positive effect on the profit share in the US, but no effect in Germany. Inflation shocks affect the profit share negatively in both countries. Hence, on average, trade unions were strong enough to compensate for inflation induced losses in the real wage position of workers. Aggregate demand had a short-run positive but long-run negative impact on the profit share in both countries.

Taken together, there seems to be some statistical evidence that rising overhead costs and rising profit claims of shareholders correlate with a falling wage share. Econometrically, however, it seems to be difficult to disentangle these effects and further studies on these issues seem to be required. Hein/Schoder (2011) is the only recent study to our knowledge which finds statistically significant direct effects of a financialization related overhead variable, net interest payments of non-financial business relative to the capital stock, on the profit share. The studies referred to so far, however, all find significant effects of the last channel of influence of financialization on the profit share to be reviewed: bargaining power and activity of trade unions.

Trade union bargaining power and activity can be assumed to have been affected by the following features of financialization and the neo-liberal period since the early 1980s. First, shareholder value orientation and increasing short-termism of management has weakened trade unions by replacing the 'retain and invest' strategy of the Fordist era with a 'downsize and distribute' strategy (Lazonick/O'Sullivan 2000) aiming at high share prices. Second, the increasing relevance of the financial as compared to the non-financial sector can be supposed to have weakened trade unions, because they have been traditionally stronger in the non-financial sector in many countries, particularly in the industrial sector of the private economy and in the public sector. Similar effects could therefore be found when downsizing the government sector. Related to this, the abandonment of Keynesian demand management policies aimed at low unemployment and their replacement with Monetarist supply side policies aimed at low inflation, drastically increased unemployment in the early 1980s. Furthermore, deregulation of the labour markets since the early 1980s has been especially aimed at undermining the bargaining power of trade unions, since this has been assumed to be an important factor for the NAIRU in mainstream theory and politics (Stockhammer 2004a, Chapter

3). Liberalization and globalization of international trade and international finance has increased competition among workers through the ‘threat effect’ of firms to outsource and relocate production. Since trade unions are still predominantly organized at the national levels, outsourcing and relocation threats have therefore also contributed to weakened trade union bargaining power.

Recent panel estimations by the IMF (2007a) for 18 OECD countries from 1983–2002, and by the European Commission (2007) for 13 OECD countries from 1983–2002 have found that skill biased technological change is the most important variable affecting the labour income share, taking ICT use and/or capital labour ratios as proxies. Globalization, proxied by relative export and import prices, offshoring, immigration, and/or openness, also contributes; but labour market institutions – representing trade union bargaining power – have little importance for functional income distribution, taking the tax wedge, unemployment benefits, union density, minimum wages, and employment protection legislation as indicators. From the Kaleckian perspective applied in this chapter it is not clear why skill biased technical change should affect the overall wage share or labour income share as derived from the national accounts in the negative – we would rather expect a higher degree of wage dispersion if the recent type of technical change, demanding a higher degree of qualification and education, improved the bargaining position for high skilled labour but weakened the position of the low-skilled.²⁷

Stockhammer (2009) has checked the robustness of the results of the European Commission (2007) and the IMF (2007a) for a sample of 15 countries (13 EU countries, Japan and the US), 1982–2003, finding that they are not robust at all and suffer from serious econometric problems.²⁸ According to his results, the effect of technological change, indicated by ICT services and capital–labour ratios, often turns statistically insignificant. Globalization, however, has a robust effect. Extending the econometric model and estimating five years non-overlapping averages gives statistically significant, strongly negative effects of the globalization of trade, measured by the relationship of imports plus exports to GDP, and of financial globalization, indicated by foreign assets and liabilities as a ratio of GDP, on the labour income share. Union density has a positive effect on the labour income share in non-Ghent countries. Therefore, Stockhammer (2009, p. 53) concludes:

Overall our findings support the view that income distribution has changed due to globalization in production and finance, [and] changes in the bargaining power between capital and labor rather than through technological change.²⁹

2.4 CONCLUSION

Summing up our review on the effects of financialization and neo-liberalism on income distribution from a Kaleckian perspective, we can conclude that there is some evidence that financialization and neo-liberalism have contributed to the falling labour income share since the early 1980s through three main channels. First, the shift in the sectoral composition of the economy from the public sector and the non-financial business sector with high labour income shares towards the financial business sector with a lower labour income share has contributed to the fall in the labour income share for the economy as a whole. Second, the increase in management salaries as a part of overhead costs together with rising profit claims of the rentiers, that is, rising interest and dividend payments of the corporate sector have been associated with a falling labour income share. Third, financialization and neo-liberalism have weakened trade union bargaining power through several channels: increasing shareholder value orientation of management, the sectoral shifts away from the public sector and the non-financial business sector with stronger labour unions in many countries to the financial sector with weaker unions, deregulation of the labour market, and liberalization and globalization of international trade and finance. These developments have not only triggered falling labour income shares but they also have been conducive to increasing inequality of personal/household incomes as a major feature of finance-dominated capitalism.

NOTES

1. This chapter draws on Hein (2011a, 2011b, 2011c).
2. For a similar analysis focusing on the G20 countries see Hein/Mundt (2012).
3. The labour income share is given by the compensation per employee divided by GDP at factor costs per person employed. The European Commission (2010) from which our data is taken calls this the 'adjusted wage share'.
4. OECD (2010) data used here are collected by the OECD from national sources. Data refer to cash income of households and are broken down to individuals. The income attributed to each individual is adjusted for household size, but does not distinguish between adults and children (OECD 2008, pp. 41–7).
5. For studies on the US see also Dew-Becker/Gordon (2005), Gordon/Dew-Becker (2007), Mohun (2006) and Dumenil/Levy (2004b). The latter provide a more extended interpretation of the results by Piketty/Saez (2003) for the US against the background of financialization.
6. Austria, Belgium and Greece are not in the data set supplied by Atkinson et al. (2010). They are also missing from The World Top Incomes Database provided by Alvaredo et al. (2011).
7. Atkinson et al. (2011) hold that their results may even underestimate the re-distribution in favour of the very top incomes, because capital income included in progressive

income tax base has declined over time: 'Indeed, over time, many sources of capital income, such as interest income, or returns on pension funds, have been either taxed separately at flat rates or fully exempted, and hence have disappeared from the tax base. (. . .) As a result (. . .) of the development of numerous (. . .) forms of legally tax-exempt capital income, the share of capital income that is reportable on income tax returns, and hence included in the series presented, has significantly decreased over time. To the extent that such excluded capital income accrues disproportionately to top income groups, this will lead to an underestimation of top income shares. (. . .) We view this as one of the main shortcomings – probably the main shortcoming – of our data set.' (Atkinson et al. 2011, pp. 34–5).

8. A similar pattern can be observed for the shares of the top 1 per cent, as is shown by Atkinson et al. (2011).
9. Atkinson et al. (2010) also include realized capital gains into their decomposition of the top 0.1 per cent income share in the US. The share of realized capital gains in the top 0.1 income share has also increased since the early 1980s, albeit with considerable pro-cyclical fluctuations.
10. Bach et al. (2009) attribute this difference of Germany from the US (and also from France) to the large share of unincorporated firms in Germany, some of them of considerable size. Furthermore, some very rich German families have accumulated their income in private foundations and holdings and report only the distributed income in their personal income tax returns.
11. For the top 0.01 per cent and the top 0.001 per cent income shares wage incomes are even less important. The share of salaries in total income, however, also increased from 1992 until 2003 (Bach et al. 2009).
12. See Buchele/Christiansen (2007) for such an exercise for the US corporate sector. They somewhat arbitrarily identify the share of the top 0.5 per cent of wage and salary income as payments to corporate officers on the basis of their 'proximity to capital' and exclude these salaries from the wage share. See also Glyn (2009) for a similar approach for the US, Atkinson (2009) for the UK, and Dünhaupt (2011) for Germany and the US.
13. See Hein et al. (2011, 2012) for a discussion of the related problems.
14. See Lavoie (1992, pp. 129–48) for a discussion of Post-Keynesian pricing theory. He shows that there is no fundamental difference between mark-up pricing, full cost pricing and target rate of return pricing. See also Lee (2002) for a short overview.
15. See Lavoie (2009) for another Kaleckian approach starting from target rate of return pricing and including overhead labour.
16. Overhead labour salaries are thus an important contribution to the observed counter-cyclical movement of the wage share as calculated from the national accounts.
17. Sectoral profit shares (and thus wage shares) will differ according to the sectoral differentials in the determinants of functional distribution discussed below. Even if actual or target profit rates are equalized across sectors and there are hence no restrictions to free competition between sectors (in the classical sense, not in the neoclassical sense of perfect competition), this implies that sectoral profit shares will have to differ nonetheless due to the differences in the technical structure of production among sectors (Lavoie 1992, pp. 144–8, Semmler 1984).
18. Also Sylos-Labini's (1969) idea of entry-preventing-pricing is related to price competition among firms in the goods market as a determinant for the mark-up. Sylos-Labini (1969) argues that with fixed costs digression the large incumbent firm within a sector will set prices and hence mark-ups such that entry by smaller firms with a lower level of output and thus higher unit total costs will be deterred.
19. See also Kalecki's (1971, pp. 156–64) chapter on 'Class struggle and the distribution of income' where he argues that trade-union power 'manifests itself in the scale of wage rises demanded and achieved' (Kalecki 1971, p. 162). Part of this will be shifted to prices and hence to consumers, another part will be absorbed by a lower mark-up.

20. However, Kalecki (1954, p. 18) adds: 'The degree of monopoly may, but need not necessarily, increase as a result of a rise in overheads relative to prime costs.'
21. Lavoie (1992, pp. 135–6) argues: 'What is important to remember when using straightforward mark-up models is that the mark-up depends on overhead elements, such as overhead labour salaries, and on fixed or quasi-fixed interest costs.' This approach has been inspired by the treatment of interest payments as part of the costs of the firm in the neo-Ricardian monetary theory of distribution (Panico 1985, Pivetti 1985, 1991) which pick up Sraffa's (1960, p. 33) idea of closing the degree of freedom of a system of prices of production by the interest rate.
22. See for example, Dumenil/Levy (2004a), Krippner (2005), Orhangazi (2008), Palley (2008), and the contributions in Epstein (2005) for a detailed treatment of the development of financialization in the US and other countries, van Treeck (2009a) and van Treeck et al. (2007) for a comparison of the macroeconomics of financialization in the US and Germany, and Stockhammer (2008) for the development in Europe.
23. The profit rate of the financial sector in the US, however, has increased significantly since the early 1980s exceeding the profit rate of the non-financial sector by a considerable amount since then (Dumenil/Levy 2004a).
24. Hein/Ochsen (2003) also report that they have not found any significant effect of the interest rate in their estimations of profit share functions for France, Germany, the UK and the US from the early 1960s to the mid 1990s.
25. The profit share is the net operating surplus of the total economy adjusted for the labour income of the self-employed related to the net value added.
26. In the US, a 1 percentage point increase in net interest payments in relation to the net nominal capital stock raises the profit share by 2.44 percentage points. In Germany the corresponding effect is 2.16 percentage points.
27. It is therefore less surprising that, examining the determinants of personal income dispersion, the IMF (2007b) finds that skill biased technical change, together with financial deepening have increased income inequality.
28. See also Stockhammer (2009) for a brief review of further studies on non-OECD countries.
29. Buchele/Christiansen (2007) confirm a similar result for the US. They find for the labour share in value added of the corporate sector of the US, 1950–2005, that it is negatively affected by the change in capacity utilization in manufacturing, capturing the cyclical effect of demand on distribution, and most importantly by the unemployment rate and by the degree of openness, measured by the ratio of imports to GDP. The latter two variables are considered to affect the labour share through their effects on the bargaining power of trade unions.

3. Finance-dominated capitalism, capital accumulation and macroeconomic regimes¹

3.1 INTRODUCTION

In order to discuss the macroeconomic implications for the period of finance-dominated capitalism with respect to aggregate demand, growth and financial stability within a demand-led distribution and growth model, we first have to consider the effects of financialization on the main building blocks of such a model. This concerns, firstly, the effects on functional income distribution, which have been examined in depth in the previous chapter. Secondly, we have to consider the effects on the components of aggregate demand, that is, on investment in capital stock of the firm sector and on consumption expenditures by the private household sector. Our main concern in this chapter will be with investment of the firm sector and with the related effects on aggregate demand, growth and the long-run stability of the financial structure of the corporate sector. The effects of financialization on private consumption demand will only marginally be treated in this chapter and we will not consider the problems of household debt yet. Chapter 5 will be devoted to a detailed treatment and modelling of the related issues.

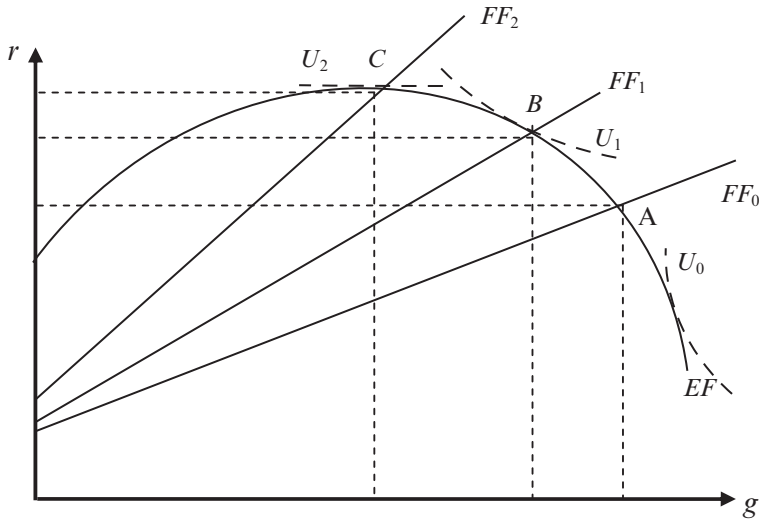
Therefore, in this chapter we will start with a detailed examination of the effects of financialization on corporate investment in capital stock supplying theoretical and empirical evidence, which will be followed by a brief consideration of the effects on consumption. Then we will summarize the macroeconomic results of increasing financialization and shareholder power as they have been derived in the previous literature, before we integrate some important channels of influence of financialization into a simple analytical Kaleckian stock-flow consistent model in order to derive the short- and medium-run effects with respect to the rates of capacity utilization, profits and capital accumulation, as well as to stability of the financial structure of the corporate sector.

3.2 FINANCIALIZATION AND INVESTMENT IN CAPITAL STOCK

Regarding the effects of financialization on investment decisions of the corporate sector, some authors, such as Crotty (1990), Dallery (2009), or Stockhammer (2005–06), have highlighted the importance of the ‘owner-manager conflict’ inherent to large corporations.² This conflict arises from the postulation of a ‘growth-profit trade-off’ at the firm level, 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 by firms. Due to diversified portfolios, ‘stockholders typically have only a fleeting relation with any particular enterprise’, as Crotty (1990, p. 534) argued, and care much more about the current profitability than the long-term expansion and survival of a particular firm. In fact, with financialization, various mechanisms have been designed, on the one hand, to impose restrictions on management’s ability to seek expansion, and, on the other hand, to change management’s preferences themselves and align them to shareholders’ profit maximization objective. Management’s 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 liberalized market for corporate control. Simultaneously, financial market-oriented remuneration schemes have been developed to align management’s preferences to shareholders’ objectives. As an overall result, it has been argued that the traditional managerial policy of ‘retain and invest’ is replaced by the shareholder-oriented strategy of ‘downsize and distribute’ (Lazonick/O’Sullivan 2000).

Graphically, these new developments can be analysed on the basis of Figure 3.1. The lines given by FF_i reflect different finance constraints faced by the managers of the firm in their investment decisions. These finance frontiers indicate the maximum rate of accumulation (g) that firms can finance with a given profit rate (r). Seen from a different angle, they determine the profit rate that is necessary for firms to be able to finance the desired accumulation rate under the conditions of incompletely competitive financial markets, as has been suggested by Kalecki’s (1937) ‘principle of increasing risk’.

The second constraint faced by managers is the expansion frontier (EF). It indicates the profit rate that can be realized with a particular growth strategy. The expansion frontier is assumed to be upward sloping for low accumulation rates and downward sloping for higher rates (Lavoie 1992, pp. 114–16). The upwards sloping part is caused by dynamic economies



Source: Hein/van Treeck (2010b, p. 279).

Figure 3.1 Shareholder value orientation and investment decisions at the firm level

of scale and scope allowing for a higher rate of profit when accumulation is rising: Investment in capital stock allows for the introduction of new and more productive means of production; profitability and survival of the firms in an uncertain environment will depend on sheer size; and rapid expansion in novel markets will allow for temporary monopoly profits. The negatively sloped segment of the expansion function is due to managerial inefficiencies reducing the rate of profit: At a certain speed of expansion, management will have difficulties in handling the expansion process (Penrose effect); internal expansion in a certain market may be costly because of rising advertising, product innovation and research and development costs; and external expansion and diversification into further markets, in particular foreign markets, may be limited by management's (lack of) knowledge about new markets and products.

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. In contrast, with financialization it seems more appropriate to consider the possibility that the desired accumulation rate, given by preferences, is below the maximum

rate, given by the finance constraint. Therefore, Figure 3.1 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 2005–06).³ With higher shareholder value orientation, one may expect two things to happen:

1. Shareholders impose higher distribution of profits on firms, that is, a higher dividend payout ratio and hence a lower retention ratio and/or a lower contribution of new equity issues to the financing of investment, or even share buybacks. Therefore, internal means of finance for real investment are reduced, and the ability to invest hence suffers ('internal means of finance channel').
2. Managers' (firms') preference for growth is weakened as a result of remuneration schemes based on short-term profitability and financial market results. The preference for growth, and hence the willingness to invest in capital stock, therefore suffers, too ('preference channel').

The first effect will imply a counter-clockwise rotation of the finance frontier in Figure 3.1. The second effect can be represented as a flattening of the indifference curve. Starting from a situation (point A) in which shareholders' influence on the firm's preferences is very weak (U_0) and the accumulation decision of the firm is 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)).

Econometric evidence in favour of the hypothesis that financialization has caused a slowdown in capital accumulation has been presented by Stockhammer (2004b), van Treeck (2008), Orhangazi (2008) and Onaran et al. (2011). Stockhammer (2004b) takes the share of interest and dividends in profits of non-financial business as an indicator for the dominance of short-term profits in firms' or in management's preferences. Short-term financial investment is hence preferred over long-term real investment in capital stock and the share of dividends and interest in profits should therefore be negatively associated with real investment. Using annual data for the business sector and applying time series estimations for France (1978–97), Germany (1963–90), the UK (1970–96), and the US (1963–97), Stockhammer finds evidence in favour of his hypothesis for France, the US

and maybe also the UK, but not for Germany. Van Treeck (2008) introduces interest and dividend payments, each in relation to the capital stock, into the estimation of the determinants of the rate of capital accumulation in the non-financial corporate sector of the US (1965–2004) using annual data for his time series estimations. He finds that dividend and interest payments each have a statistically significant negative effect on capital accumulation, indicating the finance constraint given by internal means of finance. The value of the negative coefficient on dividend payments also exceeds the one on interest payments which is interpreted as evidence for ‘shareholder value orientation’ of management: Dividend payments thus do not only negatively affect investment via internal means of finance but also via firms’ (or management’s) preferences. Onaran et al. (2011) in their time series study for the US (1962–2007) find a positive effect of the non-rentier profit share on real gross private domestic investment, but a negative effect of the rentier profit share (net dividends and net interest payments of domestic industry as a share of nominal GDP), which severely dampens a positive impact of unit gross profits on investment through the ‘internal means of finance’ channel. Orhangazi (2008) has used firm-level data on non-financial firms in the US (1972–2003) with a focus on the manufacturing sector in a dynamic panel-estimation approach. He finds that financial profits have a negative impact on real investment for large firms, indicating short-termism in favour of short-term financial profits and at the expense of long-term profits from investment in capital stock. For small firms, however, the effect of financial profits (the sum of interest and equity income in net earnings) on real investment is positive, because financial profits seem to ease the financing constraint for these firms. The effect of financial payments (interest expense, cash dividends, purchase of firms’ own stock) on investment is negative for the whole panel.

3.3 FINANCIALIZATION AND HOUSEHOLDS’ CONSUMPTION

A second aspect of financialization stressed in various models is the link between financial and housing wealth, household indebtedness and consumption. Finance-dominated capitalism has generated increasing potential for wealth-based and debt-financed consumption. Stock market and housing price booms have each increased notional wealth against which households were willing to borrow. Changing financial norms, new financial instruments (credit card debt, home equity loans), deterioration of creditworthiness standards, triggered by securitization of mortgage debt and ‘originate and distribute’ strategies of commercial banks, made increasing

credit available to low income, low wealth households, in particular. This allowed consumption norms to rise faster than median income, driven by habit persistence, social visibility of consumption ('keeping up with the Joneses'), and so on (Cynamon/Fazzari 2008).⁴ Bhaduri et al. (2006) and Bhaduri (2011a, 2011b) have explicitly focussed on the wealth-effect on consumption, implying that increases in financial wealth stimulate households' willingness to consume. However, stock market wealth is purely 'virtual wealth' and increasing consumption may hence be associated with increasing indebtedness of private households. Therefore, financial deregulation may improve the perspectives of maintaining a wealth-based consumption boom over a considerable period of time. However, finally the expansive effects of consumer borrowing may be overwhelmed in the long run by rising interest obligations, which reduce households' creditworthiness and may eventually require higher saving by households and thus lower consumption demand. As mentioned above, we will come back to a more detailed examination of this in Chapter 5. Here it is sufficient to note that finance-dominated capitalism may be conducive to rising propensities to consume out of current income due to wealth effects on consumption.

3.4 FINANCE-DOMINATED CAPITALISM AND POTENTIAL MACROECONOMIC REGIMES

Based on the impact of finance-dominated capitalism on distribution and the contradictory effects on investment and consumption, different potential macroeconomic growth regimes have been derived in the literature.

1. Some authors have considered the possibility of a 'finance-led growth' regime (Boyer 2000), in which shareholder value orientation has an overall positive impact on growth. The condition for this is a very high propensity to consume out of rentiers' income and/or a very strong wealth effect on consumption. This compensates for the loss of consumption caused by the redistribution at the expense of labour. In turn, it also stimulates investment via the accelerator mechanism and over-compensates the direct negative effect of increasing shareholder power and shareholder value orientation on real investment.⁵
2. Other authors, starting with Cordonnier (2006), have argued that a regime of 'profits without investment' might emerge. In this regime, rising interest or dividend payments of firms to rentiers are associated with a rising profit rate and with a rising rate of capacity utilization, but with a falling rate of capital accumulation. Due to a high propensity to consume out of rentiers' income and/or out of wealth,

redistribution in favour of rentiers is able to compensate for the loss of consumption demand caused by a falling labour income share. But it is insufficient to stimulate capital accumulation in the face of increasing shareholder value orientation of management and the decrease of firms' internal means of finance associated with high dividend payments or share buybacks.⁶

3. Finally, some authors have shown that a 'contractive' regime may arise, in which rising interest and dividend payments to rentiers have a restrictive effect on the rates of capacity utilization, profit and capital accumulation (Hein 2008b, Hein/van Treeck 2010a, van Treeck 2008). Due to a low rentiers' propensity to consume, and implicitly a low wealth effect on consumption, rising rentiers' income is unable to compensate for the reduction in consumption demand caused by redistribution at the expense of labour in this regime. And managements' shareholder value orientation together with the loss of internal means of finance also causes a slowdown in capital accumulation.

Given a specific parameter constellation, in particular a regime of 'profits without investment' seems to be a viable accumulation regime for a considerable period of time. However, major drawbacks of the analysis of the papers mentioned so far have to be noticed. In particular, in these papers the effects of changes in interest and dividend payments on firms' debt– and equity–capital ratios and hence on the financial structure of the firm sector are not considered explicitly. That is why some authors have started to study the impacts of financialization in stock-flow-consistent models, pioneered by Lavoie/Godley (2001–02). These models take into account stock-flow interactions of financial and real variables, either analytically or by means of model simulations (Godley/Lavoie 2007, pp. 378–444, Hein 2010b, Lavoie 2008, Skott/Ryoo 2008a, 2008b, Taylor 2004, pp. 272–8, van Treeck 2009a).⁷

As has been reviewed in more detail in Hein/van Treeck (2010b), these stock-flow consistent models are also able to generate the three potential accumulation regimes mentioned above. In order to obtain a 'finance-led growth' regime, these models usually rely on strong effects of Tobin's q (or Kaldor's valuation ratio) in the investment function and on a strong wealth effect in the consumption function.⁸ Under these conditions, the increase in stock market prices, associated with a higher target rate of profit imposed on the firm by shareholders, share buybacks, increasing dividend payments to rentiers and redistribution at the expense of labour, feeds back positively both on investment and consumption spending and may dominate the overall result (Skott/Ryoo 2008a, 2008b, van Treeck 2009a). However, if the models do away with a strong coefficient on Tobin's q in the investment function, 'profits without investment' (van

Treeck 2009a) or even ‘contractive’ accumulation regimes are generated (Godley/Lavoie 2007, pp. 378–444, Hein 2010a, 2010b, Lavoie 2008).

We doubt that in an era of financialization an increase in Tobin’s q triggered by increasing shareholder power, share buybacks, increasing dividend payments and enforced changes in management’s preferences should be considered to cause rising real investment. Medlen (2003) provides empirical support for our doubts. According to his observations, there was a positive correlation in the US (1968–2001) between Tobin’s q , on the one hand, and the relationship between mergers and acquisitions to new real investment, on the other hand. This is the exact opposite of what Tobin’s q would suggest, because a rise in Tobin’s q should be correlated with higher real net investment relative to mergers and acquisitions.⁹

The stock-flow consistent models referred to above do not pay much attention to changes in distribution between capital and labour caused by changes in the financial regime and the related macroeconomic effects via consumption and investment. And finally, instability problems regarding the financial structure of the corporate sector have been hardly addressed in these models. Therefore, in the following section we present a simple model which tackles some of these issues.

3.5 FINANCIALIZATION IN A SIMPLE COMPARATIVE STATIC, STOCK-FLOW CONSISTENT DISTRIBUTION AND GROWTH MODEL

In this section we develop a simple analytical stock-flow consistent distribution and growth model. In this model, the transmission channels of financialization discussed above are integrated in the following way. First, financialization is assumed to affect distribution between firms and rentiers in the short run, and distribution between capital and labour through a dividend-elastic mark-up in firms’ price setting in the medium run. Second, firms’ investment is affected through the channels discussed above, the ‘preference channel’ and the ‘internal means of finance channel’. Third, consumption is influenced via distribution of dividends in the short run and via a reduction in the labour income share in the medium run of the model. However, in this section we will not yet deal with household debt. Fourth, the development of firms’ outside finance–capital ratio is endogenized in order to check the medium-run stability and viability of the potential accumulation regimes.

Our model has a medium-run horizon, because we allow debt and equity held by rentiers to vary relative to the capital stock. But we do not consider

any effect of changes in the dividend payments (relative to interest payments) on households' portfolio choice between credit/bonds and shares. In our view, portfolio choice seems to be dominated by long-run institutional and habitual factors, such as the pension system (pay as you go versus capital-based), the stock market culture, and sentiments towards risk.¹⁰ Therefore, what we consider in the medium-run analysis of our model is the development of the ratio of debt plus equity held by rentiers relative to the capital stock and its feedback effects on capital accumulation, without any deeper investigation into the composition of rentiers' financial wealth. For the reasons given in the previous section, our model neither includes any positive effect of Tobin's q on firms' investment in capital stock, nor do we consider wealth effects on consumption and credit-financed consumption expenditures in order to keep the model as simple as possible.

The model we employ in this section is an extension of the basic Kaleckian model suggested by Bhaduri/Marglin (1990), into which financial variables are integrated in a way similar to the integration of monetary variables into this model by Hein (2007). We have chosen the Bhaduri/Marglin approach as a starting point, because the basic structure of this model allows for 'wage-led' or 'profit-led' demand and growth regimes. The results of the model are hence not restricted to the usual Kaleckian models with wage-led demand and growth regimes.¹¹

3.5.1 The Basic Model

We assume a closed economy without economic activity of the state. Under given conditions of production, there is just one type of commodity produced which can be used for consumption and investment purposes. There is a constant relation between the employed volume of labour (L) and real output (Y), that is, there is no overhead-labour and no technical change, so that we get a constant labour–output ratio (a). The capital–potential output ratio (v), the relation between the real capital stock (K) and potential real output (Y^p), is also constant. The capital stock is assumed not to depreciate. The rate of capacity utilization (u) is given by the relation between actual real output and potential real output. The basic model can be described by the following equations.

Pricing and distribution

$$p = [1 + m(\rho)]wa, m > 0, \frac{\partial m}{\partial \rho} \geq 0, \quad (3.1)$$

$$h = \frac{\Pi}{pY} = 1 - \frac{1}{1 + m(\rho)}, \frac{\partial h}{\partial \rho} \geq 0, \quad (3.2)$$

$$r = \frac{\Pi}{pK} = \frac{\Pi}{pY} \frac{Y}{Y^p} \frac{Y^p}{K} = hu \frac{1}{v}, \quad (3.3)$$

Financing of capital stock and rentiers' income

$$pK = B + E_R + E_F, \quad (3.4)$$

$$\gamma = \frac{B + E_R}{pK}, \quad (3.5)$$

$$\phi = \frac{E_F}{pK}, \quad (3.6)$$

$$\Pi = \Pi_F + R, \quad (3.7)$$

$$R = \rho(E_R + B), \quad (3.8)$$

Saving, investment and goods market equilibrium

$$\sigma = \frac{S}{pK} = \frac{\Pi - R + s_R R}{pK} = r - (1 - s_R)\rho\gamma, \quad 0 < s_R \leq 1, \quad (3.9)$$

$$g = \frac{I}{pK} = \alpha + \beta u + \tau h - \theta\rho\gamma, \quad \beta, \tau, \theta \geq 0, \quad (3.10)$$

$$g = \sigma, \quad (3.11)$$

$$\frac{\partial\sigma}{\partial u} - \frac{\partial g}{\partial u} > 0 \Rightarrow \frac{h}{v} - \beta > 0. \quad (3.12)$$

Variables:

p : price; m : mark-up; ρ : rentiers' rate of return on equity and bonds; w : nominal wage rate; a : labour–output ratio; h : gross profit share; Π : gross profits; Y : real income; r : rate of profit; K : real capital stock; Y^p : full capacity output determined by the capital stock; u : rate of capacity utilization; v : capital–full capacity output ratio; B : bonds held by rentiers; E_R : equity held by rentiers; E_F : equity held by firms/owner-managers; γ : outside finance–capital ratio; ϕ : inside finance–capital ratio; Π_F : retained profits by firms; R : rentiers' income; σ : saving–capital rate; S : saving; s_R : propensity to save out of rentiers' income; g : rate of capital accumulation; I : investment; $\alpha, \beta, \tau, \theta$: coefficients in the investment function.

Writing w for the nominal wage rate, we assume that firms set prices (p) according to a mark-up (m) on constant unit labour costs up to full capacity output. Following Kalecki (1954, pp.17–18), the mark-up is determined by the degree of price competition in the goods market and by the relative powers of capital and labour in the labour market (equation 3.1). The profit share (h), that is, the proportion of profits (Π) in nominal output (pY), is therefore determined by the mark-up (equation 3.2). The mark-up and the profit share may become elastic with respect to the rentiers’ rate of return on equity and bonds (ρ) in the medium run, as will be discussed in more detail below. The profit rate (r) relates the annual flow of profits to the nominal capital stock and can be decomposed into the rate of capacity utilization, the profit share, and the inverse of the capital-full capacity output ratio (equation 3.3).

The pace of accumulation in our model is determined by firms’ decisions to invest, independently of saving, because firms have access to short-term (or initial) finance for production purposes supplied by a developed banking sector.¹² We assume that long-term finance of the capital stock consists of firms’ accumulated retained earnings (E_F), long-term credit granted by rentiers’ households (B), and equity issued by the firms and held by rentiers’ households (E_R) (equation 3.4). Part of firms’ liabilities ($B+E_R$) is therefore held by ‘outsiders’ to the firm, that is, rentiers’ households, whereas another part (E_F) is controlled by ‘insiders’, either by the management or by owner-managers. The balance sheet matrix in Table 3.1 summarizes the financing of the capital stock.

Table 3.1 Balance sheet matrix

	Workers’ households	Rentiers’ households	Firms	Σ
Loans		$+B$	$-B$	0
Equities		$+E_R$	$-E_R$	0
Capital			pK	pK
Σ	0	$+B+E_R$	$+E_F$	$pK = B+E_R+E_F$

Since in our model we assume prices in goods and financial markets to be constant – capital gains are hence omitted from the analysis – rentiers are interested in short-run maximum dividend and interest payments, whereas management favours long-term growth of the firm, following the arguments presented above. The rentiers’ share in capital stock, the outside finance–capital ratio, is given by γ (equation 3.5), whereas ϕ denotes the accumulated retained earnings–capital ratio or the inside finance–capital ratio (equation 3.6). We assume these ratios to be constant in the short

run, but to be variable and hence to be endogenously determined in the medium run.

Total profits (Π) split into firms' retained profits (Π_F), on the one hand, and dividends plus interest paid to rentiers' households (R), on the other (equation 3.7). Interest payments to rentiers' households are given by the rate of interest and the stock of debt, with the rate of interest as a distribution parameter being an exogenous variable for income generation and capital accumulation, mainly determined by monetary policies and risk and liquidity assessments of banks and rentiers, following the Post-Keynesian 'horizontalist' view of endogenous money and credit.¹³ Dividend payments, given by the dividend rate and the stock of equity held by rentiers' households, are also determined by the power struggle between rentiers (shareholders) and firms (management), with rentiers being interested in high dividends for income purposes and management being in favour of retained earnings for firms' real investment and growth purposes. We omit the effects of rentiers' portfolio choice from our considerations and, in order to simplify further analysis, in what follows we synthesize dividend and interest payments to rentiers and consider just one rentiers' rate of return on bonds and equity (ρ), which together with the stock of equity and bonds held by rentiers determines rentiers' income (equation 3.8). The rentiers' rate of return is determined by the power struggle between managers and rentiers and is hence the crucial variable when it comes to the discussion of the effects of increasing shareholder power vis-à-vis management and workers.

Changes in the rentiers' rate of return may cause a change in the mark-up in firms' pricing in incompletely competitive goods markets (equation 3.1), if the determinants of the mark-up are affected as well by the rise of shareholder power, in particular the degree of price competition in the goods market and the relative powers of workers and labour unions in the labour market.¹⁴ If these changes occur, distribution between gross profits, as the sum of retained firms' profits and interest and dividends received by rentiers' households, on the one hand, and wages, on the other hand, will be affected (equation 3.2). Discussing the effects of a rising rentiers' rate of return caused by rising shareholder power, we distinguish two cases: (1) the dividend-inelastic mark-up in which a rising rentiers' rate of return leaves the gross profit share in national income untouched and only affects firms' retained profits adversely, and (2) the dividend-elastic mark-up in which an increasing rentiers' rate of return affects distribution between gross profits and wages.

In the face of increasing shareholder power, we consider the mark-up to be dividend-inelastic in the short run. Therefore, in the short run only the distribution of income between firms and rentiers is affected by

rising shareholder power. But in the medium run, the mark-up is likely to become dividend-elastic because of decreasing price competition in the goods market associated with mergers and acquisitions and hostile takeovers in the corporate sector, and in particular because of weakened bargaining power of workers caused by a policy of ‘downsize and distribute’ and increasing (threat of) unemployment (Lazonick/O’Sullivan 2000). The profit share, and therefore distribution between capital and labour, will hence become elastic with respect to the rentiers’ rate of return in our model.

In order to simplify the analysis, we assume a classical saving hypothesis, that is, workers do not save. The part of profits retained is completely saved by definition. The part of profits distributed to rentiers’ households, the interest and dividend payments, is used by those households according to their propensity to save (s_R). Therefore, we get the saving-capital rate (σ) in equation (3.9) which relates total saving to the nominal capital stock. Note that an increase in the rentiers’ rate of return, *ceteris paribus*, decreases the saving-capital rate because income is transferred from firms with a saving propensity of unity to rentiers’ households with a saving propensity of presumably less than unity. In our model, we consider only rentiers’ consumption out of current income flows. As argued above, increasing stock prices and rising (stock market) wealth will further lower the overall saving rate, in particular when households can borrow extensively against collateral. However, this will be associated with increasing household debt which might feed back negatively on consumption. These aspects are not modelled here, but will be considered in Chapter 5 of this book.

The accumulation rate (g), relating net investment (I) to the capital stock (equation 3.10) is based on the investment function proposed by Bhaduri/Marglin (1990). Investment decisions are assumed to be positively affected by expected sales and by unit profits (or the profit share), because both increase the (expected) profit rate. Expected sales are determined by the rate of capacity utilization. Unit profits are given by the profit share and are thus determined by the mark-up in firms’ pricing in the goods market. Distributed profits, the dividends and interest payments to rentiers, have a negative impact on investment, because they reduce retained earnings and firms’ own means of finance. Distributed profits are given by the rentiers’ rate of return and the stocks of debt and equity held by rentiers, each variable being normalized by the capital stock. An increase in the rentiers’ rate of return has a negative impact on investment because firms’ internal funds for investment finance are adversely affected. This also limits the access to external funds in imperfect capital markets and also the willingness of firms to rely on external finance for investment in capital stock, according to Kalecki’s (1937) ‘principle of increasing risk’.

As argued above, given shareholders' desire for profits – compared to management's desire for growth of the firm – increasing shareholder power vis-à-vis management will increase the rentiers' rate of return and reduce available funds for real investment and growth of the firm. But increasing shareholder power will not only affect internal funds and thus firms' finance constraints but also management's preferences: Management's 'animal spirits', reflected in the constant α in the investment function, will decline and might even become negative when managers are aligned with shareholders through stock option programmes and the threat of hostile takeovers in an active market of corporate control. Therefore, even if the availability of internal funds were irrelevant for firms' investment decisions, increasing shareholder power would affect investment nonetheless in the negative through this 'preference channel'. Our investment function hence captures the two channels of transmission of increasing shareholder power on real investment: the 'internal means of finance channel' and the 'preference channel'.

As mentioned above, we refrain from integrating a positive effect of Tobin's q or Kaldor's valuation ratio (or of the relationship between the dividend rate and the rate of interest) into our investment function, because an increase in the dividend rate (relative to the interest rate) indicates rising shareholder power vis-à-vis management and can hence not be seen as a stimulus for real investment, we rather assume the opposite. In our model, the shares of internal and external investment finance matter for firms' real investment, but the source of external finance (issue of shares or debt) is of minor relevance for investment decisions.

The goods market equilibrium is determined by the equality of saving and investment decisions (equation 3.11). The goods market stability condition requires that the saving-capital rate responds more elastically to changes in capacity utilization than the capital accumulation rate does (condition 3.12). The transactions in our simple model are summarized in the transaction flow matrix in Table 3.2.

Our model generates the following goods market equilibrium values:

$$u^* = \frac{\alpha + \tau h + \rho\gamma(1 - s_R - \theta)}{\frac{h}{v} - \beta}, \quad (3.13)$$

$$r^* = \frac{\frac{h}{v}[\alpha + \tau h + \rho\gamma(1 - s_R - \theta)]}{\frac{h}{v} - \beta}, \quad (3.14)$$

Table 3.2 *Transaction flow matrix*

	Workers' households	Rentiers' households	Firms' current	Firms' capital	Σ
Consumption	$-C_W$	$-C_R$	$+C_W+C_R$		0
Investment			$+I$	$-I$	0
Wages	$+W$		$-W$		0
Retained profits			$-\Pi_F$	$+\Delta E_F$	0
Distributed profits: dividends and interest		$+R$	$-R$		0
Change in equity		$-\Delta E_R$		$+\Delta E_R$	0
Change in loans		$-\Delta B$		$+\Delta B$	0
Σ	0	0	0	0	0

$$g^* = \frac{\frac{h}{v}(\alpha + \tau h) + \rho\gamma \left[\beta(1 - s_R) - \theta \frac{h}{v} \right]}{\frac{h}{v} - \beta}. \quad (3.15)$$

In what follows, the effects of increasing shareholder power on stable goods market equilibria only will be discussed. Increasing shareholder power will, firstly, affect management's preferences regarding growth and hence animal spirits in the negative, and, secondly it will be associated with an increasing rentiers' rate of return.

3.5.2 Short-run Effects of Financialization and Increasing Shareholder Power

For the discussion of the short-run effects of financialization and increasing shareholder power we assume γ and ϕ to be given and constant. For the medium run these ratios will be endogenized, the stability will be checked, and the effects of changes in management's animal spirits and the rentiers' rate of return on these ratios will be examined. For the short run, we will also assume that firms are unable to shift increasing dividend payments to prices, because the determinants of the mark-up will change rather slowly. The mark-up and the profit share will therefore remain constant in the short run, too. This restriction will also be lifted for the medium-run considerations, and the effects of redistribution between capital and labour on investment and saving will be taken into account.

An increase in shareholder value orientation of management, and

hence a decrease in animal spirits, as indicated by α in the investment function, has uniquely negative effects on the endogenous variables. This is so, because animal spirits display unambiguously positive relationships with the equilibrium rates of capacity utilization, profit and capital accumulation, as can easily be seen from equations (3.13) to (3.15):

$$\frac{\partial u^*}{\partial \alpha} > 0, \frac{\partial r^*}{\partial \alpha} > 0 \text{ and } \frac{\partial g^*}{\partial \alpha} > 0.$$

An increase in the rentiers' rate of return, however, has ambiguous effects. It affects firms' investment through the availability of internal funds and the access to external financing, but it also has an influence on the income of rentiers' households and hence on consumption. With the outside finance–capital ratio, as well as the mark-up and the profit share, being constant in the short run, we obtain the following effects of a change in the rentiers' rate of return on the equilibrium rates of capacity utilization, profit and capital accumulation:

$$\frac{\partial u^*}{\partial \rho} = \frac{(1 - s_R - \theta)\gamma}{\frac{h}{v} - \beta}, \tag{3.13a}$$

$$\frac{\partial r^*}{\partial \rho} = \frac{\frac{h}{v}(1 - s_R - \theta)\gamma}{\frac{h}{v} - \beta}, \tag{3.14a}$$

$$\frac{\partial g^*}{\partial \rho} = \frac{\gamma \left[\beta(1 - s_R) - \theta \frac{h}{v} \right]}{\frac{h}{v} - \beta}. \tag{3.15a}$$

The effects of a change in the rentiers' rate of return may be positive or negative, depending on the parameter values in the saving and investment functions of the model. We obtain the following conditions for positive effects on the short-run equilibrium values of the system:

$$\frac{\partial u^*}{\partial \rho} > 0, \text{ if: } 1 - s_R > \theta, \tag{3.13a'}$$

$$\frac{\partial r^*}{\partial \rho} > 0, \text{ if: } 1 - s_R > \theta, \tag{3.14a'}$$

Table 3.3 *Short-run cases for a change in the rentiers' rate of return*

	'Normal' case	'Intermediate' case	'Puzzling' case
	$1 - s_R < \theta$	$\theta < 1 - s_R < \frac{\theta h}{v\beta}$	$\frac{\theta h}{v\beta} < 1 - s_R$
$\frac{\partial u^*}{\partial \rho}$	–	+	+
$\frac{\partial r^*}{\partial \rho}$	–	+	+
$\frac{\partial g^*}{\partial \rho}$	–	–	+

$$\frac{\partial g^*}{\partial \rho} > 0, \text{ if: } 1 - s_R > \theta \frac{h}{v\beta}. \quad (3.15a')$$

Assuming the stability condition (3.12) for the goods market equilibrium to hold implies for equation (3.15a'): $h/v\beta > 1$. Therefore, we get the following cases for the short-run equilibrium in Table 3.3.

The 'normal' case of a negative impact of an increase in the rentiers' rate of return throughout on the equilibrium values of capacity utilization, the profit rate and the rate of capital accumulation will be given if: $1 - s_R < \theta$. Therefore, this case is the more likely the higher the rentiers' propensity to save and the higher the responsiveness of firms' real investment with respect to distributed profits and hence to internal funds. With this parameter constellation, the increase in consumption demand associated with redistribution of income from firms to rentiers' households is insufficient to compensate for the negative effects on firms' investment. In the 'normal' case, the effect of an increasing rentiers' rate of return on the equilibrium rates of capacity utilization, profit and capital accumulation amplifies the negative effects of rising shareholder power via management's animal spirits on these variables and we obtain the overall 'contractive' regime (Table 3.4).

In the 'puzzling' case, we have an opposite parameter constellation: $1 - s_R > \theta h/v\beta$. A low propensity to save out of rentiers' income, a low responsiveness of investment with respect to distributed profits and internal funds, and a high elasticity with respect to capacity utilization allow for a positive effect of an increasing rentiers' rate of return on the equilibrium rates of capacity utilization, profit and capital accumulation. In the 'puzzling' case, the effects of an increasing rentiers' rate of return on the equilibrium rates of capacity utilization, profit and capital accumulation

Table 3.4 *Short-run accumulation regimes under the conditions of financialization and rising shareholder power*

	'Contractive' regime	'Profits without investment' regime	'Finance-led growth' regime
Effect via management's animal spirits	weak/strong	weak	weak
Effect via rentiers' rate of return	'normal' case	'intermediate' case	'puzzling' case

may over-compensate the negative effects of rising shareholder power via management's animal spirits. If this condition holds, we will obtain a 'finance-led' accumulation regime, and hence an overall positive effect of increasing shareholder power on the rates of capacity utilization, profit and capital accumulation (Table 3.4).

Finally, an 'intermediate' case may arise if: $\theta < 1 - s_R < \theta h/v\beta$. In this case, an increase in the rentiers' rate of return is accompanied by rising rates of capacity utilization and profit, but by a falling equilibrium rate of capital accumulation. What is required for the 'intermediate' case, on the one hand, is a low rentiers' propensity to save, which boosts consumption demand in the face of redistribution in favour of rentiers, and a low responsiveness of firms' investment with respect to distributed profits and hence internal funds, which limits the negative effects of redistribution on firms' investment. On the other hand, however, in the 'intermediate' case we also have a low responsiveness of investment with respect to capacity utilization which, in sum, is not able to over-compensate the negative effects of a rise in the rentiers' rate of return through internal funds. Under the conditions of the 'intermediate' case, the negative effects of increasing shareholder power via management's preferences (animal spirits) may be overcompensated by the effects of a rising rentiers' rate of return with respect to capacity utilization and the profit rate, but the negative effect on capital accumulation is not. For the former, it is again required that increasing shareholder power is associated with a strong effect of the increase in the rentiers' rate of return but with a low effect via management's animal spirits. If these conditions hold, we will obtain a 'profits without investment' regime (Table 3.4).

Comparing the micro and the macro effects of financialization and rising shareholder power, our model generates the following results.¹⁵ Only under the conditions generating the 'profits without investment' regime does there exist a strict micro-macro identity: Based on the 'growth-profit trade-off' at the micro level (Figure 3.1), firms reduce capital accumulation

in order to increase the rate of profit, and this is what is generated at the macro level, if the conditions of the ‘profits without investment’ regime prevail.

With the conditions for the ‘finance-led growth’ or the ‘contractive’ regime prevailing, however, the economy will be characterized by a macroeconomic fallacy of composition in the face of rising shareholder power. The ‘finance-led growth’ is characterized by a ‘paradox of growth’: At the micro level, firms restrict capital accumulation in order to increase the rate of profit, but at the macro level the conditions are such that the rate of capital accumulation increases together with the rate of profit. And the ‘contractive’ regime suffers from a ‘paradox of profits’: At the micro level, firms reduce capital accumulation in order to increase the rate of profit, but at the macro level this leads to a falling rate of accumulation and a falling rate of profit, too. In terms of Figure 3.1, in both paradoxical cases firms attempt to move to the left along the expansion frontier, but the aggregate demand and distribution effects hereby induced lead to a shift in both the expansion frontier and the finance frontier faced by firms with the respective results for the two regimes.

3.5.3 Medium-run Equilibrium and Stability of the Financial Structure

In the medium run of our model, the financial structure of the economy and hence the inside and outside finance–capital ratios are no longer exogenous, but have to be determined endogenously. Since $\gamma + \phi = 1$, it is sufficient to analyse the dynamics of γ in the face of changing shareholder power and rentiers’ rates of return. The accumulation of bonds and equity held by rentiers is given by rentiers’ income and the propensity to save out of this income:

$$\Delta(E_R + B) = s_{R\phi}(E_R + B). \quad (3.16)$$

For the growth rate of debt plus equity held by rentiers we get:

$$\frac{\Delta(E_R + B)}{(E_R + B)} = s_{R\phi}. \quad (3.17)$$

If we assume that prices remain constant, which means that mark-ups and distribution may change but not the price level, the growth rate of the outside finance–capital ratio depends on the growth rate of outside finance and on the growth rate of the real capital stock. From equation (3.5) we get:

$$\hat{\gamma} = \frac{\Delta(E_R + B)}{(E_R + B)} - \hat{K} = s_R \rho - g. \quad (3.18)$$

In medium-run equilibrium the endogenously determined value of γ has to be constant, hence $\hat{\gamma} = 0$ has to hold. Introducing this condition into equation (3.18) and making use of equation (3.15) yields the following medium-run equilibrium value for the outside finance–capital ratio:

$$\gamma^* = \frac{s_R \rho \left(\frac{h}{v} - \beta \right) - \frac{h}{v} (\alpha + \tau h)}{\rho \left[\beta (1 - s_R) - \theta \frac{h}{v} \right]}. \quad (3.19)$$

This medium-run equilibrium will be stable if: $\partial \hat{\gamma} / \partial \gamma < 0$. Starting from equations (3.18) and making use of equation (3.15) yields:

$$\frac{\partial \hat{\gamma}}{\partial \gamma} = \frac{-\rho \left[\beta (1 - s_R) - \theta \frac{h}{v} \right]}{\frac{h}{v} - \beta}. \quad (3.20)$$

Taking into account that we assume the goods market equilibrium to be stable, it follows for the medium-run stability condition of the outside finance–capital ratio:

$$\begin{aligned} \frac{\partial \hat{\gamma}}{\partial \gamma} < 0 \text{ if: } & \beta (1 - s_R) - \theta \frac{h}{v} > 0 \\ \Leftrightarrow & 1 - s_R > \theta \frac{h}{v\beta}. \end{aligned} \quad (3.20')$$

Stability of γ requires a low rentiers' propensity to save, a low responsiveness of firms' investment with respect to distributed profits and internal funds, a low profit share and a high elasticity of investment with respect to capacity utilization. This is tantamount to a positive relationship of the rate of capital accumulation with the outside finance–capital ratio. From equation (3.15) we obtain:

$$\frac{\partial g^*}{\partial \gamma} = \frac{\rho \left[\beta (1 - s_R) - \theta \frac{h}{v} \right]}{\frac{h}{v} - \beta}, \quad (3.15b)$$

$$\frac{\partial g^*}{\partial \gamma} > 0 \text{ if: } \beta(1 - s_R) - \theta \frac{h}{v} > 0$$

$$\Leftrightarrow 1 - s_R > \theta \frac{h}{v\beta}. \quad (3.15b')$$

Most importantly, it has to be noted that medium-run stability of the outside finance–capital ratio requires a ‘puzzling’ case effect of a change in the rentiers’ rate of return on the short-run equilibrium rate of capital accumulation, as can be seen in condition (3.15a’).

3.5.4 Medium-run Effects of Financialization and Rising Shareholder Power

Analysing the medium-run effect of increasing shareholder power, we have to take into account that firms may be able to shift a higher rate of return demanded by rentiers to the mark-up, and hence the gross profit share (including dividend and interest payments) may increase. Therefore, with a dividend-elastic mark-up we have: $\partial h/\partial \rho \geq 0$, and the labour income share will decrease in the face of a rising rentiers’ rate of return. Regarding the stability analysis from the previous section we have to bear in mind that, *ceteris paribus*, a medium-run increase in the gross profit share may turn a short-run ‘puzzling’ case to an ‘intermediate’ case and may therefore turn a stable financial structure unstable.

We start our analysis of the medium-run results of increasing shareholder power with examining the effects of a rising rentiers’ rate of return on the outside finance–capital ratio and on the rate of capital accumulation, and then we discuss the effects of decreasing management’s animal spirits on the medium-run equilibrium. The results are summarised in Table 3.5.

Rentiers’ rate of return and medium-run equilibrium

From equation (3.19) we obtain the following effects of a change in the rentiers’ rate of return on the equilibrium outside finance–capital ratio:

$$\frac{\partial \gamma^*}{\partial \rho} = \frac{\frac{h}{v}(\alpha + \tau h) + \frac{\partial h}{\partial \rho} \frac{\rho}{v} [\rho(\theta \gamma + s_R) - \alpha - 2\tau h]}{\rho^2 \left[\beta(1 - s_R) - \theta \frac{h}{v} \right]}. \quad (3.19a)$$

For the evaluation of the effects of an increasing rentiers’ rate of return we have to distinguish the ‘medium-run stable’ from the ‘medium-run unstable’ case.

Table 3.5 Effects of increasing financialization and rising shareholder power in the short and the medium run

		'Contractive' regime	'Profits without investment' regime	'Finance-led growth' regime
			$\beta(1 - s_R) - \theta \frac{h}{v}$	
		-	-	+
Short run				
Rentiers' rate of return, profit share and outside finance—capital ratio	$\frac{\partial h}{\partial p}, \frac{\partial \gamma}{\partial p}$ (short run)	0	0	0
Animal spirits and goods market equilibrium	$\frac{\partial u^*}{\partial \alpha}, \frac{\partial r^*}{\partial \alpha}, \frac{\partial g^*}{\partial \alpha}$ (3.13, 3.14, 3.15)	+	+(weak)	+(weak)
Rentiers' rate of return and equilibrium rates of capacity utilization and profit	$\frac{\partial u^*}{\partial p}, \frac{\partial r^*}{\partial p}$ (3.13a, 3.14a)	-	+	+
Rentiers' rate of return and equilibrium rate of capital accumulation	$\frac{\partial g^*}{\partial p}$ (3.15a)	-	-	+
Effect or rentiers' rate of return on short-run equilibrium		'normal case'	'intermediate case'	'puzzling case'

Table 3.5 (continued)

		'Contractive' regime	'Profits without investment' regime	'Finance-led growth' regime
			$\beta(1 - s_R) - \theta \frac{h}{\gamma}$	
		-	-	+
Medium run				
Rentiers' rate of return and profit share	$\frac{\partial h}{\partial p}$ (medium run)	+	+	+
Stability of equilibrium outside finance-capital ratio	$\frac{\partial \gamma}{\partial \gamma}$ (3.20)	+	+	- (stable)
Rentiers' rate of return and equilibrium outside finance-capital ratio	$\frac{\partial \gamma^*}{\partial p}$ (3.19a)	+ / 0 / -	+ / 0 / -	+ / 0 / -
Rentiers' rate of return and equilibrium rate of capital accumulation ('warranted rate')	$\frac{\partial g^{**}}{\partial p}$ (3.21a)	+	+	+
Animal spirits and equilibrium outside finance-capital ratio	$\frac{\partial \gamma^*}{\partial \alpha}$ (3.19b)	+	+	-
Animal spirits and equilibrium rate of capital accumulation ('warranted rate')	$\frac{\partial g^{**}}{\partial \alpha}$ (3.21b)	0	0	0

For the stable case, in which $\beta(1 - s_R) - \theta h/v > 0$ has to hold, we obtain:

$$\begin{aligned} \frac{\partial \gamma^*}{\partial \rho} &> 0 \\ \text{if: } \beta(1 - s_R) - \theta \frac{h}{v} &> 0, \\ \text{and: } \gamma^* &> \frac{1}{\theta \rho} \left[\alpha + 2\tau h - s_R \rho - \frac{h(\alpha + \tau h)}{\frac{\partial h}{\partial \rho} \rho} \right]. \end{aligned} \quad (3.19a')$$

In the medium-run stable case, the effect of a change in the rentiers' rate of return on the outside finance–capital ratio depends on the initial value of the rentiers' share in the capital stock. If γ is below the value defined in condition (3.19a'), an increase in the rentiers' rate of return, hence rising dividend payments, will raise γ ; if γ is above this value it will fall; and if γ is exactly equal to this value there will be no effect of a change in the rentiers' rate of return.

In the medium-run unstable case, we have $\beta(1 - s_R) - \theta h/v < 0$ and the inspection of equation (3.19a) yields just the opposite result to the stable case:

$$\begin{aligned} \frac{\partial \gamma^*}{\partial \rho} &> 0 \\ \text{if: } \beta(1 - s_R) - \theta \frac{h}{v} &< 0, \\ \text{and: } \gamma^* &< \frac{1}{\theta \rho} \left[\alpha + 2\tau h - s_R \rho - \frac{h(\alpha + \tau h)}{\frac{\partial h}{\partial \rho} \rho} \right]. \end{aligned} \quad (3.19a'')$$

Evaluating the effects of an increasing rentiers' rate of return on the medium-run equilibrium rate of capital accumulation, we have to determine the medium-run equilibrium rate of capital accumulation first. Applying the equilibrium condition $\hat{\gamma} = 0$ to equation (3.18), we obtain:

$$g^{**} = s_R \rho. \quad (3.21)$$

The effect of a rising rentiers' rate of return on the medium-run equilibrium rate of capital accumulation, given the propensity to save out of rentiers' income, is thus by necessity positive in each regime:

$$\frac{\partial g^{**}}{\partial p} = s_R > 0. \quad (3.21a)$$

This finding follows straight forward from the condition for medium-run equilibrium, which requires the constancy of γ and hence that capital stock has to grow at the same rate as the sum of debt plus equity held by rentiers' households. An increase in dividend (and also in interest) payments to rentiers in relation to the capital stock therefore requires increasing capital stock growth in order to obtain a medium-run equilibrium.¹⁶ We call this medium-run equilibrium rate of capital accumulation the 'warranted rate' (g^{**}), because it is the rate of accumulation which is required for the constancy and thus stability of the outside finance–capital ratio. However, it is by no way guaranteed that the goods market equilibrium rate of capital accumulation will adjust to that rate. Our 'warranted rate' of accumulation is thus reminiscent of Harrod's (1939) 'warranted rate of growth'. However, in our case it is neither related to goods market equilibrium, nor to desired capacity utilization, but to a constant financial structure of the firm sector.

As shown above, under the condition (3.15a') for the short-run 'puzzling' case regarding the effects of a rising rentiers' rate of return, the stability condition (3.20') for the medium-run equilibrium outside finance–capital ratio is met. The goods market equilibrium rate of capital accumulation will thus adjust to the 'warranted rate' when the rentiers' rate of return increases, and the new medium-run equilibrium will be reached.¹⁷ If the increase in capital accumulation following an increase in the rentiers' rate of return is not sufficient to meet the increased 'warranted rate' in equation (3.21) immediately, the outside finance–capital ratio will grow according to equation (3.18), and this will push up the goods market equilibrium rate of capital accumulation according to equation (3.15) and thus stabilize the system. Therefore, the conditions for the short-run 'puzzling' case are sufficient for medium-run stability of the 'finance-led growth' regime.

Under the conditions of the short-run 'normal' and 'intermediate' cases, capital accumulation will fall when the rentiers' rate of return increases and the new equilibrium will not be reached; the stability condition for medium-run equilibrium (3.20') is not met. With the short-run 'normal' and 'intermediate' cases prevailing, which implies instability of the medium-run outside finance–capital ratio, the 'warranted rate' of capital accumulation in equation (3.21), therefore, contains a 'knife-edge' instability property. If the goods market equilibrium rate of capital accumulation in equation (3.15) by accident is equal to the 'warranted rate' in equation (3.21), capital stock will keep on growing at that rate. But any deviation from the 'warranted rate' will cause exploding deviation from

this rate. If the goods market equilibrium rate of capital accumulation falls short of the ‘warranted rate’, the outside finance–capital ratio will rise, according to equation (3.18), and this will feed back negatively on capital accumulation, according to equation (3.15), making capital accumulation fall further below the ‘warranted rate’ and the outside finance–capital ratio rise further above the equilibrium rate. If the goods market equilibrium rate of capital accumulation exceeds the ‘warranted rate’, the outside finance–capital ratio will fall (equation 3.18), and this will feed back positively on capital accumulation (equation 3.15), making it diverge even further from the ‘warranted rate’ and so on. The medium-run cumulative disequilibrium process will hence be characterized either by rising outside finance–capital ratios and by falling rates of capital accumulation, or it will show decreasing outside finance–capital ratios and increasing rates of capital accumulation. We therefore attain a ‘paradox of outside finance’ reminiscent of Steindl’s (1976, pp. 113–22) ‘paradox of debt’.¹⁸ Falling (rising) rates of capital accumulation induce firms to attempt to reduce (raise) the outside finance–capital ratio, but the macroeconomic effects of such a behaviour is that this ratio will increase (fall).

In the ‘contractive’ and the ‘profits without investment’ regimes, an increase in the rentiers’ rate of return shifting the ‘warranted rate’ upwards will thus trigger a cumulatively downward process of the goods market equilibrium rate of capital accumulation and a cumulatively upwards process of the outside finance–capital ratio. A decrease in managements’ animal spirits associated with rising shareholder power will exacerbate this process. Redistribution at the expense of labour in the medium run via the dividend-elastic mark-up will also reinforce this process if accumulation is wage led, and it will dampen it without being able to prevent it, if accumulation is profit led.

Animal spirits and medium-run equilibrium

Finally, we have to examine the effects of falling management’s animal spirits as a second channel of influence of rising shareholder power. From equation (3.19) we obtain for the effect of animal spirits on the medium-run equilibrium outside finance–capital ratio:

$$\frac{\partial \gamma^*}{\partial \alpha} = \frac{-\frac{h}{v}}{\rho \left[\beta(1 - s_R) - \theta \frac{h}{v} \right]}. \quad (3.19b)$$

In the medium-run stable case, in which $\beta(1 - s_R) - \theta h/v > 0$, we get $\partial \gamma^*/\partial \alpha < 0$. Falling animal spirits associated with rising shareholder

value orientation will hence increase the equilibrium outside finance–capital ratio. Medium instability implies $\beta(1 - s_R) - \theta h/v < 0$ and hence $\partial\gamma^*/\partial\alpha > 0$. Decreasing animal spirits will thus shift the (unstable) equilibrium outside finance–capital ratio downwards.

For the effects of animal spirits on the medium-run ‘warranted rate’ of capital accumulation we obtain from equation (3.21):

$$\frac{\partial g^{**}}{\partial\alpha} = 0. \quad (3.21b)$$

Since the ‘warranted rate’ of capital accumulation required for a constant outside finance–capital ratio is determined exclusively by rentiers’ saving out of dividend and interest payments relative to the capital stock, changes in management’s animal spirits have no effect on this rate. A change in animal spirits will only affect the goods market equilibrium rate of capital accumulation. This will exacerbate cumulatively diverging processes of the goods market equilibrium rate of capital accumulation from the ‘warranted rate’ in the medium-run unstable case, and it will modify, but not prevent the adjustment process in the medium-run stable case.

3.6 CONCLUSIONS

In this chapter we have identified theoretically and empirically the main channels of influence of financialization on investment in capital stock, taking into account the effects on functional income distribution outlined in the previous chapter and some rudimentary expansive effects on household consumption, without yet integrating household debt into the picture. The purpose of course was to obtain some macroeconomic implication of finance-dominated capitalism.

Regarding investment in capital stock, financialization has been associated with increasing shareholder power vis-à-vis management and workers, an increasing rate of return on equity and bonds held by rentiers, and decreasing managements’ animal spirits with respect to real investment, which each have partially negative effects on firms’ real investment. Regarding consumption, financialization has been considered to imply a tendency towards higher propensities to consume out of current income – based on wealth effects and access to debt finance, which has not yet been modelled explicitly in this chapter. And regarding distribution, financialization has been viewed to be conducive to a falling labour income share, in particular, apart from the increasing inequality of wages and salaries, with only the former tendency explicitly integrated into our model.

As in the preceding literature, introducing these channels into a Kaleckian demand-led growth model has yielded different potential accumulation regimes for an era of finance-dominated capitalism. Depending on the values of the model parameters, 'finance-led growth', 'profits without investment' and 'contractive' regimes may emerge. Only in the 'finance-led growth' regime increasing shareholder power is overall expansive with respect to the rates of capacity utilization, profit and capital accumulation, whereas in the 'profits without investment' regime the effects on the rates of capacity utilization and profit remain expansive but capital accumulation is depressed, and in the 'contractive' regime there is a depressing effect on all three endogenous variables of the model.

Analysing the medium-run stability and viability of these regimes in a simple stock-flow consistent distribution and growth model has given the following results: Only the 'finance-led growth' regime yields medium-run stability of the financial structure of the firm sector and of capital accumulation. However, it should be noted that this regime requires a very special parameter constellation: only weakly negative effects of increasing shareholder power on management's animal spirits, a low rentiers' propensity to save, a low profit share, a low elasticity of investment with respect to distributed profits and internal funds, and a high responsiveness with regard to capacity utilization. In particular, a medium-run increase in the gross profit share associated with financialization may turn the stable financial structure unstable.

More realistic parameter constellations giving rise to 'profits without investment' or 'contractive' regimes have turned out to yield cumulatively unstable medium-run results regarding the financial structure of the firm sector and the rate of capital accumulation. In the face of rising shareholder power, a rising rentiers' rate of return and falling managements' animal spirits, these regimes are liable to systemic instability characterized by rising outside finance–capital ratios, that is, rising debt plus rentiers' equity–capital ratios, and falling goods market equilibrium rates of capital accumulation and hence to a macroeconomic 'paradox of outside finance'. Falling labour income shares triggered by financialization increase the likelihood of these unstable regimes.

Of course, this is not to argue that economies with a 'profits without investment' or a 'contractive' regime are cumulatively unstable, because there may be other forces in the economy at work (in particular economic policies) which contain this instability. However, based on the results of our simple model, we would argue that under the conditions of the 'contractive' and the 'profits without investment' regimes there exists a considerable systemic medium-run instability potential regarding the financial structure of the corporate sector of the economy and regarding capital

accumulation. In the following chapter we will turn towards long-run productivity effects imposed by the effects of finance-dominated capitalism on income distribution and capital stock growth before we deal with the instability potential being generated by debt-financed household consumption.

NOTES

1. This chapter is based on Hein (2010a). For a similar model including an investment function generating the 'stagnationist' variant of the Kaleckian model see Hein (2010b). See also Hein (2009, 2011d) and Hein/van Treeck (2010a, 2010b) for models similar to the one developed in this chapter and for overviews of the related literature.
2. The following arguments on financialization and the Post-Keynesian theory of the firm draw on Hein/van Treeck (2010a, 2010b).
3. 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.
4. See Barba/Pivetti (2009), Cynamon/Fazzari (2008), Guttmann/Plihon (2010), and van Treeck (2009b) for extensive discussions of the effects of finance-dominated capitalism on households' (debt-financed) consumption, with a focus on the US.
5. See also Aglietta (2000), Hein (2008b), Hein/van Treeck (2010a), Stockhammer (2005–06) and van Treeck (2008) for the discussion of the conditions for such a regime within different model frameworks.
6. See Hein (2008b), Hein/van Treeck (2010a) and van Treeck (2008) for such a regime within different model setups.
7. See also the earlier approach by Skott (1988, 1989, pp. 114–40).
8. On Tobin's q see Brainard/Tobin (1968) and Tobin (1969). For a discussion see Crotty (1990) and Tobin/Brainard (1990). On Kaldor's valuation ratio see Kaldor (1966b) and the discussion in Lavoie (1998).
9. Generally, empirical studies have difficulties in finding a statistically significant and empirically relevant effect of Tobin's q on investment. See, for example, Bhaskar/Glyn (1995), Chirinko (1993) and Ndikumana (1999).
10. See van Treeck et al. (2007) for a comparison of the development in Germany and the US. In Germany, direct and indirect holding of stock and shares by private households is still very low compared to the US and has developed rather slowly, although stock market prices have increased more than tenfold since the early 1980s.
11. For a similar approach integrating financialization issues into the 'stagnationist' version of the Kaleckian distribution and growth model, which is more in line with the original ideas of Kalecki, see Hein (2010b).
12. The distinction between short-term (or initial) finance for production purposes and long-term (or final) finance for investment purposes, not dealt with in the present chapter, can be found in the monetary circuit approach. See Graziani (1989, 1994), Hein (2008a, pp. 70–79), Lavoie (1992, pp. 151–69), and Seccareccia (1996, 2003).
13. The Post-Keynesian 'horizontalist' view of endogenous money was pioneered by Kaldor (1970, 1982, 1985), Lavoie (1984, 1992, pp. 149–216, 1996), and Moore (1988, 1989). For a survey of the Post-Keynesian endogenous money approach and its implementation into Post-Keynesian models of distribution and growth see Hein (2008a).
14. See Hannsgen (2004, 2006a, 2006b) and Lima/Setterfield (2010) for empirical work on the cost-push channel of changes in the interest rate ('Gibson's paradox' or 'Wright Patman effect'), and Hein (2008a) for an overview of the development and implementation of this idea in Neo-Ricardian, Marxian and Post-Keynesian economics. The effects of changes in the dividend rate and hence also in the overall rentiers' rate of return can be seen from a similar angle: From the perspective of the firm these payments are costs which have to be covered by the prices set by the firm. In the face of a rising rentiers'

rate of return, either the firm manages to raise the mark-up on unit labour costs and labour bears the brunt, or retained profits will have to give way, or conflict inflation will accelerate. See Hein (2008a), Hein/Stockhammer (2010), and Lima/Setterfield (2010) for theoretical models including the cost-push effects of monetary policies.

15. See also Hein/van Treeck (2010a) for the following results.
16. Since an increasing rentiers' rate of return may also affect the value of the equilibrium outside finance–capital ratio, as shown above, the required increase in capital stock may not need to be proportionate to the increase in outside finance.
17. As long as condition (3.20') is met, this adjustment process may be disturbed but not prevented by the two additional effects of rising shareholder power in our model: falling 'animal spirits' triggered by rising shareholder power and the depressing effect of a rising profit share on capital accumulation in a wage-led growth regime. See Hein (2010a) for a more detailed discussion.
18. On the 'paradox of debt' see also Dutt (1995) and Lavoie (1995).

4. Finance-dominated capitalism and long-run productivity growth¹

4.1 INTRODUCTION

In this chapter we focus on the long-run effects of financialization on capital accumulation and productivity growth – and hence on potential growth. On the one hand, the early orthodox proponents of shareholder value orientation had argued that increasing shareholder power would induce managers to make more efficient use of the funds at their disposal and thus reduce the inefficiencies inherent in the ‘principal-agent’ conflict of modern corporations (Jensen/Meckling 1976). Therefore, increasing shareholder power and shareholder value orientation of management should have a positive effect on productivity growth and the growth potential of the economy. On the other hand, those who have argued that financialization, increasing shareholder power and rising shareholder value orientation of management would cause a policy of ‘downsize and distribute’ (Lazonick/O’Sullivan, 2000), in order to satisfy shareholders’ demand for distributed profits and high stock and share prices, should expect that low capital stock growth associated with such a policy would also have negative effects on productivity growth and thus on long-run potential growth of the economy as a whole through several channels.

We address these potentially contradicting effects of financialization on capital accumulation and productivity growth in a simple Kaleckian distribution and growth model for a closed private economy with endogenously determined productivity growth. We start by presenting the basic model features. Then we will make use of the distinction between the demand and the productivity regime, as suggested by Setterfield/Cornwall (2002), and analyse the demand regime before we turn to the productivity regime. Putting these two regimes together allows for the derivation of the overall regime and the discussion of the effects of increasing shareholder power on long-run capital accumulation and productivity growth.

4.2 THE BASIC MODEL

The effects of financialization and increasing shareholder power will be integrated into a Kaleckian distribution and growth model with an extension of the investment function proposed by Bhaduri/Marglin (1990). Shareholder power will be considered to be the exogenous variable in our model, both for the demand and the productivity regime. For the analysis of the demand regime we will take productivity growth to be an exogenous variable, which will then be endogenized in the analysis of the productivity regime. Finally, in the overall regime, the equilibrium rates of capital accumulation and productivity growth will be determined endogenously and the effects of increasing shareholder power will be derived.

We assume a closed private economy. Under given conditions of production, there is just one type of commodity produced which can be used for consumption and investment purposes. There is no overhead-labour and in order to simplify the following discussion we assume that technical progress is labour saving and capital embodied. Technical progress is hence associated with a falling labour–output ratio ($a = L/Y$) and rising labour productivity ($y = Y/L$). The capital–labour ratio ($k = K/L$) increases at the same rate as labour productivity does, and the capital–potential output ratio ($v = K/Y^p$), therefore remains constant. This means we assume Harrod-neutral technical progress, as in Rowthorn (1981), Cassetti (2003) and Dutt (2003). For the sake of simplicity we also do not consider depreciations. The rate of capacity utilization (u) is given by the relation between actual real output and potential real output. Pricing and distribution of income between different social groups in the model can be described by the following equations:

$$p = [1 + m(\Omega)]wa, m > 0, \frac{\partial m}{\partial \Omega} \geq 0, \quad (4.1)$$

$$h = \frac{\Pi}{pY} = 1 - \frac{1}{1 + m(\Omega)}, \frac{\partial h}{\partial \Omega} \geq 0, \quad (4.2)$$

$$r = \frac{\Pi}{pK} = \frac{\Pi}{pY} \frac{Y}{Y^p} \frac{Y^p}{K} = hu \frac{1}{v}, \quad (4.3)$$

$$\Pi = \Pi_F + R_I + R_D = \Pi_F + R, \quad (4.4)$$

$$r_R = \frac{R}{pK}, \frac{\partial r_R}{\partial \Omega} > 0, \quad (4.5)$$

$$r_F = \frac{\Pi_F}{pK}, \quad (4.6)$$

$$r = r_F + r_R. \quad (4.7)$$

Writing w for the nominal wage rate, we assume again that firms set prices (p) according to a mark-up (m) on unit labour costs in the incompletely competitive goods market (equation 4.1). Following Kalecki (1954, pp. 17–18), the mark-up is mainly determined by the degree of price competition in the goods market and by the relative powers of capital and labour in the labour market. The profit share (h), that is, the proportion of total profits (Π) in nominal output (pY), is therefore determined by the mark-up (equation 4.2). The mark-up and the profit share may become elastic with respect to a change in shareholder power (Ω) vis-à-vis management and labourers, as will be discussed in more detail below. The profit rate (r) relates the annual flow of profits to the nominal capital stock and can be decomposed into the profit share, the rate of capacity utilization and the reciprocal of the capital–potential output ratio (equation 4.3).

Since long-term finance of firms' capital stock in our model consists of firms' accumulated retained earnings controlled by owners/managers and equity and bonds held by rentiers' households, total profits (Π) split into firms' retained profits (Π_F), on the one hand, and dividends paid on equity held by rentiers (R_D) as well as interest paid on debt (R_I) also accruing to rentiers' households, on the other hand (equation 4.4).² In order to simplify further analysis, we again synthesize dividend and interest payments to rentiers and thus only have to consider retained profits versus distributed profits (R). Dividing by the nominal capital stock, we can distinguish a rentiers' profit rate (r_R) (equation 4.5) and a firms' profit rate (r_F) (equation 4.6), which sum up to the total profit rate (equation 4.7). Note that in order to simplify the analysis in this chapter, we do not explicitly treat the debt– and equity–capital ratios and the stability of these ratios. These ratios are not assumed to be constant; they may vary, but the dynamics are not studied here.

As has been argued in the previous chapter, financialization and rising shareholder power will be associated with increasing rentiers' demand for distributed dividends. It may also be accompanied by increasing interest payments, if the process of financialization is characterized by the substitution of equity–capital by debt (debt-financed mergers and acquisitions, debt-financed share buybacks), as has been observed in the US and recently also in Germany (see Krippner 2005, van Treeck et al. 2007, van Treeck 2009b). Therefore, we assume here that an increase in shareholder power will also cause an increase in the rentiers' profit rate. With a given total rate of profit,

a given capital–potential output ratio, given income distribution between capital and labour, and a given rate of capacity utilization, an increase in the rentiers’ rate of profit would cause a decrease in the firms’ rate of profit (equation 4.7). However, as will be seen below, as the rate of capacity utilization is an endogenous variable in our model, the total rate of profit will generally not remain constant in the face of a change in the rentiers’ rate of profit.³

Further on, a persistent increase in shareholder power (Ω) is likely to affect distribution between capital and labour, as we have argued in Chapter 2 of this book. If financialization and rising shareholder power reduce the degree of competition in the goods market as a consequence of mergers and acquisitions, hostile takeovers, and so on, and, in particular, if the bargaining power of labour unions in the labour market decreases as a result of firms’ ‘downsize and redistribute’ strategy and of (the threat of) increasing unemployment, rising dividend payments to shareholders will be associated with an increasing mark-up in firms’ pricing (equation 4.1). Under these conditions, increasing shareholder power will hence be accompanied by an increasing share of total profit in income (equation 4.2) and by a falling share of labour income.

4.3 THE DEMAND REGIME

Saving, investment and the goods market equilibrium of the model are described by the following equations:

$$\sigma = \frac{S}{pK} = \frac{\Pi - R + s_R R}{pK} = r - (1 - s_R)r_R, 0 < s_R \leq 1, \quad (4.8)$$

$$g = \frac{I}{pK} = \alpha + \beta u + \tau h - \theta r_R + \omega \hat{y},$$

$$\beta, \tau, \theta, \omega \geq 0, \frac{\partial \alpha}{\partial \Omega} < 0, \frac{\partial r_R}{\partial \Omega} > 0, \quad (4.9)$$

$$g = \sigma, \quad (4.10)$$

$$\frac{\partial \sigma}{\partial u} - \frac{\partial g}{\partial u} > 0 \Rightarrow \frac{h}{v} - \beta > 0. \quad (4.11)$$

For the determination of the goods market equilibrium we assume again a classical saving hypothesis, that is, workers do not save. The part of profits retained is completely saved by definition. The part of profits distributed to rentiers’ households is used by those households according to their propensity to save (s_R). Therefore, we get the saving rate (σ) in equation (4.8) which relates total saving to the nominal capital stock.

The accumulation rate (g), relating net investment (I) to the capital stock in equation (4.9) is based on the investment function proposed by Bhaduri/Marglin (1990). Investment decisions are assumed to be positively affected by expected sales (proxied by the rate of capacity utilization) and by unit profits (and hence the profit share), because both increase the (expected) profit rate. Distributed profits, the dividends and interest payments to rentiers, have again a negative impact on investment, because they reduce retained earnings and firms' own means of investment finance. This also limits the access to external funds in imperfect capital markets and the willingness of firms to go into debt, according to Kalecki's (1937) 'principle of increasing risk'.

Based on a 'growth-profit trade-off' at the firm level, as introduced in Chapter 3, pronounced shareholder value orientation is likely to be associated with a high preference for short-term profitability at the expense of the propensity to invest in real capital stock (Crotty 1990, Stockhammer 2005–06). This has two dimensions. First, increasing shareholder power vis-à-vis management will increase the rentiers' rate of profit and reduce available funds for real investment and growth of the firm. Second, management's animal spirits, reflected in the constant α in the investment function, will decline and might even become negative when managers are aligned with shareholders through stock option programmes and the threat of hostile takeovers in an active market of corporate control. Our investment function hence captures again the two channels of transmission of increasing shareholder power on real investment: the 'internal means of finance channel' and the 'preference channel'.

We also include technical progress, which for the time being is assumed to be exogenous, into the investment function, following the procedure suggested by Rowthorn (1981), Lavoie (1992, pp.316–22) and Dutt (2003). Since technical progress is embodied in capital stock, it will stimulate investment. Firms have to invest in new machines and equipment in order to gain from productivity growth (\dot{y}) which is made available by new technologies. This effect on investment will be the more pronounced the more fundamental technical change is: The invention of new basic technologies will have a stronger effect on real investment than marginal changes in technologies already in existence.⁴

The goods market equilibrium is determined by the equality of saving and investment decisions (equation 4.10). The goods market stability condition requires that the saving rate responds more elastically to changes in capacity utilization than capital accumulation does (equation 4.11). Finally, we obtain the following goods market equilibrium values for the rates of capacity utilization, profit and capital accumulation:

$$u^* = \frac{\alpha + \tau h + \omega \hat{y} + r_R(1 - s_R - \theta)}{\frac{h}{v} - \beta}, \quad (4.12)$$

$$r^* = \frac{\frac{h}{v}[\alpha + \tau h + \omega \hat{y} + r_R(1 - s_R - \theta)]}{\frac{h}{v} - \beta}, \quad (4.13)$$

$$g^* = \frac{\frac{h}{v}(\alpha + \tau h + \omega \hat{y}) + r_R\left[\beta(1 - s_R) - \theta \frac{h}{v}\right]}{\frac{h}{v} - \beta}. \quad (4.14)$$

In what follows, the discussion of the effects of increasing shareholder power on the demand regime will assume stable goods market equilibria, and we will focus here on the effects on capital accumulation only.⁵ We have two channels of influence of rising shareholder power via firms' investment, the 'preference channel' with $\partial\alpha/\partial\Omega < 0$ and the 'internal means of finance channel' with $\partial r^R/\partial\Omega > 0$. Further on we have a potential 'distribution channel' with $\partial h/\partial\Omega \geq 0$. For the demand regime of our model, we get the following total effects of an increase in shareholder power on capital accumulation:

$$\frac{\partial g^*}{\partial\Omega} = \frac{\frac{\partial\alpha}{\partial\Omega} \frac{h}{v} + \frac{\partial r_R}{\partial\Omega} \left[\beta(1 - s_R) - \theta \frac{h}{v}\right] + \frac{\partial h}{\partial\Omega} \frac{1}{v} (\tau h - \beta u)}{\frac{h}{v} - \beta}. \quad (4.15)$$

As can be seen from the first term in the numerator, the effect of increasing shareholder power via the 'preference channel' is negative. The effect via the 'internal means of finance channel', however, may be negative or positive, because increasing dividend payments mean a loss of internal means of finance for firms with a negative impact on investment, but they also increase rentiers' income with a direct positive impact on consumption and an indirect one on investment. The overall effect of the 'internal means of finance channel' will hence depend on the rentiers' propensity to save and on the elasticities of firms' investment with respect to distributed profits and to capacity utilization, as can be seen from the second term in the numerator. Finally, if rising shareholder power has a positive effect on the profit share, the 'distribution channel' will have ambiguous effects on equilibrium capital accumulation, too, because the accumulation regime in the model may either be wage led or profit led, as can be seen from the third term in the numerator. If unit profits have a strong impact on investment decisions and the impact

of capacity utilization is rather weak, capital accumulation tends to become profit led and redistribution at the expense of labour will push capital accumulation. If, however, the impact of unit profits is weak and the effect of aggregate demand and hence the rate of capacity utilization is strong, accumulation will become wage led and redistribution at the expense of labour in the face of rising shareholder power will affect capital accumulation in a negative way.

Therefore, depending on the parameter values of our model, the effect of increasing shareholder power on equilibrium capital accumulation in the demand regime may be ‘expansive’ or ‘contractive’:

$$\frac{\partial g^*}{\partial \Omega} > 0, \text{ if: } 1 - s_R > \left(\frac{-\frac{\partial \alpha}{\partial \Omega} - \frac{\partial h}{\partial \Omega} \left(\tau - \beta \frac{u}{h} \right)}{\frac{\partial r_R}{\partial \Omega}} + \theta \right) \frac{h}{\beta v}. \quad (4.15')$$

An ‘expansive’ demand regime is obtained, if the following conditions are given: a low propensity to save out of rentiers’ income, little importance of distributed profits (and hence internal funds) for firms’ investment decisions, weak relevance of the ‘preference channel’ for firms’ investment decisions relative to the ‘internal means of finance channel’, and a high responsiveness of investment with respect to the profit share. A ‘contractive’ demand regime will prevail under the opposite conditions.

4.4 THE PRODUCTIVITY REGIME

Within Post-Keynesian distribution and growth theory, in particular Kaldor has developed different ways to endogenize technological change. In his technical progress function (Kaldor 1957, 1961), productivity growth is positively affected by the growth of capital stock and capital intensity, because technical progress is capital embodied. Another possibility has been proposed by Kaldor (1966a) looking for an explanation of the (slow) growth in the United Kingdom. There he applies Verdoorn’s Law. According to Verdoorn (1949), the growth rate of labour productivity in industrial production is positively associated with the growth rate of output.⁶ This can be explained by static and dynamic economies of scale. Following these approaches implies that the growth rate of labour productivity is positively affected by the dynamics of output and capital stock. Rowthorn (1981), Lavoie (1992, pp. 322–7), and Dutt (2003), for example, have chosen the latter way of integrating productivity growth into Kaleckian distribution and growth models, and we will follow their suggestion here.

Apart from capital accumulation, we will consider two further determinants of productivity growth. First, we assume a direct effect of increasing shareholder power on productivity growth: Following the arguments put forward by early proponents of shareholder value orientation (Jensen/Meckling 1976), we assume that increasing shareholder power and the associated higher dividend payouts demanded by shareholders, weaker ability of firms to obtain new equity finance through stock issues (which tend to decrease share prices), increased threat of hostile takeovers in a liberalized market for corporate control (Manne 1965), as well as financial market-oriented remuneration schemes (Fama 1980), push managements to make more efficient use of the resources at their disposal. This should have positive effects on labour productivity growth and potential growth of the economy, at least initially.⁷ However, as Jensen (2005) and Rappaport (2005) have argued recently, there may be drawbacks if shareholder value orientation goes too far, productivity enhancing investment is undermined by share buybacks and dividend payouts, and management's short-termism becomes an obstacle to efficiency and productivity gains – and finally to shareholder value itself. The effect of shareholder power on productivity growth may thus be non-linear. However, in our simple model, we will first consider only a directly positive partial effect of shareholder power on productivity growth and we will come back to potential drawbacks when we discuss the macroeconomic feedbacks in the total model in Section 4.5.

Second, we include a wage-push variable into the productivity growth equation, as in Taylor (1991, pp.225–8), Cassetti (2003), Naastepad (2006), and Hein/Tarassow (2010). We thus make use of an idea proposed by Marx (1867) and Hicks (1932).⁸ The argument is as follows: Low unemployment and increasing bargaining power of employees and their labour unions will speed up the increase in nominal and real wages which will finally generate a rising wage share and hence a falling profit share.⁹ This will accelerate firms' efforts to improve productivity growth in order to prevent the profit share from falling. Dutt (2006b) has recently argued that increasing pressure from lower unemployment and rising real wages will accelerate the diffusion of innovations and will thus increase productivity growth.¹⁰ Since rising shareholder power may have a depressing effect on workers' bargaining power and on the wage share, as argued above, this may have an indirect negative effect on productivity growth.

Taking into account capital stock growth, shareholder power and the profit share as determinants yields the following simple equation for labour productivity growth:

$$\dot{y} = \eta + \varepsilon g + \vartheta \Omega - \chi h(\Omega), \quad \eta, \varepsilon, \vartheta, \chi > 0. \quad (4.16)$$

The constant in equation (4.16) can be interpreted as representing ‘learn-by doing’. As in the demand regime, a change in shareholder power has ambiguous effects on the productivity regime in this simple linear version of the productivity growth equation, taking capital accumulation as exogenous variable for the time being:

$$\frac{\partial \hat{y}}{\partial \Omega} = \vartheta - \chi \frac{\partial h}{\partial \Omega}. \quad (4.17)$$

Whereas the direct effect of increasing shareholder power on productivity growth is positive, the indirect effect via the profit share is negative and may thus overwhelm the direct effect, so that the overall effect is indeterminate. The condition for a positive effect is:

$$\frac{\partial \hat{y}}{\partial \Omega} > 0, \text{ if: } \vartheta > \chi \frac{\partial h}{\partial \Omega}. \quad (4.17')$$

The productivity regime may therefore be ‘expansive’ or ‘contractive’, too. The ‘expansive’ regime is given when the effect of shareholder power on productivity growth is strong and the wage-push effect is weak and/or redistribution at the expense of the wage share is only moderate.

4.5 INCREASING SHAREHOLDER POWER AND THE OVERALL REGIME

In order to discuss the total effect of a change in shareholder power on the demand and productivity regimes together, we first have to determine the overall equilibrium with given shareholder power. Graphically, we obtain this equilibrium in Figure 4.1, which contains the goods market equilibrium rate of capital accumulation from equation (4.14) and the productivity equation (4.16). With given shareholder power ($\bar{\Omega}$), we obtain a joint equilibrium in which the rate of capital accumulation (g^{**}) and the growth rate of labour productivity (\hat{y}^*) are determined endogenously.¹¹ The ‘natural rate of growth’, or potential growth, is hence endogenous in our model.

Analytically we obtain from equations (4.14) and (4.16) the following results for the endogenous growth equilibrium:

$$g^{**} = \frac{\frac{h}{v} [\alpha + \tau h + \omega(\eta + \vartheta \Omega - \chi h)] + r_R \left[\beta(1 - s_R) - \theta \frac{h}{v} \right]}{\frac{h}{v} (1 - \varepsilon \omega) - \beta}. \quad (4.18)$$

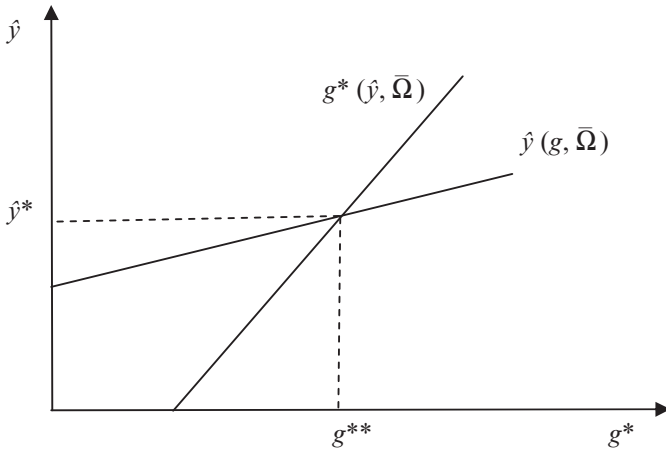


Figure 4.1 Growth equilibrium with endogenous productivity growth

$$\hat{y}^* = \frac{\left(\frac{h}{v} - \beta\right)(\eta + \vartheta\Omega - \chi h) + \varepsilon \left\{ \frac{h}{v}(\alpha + \tau h) + r_R \left[\beta(1 - s_R) - \theta \frac{h}{v} \right] \right\}}{\frac{h}{v}(1 - \varepsilon\omega) - \beta} \quad (4.19)$$

The existence and stability of the overall equilibrium requires that the slope of the capital accumulation function exceeds the slope of the productivity function in Figure 4.1. From equations (4.14) and (4.16) we obtain the following condition for this:

$$\frac{h}{v}(1 - \varepsilon\omega) - \beta > 0 \quad (4.20)$$

This implies that the reaction of capital accumulation with respect to productivity growth and of productivity growth with respect to capital accumulation have to be moderate in order for an overall equilibrium to exist and to be stable.¹² Otherwise we would observe a cumulatively explosive process. In what follows we assume this stability condition to hold. From equations (4.18) and (4.19) we can derive the effects of rising shareholder power on the overall equilibrium, that is, on the equilibrium rates of capital accumulation and productivity growth:

$$\frac{\partial g^{**}}{\partial \Omega} = \frac{\frac{\partial \alpha}{\partial \Omega} \frac{h}{v} + \frac{\partial r_R}{\partial \Omega} \left[\beta(1 - s_R) - \theta \frac{h}{v} \right] + \frac{\partial h}{\partial \Omega} \frac{1}{v} (\tau h - \beta u) + \omega \frac{h}{v} \left(\vartheta - \frac{\partial h}{\partial \Omega} \chi \right)}{\frac{h}{v} (1 - \varepsilon \omega) - \beta}, \quad (4.21)$$

$$\frac{\partial y^*}{\partial \Omega} = \frac{\left(\frac{h}{v} - \beta \right) \left(\vartheta - \frac{\partial h}{\partial \Omega} \chi \right) + \varepsilon \left\{ \frac{\partial \alpha}{\partial \Omega} \frac{h}{v} + \frac{\partial r_R}{\partial \Omega} \left[\beta(1 - s_R) - \theta \frac{h}{v} \right] + \frac{\partial h}{\partial \Omega} \frac{1}{v} (\tau h - \beta u) \right\}}{\frac{h}{v} (1 - \varepsilon \omega) - \beta}. \quad (4.22)$$

If both the demand regime and the productivity regime are expansive in the face of rising shareholder power, it follows that:

$$\frac{\partial \alpha}{\partial \Omega} \frac{h}{v} + \frac{\partial r_R}{\partial \Omega} \left[\beta(1 - s_R) - \theta \frac{h}{v} \right] + \frac{\partial h}{\partial \Omega} \frac{1}{v} (\tau h - \beta u) > 0 \text{ and } \vartheta - \frac{\partial h}{\partial \Omega} \chi > 0.$$

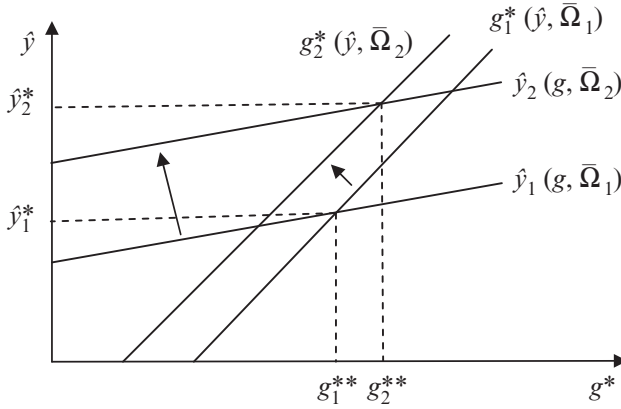
Therefore, the numerators in equations (4.21) and (4.22) will be both positive and the overall regime will be expansive, too. And if both the demand regime and the productivity regime are contractive, it follows that:

$$\frac{\partial \alpha}{\partial \Omega} \frac{h}{v} + \frac{\partial r_R}{\partial \Omega} \left[\beta(1 - s_R) - \theta \frac{h}{v} \right] + \frac{\partial h}{\partial \Omega} \frac{1}{v} (\tau h - \beta u) < 0 \text{ and } \vartheta - \frac{\partial h}{\partial \Omega} \chi < 0,$$

and thus the overall regime will be contractive, too.

If however, the demand regime is contractive (expansive) and the productivity regime is expansive (contractive) the two terms in the numerators of equations (4.21) and (4.22) have opposite signs and the overall effect of rising shareholder power depends on the relative strength of each partial effect. In Figures 4.2a–4.2c this is shown for a ‘contractive’ demand regime and an ‘expansive’ productivity regime, in which a change in shareholder power has opposite partial effects on capital accumulation and on productivity growth. The overall results will therefore depend on the relative strength of each of these partial effects. If the contractive effect on the demand regime is rather weak, and the expansive effect on the productivity regime is strong, we may obtain an overall expansive regime, as shown in Figure 4.2a: Capital accumulation and productivity growth increase with rising shareholder power. However, if the negative effect on the demand regime is very pronounced and the positive effect on the productivity

a) Expansive overall regime



b) Intermediate overall regime

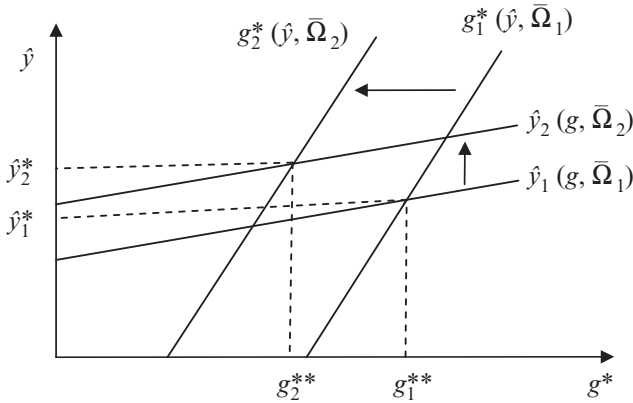


Figure 4.2 Increasing shareholder power, expansive productivity regime and contractive demand regime

regime is weak, we may obtain an overall contractive regime, as can be seen in Figure 4.2c: The rates of capital accumulation and productivity growth decrease in the face of rising shareholder power. With intermediate partial effects on demand and productivity regimes, an overall intermediate regime is possible as well: Increasing shareholder power triggers slower capital accumulation but faster productivity growth, as is displayed in Figure 4.2b.

In Table 4.1 the potential effects of changing shareholder power on

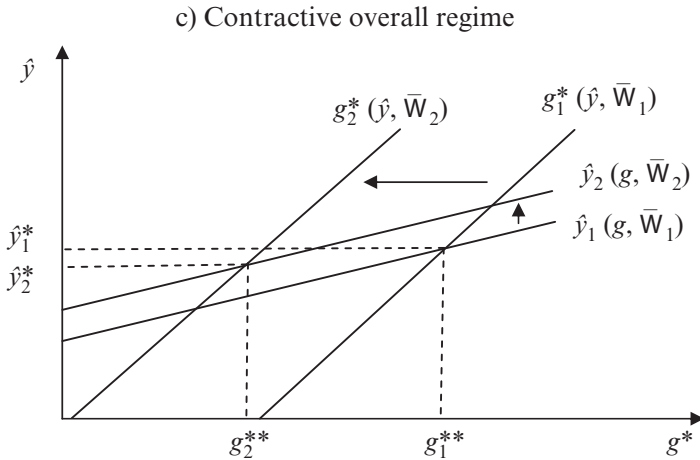


Figure 4.2 (continued)

the overall regime are summarized. Under special conditions increasing shareholder power may indeed have positive effects on capital accumulation and productivity growth and hence on the overall regime of the economy. Such a regime emerges for sure if increasing shareholder power has positive effects on firms’ productivity growth via management’s use of the resources at their disposal, and rising shareholder power triggers rising capital accumulation. However, it might also arise if there is a strongly positive effect on capital accumulation but a weakly negative effect on productivity growth, or a weakly negative effect on capital accumulation but a strongly positive effect on productivity growth.

An overall contractive regime will arise if the effects of rising shareholder power on productivity and demand regimes are negative each, or if it is strongly negative for one regime but only weakly positive for the other. If rising shareholder power has moderately positive effects on one regime but moderately negative ones on the other, intermediate regimes with rising (falling) rates of accumulation but falling (rising) rates of productivity growth might emerge.

Finally we shall address the effects of increasing shareholder power on the productivity growth-capital accumulation nexus,¹³ as described by the coefficient ω in equation (4.9). Deriving the potential growth regimes we have assumed so far that the elasticity of capital accumulation with respect to productivity growth is not affected by increasing shareholder power. This implied that an increase in shareholder power meant a parallel shift of the $g^*(\hat{y})$ curves in Figures 4.2a–4.2c. However, if we concede

Table 4.1 Demand, productivity and overall regime in the face of rising shareholder power

		Demand regime					
		Contractive ($\partial g^*/\partial \Omega < 0$)			Expansive ($\partial g^*/\partial \Omega > 0$)		
Productivity regime	Contractive ($\partial y/\partial \Omega < 0$)	$\partial g^{**}/\partial \Omega$	$\partial y^*/\partial \Omega$	Overall regime <i>Contractive</i>	$\partial g^{**}/\partial \Omega$	$\partial y^*/\partial \Omega$	Overall regime <i>Expansive</i>
		-	-		+	+	
	Expansive ($\partial y/\partial \Omega > 0$)	$\partial g^{**}/\partial \Omega$	$\partial y^*/\partial \Omega$	Overall regime <i>Contractive</i> <i>Intermediate</i> <i>Expansive</i>	$\partial g^{**}/\partial \Omega$	$\partial y^*/\partial \Omega$	Overall regime <i>Expansive</i>
		-	-		+	+	
		+	+		-	-	

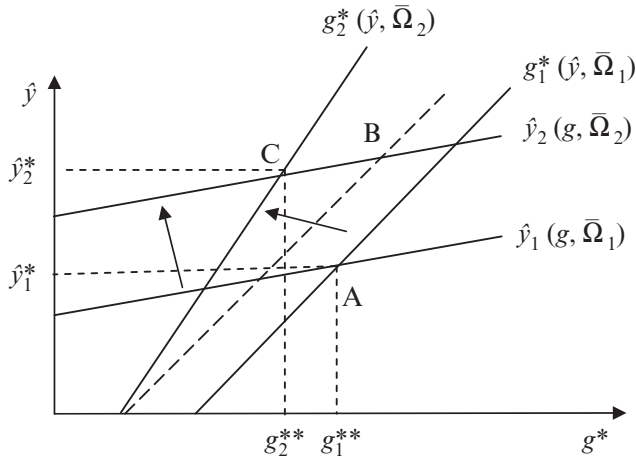


Figure 4.3 Increasing shareholder power, expansive productivity regime and contractive demand regime with a negative effect on the elasticity of capital accumulation with respect to productivity growth

that increasing shareholder power and shareholder value orientation of management are accompanied by the attempts to improve productivity growth by means of downsizing strategies, increasing the pressure on labour and thereby intensifying work effort, this should also affect the nexus between productivity growth and capital accumulation. The positive effect of productivity growth on capital accumulation might therefore be weakened. An increase in shareholder power might negatively affect the coefficient ω in the accumulation function (4.9) and therefore the slope of the $g^*(\hat{y})$ curves in Figures 4.2a–4.2c. On the one hand, this implies that the stability condition of the overall regime (4.20) is more easily met and an explosion of the model is prevented. On the other hand, however, including this effect means that a positive impact of increasing shareholder power on the overall regime is weakened, and in the case of opposing effects on the demand and the productivity regimes an overall expansive regime becomes less likely, although not impossible.¹⁴ As is shown for example in Figure 4.3, under the conditions of an ‘expansive’ productivity regime and a ‘contractive’ demand regime, the inclusion of the negative effect of increasing shareholder power on the elasticity of capital accumulation with respect to productivity might easily turn an ‘expansive’ into an ‘intermediate’ overall regime; instead of moving from A to B, the equilibrium will move to C.

4.6 CONCLUSIONS

Focussing on the long-run effects of financialization and increasing shareholder power in a simple Kaleckian endogenous growth model, we have found that under special conditions increasing shareholder power may indeed have positive effects on capital accumulation and productivity growth and hence on potential growth of the economy, as implied by the claims of the early protagonists of the concept of shareholder value orientation. However, such a regime does not only require directly positive effects of increasing shareholder power on the productivity regime – or only weakly negative effects if there are strongly positive effects on the demand regime. It also requires expansive effects of increasing shareholder power on capital accumulation via the demand regime of the economy – or only weakly negative effects if there are strongly positive effects on the productivity regime. The condition of positive effects on the productivity regime has recently been questioned by the protagonists of the shareholder value concept themselves (Jensen 2005, Rappaport 2005) and it has also been questioned on empirical grounds (Graham et al. 2005). The latter condition regarding the positive effects on the demand regime requires extreme assumptions with respect to the determinants of saving and investment and it has been put into question by empirical studies on the effects of financialization and increasing shareholder power on firms' real investment (Onaran et al. 2011, Orhangazi 2008, Stockhammer 2005–06, van Treeck 2008), reviewed in the previous chapter, and on the prevailing demand regime (van Treeck 2008, 2009b, van Treeck et al. 2007): Although being able to generate high levels of demand and profits at the macroeconomic level for considerable periods of time, building on wealth-based and credit-financed consumption demand, increasing financialization and shareholder power seems to cause a general weakness of capital accumulation. This not only contributes to financial and real instability, as has been analysed in Chapter 3, but depressed capital accumulation is also very likely to feed back negatively on productivity growth and hence on long-run potential growth of the economy, as shown in the present chapter. Therefore, an overall long-run 'contractive' regime seems to be the most likely outcome of financialization, rising shareholder power and pronounced shareholder value orientation in a Kaleckian endogenous growth model.

NOTES

1. This chapter is based on Hein (2012b). For a similar model based on an extended stagnationist Kaleckian investment function see Hein (2010c).

2. The balance sheet matrix for the model in Chapter 3, therefore, also applies to the model in this chapter. The same holds true for the transaction flow matrix.
3. Of course, one may also consider the possibility that an increase in shareholder power reduces the rentiers' profit rate, when there are strong contractive macroeconomic effects on the overall profit rate. Here, we exclude this possibility for simplicity.
4. Dutt (2003) also discusses potential effects of technical progress on saving – new products and hence consumption possibilities may cause a reduction in the propensity to save – and on the mark-up and hence income distribution – technology leaders may increase their mark-ups and hence the profit share for the economy as a whole. We will not integrate these effects into our model.
5. For a more detailed discussion including the effects on the rates of capacity utilization and profit in similar models see Chapter 3 and Hein (2010b) and Hein/van Treeck (2010a).
6. For empirical evidence on Verdoorn's Law see the survey by McCombie/Pugno/Soro (2002) and the recent work by Vergeer/Kleinknecht (2007) and Hein/Tarassow (2010).
7. It should also have a negative impact on the capital–potential output ratio, at least temporarily. This effect will be neglected here in order to keep the analysis as simple as possible.
8. See also Lima (2004) who makes use of a non-linear effect of the wage share on technological innovations in a somewhat more complex model than ours. However, in his model there is no Verdoorn effect or technical progress function. See also Lima (2000).
9. In a Kaleckian model of an open economy, nominal wage growth exceeding productivity growth will cause a rise in the wage share and a drop in the profit share, even if the mark-up on unit labour costs in firms' pricing remains constant (Hein 2005).
10. For empirical evidence on wage push variables in productivity growth see recently Marquetti (2004), Naastepad (2006), Vergeer/Kleinknecht (2007), and Hein/Tarassow (2010).
11. Of course, the rates of capacity utilization and profit can be determined endogenously in this model, too.
12. Comparing stability condition (4.20) for the overall regime, with feedbacks between capital accumulation and productivity growth, with the stability condition (4.11) for the demand regime, with exogenous productivity growth, shows that the former is more stringent than the latter. See Lavoie (1992, p. 325) for a similar result in a different Kaleckian model.
13. I am grateful to Laurent Cordonnier for drawing my attention to this effect.
14. However, as can easily be checked with the help of equation (4.21), in the extreme case, when increasing shareholder power turns $\omega = 0$ in the accumulation function (4.9), an overall expansive regime will become impossible, when the effect of increasing shareholder power on the productivity regime is expansive and on the demand regime is contractive. In the opposite case, when increasing shareholder power has a contractive effect on the productivity regime but an expansive effect on the demand regime, an overall contractive regime becomes impossible if $\omega = 0$.

5. Finance-dominated capitalism, consumption, household debt and instability¹

5.1 INTRODUCTION

In the previous chapters we analysed the effects of finance-dominated capitalism on income distribution, investment in capital stock and on productivity growth. Discussing the potential macroeconomic regimes in Chapters 3 and 4 we also included the potential effects on consumption, but we have not dealt with household debt yet. This will be the focus in the present chapter. We start from the observation that finance-dominated capitalism has generated increasing potential for wealth-based and debt-financed consumption. Stock market and housing price booms have each increased notional wealth against which households were willing to borrow. Changing financial norms, new financial instruments (credit card debt, home equity loans) and deterioration of creditworthiness standards, triggered by securitization of mortgage debt and ‘originate and distribute’ strategies of commercial banks, made increasing credit available to low income, low wealth households, in particular. This allowed consumption norms to rise faster than median income, driven by habit persistence, social visibility of consumption (‘keeping up with the Joneses’), and a kind of ‘consumer arms race’ (Cynamon/Fazzari 2008).²

Econometric studies have shown that (financial and housing) wealth is a statistically significant determinant of consumption – not only in the US. For the US, Ludvigson/Steindel (1999) and Mehra (2001) have estimated marginal propensities to consume out of wealth between 3 per cent and 7 per cent, applying time series econometrics to different periods. Onaran et al. (2011), carefully distinguishing between propensities to consume out of wages, non-rentier profits, rentier profits, financial wealth and housing wealth, find smaller values for the US (1962–2007): The propensity to consume out of net financial wealth is estimated to be 0.7 per cent whereas the estimate for the propensity to consume out of gross housing wealth is 2 per cent. They also find a higher propensity to consume out of rentiers profits (net interest and net dividend payments of the industrial sector) than

out of total profits. Boone/Girouard (2002) find marginal propensities to consume out of wealth between 2 per cent and 4 per cent for the US, the UK, France, Italy and Japan (1980–99), with a higher value only for Canada. Applying dynamic panel regression for 14 OECD countries (1979–99), Dreger/Slacalek (2007) obtain that the marginal propensity to consume out of financial and housing wealth in capital-market based countries has been 3.7 per cent, whereas in bank-based countries it has only been 0.7 per cent.

With respect to consumption demand, household debt, based on (notional) financial or housing wealth may thus become a substitute for higher wages:

Household debt thus appears to be capable of providing the solution to the fundamental contradiction between the necessity of high and rising levels of consumption, for the growth of the system's actual output, and a framework of antagonistic conditions of distribution, which keeps within limits the real income of the vast majority of the society. (Barba/Pivetti 2009, p. 127.)³

However, consumption booms based on notional wealth effects and increasing indebtedness of private households may generate increasing financial fragility and 'financial instability', to use the terminology introduced by Minsky (1975, 1977, 1986). The late Hyman Minsky summarized his 'financial instability hypothesis' as follows:

Over a timespan without financial panic and a deep depression, the financial structure changes so that financial layering increases and the proportion of what I called speculative and Ponzi financial postures increase. The above can be called the first postulate of the Financial Instability hypothesis. The second postulate is that the increase in layering and the shift in the structure of payment commitments progressively increase the vulnerability of the financial system to a debt deflation process, which can usher in a deep depression business cycle. (Minsky 1995, p. 92.)

Minsky's approach was mainly focussing on increasing corporate debt in a period of economic expansion triggering increasing financial fragility and instability. The recent Great Recession, however, was preceded by increasing household debt–income ratios against the background of re-distribution in the course of a consumption boom, and not by rising debt–capital ratios of the business sector in an investment boom. It has also been questioned whether from a macroeconomic perspective, real economic expansion necessarily has to be associated with increasing debt–capital or debt–income ratios.⁴ Discussing in depth and detail whether Minsky's 'financial instability hypothesis' can be fully applied to the Great Recession, or to what extent it is relevant, is however well beyond the scope of this chapter.⁵

In what follows we will rather examine whether an economic boom based on debt-financed consumption and thus increasing household debt is necessarily bound to collapse for systemic reasons related to stock-flow or stock-stock dynamics. If not, what is the role of the other channels of influence of financialization on household indebtedness and growth, that is the redistribution at the expense of labour and weakened animal spirits of the firm sector with respect to real investment? What are the conditions under which household debt–income or debt–capital ratios become unstable, triggering increasing financial fragility and finally financial crisis? In the present chapter we address these issues in a simple Kaleckian distribution and growth model, in which we allow for debt-financed consumption of workers households, along with redistribution at the expense of labour income and weakened animal spirits of the firm sector with respect to real investment, each caused by finance-dominated capitalism and neo-liberalism.

The majority of models in the Kaleckian and Mynskian tradition has, in discussing the effects of finance-dominated capitalism, focussed on the role of corporate debt for the business cycle and for medium-run growth, or on the role of outside finance including equity held by rentiers.⁶ However, three types of modelling approaches focussing on household debt have been proposed.

The contradictory macroeconomic effects of household indebtedness for consumption purposes have already been included by Palley (1994) into a multiplier-accelerator business cycle model: An increase in household debt initially stimulates aggregate demand transferring purchasing power from lending high income households with a low marginal propensity to consume to borrowing low income households with a high propensity to consume. But interest payments on debt subsequently become a burden on aggregate demand, because purchasing power is re-distributed in the opposite direction. This model is then extended to include Minskyan ‘tranquillity’ effects and to examine interactions of financial fragility and tranquillity. However, this business cycle model in level variables does not treat the development of stock-flow (debt–income) or stock-stock (debt–capital) ratios, neither are the changes in income distribution or in the propensities to invest in real capital stock examined.

Bhaduri et al. (2006) have explicitly focussed on the wealth-effect on consumption in their model, implying that increases in financial wealth stimulate households’ willingness to consume. However, stock market wealth (and also housing wealth) is purely ‘virtual wealth’ and increasing consumption is hence associated with increasing gross indebtedness of private households. Therefore, a wealth-based credit boom may be maintained over a considerable period of time. Finally, however, the expansive

effects of consumer borrowing may be overwhelmed in the medium run by rising interest obligations, which reduce households' creditworthiness and eventually require higher saving. A debt-led consumption boom will then turn into a debt-burdened recession. Although the authors consider the debt–income ratio of households as a major determinant of creditworthiness and hence of access to new borrowing, the dynamics of this ratio are not traced in the medium or long runs of their model. Potential 'paradoxes of debt' are not at issue, and distributional and investment effects of 'finance-dominated capitalism' on household indebtedness and growth are also missing in the medium- to long-run dynamics. The same is true for Bhaduri's (2011a, 2011b) extensions of this approach, which attempt to show how a debt-financed consumption boom supported by rising asset prices ultimately leads to a credit crunch and debt deflation, and how the tendency towards Ponzi finance increases the fragility of the financial sector.

Dutt (2005, 2006a) has analysed the effects of easier access to consumer credit associated with deregulation of the financial sector within a Steindlian model of growth and income distribution, making use of a similar mechanism to Palley (1994). Credit-based consumption of workers, facilitated by the deregulation of the financial system allowing home equity lending, adjustable consumer loans and securitization, stimulates effective demand and growth in the short run. However, in the medium run, contractive effects arise because interest payments imply re-distribution of income from workers to capitalists who have a lower propensity to consume. These effects may overwhelm the expansive effects so that higher workers' debt has medium-run contractive effects on capital accumulation and growth under certain conditions. However, with a low rate of interest, high levels of autonomous investment and a low profit share, the medium-run effects of workers' debt may remain expansive, according to Dutt.

Our approach is close to Dutt's, albeit with a somewhat different modelling strategy. Dutt's models include a built-in stabiliser, because he assumes that the desired lending of capitalists (or rentiers) to workers households, or the desired debt of workers households from the perspective of the capitalists (or rentiers), is determined and thus restricted by workers' income net of interest payments. He thus excludes cumulative increases, and hence instability, of workers' debt–income or debt–capital ratios. We will not make such a restrictive assumption and rather hold that creditors, because of the institutional changes in the age of financialization mentioned above, do not care much about workers' net income when granting credit. This allows us to focus on the issue of medium-run stability of workers' debt–capital ratios, and to treat the major effects of

finance-dominated capitalism outlined above in a direct and explicit way. In particular, by examining the conditions for medium-run stability of the workers' debt–capital ratio in our model, we hope to identify the potential causes for systemic instability, and thus increasing financial fragility and financial crisis, caused by stock-flow or stock-stock dynamics in finance-dominated capitalism.

The remainder of the chapter is structured as follows: We start with an outline of the basic Kaleckian distribution and growth model with workers' debt. Then we discuss the properties of the short-run equilibrium, taking the workers' debt–capital ratio as an exogenously given constant. Subsequently, the medium-run equilibrium values for the workers' debt–capital ratio will be endogenously determined, along with the associated medium-run equilibrium rates of capacity utilization and capital accumulation, and the stability properties of this medium-run equilibrium will be discussed. Next we derive the effects of changes in exogenous parameters on the medium-run equilibrium. The following section then discusses the short- and medium-run effects of finance-dominated capitalism in context: a fall in animal spirits of the firm sector with respect to real investment, an increase in the profit share, and a rise in lending to workers. It also elaborates on potential feedback effects of increasing workers' debt, and hence decreasing creditworthiness and limited access to credit, on aggregate demand, capital accumulation and growth. Finally, we summarize and conclude.

5.2 THE BASIC MODEL

In our basic closed economy, one-good model without government activity, we assume the price (p) in the incompletely competitive goods market to be set by firms, marking up unit direct labour costs. There is no overhead labour, the capital stock (K) does not depreciate, and the labour–output ratio (L/Y) as well as the capital–potential output ratio ($v = K/Y^p$) are fixed, that is, there is no technical progress. Unit direct labour costs are thus constant up to full capacity output. Productive capacity (Y^p) given by the capital stock is usually not fully utilized and the rate of capacity utilization ($u = Y/Y^p$), given by the proportion of output to potential output as determined by the capital stock, is treated as an endogenous variable. By means of firms setting the mark-up (m) in the goods market, functional income distribution between capital and labour is determined. The share of profits in national income ($h = \Pi/Y$) is therefore a function of those variables determining the mark-up, in particular the degree of competition in the goods market and the bargaining powers of capital and labour unions in the labour market:

$$h = h(m). \quad (5.1)$$

We will treat the profit share as an exogenous variable in our model, which of course may change over time due to the changes in the determinants of the mark-up associated with finance-dominated capitalism (see Chapter 2), and we will examine the effects of such a variation on output, growth and financial stability.

In a closed private economy, we have two types of households, rentiers and workers, and a firm sector. In order to keep the model as simple as possible, we assume that the capital stock of the firm sector (pK) is completely financed by equity issued by the firms and held by the rentiers households (E_R). Therefore, rentiers receive all the profits being made by the firms (Π) as dividend payments (Π_R), and there are no retained earnings of the firm sector in our model:⁷

$$\Pi = \Pi_R = hpY. \quad (5.2)$$

Since the capital stock is completely financed by equity issued by the firm sector and total profits are completely distributed as dividend payments to rentiers' households, it also follows that in our model the dividend rate ($d = \Pi_R/E_R$) is equal to the rate of profit on capital stock ($r = \Pi/pK$). And since the latter can be decomposed into the profit share, the rate of utilization of productive capacities given by the capital stock, and the capital-potential output ratio, we have:

$$d = \frac{\Pi_R}{E_R} = \frac{\Pi}{pK} = \frac{\Pi}{pY} \frac{Y}{Y^p} \frac{Y^p}{K} = hu \frac{1}{v} = r. \quad (5.3)$$

Since the rate of capacity utilization is an endogenous variable in our model, the same holds true for the profit rate and thus the dividend rate.

Workers' consumption (C_W) is determined by their wage income [$W = (1 - h)Y$], on the one hand, and by credit received from rentiers (ΔB_W) net of interest payments on their stock of debt (iB_W) to rentiers, on the other hand. Workers do not save and we thus obtain:

$$C_W = W + \Delta B_W - iB_W = (1 - h)Y + \Delta B_W - iB_W. \quad (5.4)$$

Loans from rentiers to workers thus have a twofold effect. On the one hand, they increase available financial resources and boost consumption. On the other hand, they increase workers households' stock of debt and thus interest payments which reduce workers' consumption. The net effect may be positive or negative. We assume that the rate of interest is given by

monetary policies of the central bank, setting the base rate of interest (the overnight rate) in the money market, and by rentiers' liquidity and risk assessments as well as the degree of competition in the credit and financial markets, determining the mark-up on the base rate and thus the rate(s) of interest in these markets. We treat the rate of interest as an exogenous variable in our model.

Rentiers' consumption (C_R) is determined by their total income, consisting of distributed profits of firms ($hpY = \Pi_R$) plus the interest payments from workers' households (iB_W), and their propensity to consume (c_R):

$$C_R = c_R(hpY + iB_W), 0 < c_R < 1. \quad (5.5)$$

There are only two types of assets available for rentiers' saving: equity issued by the firm sector and debt of workers' households.⁸ We assume that rentiers' saving (S_R), determined by their propensity to save ($s_R = 1 - c_R$) out of total income, is split in fixed proportion between additional lending to workers and buying additional equity issued by the firms, so that we have:

$$\Delta B_W = \delta S_R = \delta s_R(hpY + iB_W), \quad (5.6)$$

$$\Delta E_R = (1 - \delta)S_R = (1 - \delta)s_R(hpY + iB_W). \quad (5.7)$$

Credit going to workers does therefore not depend on workers' net income, as in Dutt (2005, 2006a), but on rentiers' income and saving. Dutt's lending function excludes cumulative increases, and hence instability, of workers' debt-income or -capital ratios. We do not want to make such a restrictive assumption and rather hold that rentiers, because of the institutional changes in the age of financialization outlined in the introduction, tend not to care much about workers' net income or indebtedness when granting credit. This allows us to focus on the issue of long-run stability of workers' debt-capital ratios. Therefore, as a first approximation, we suppose that rentiers' loans to workers is a fixed proportion (δ) of rentiers' saving.⁹ This proportion is determined by several factors: workers' households' willingness to go into debt, rentiers' households' willingness to supply credit to workers, hence workers' households' creditworthiness as perceived by rentiers and affected potentially, but not necessarily, by workers' debt-capital or -income ratios, the regulation of the credit market and thus the standards for creditworthiness, and other factors influencing creditworthiness.¹⁰ We will treat δ as an exogenous variable, which of course may shift over time, in particular due to the effects of financialization outlined in the introduction. However, our parameter δ can also be

understood to be affected by the willingness of the firm sector to invest in capital stock and to issue equity to rentiers in order to finance long-term real investment (or to issue debt to rentiers' households in a more complex model). The literature on the effects of financialization on real investment decision of the firm sector reviewed in Chapter 3 has shown that increasing shareholder dominance and shareholder value orientation of management tends to dampen investment in capital stock due to the perceived growth-profit trade-off at the firm level.¹¹ Therefore, because of the dominance of shareholders' interests firms prefer short-run profits instead of long-run growth of capital stock. This implies, on the one hand, increasing dividend payout ratios to rentiers, which, however, is not modelled here, because we assume profits to be completely paid out to rentiers. On the other hand, however, increasing shareholder value orientation also implies a reduction in real investment financed by issuing equity (or debt), and even share buy-backs. In our model this would show up as a decline in the parameter $(1-\delta)$.

The basic structure of the model can be summarized by the balance sheet matrix in Table 5.1 and the transaction flow matrix in Table 5.2.

Table 5.1 Balance sheet matrix

	Workers' households	Rentiers' households	Firms	Σ
Loans	$-B_W$	$+B_W$		0
Equities		$+E_R$	$-E_R$	0
Capital			pK	pK
Σ	$-B_W$	$+B_W+E_R$	0	$pK = E_R$

Introducing workers' household's debt into the basic Kaleckian distribution and growth model,¹² we start by normalising equations (5.4)–(5.6) by the nominal capital stock:

$$\frac{C_W}{pK} = (1 - h)\frac{u}{v} + \hat{B}_W\lambda_W - i\lambda_W, \tag{5.8}$$

$$\frac{C_R}{pK} = c_R\left(h\frac{u}{v} + i\lambda_W\right), \tag{5.9}$$

$$\frac{\Delta B_W}{pK} = \hat{B}_W\lambda_W = \delta s_R\left(h\frac{u}{v} + i\lambda_W\right). \tag{5.10}$$

The workers' debt–capital ratio ($\lambda_W = B_W/pK$) is treated as a constant in short-run analysis but will be endogenously determined in the medium

Table 5.2 Transaction flow matrix

	Workers' households	Rentiers' households	Firms' current	Firms' capital	Σ
Consumption	$-C_W$	$-C_R$	$+C_W + C_R$		0
Investment			$+I$	$-I$	0
Wages	$+W$		$-W$		0
Retained profits			0	0	0
Distributed profits (dividends)		$+\Pi_R$	$-\Pi_R$		0
Change in equity		$-\Delta E_R$		$+\Delta E_R$	0
Interest on loans	$-iB_W$	$+iB_W$			0
Change in loans	$+\Delta B_W$	$-\Delta B_W$			0
Σ	0	0	0	0	0

run of our model. Examining its stability in the medium run will be a major task. Finally, $\hat{B}_W = \Delta B_W / B_W$ is the rate of change of workers' debt.

We can now include the creditor–debtor relationship between rentiers' households and workers' households into the three basic equations of the Kaleckian model and the stability condition for the goods market equilibrium:

$$g = \frac{I}{pK} = \alpha + \beta u, 0 < \beta, \quad (5.11)$$

$$\sigma = \frac{S}{pK} = s_R \left(h \frac{u}{v} + i \lambda_W \right), 0 < s_R < 1, \quad (5.12)$$

$$g = (1 - \delta)\sigma, \quad (5.13)$$

$$(1 - \delta)s_R \frac{h}{v} - \beta > 0. \quad (5.14)$$

The rate of investment (I) in capital stock (g) is determined by (expected) sales and hence by the rate of capacity utilization and by animal spirits of the firm sector (α), so that we obtain the basic Kaleckian function for capital accumulation in equation (5.11). Equation (5.12) defines the saving rate (σ), that is, saving in relation to the capital stock, which is determined by rentiers' income normalized by the capital stock and their propensity to save. In equation (5.13) we have the goods market equilibrium condition, that is, rentiers' saving which is not used for workers' consumption has to be invested by firms. The usual Kaleckian/Keynesian goods market stability condition (5.14) requires that rentiers' saving net of workers' debt

financed consumption has to respond more elastically to the endogenous variable of the model, the rate of capacity utilization, than does real investment of the firm sector. For the following analysis we assume that the goods market stability condition holds.

5.3 THE SHORT-RUN EQUILIBRIUM

For the short-run equilibrium we take the workers' debt–capital ratio as given and constant. From equations (5.11) to (5.13) we obtain for the short-run equilibrium rates of capacity utilization (u^*) and capital accumulation (g^*):

$$u^* = \frac{\alpha - (1 - \delta) s_R i \lambda_W}{(1 - \delta) s_R \frac{h}{v} - \beta}, \quad (5.15)$$

$$g^* = \frac{(1 - \delta) s_R \left(\alpha \frac{h}{v} - \beta i \lambda_W \right)}{(1 - \delta) s_R \frac{h}{v} - \beta}. \quad (5.16)$$

The following effects of changes in exogenous variables on the stable goods market equilibrium are derived:

$$\frac{\partial u^*}{\partial \alpha} = \frac{1}{(1 - \delta) s_R \frac{h}{v} - \beta} > 0, \quad (5.15a)$$

$$\frac{\partial g^*}{\partial \alpha} = \frac{(1 - \delta) s_R \frac{h}{v}}{(1 - \delta) s_R \frac{h}{v} - \beta} > 0, \quad (5.16a)$$

$$\frac{\partial u^*}{\partial h} = \frac{-(1 - \delta) s_R \frac{u^*}{v}}{(1 - \delta) s_R \frac{h}{v} - \beta} < 0, \quad (5.15b)$$

$$\frac{\partial g^*}{\partial h} = \frac{-\beta(1 - \delta) s_R \frac{u^*}{v}}{(1 - \delta) s_R \frac{h}{v} - \beta} < 0, \quad (5.16b)$$

$$\frac{\partial u^*}{\partial \delta} = \frac{s_R \left(i\lambda_W + \frac{h}{v} u^* \right)}{(1 - \delta) s_R \frac{h}{v} - \beta} > 0, \quad (5.15c)$$

$$\frac{\partial g^*}{\partial \delta} = \frac{\beta s_R \left(i\lambda_W + \frac{h}{v} u^* \right)}{(1 - \delta) s_R \frac{h}{v} - \beta} > 0, \quad (5.16c)$$

$$\frac{\partial u^*}{\partial i} = \frac{-(1 - \delta) s_R \lambda_W}{(1 - \delta) s_R \frac{h}{v} - \beta} < 0, \quad (5.15d)$$

$$\frac{\partial g^*}{\partial i} = \frac{-\beta(1 - \delta) s_R \lambda_W}{(1 - \delta) s_R \frac{h}{v} - \beta} < 0, \quad (5.16d)$$

$$\frac{\partial u^*}{\partial s_R} = \frac{-(1 - \delta) \left(i\lambda_W + \frac{h}{v} u^* \right)}{(1 - \delta) s_R \frac{h}{v} - \beta} < 0, \quad (5.15e)$$

$$\frac{\partial g^*}{\partial s_R} = \frac{-\beta(1 - \delta) \left(i\lambda_W + \frac{h}{v} u^* \right)}{(1 - \delta) s_R \frac{h}{v} - \beta} < 0, \quad (5.16e)$$

$$\frac{\partial u^*}{\partial \lambda_W} = \frac{-(1 - \delta) s_R i}{(1 - \delta) s_R \frac{h}{v} - \beta} < 0, \quad (5.15f)$$

$$\frac{\partial g^*}{\partial \lambda_W} = \frac{-\beta(1 - \delta) s_R i}{(1 - \delta) s_R \frac{h}{v} - \beta} < 0. \quad (5.16f)$$

A change in animal spirits is positively associated with the goods market equilibrium (equations 5.15a and 5.16a). A higher profit share will cause lower values for equilibrium capacity utilization and capital accumulation (equations 5.15b and 5.16b), that is, the paradox of costs applies to our model. An increase in the share of rentiers' lending to workers is expansive in the short run with workers' debt-capital ratio given (equations 5.15c

and 5.16c). An increase in the rate of interest will have a negative effect on the goods market equilibrium (equations 5.15d and 5.16d), because income is redistributed from workers to rentiers who have a lower propensity to consume. For the same reason an increase in the short-run exogenous workers' debt–capital ratio means lower goods market equilibrium rates of capacity utilization and capital accumulation (equations 5.15f and 5.16f). Furthermore, a higher propensity to save out of rentiers' income implies lower values for the goods market equilibrium (equations 5.15e and 5.16e), that means, the paradox of saving is valid.

Therefore, in the short run, redistribution at the expense of labour associated with finance-dominated capitalism is contractive. The same is true for dampened animal spirits of the firm sector with respect to real investment. However, these contractive impacts may be (over-)compensated if at the same time the lending of rentiers to workers increases sufficiently. A lower rentiers' propensity to save also contributes to dampening the contractive effects of redistribution at the expense of workers and of lower animal spirits. The same is true for a lower rate of interest imposed by monetary authorities. Next we have to examine the related medium-run effects by means of endogenizing the determination of the workers' debt–capital ratio and the related feedback effects on capacity utilization and capital accumulation.

5.4 THE MEDIUM-RUN EQUILIBRIUM: EXISTENCE AND STABILITY

In the medium run of our model workers' debt–capital ratio may vary and the equilibrium value has to be determined endogenously. Determining the equilibrium workers' debt–capital ratio also means determining their medium-run equilibrium debt–income ratio, too, which may be considered to be more appropriate as an indicator for creditworthiness. However, since the sum of wages is given as $W = [(1 - h)u/v]pK$, the equilibrium workers' debt–income ratio (τ_w) is strictly related to the equilibrium workers' debt–capital ratio:

$$\tau_w = \frac{B_w}{W} = \frac{\lambda_w}{(1 - h)\frac{u}{v}}. \quad (5.17)$$

With a given workers' debt–capital ratio, workers' debt–income ratio is positively related to the profit share and inversely to the rate of capacity utilization. We will come back to these relationships when discussing

potential feedback effects on the share of rentiers' saving lent to workers in Section 5.6. In what follows, however, we will focus on the workers' debt–capital ratio for reasons of convenience. Medium-run equilibrium requires the endogenously determined value of this ratio to be constant. If we assume goods market prices to be constant – mark-ups may change but the price level remains the same, which means that unit labour costs will have to vary inversely with the mark-up – the rate of change in the workers' debt–capital ratio is given as:

$$\hat{\lambda}_w = \hat{B}_w - \hat{K} = \hat{B}_w - g. \quad (5.18)$$

In medium-run equilibrium we need $\hat{\lambda}_w = 0$ and hence:

$$\hat{B}_w = g. \quad (5.19)$$

From equations (5.10) and (5.15) we obtain:

$$\hat{B}_w = \frac{\delta s_R \left(\alpha \frac{h}{v} - \beta i \lambda_w \right)}{\lambda_w \left[(1 - \delta) s_R \frac{h}{v} - \beta \right]}. \quad (5.20)$$

Inserting equation (5.16) and equation (5.20) into equation (5.19) yields two medium-run equilibrium values for the workers' debt–capital ratio:

$$\lambda_{w1}^{**} = \frac{\delta}{1 - \delta} \quad (5.21)$$

and

$$\lambda_{w2}^{**} = \frac{\alpha h}{\beta i v}. \quad (5.22)$$

Stability of the medium-run equilibrium workers' debt–capital ratio requires:

$$\frac{\partial \hat{\lambda}_w}{\partial \lambda_w} < 0. \quad (5.23)$$

Starting from equation (5.18), inserting equations (5.16) and (5.20) yields:

$$\hat{\lambda}_w = \frac{s_R \left[\alpha \delta \frac{h}{v} \lambda_w^{-1} + \beta (1 - \delta) i \lambda_w - \alpha (1 - \delta) \frac{h}{v} - \beta \delta i \right]}{(1 - \delta) s_R \frac{h}{v} - \beta}. \quad (5.24)$$

From this we obtain:

$$\frac{\partial \hat{\lambda}_w}{\partial \lambda_w} = \frac{s_R \left[\beta(1 - \delta)i - \alpha \delta \frac{h}{v} \lambda_w^{-2} \right]}{(1 - \delta)s_R \frac{h}{v} - \beta}. \tag{5.24a}$$

Since the denominator will be positive, if we only deal with stable short-run goods market equilibria, stability of medium-run equilibrium is given if the numerator in equation (5.24a) is negative. Therefore, stability is obtained under the following condition:

$$\frac{\partial \hat{\lambda}_w}{\partial \lambda_w} < 0 \text{ if: } \lambda_w < \sqrt{\frac{\delta}{(1 - \delta)} \frac{\alpha h}{\beta i v}} \Rightarrow \lambda_w < \sqrt{\lambda_{w1}^{**} \lambda_{w2}^{**}}. \tag{5.24a'}$$

Instability will hence prevail under the following condition:

$$\frac{\partial \hat{\lambda}_w}{\partial \lambda_w} > 0 \text{ if: } \lambda_w > \sqrt{\frac{\delta}{(1 - \delta)} \frac{\alpha h}{\beta i v}} \Rightarrow \lambda_w > \sqrt{\lambda_{w1}^{**} \lambda_{w2}^{**}}. \tag{5.24a''}$$

Since we have two equilibrium values for the workers’ debt–capital ratio and the benchmark for stability is given by the root of the product of these two values, only the lower value is stable whereas the upper value is unstable. This is shown in Figure 5.1, where we assume that $\lambda_{w1}^{**} = \delta / (1 - \delta) < \lambda_{w2}^{**} = (\alpha h) / (\beta i v)$. In this case, λ_{w1}^{**} is stable whereas λ_{w2}^{**} is unstable. We will come back to this issue below.

Determining the medium-run equilibrium values for capacity utilization (u_i^{**}) and capital accumulation (g_i^{**}) related to the two potential equilibrium values, we start with the first medium-run equilibrium value for the workers’ debt–capital ratio given in equation (5.21) and insert it into equations (5.15) and (5.16) for the short-run goods market equilibrium values of the rates of capacity utilization and capital accumulation, respectively:

$$u_1^{**} = \frac{\alpha - \delta s_R i}{(1 - \delta)s_R \frac{h}{v} - \beta}, \tag{5.25}$$

$$g_1^{**} = \frac{s_R \left[\alpha(1 - \delta) \frac{h}{v} - \beta \delta i \right]}{(1 - \delta)s_R \frac{h}{v} - \beta}. \tag{5.26}$$

For a positive medium-run equilibrium rate of capacity utilization, with short-run goods market stability assumed to hold, we need: $\alpha > \delta s_R i$, and

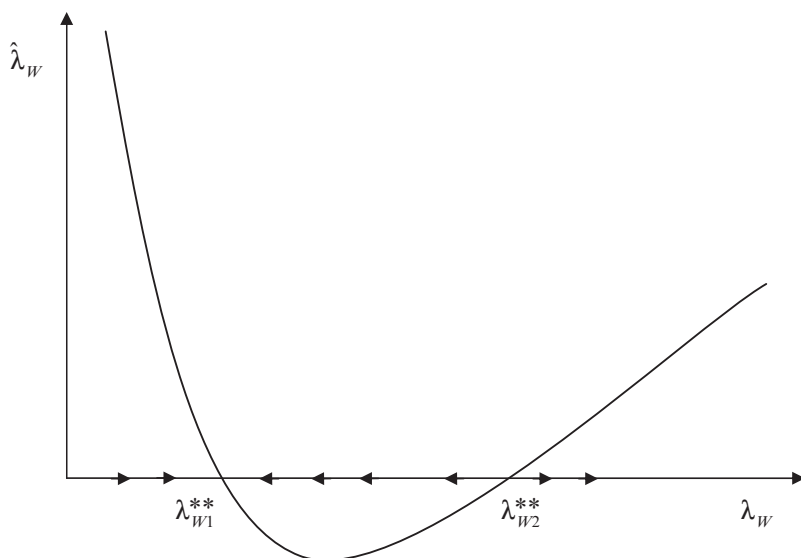


Figure 5.1 Medium-run equilibrium values for workers' debt–capital ratio and their stability with a positive stable goods market equilibrium at λ_{W1}^{***}

for a positive equilibrium rate of capital accumulation it is required that: $\alpha > [\delta / (1 - \delta)] [(\beta iv) / h]$. Note that the latter implies that:

$$\lambda_{W1}^{***} = \frac{\delta}{1 - \delta} < \lambda_{W2}^{***} = \frac{\alpha h}{\beta iv}. \tag{5.27}$$

For the second medium-run equilibrium value for the workers' debt–capital ratio given in equation (5.22) we obtain the following solutions for the related medium-run equilibrium rates of capacity utilization and capital accumulation:

$$u_2^{***} = \frac{\alpha \left[1 - (1 - \delta) \frac{s_R h}{\beta v} \right]}{(1 - \delta) s_R \frac{h}{v} - \beta}, \tag{5.28}$$

$$g_2^{***} = 0. \tag{5.29}$$

For stable goods market equilibria we get $u_2^{***} < 0$, because the goods market stability condition (5.14) implies that $[(1 - \delta) s_R h] / (\beta v) > 1$, which would make the numerator in equation (5.28) negative. Only with

an unstable goods market equilibrium we would obtain positive values for u_2^{**} . The medium-run equilibrium value for capital accumulation is zero for the second value of the medium-run equilibrium workers' debt–capital ratio.

Before discussing the effects of changes in parameters, we can now summarize our findings so far: Our model yields two medium-run equilibrium values for the workers' debt–capital ratio, and hence also for their debt–income ratio. If we are only discussing stable goods market equilibria, the lower value of the two medium-run equilibrium results of the workers' debt–capital ratio will be stable, whereas the upper value will be unstable. This means that as soon as the actual workers' debt–capital ratio exceeds the upper value, it will increase without limits, whereas up to this ratio it will converge towards the lower equilibrium value. Therefore, as long as the workers' debt–capital ratio remains below the upper equilibrium value it will not explode but converge towards a definite value and there is no built-in destabilizer.

Generally, we cannot exclude that λ_{w1}^{**} is the upper value and hence $\lambda_{w1}^{**} = \delta / (1 - \delta) > \lambda_{w2}^{**} = (\alpha h) / (\beta i v)$. For this constellation and the short-run goods market stability condition to hold simultaneously, however, it is required that $\alpha < \delta s_R i$, as is shown in Appendix 5A. This means that in this constellation not only the medium-run equilibrium rate of capacity utilization u_2^{**} associated with the then stable medium-run workers' debt–capital ratio λ_{w2}^{**} is negative, as shown in equation (5.28), but also the medium-run equilibrium rate of capacity utilization u_1^{**} associated with the then unstable medium-run workers' debt–capital ratio λ_{w1}^{**} will become negative, as can be seen by means of inserting the condition $\alpha < \delta s_R i$ into equation (5.25). Therefore, $\lambda_{w1}^{**} = \delta / (1 - \delta) > \lambda_{w2}^{**} = (\alpha h) / (\beta i v)$ for economically meaningful positive rates of capacity utilization implies that these rates do not adhere to the goods market stability condition and thus have to be unstable.

Having clarified this, in what follows we will assume that $\lambda_{w1}^{**} = \delta / (1 - \delta) < \lambda_{w2}^{**} = (\alpha h) / (\beta i v)$. In this case, λ_{w1}^{**} is stable whereas λ_{w2}^{**} is unstable. Since in this case $\alpha > \delta s_R i$, the medium-run equilibrium rate of capacity utilization u_1^{**} associated with the then stable medium-run workers' debt–capital ratio λ_{w1}^{**} will be positive and stable, as will be the medium-run rate of capital accumulation. The medium-run equilibrium rate of capacity utilization u_2^{**} associated with the then unstable medium-run workers' debt–capital ratio λ_{w2}^{**} will be negative and stable or positive but unstable, and the related medium-run equilibrium rate of capital accumulation will be zero.

5.5 THE MEDIUM-RUN EQUILIBRIUM: EFFECTS OF CHANGES IN THE PARAMETERS

Examining the effects of finance-dominated capitalism (financialization) on the medium-run equilibrium of our model, we focus on decreasing animal spirits of the firm sector with respect to investment in real capital stock, that is, a falling α , on redistribution at the expense of labour, that is, a rising h , and on a rising willingness of rentiers to lend to workers households and a rising willingness of workers' households to borrow, that is, a rising δ . We also include the effects of a change in the rate of interest (i) and in the rentiers' propensity to save (s_R). We examine the partial effects of changes in these variables on the medium-run equilibrium workers' debt–capital ratio, on the range of stability of this ratio, and on the medium-run equilibrium values of the rates of capacity utilization and capital accumulation associated with the stable workers' debt–capital ratio. As mentioned in the previous section, we assume $\alpha > \delta s_R i$ and thus the condition (5.27) to hold for our exercises.

First, we discuss the effects of changes in the parameters on the workers' debt–capital ratio and its stability. From equation (5.21) we obtain for the lower medium-run equilibrium value of λ_w :

$$\frac{\partial \lambda_w^{**}}{\partial \alpha} = 0, \quad (5.21a)$$

$$\frac{\partial \lambda_w^{**}}{\partial h} = 0, \quad (5.21b)$$

$$\frac{\partial \lambda_w^{**}}{\partial \delta} = \frac{1}{(1 - \delta)^2} > 0, \quad (5.21c)$$

$$\frac{\partial \lambda_w^{**}}{\partial i} = 0, \quad (5.21d)$$

$$\frac{\partial \lambda_w^{**}}{\partial s_R} = 0. \quad (5.21e)$$

From equation (5.22) for the upper medium-run equilibrium value of λ_w it can be derived:

$$\frac{\partial \lambda_w^{**}}{\partial \alpha} = \frac{h}{\beta i v} > 0, \quad (5.22a)$$

$$\frac{\partial \lambda_{w2}^{**}}{\partial h} = \frac{\alpha}{\beta iv} > 0, \tag{5.22b}$$

$$\frac{\partial \lambda_{w2}^{**}}{\partial \delta} = 0, \tag{5.22c}$$

$$\frac{\partial \lambda_{w2}^{**}}{\partial i} = \frac{-\alpha \beta h v}{(\beta iv)^2} < 0, \tag{5.22d}$$

$$\frac{\partial \lambda_{w2}^{**}}{\partial s_R} = 0. \tag{5.22e}$$

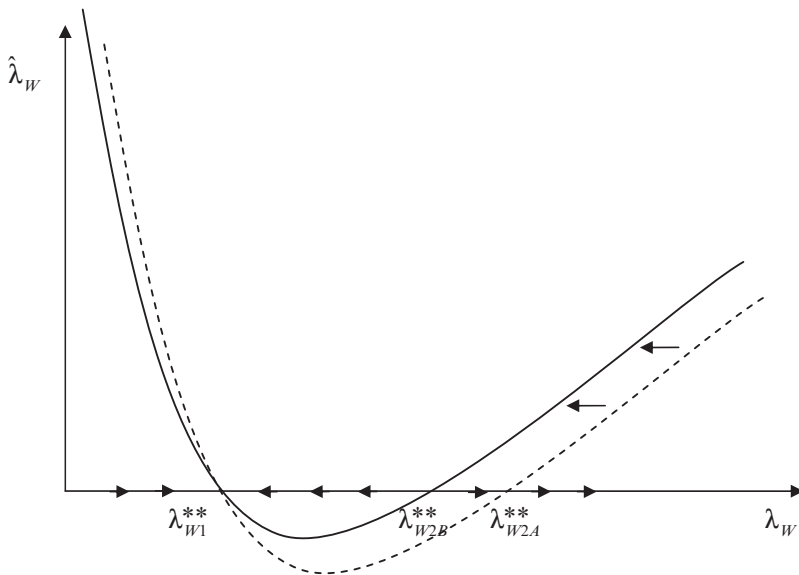


Figure 5.2 Effect of a decrease in animal spirits of firms on the medium-run equilibrium values for workers' debt-capital ratio

Decreasing animal spirits only affect the unstable, higher value of the equilibrium workers' debt-capital ratio in the negative. Therefore, the corridor of stability for the lower value of the workers' debt-capital ratio is reduced, as shown in Figure 5.2. An increase in the profit share has the opposite effect: The value for the unstable upper equilibrium of workers' debt-capital ratio is increasing, thereby increasing the stability corridor for the lower equilibrium which is not affected by a change

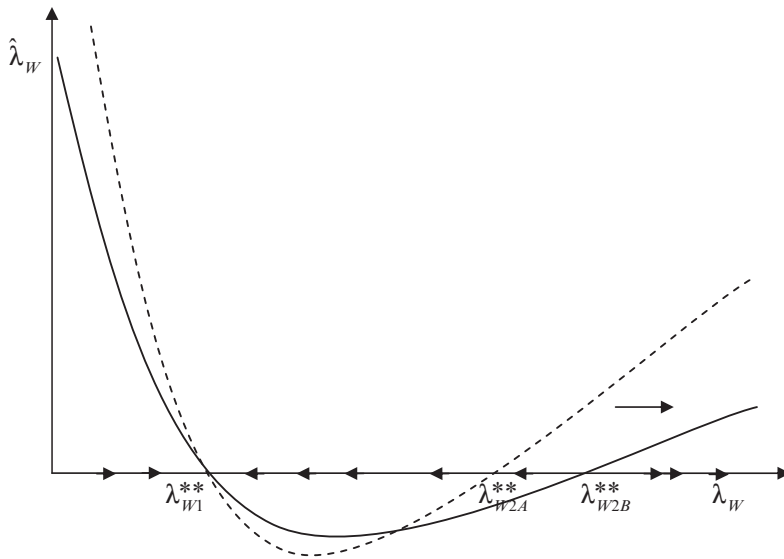


Figure 5.3 Effect of an increase in the profit share on the medium-run equilibrium values for workers' debt–capital ratio

in the profit share, as is shown in Figure 5.3. A higher proportion of rentiers' saving going to workers as credits increases the lower, stable equilibrium value of the workers' debt–capital ratio without affecting the unstable upper equilibrium. The upwards corridor of stability for the stable lower equilibrium therefore shrinks, as is shown in Figure 5.4. A higher rate of interest only affects the upper equilibrium in the negative and therefore reduces the upwards stability corridor for the lower equilibrium as can be seen in Figure 5.5. A change in the rentiers' propensity to save has no effects on the equilibrium values of the workers' debt–capital ratio.

Discussing the effects on the medium-run real equilibrium, we focus on the equilibrium rates of capacity utilization and capital accumulation associated with λ_{w1}^{***} . As we have shown above, for these rates the goods market stability condition is met for positive values of the rate of capacity utilization. From equation (5.25) for the medium-run equilibrium rate of capacity utilization we obtain:

$$\frac{\partial u_1^{***}}{\partial \alpha} = \frac{1}{(1 - \delta)s_R \frac{h}{v} - \beta} > 0, \tag{5.25a}$$

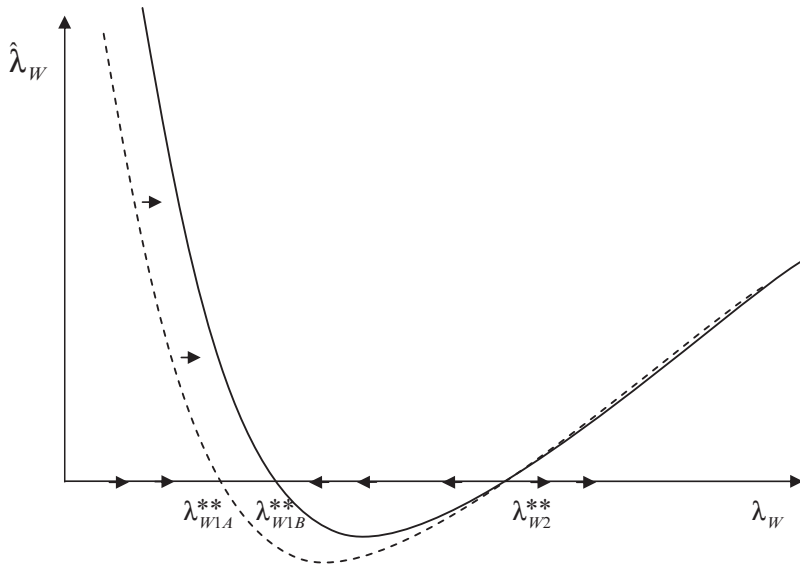


Figure 5.4 *Effect of an increase in the share of rentiers' saving being lent to workers on the medium-run equilibrium values for workers' debt-capital ratio*

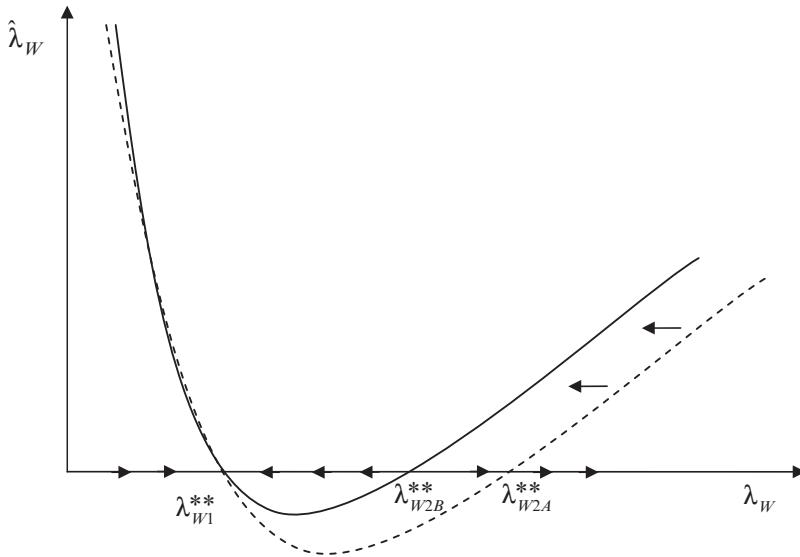


Figure 5.5 *Effect of an increase in the rate of interest on the medium-run equilibrium values for workers' debt-capital ratio*

$$\frac{\partial u_1^{**}}{\partial h} = \frac{-(1 - \delta)s_R \frac{u_1^{**}}{v}}{(1 - \delta)s_R \frac{h}{v} - \beta} < 0, \tag{5.25b}$$

$$\frac{\partial u_1^{**}}{\partial \delta} = \frac{s_R \left(\frac{h}{v} u_1^{**} - i \right)}{(1 - \delta)s_R \frac{h}{v} - \beta} = \frac{s_R (r_1^{**} - i)}{(1 - \delta)s_R \frac{h}{v} - \beta} = \frac{s_R (d_1^{**} - i)}{(1 - \delta)s_R \frac{h}{v} - \beta}, \tag{5.25c}$$

$$\frac{\partial u_1^{**}}{\partial i} = \frac{-\delta s_R}{(1 - \delta)s_R \frac{h}{v} - \beta} < 0, \tag{5.25d}$$

$$\begin{aligned} \frac{\partial u_1^{**}}{\partial s_R} &= \frac{- \left[\delta i + (1 - \delta) \frac{h}{v} u_1^{**} \right]}{(1 - \delta)s_R \frac{h}{v} - \beta} = \frac{- [\delta i + (1 - \delta)r_1^{**}]}{(1 - \delta)s_R \frac{h}{v} - \beta} = \\ &= \frac{- [\delta i + (1 - \delta)d_1^{**}]}{(1 - \delta)s_R \frac{h}{v} - \beta} < 0. \end{aligned} \tag{5.25e}$$

From the medium-run equilibrium rate of capital accumulation in equation (5.26) it can be derived:

$$\frac{\partial g_1^{**}}{\partial \alpha} = \frac{s_R (1 - \delta) \frac{h}{v}}{(1 - \delta)s_R \frac{h}{v} - \beta} > 0, \tag{5.26a}$$

$$\frac{\partial g_1^{**}}{\partial h} = \frac{-\beta (1 - \delta) s_R \frac{u_1^{**}}{v}}{(1 - \delta)s_R \frac{h}{v} - \beta} < 0, \tag{5.26b}$$

$$\frac{\partial g_1^{**}}{\partial \delta} = \frac{\beta s_R \left(\frac{h}{v} u_1^{**} - i \right)}{(1 - \delta)s_R \frac{h}{v} - \beta} = \frac{\beta s_R (r_1^{**} - i)}{(1 - \delta)s_R \frac{h}{v} - \beta} = \frac{\beta s_R (d_1^{**} - i)}{(1 - \delta)s_R \frac{h}{v} - \beta}, \tag{5.26c}$$

$$\frac{\partial g_1^{**}}{\partial i} = \frac{-\beta \delta s_R}{(1 - \delta)s_R \frac{h}{v} - \beta} < 0, \tag{5.26d}$$

$$\frac{\partial g_1^{**}}{\partial s_R} = \frac{-\beta \left[\delta i + (1 - \delta) \frac{h}{v} u_1^{**} \right]}{(1 - \delta) s_{R/v} - \beta} = \frac{-\beta [\delta i + (1 - \delta) r_1^{**}]}{(1 - \delta) s_{R/v} - \beta} =$$

$$\frac{-\beta [\delta i + (1 - \delta) d_1^{**}]}{(1 - \delta) s_{R/v} - \beta} < 0. \quad (5.26e)$$

Lower animal spirits and a higher profit share have both uniquely depressing effects on the medium-run equilibrium rates of capacity utilization and capital accumulation in our model. Therefore, aggregate demand and capital accumulation remain wage led in the medium run. Increases in the rate of interest and in the rentiers' propensity to save have both uniquely negative effects on the medium-run equilibrium rate.¹³ Therefore, the paradox of thrift also applies to the medium run of the model.

The effects of an increasing share of rentiers' saving being lent to workers depend on the relative values of the rate of interest paid by workers on their debt and the rate of profit, which in our model is equal to the dividend rate (equation 5.3). The profit or dividend rate is an endogenous variable in our model because of the endogeneity of the rate of capacity utilization, whereas the rate of interest is treated as an exogenous variable. We can now distinguish two cases:¹⁴

1. If the exogenous rate of interest falls short of the endogenously determined profit rate or dividend rate ($r_1^{**} = d_1^{**} > i$), an increase in δ will cause higher medium-run equilibrium rates of capacity utilization and capital accumulation. Aggregate demand and capital accumulation, and hence growth, will therefore be debt led: An increase in the proportion of rentiers' saving lent to workers will increase the workers' debt–capital ratio but also the medium-run equilibrium rates of capacity utilization and capital accumulation.
2. If the exogenous rate of interest exceeds the endogenously determined profit rate or dividend rate ($r_1^{**} = d_1^{**} < i$), an increase in δ will cause lower medium-run equilibrium rates of capacity utilization and capital accumulation. Aggregate demand, capital accumulation and growth will hence be debt-burdened. An increase in the proportion of rentiers' saving lent to workers will increase the workers' debt–capital ratio but the medium-run equilibrium rates of capacity utilization and capital accumulation will fall.

In the first, the debt-led case, the direct expansive effect of an increase in δ will exceed the indirect contractive effect via the medium-run increase in the workers' debt-capital ratio and the related interest payments, because of a low exogenous rate of interest, in particular. In the second, the debt-burdened case, however, a high rate of interest will cause the contractive effect of rising interest payments associated with higher medium-run workers' debt to overwhelm the expansive effect of higher workers' debt.

5.6 SHORT- AND MEDIUM-RUN EFFECTS OF FINANCIALIZATION ON CAPACITY UTILIZATION, CAPITAL ACCUMULATION AND WORKERS' DEBT IN CONTEXT – AND POTENTIAL FEEDBACKS

Summing up the short- and medium-run effects of financialization on capacity utilization, capital accumulation and the workers' debt-capital ratio, our model yields the following results (Table 5.3). In the short run, taking workers' debt-capital ratio as given, falling animal spirits of the firm sector with respect to investment in real capital and redistribution at the expense of workers have both negative effects on capacity utilization

Table 5.3 Short-run and medium-run effects of changes in exogenous model variables, assuming $\alpha > \delta s_R i$

	α	h	δ	i	s_R	λ_W
<i>Short run</i>						
u^* (stable)	+	- (wage-led)	+	-	-	-
g^* (stable)	+	- (wage-led)	+	-	-	-
<i>Medium run</i>						
λ_{W1}^{***} (stable)	0	0	+	0	0	...
λ_{W2}^{***} (unstable)	+	+	0	-	0	...
u_1^{***} (stable)	+	- (wage-led)	+ for $r_1^{***} = d_1^{***} > i$ (debt-led) - for $r_1^{***} = d_1^{***} < i$ (debt-burdened)	-	-	...
g_1^{***} (stable)	+	- (wage-led)	+ for $r_1^{***} = d_1^{***} > i$ (debt-led) - for $r_1^{***} = d_1^{***} < i$ (debt-burdened)	-	-	...

and capital accumulation. However, these contractive effects of financialization may be compensated by increasing lending of rentiers to workers for consumption purposes, that is, by an increasing proportion of rentiers' saving being lent to workers. Also a lower rentiers' propensity to save and a lower rate of interest on workers' debt help to stabilize private consumption and thus contribute to compensate for the depressing effects of low animal spirits and redistribution of income at the expense of workers.

In the medium run, the endogeneity of workers' debt–capital ratio has to be taken into account. Our model yields two potential medium-run equilibrium values for this ratio. For economically meaningful results for stable equilibrium capacity utilization, the lower equilibrium value for workers' debt–capital ratio is stable whereas the upper value is unstable. Therefore, within the limits given by the unstable upper equilibrium value, the workers' debt–capital (and–income) ratio will converge towards a definite value. Only if it exceeds the upper equilibrium will it become unstable and explode.

Lower animal spirits of the firm sector with respect to real investment as well as a higher rate of interest each have a negative effect on the upper equilibrium value for workers' debt–capital ratio and thus compress the corridor of stability, whereas a higher profit share extends it. A higher proportion of rentiers' saving lent to workers increases the stable equilibrium value of workers' debt–capital ratio but this compresses the corridor of upwards stability.

The medium-run effects of lower animal spirits, a higher profit share – and also a higher rate of interest or a higher rentiers' propensity to save – on equilibrium capacity utilization and capital accumulation are each negative. However, increasing lending of rentiers to workers can be expansive also in the medium run, taking the negative feedback effects of increasing debt and higher interest payments on workers' consumption into account, provided that the exogenous rate of interest is lower than the endogenously determined rate of profit. But if the rate of interest is higher than the rate of profit, the negative feedback effect of increasing debt and higher interest payments overcompensates the short-run expansive effect of increasing lending to workers and turns it contractive in the medium run.

Depending on the rate of interest relative to the rate of profit, we may therefore have two stable medium-run constellations in the face of higher lending of rentiers to workers. With a relatively low rate of interest a higher proportion of rentiers' saving being lent to workers, causing a higher workers' debt–capital ratio, will be accompanied by higher rates of capacity utilization and capital accumulation. Aggregate demand and growth will hence be debt led. With a relatively high rate of interest,

however, a higher proportion of rentiers' saving being lent to workers causing a higher workers' debt–capital ratio will be accompanied by lower rates of capacity utilization and capital accumulation. In this case, aggregate demand and growth will be debt burdened. Both constellations are locally stable. However, the upwards corridor of stability will shrink due to the increase in the equilibrium workers' debt–capital ratio in each constellation.

Since our model economy in the short run is always debt led, a higher proportion of rentiers' saving being lent to workers will always be accompanied by higher rates of capacity utilization and capital accumulation. Moving from the short to the medium run, the stock-flow dynamics may therefore turn the short-run debt-led into a medium-run debt-burdened constellation if the rate of interest, relative to the rate of profit, is too high. With a low rate of interest, relative to the rate of profit, however, this will not happen and the economy remains debt led in the medium run, too.

In the medium run, a shift from debt-led aggregate demand and growth to a debt-burdened constellation will only take place if there is a change in parameters which affect the medium-run equilibrium rate of profit relative to the rate of interest: a fall in animal spirits, a change in the profit share, a rise in the rentiers' propensity to save, or an increase in the rate of interest. Whereas the effects of changes in animal spirits, the rentiers' propensity to save, and the rate of interest on the medium-run equilibrium profit rate are unique – through the effects on the rate of capacity utilization, the effects of a change in the profit share are not. The profit share has a direct positive effect on the profit rate and an indirect negative effect through the rate of capacity utilization. The overall effect will therefore depend on the relative strengths of these two effects, as can be seen in Appendix 5B.

It should be noted that the considerations so far only apply if $\alpha > \delta s_R i$, because this condition assures that there is a stable and economically meaningful goods market equilibrium associated with a stable medium-run workers' debt–capital ratio. If this condition is violated in the course of finance-dominated capitalism, either by the decrease in animal spirits, by the increase in the proportion of rentiers' saving lent to workers, by an increasing rate of interest or an increasing rentiers' propensity to save, economically meaningful goods market equilibria would have to be unstable (or the stable goods market equilibrium rate of capacity utilization would be negative), and the system would turn unstable in the short and in the medium run.

Finally, we can discuss some potential feedback effects of increasing workers' indebtedness on the proportion of rentiers' saving lent to workers. First, we turn to the medium-run stable case in which workers'

debt–capital ratio does not exceed the upper bound for stability given by $\lambda_{\mu_2}^{**}$. Here we have to distinguish the debt-led from the debt-burdened case:

- a) In the medium-run debt-led constellation, a higher δ will be associated with higher rates of capacity utilization and capital accumulation. Therefore, the impact of a higher workers' debt–capital ratio on the workers' debt–income ratio will be weakened or even reversed by a higher rate of capacity utilization, according to equation (5.17). In the latter case we would see a macroeconomic 'paradox of debt': workers' debt–income ratio will be lower in the face of a higher share of rentiers' saving lent to workers and a higher workers' debt–capital ratio. Therefore, in the debt-led case a negative feedback of workers' debt–capital ratio on the proportion of rentiers' saving lent to workers is less likely. If it occurs and rentiers reduce the proportion of their saving lent to workers, this will have contractive effects, and the equilibrium rates of capacity utilization and capital accumulation will decline, together with the workers' debt–capital ratio. If the paradox of debt constellation prevails, workers' debt–income ratios will increase in the face of a falling proportion of rentiers' saving lent to workers and a falling workers' debt–capital ratio.
- b) In the debt-burdened constellation, however, in which a higher stable workers' debt–capital ratio is associated with lower equilibrium rates of capacity utilization and capital accumulation, workers' debt–income ratio will rise even more than the workers' debt–capital ratio, as can be seen in equation (5.17). In this case, rentiers may be tempted to reduce the share of their saving lent to workers. This will reduce workers' debt–capital and –income ratios, and it will have a medium-run expansive effect on capacity utilization and capital accumulation, so that the effect on workers' debt–income ratio will be stronger than the effect on the workers' debt–capital ratio.

As soon as the workers' debt–capital ratio exceeds the upper bound of local stability of $\lambda_{\mu_1}^{**}$ given by $\lambda_{\mu_2}^{**}$, it will keep on increasing and feed back negatively on the goods market equilibrium. Rising indebtedness of workers and a collapsing economy will most likely induce rentiers to reduce the share of their saving lent to workers. However, this will further dampen economic activity and capital accumulation while workers' debt–capital ratio, and also their debt–income ratio will keep on rising. The economy will thus again be characterized by a macroeconomic 'paradox of debt', a falling share of rentiers' saving lent to workers but rising workers' debt–capital and –income ratios due to the associated collapse in aggregate demand and capital accumulation.

5.7 CONCLUSIONS

Within our simple Kaleckian distribution and growth model with workers' debt we have obtained the following results with respect to the effects of some important channels of influence of finance-dominated capitalism on short- and medium-run economic development, that is a fall in animal spirits of the firm sector with respect to real investment in capital stock, redistribution of income at the expense of the labour income share and increasing credit to workers' households.

Lending of rentiers to workers can compensate for the depressing effects of lower animal spirits of firms with respect to real investment and of redistribution at the expense of workers in the short and in the medium run without necessarily triggering cumulative processes of increasing indebtedness. Provided that animal spirits of firms with respect to real investment have not decreased by too much, and that the rentiers' propensity to save and the rate of interest are low, locally stable medium-run equilibrium workers' debt–capital ratios associated with positive and stable medium-run equilibrium rates of capacity utilization and capital accumulation can emerge in the face of moderately higher shares of rentiers' saving being lent to workers.

Therefore, if the endogenously determined rate of profit exceeds the rate of interest, indicating that expansive effects of new lending exceed the contractive effects of interest payments due to a higher stock of debt, stable medium-run debt-led regimes may emerge, in which a higher and stable workers' debt–capital ratio is associated with higher and stable rates of capacity utilization, capital accumulation and growth. With strong effects of higher lending to workers on aggregate demand, workers' debt–income ratios may even decrease and the debt-led regime may be characterized by a macroeconomic 'paradox of debt', that is a higher share of rentiers' saving lent to workers but a lower workers' debt–income ratio.

If the endogenously determined rate of profit falls short of the rate of interest, however, indicating that expansive effects of new lending fall short of the contractive effects of interest payments on the stock of debt, a stable medium-run debt-burdened regime may emerge, in which a higher and stable workers' debt–capital ratio is associated with lower but stable rates of capacity utilization, capital accumulation and growth.

In the medium-run stable constellations, a reduction of lending of rentiers to workers will cause a lower equilibrium workers' debt–capital ratio, which will be associated with stable but lower capacity utilization and capital accumulation in the debt-led constellation – and probably higher stable workers' debt–income ratios (again the macroeconomic 'paradox of debt'). In the debt-burdened constellation a reduction of

lending to workers will make equilibrium capacity utilization and capital accumulation increase and the workers' debt–capital and –income ratios will decrease.

As soon as workers' debt–capital ratio exceeds the upper limit of stability, it will keep on increasing and feeding back negatively on the goods market equilibrium. If rising indebtedness of workers and a collapsing economy induce rentiers to reduce the share of their saving lent to workers, this will further dampen economic activity and capital accumulation while workers' debt–capital ratio and also their debt–income ratio will keep on rising. The market economy will thus again be characterized by a macroeconomic 'paradox of debt' and will require external stabilization. Such an unstable process may be triggered by an increase in rentiers' lending to workers, which makes workers' debt–capital ratio exceed the upper limit of stability, and/or a fall in animal spirits of the firm with respect to investment in capital stock and/or a rise in the rate of interest, which each lower the upper limit of stability.

NOTES

1. This chapter is based on Hein (2012a).
2. See Barba/Pivetti (2009), Cynamon/Fazzari (2008), Guttman/Plihon (2010), and van Treeck (2009b) for extensive discussions of the effects of finance-dominated capitalism on households' (debt-financed) consumption, with a focus on the US.
3. Increasing household debt and fixed payments commitments may also have fed back negatively on labour income and the labour income share, according to Barba/Pivetti (2009). Interest payments of the wage earners are a reduction of their consumption wage, and the burden of debt also pushes them to work harder and accept any conditions of work to be able to pay back debt and not to lose their homes.
4. See Lavoie (1996) and Lavoie/Seccareccia (2001) on potential fallacies of composition in Minsky's approach, and Steindl (1976, pp. 113–22), Dutt (1995), Lavoie (1995) and Hein (2006, 2007) on the potential macroeconomic 'paradox of debt'. See also the potential 'paradox of outside finance' in Chapter 3 of this book.
5. For Minskyan explanations of the Great Recession see, for example, Bellofiore/Halevi (2011), Carvalho (2009), Dymksi (2011), Nersisyan/Wray (2010), Whalen (2008), and Wray (2009). And for the limits of a Minskyan explanation see Palley (2010b).
6. See Chapter 3 of this book and, for example, Charles (2008a, 2008b, 2008c), Dutt (1995), Hein (2006, 2007, 2010a, 2010b), Lavoie (1995), Lima/Meirelles (2007) and Meirelles/Lima (2006), among others.
7. Dividend payments are the only profit (claims) of the rentiers/shareholders in our model. See Chapter 3 Hein (2010a, 2010b) for attempts of integrating financialization issues into (Post-)Kaleckian distribution and growth models, in which there are different types of rentiers income (interest, dividends), however without considering rentiers' portfolio choice, and also retained earnings of the firm sector are considered.
8. Therefore, there is yet no central bank money in our model. The economy we are modelling can therefore be conceived of as a pure credit economy. However, central bank money could easily be introduced as a third asset. But this would require to include the state and would make things more complicated without adding to the intended insights.
9. It should be noted that this does not imply any loanable funds kind of argument,

because δ is only a proportion of rentiers' saving which itself is endogenously determined in our model.

10. Palley (1994) has focussed on the debtor households' debt-income ratios as a determinant of obtainable credit. Bhaduri et al. (2006) and Bhaduri (2011a) have included notional financial wealth as a main determinant of debt financed consumption, which is out of the scope of our simple model, because we have no saving of workers' households and hence no wealth held by these households, neither financial wealth nor housing wealth.
11. See Chapter 3 Hein/van Treeck (2010a) for a theoretical discussion, starting from the Post-Keynesian theory of the firm, and Stockhammer (2004b), van Treeck (2008), Orhangazi (2008) and Onaran (2011) for empirical results.
12. On the basic Kaleckian distribution and growth model and its variations and developments see Blecker (2002), Dutt (2011), Lavoie (1992, Chapter 6) and Hein (2004, Chapter 8).
13. These medium-run results are consistent with the ones derived by Dutt (2005, 2006a).
14. This result is again similar to the one in Dutt's (2005, 2006a) models in which an increase in lending to workers has a medium-run expansive effect on capital accumulation and growth, if the endogenously determined rate of accumulation exceeds the product of the propensity to save out of profits and the rate of interest, which are each exogenously given.

APPENDIX 5A: WORKERS' DEBT–CAPITAL RATIO AND STABILITY OF THE SHORT-RUN GOODS MARKET EQUILIBRIUM

From the condition for goods market stability (5.14) we obtain:

$$\frac{\delta s_R h}{\beta v} > \frac{\delta}{1 - \delta}. \quad (5A.1)$$

If the first value for the medium-run equilibrium workers' debt–capital ratio in equation (5.21) exceeds the second one in equation (5.22), we have:

$$\lambda_{w1}^{**} = \frac{\delta}{1 - \delta} > \lambda_{w2}^{**} = \frac{\alpha h}{\beta i v}. \quad (5A.2)$$

Combining condition (5A.1) and (5A.2) yields:

$$\frac{\delta s_R h}{\beta v} > \frac{\delta}{1 - \delta} > \frac{\alpha h}{\beta i v}, \quad (5A.3)$$

and hence:

$$\delta s_R i > \alpha. \quad (5A.4)$$

Therefore, stability of the goods market equilibrium and $\lambda_{w1}^{**} > \lambda_{w2}^{**}$ to hold simultaneously is possible, provided that animal spirits are low. However, the medium-run equilibrium rate of capacity utilization u_1^{**} associated with the then unstable medium-run workers' debt–capital ratio λ_{w1}^{**} will become negative, as can be seen by means of inserting the condition $\alpha < \delta s_R i$ into equation (5.25). The medium-run equilibrium rates of capacity utilization associated with the two potential medium-run equilibrium workers' debt–capital ratios would thus both be negative. Economically meaningful positive equilibrium rates of capacity utilization would not meet the condition for stability of the goods market equilibrium. If however:

$$\delta s_R i < \alpha, \quad (5A.5)$$

this implies:

$$\frac{\alpha h}{\beta i v} > \frac{\delta s_R h}{\beta v}, \quad (5A.6)$$

and the goods market equilibrium rate of capacity utilization associated with the medium-run equilibrium workers' debt-capital ratio $\lambda_{w2}^{**} = (\alpha h) / (\beta i v)$ is therefore stable and negative, or positive but unstable. Combining this with condition (5A.1) yields:

$$\frac{\alpha h}{\beta i v} > \frac{\delta s_R h}{\beta v} > \frac{\delta}{1 - \delta}. \tag{5A.7}$$

In this constellation $\lambda_{w1}^{**} < \lambda_{w2}^{**}$, and the goods market equilibrium rate of capacity utilization associated with λ_{w1}^{**} is positive and stable whereas the one associated with λ_{w2}^{**} is either negative and stable, or positive and unstable.

APPENDIX 5B: EFFECTS OF PARAMETER CHANGES IN THE SHORT AND IN THE MEDIUM RUN ON THE EQUILIBRIUM RATES OF PROFIT

Inserting the short-run equilibrium value for the rate of capacity utilization from equation (5.15) into equation (5.3) for the rate of profit yields the short-run equilibrium rate of profit:

$$r^* = \frac{\frac{h}{v}[\alpha - (1 - \delta)s_R i \lambda_w]}{(1 - \delta)s_{R\frac{h}{v}} - \beta}. \tag{5B.1}$$

From this we obtain:

$$\frac{\partial r^*}{\partial \alpha} = \frac{\frac{h}{v}}{(1 - \delta)s_{R\frac{h}{v}} - \beta} > 0, \tag{5B.1a}$$

$$\frac{\partial r^*}{\partial h} = \frac{\frac{1}{v} \left[\alpha - (1 - \delta)s_R \left(\frac{h}{v} u^* + i \lambda_w \right) \right]}{(1 - \delta)s_{R\frac{h}{v}} - \beta}, \tag{5B.1b}$$

$$\frac{\partial r^*}{\partial \delta} = \frac{s_{R\frac{h}{v}} \left(i \lambda_w + \frac{h}{v} u^* \right)}{(1 - \delta)s_{R\frac{h}{v}} - \beta} > 0, \tag{5B.1c}$$

$$\frac{\partial r^*}{\partial i} = \frac{-\frac{h}{v}(1-\delta)s_R\lambda_W}{(1-\delta)s_R\frac{h}{v}-\beta} < 0, \quad (5B.1d)$$

$$\frac{\partial r^*}{\partial s_R} = \frac{-(1-\delta)\frac{h}{v}\left(i\lambda_W + \frac{h}{v}u^*\right)}{(1-\delta)s_R\frac{h}{v}-\beta} < 0, \quad (5B.1e)$$

$$\frac{\partial r^*}{\partial \lambda_W} = \frac{-(1-\delta)\frac{h}{v}s_R i}{(1-\delta)s_R\frac{h}{v}-\beta} < 0. \quad (5B.1f)$$

Inserting the medium-run equilibrium value for the stable rate of capacity utilization from equation (5.25) into equation (5.3) for the rate of profit yields the medium-run equilibrium rate of profit:

$$r_1^{**} = \frac{\frac{h}{v}(\alpha - \delta s_R i)}{(1-\delta)s_R\frac{h}{v}-\beta}. \quad (5B.2)$$

From this we obtain:

$$\frac{\partial r_1^{**}}{\partial \alpha} = \frac{\frac{h}{v}}{(1-\delta)s_R\frac{h}{v}-\beta} > 0, \quad (5B.2a)$$

$$\frac{\partial r_1^{**}}{\partial h} = \frac{\frac{1}{v}\left\{\alpha - s_R\left[\delta i + (1-\delta)\frac{h}{v}u_1^{**}\right]\right\}}{(1-\delta)s_R\frac{h}{v}-\beta}, \quad (5B.2b)$$

$$\frac{\partial r_1^{**}}{\partial \delta} = \frac{s_R\frac{h}{v}\left(\frac{h}{v}u_1^{**} - i\right)}{(1-\delta)s_R\frac{h}{v}-\beta}, \quad (5B.2c)$$

$$\frac{\partial r_1^{**}}{\partial i} = \frac{-\delta s_R \frac{h}{v}}{(1 - \delta) s_R \frac{h}{v} - \beta} < 0, \quad (5B.2d)$$

$$\frac{\partial r_1^{**}}{\partial s_R} = \frac{-\frac{h}{v} \left[\delta i + (1 - \delta) \frac{h}{v} u_1^{**} \right]}{(1 - \delta) s_R \frac{h}{v} - \beta} < 0. \quad (5B.2e)$$

6. Finance-dominated capitalism, global imbalances and crisis¹

6.1 INTRODUCTION

In the book so far, we have shown that from a macroeconomic perspective finance-dominated capitalism or financialization has affected economic developments through the following channels:

1. With regard to distribution, financialization has been conducive to a rising gross profit share, including retained profits, dividends and interest payments, and thus a falling labour income share, on the one hand, and to increasing inequality of wages and top management salaries, on the other hand. The major reasons for this have been the falling bargaining power of trade unions, higher profit claims imposed in particular by increasingly powerful rentiers, and probably also a change in the sectoral composition of the economy in favour of the financial corporate sector.
2. Regarding investment, financialization has been characterized by increasing shareholder power vis-à-vis management and workers, an increasing rate of return on equity and bonds held by rentiers, and an alignment of management with shareholder interests through short-run performance related pay schemes, bonuses, stock option programmes, and so on. On the one hand, this has imposed short-termism on management and has caused decreasing management's animal spirits with respect to real investment in capital stock and long-run growth of the firm. On the other hand, it has drained internal means of finance for real investment purposes from the corporations, through increasing dividend payments and share buybacks in order to boost stock prices and thus shareholder value. These 'preference' and 'internal means of finance' channels each have partially negative effects on firms' real investment in capital stock and hence on long-run growth of the economy.
3. Re-distribution at the expense of wages and depressing partial effects of financialization on investment in capital stock have also been detrimental to long-run productivity growth, contrary to the initial claims of the proponents of shareholder value revolution. Falling labour

income shares dampen the wage-push effect on productivity growth and, to the extent that technical progress is capital embodied, weak investment in capital stock also has a dampening effect on productivity growth.

4. Regarding consumption, financialization has generated increasing potential for wealth-based and debt-financed consumption. Stock market and housing price booms have each increased notional wealth against which households were willing to borrow. Changing financial norms, new financial instruments (credit card debt, home equity lending, and so on) and deterioration of creditworthiness standards, triggered by securitization of mortgage debt and 'originate and distribute' strategies of commercial banks, made increasing credit available to low income, low wealth households, in particular. This allowed for consumption to rise faster than the median income and thus to stabilize aggregate demand. But it also carried the risk of triggering ever higher debt-income ratios of private households, increasing therefore the risk of financial fragility.

As recent studies based on the Bhaduri/Marglin (1990) version of the Kaleckian distribution and growth model have shown, in the medium to long run domestic demand in most of the capitalist economies tends to be wage led, that is, a falling wage share should have a partially negative effect on aggregate demand. There has been observed a strong effect of redistribution on consumption demand, due to considerably higher propensities to consume out of wage income than out of profit income, and only weak or statistically insignificant effects of unit labour costs or unit profits on investment. The latter is found to be mostly driven by aggregate demand or capacity utilization, that is, by the accelerator term in the investment function. Including the external sector, foreign trade and globalization effects, aggregate demand remains wage led in most of the countries examined here (Table 6.1), although re-distribution at the expense of labour in many studies has a significantly positive effect on net exports. Overall, these findings imply that, *ceteris paribus*, falling labour income shares triggered by financialization and neo-liberalism should have had a partially depressing effect on aggregate demand in most of the countries examined in this book, in particular in the large and medium-sized, less open developed capitalist economies. The effect on GDP growth should have the same sign, given that a mixed regime of wage-led demand and profit-led growth would require an empirically unlikely constellation of parameters.²

As we will show in this chapter, against the background of partially depressing effects of finance-dominated capitalism via redistribution of income and via investment in capital stock, some countries relied on

Table 6.1 Demand regimes according to single equation estimation approaches of the Bhaduri/Marglin (1990) model

	Period	Austria	Germany	Netherlands	France	Italy	Spain	Euro area	UK	US	Japan	China
Bowles/ Boyer (1995)	1953/61 - 1987	...	profit-led	...	profit-led	...	...	...	wage-led	wage-led	profit-led	...
Gordon (1995)	1955 - 1988	...	...	...	...	...	...	...	...	profit-led	...	...
Naastepad (2006)	1960 - 2000	...	...	wage-led	...	...	...	...	...	...	...	...
Naastepad/ Storm (2007)	1960 - 2000	...	wage-led	wage-led	wage-led	wage-led	wage-	...	wage-	profit-	profit-	...
Ederer/ Stockhammer (2007)	1960 - 2004	...	...	...	profit-	...	...	...	...	...	...	...
Stockhammer/ Ederer (2008)	1960 - 2005	profit-led	...	...	...	...	...	...	...	...	...	...
Ederer (2008)	1960 - 2005	...	...	wage-led	...	...	...	...	...	...	...	...
Hein/ Vogel (2008)	1960 - 2005	profit-led	wage-led	profit-led	wage-	...	...	...	wage-	wage-	...	...

Hein/Vogel (2009)	1960 – 2005	...	wage- led	...	wage- led	...	...	...	...	...	...	...	...
Stockhammer/ Onaran/ Ederer (2009)	1960 – 2005	...	...	...	...	...	wage- led	...	...	...	...	...	...
Onaran/ Stockhammer/ Graf (2011)	1962 – 2007	...	...	...	...	...	...	...	...	...	wage- led	...	...
Stockhammer/ Hein/ Graf (2011)	1970 – 2005	...	wage- led	...	...	...	...	...	...	...	...	...	...
Molero Simmaro (2011)	1978 – 2007	...	...	...	...	...	...	...	...	...	...	...	profit- led
Onaran/ Galanis (2012)	1960s – 2007	...	wage- led	...	wage- led	...	wage- led	...	wage- led	...	wage- led	wage- led	profit- led

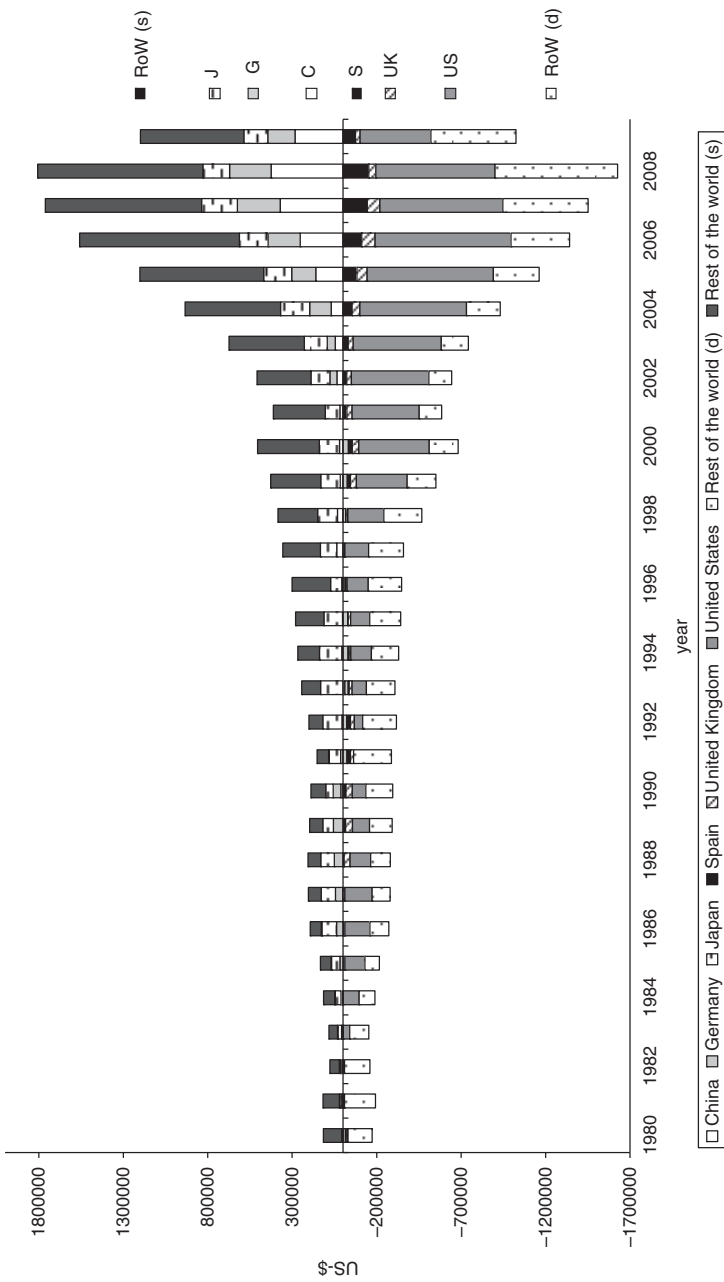
soaring consumption demand as the main driver of aggregate demand and GDP growth, whereas others focussed on mercantilist export-led strategies as an alternative to generating demand. However, these strategies contributed to rising global current account imbalances prior to the Great Recession which then contributed to the severity of the crisis. In this chapter we will examine the set of countries introduced in Chapter 2, derive an *ex post* typology along the lines mentioned above, and discuss the related global current account imbalances.

6.2 ‘TYPES OF CAPITALISM UNDER FINANCIALIZATION’ AND GLOBAL IMBALANCES

Against the background of rising inequality in personal income distribution and falling labour income shares, associated with financialization and neo-liberalism since the early 1980s in the developed capitalist economies in particular, and the restrictive effects of financialization on real investment, two ‘types of capitalism under financialization’ have developed,³ which are complementary and which have fed rising current account imbalances in the world economy.⁴ On the one hand, we have the ‘debt-led consumption boom’ type generating a ‘profits without investment’ regime, as derived theoretically in Chapter 3 of this book. Since this type has been characterized by considerable current account deficits, there has developed a necessary counterpart at the global level, the ‘export-led mercantilist’ type, on the other hand, which may also give rise to a ‘profits without investment’ regime. Whereas in the former it is debt-financed consumption demand which allows for the realization of rising profits, in the latter it is export surpluses which have to take care of the realization of profits in the face of relatively weak domestic demand, either investment and/or consumption in the face of redistribution at the expense of labour. Note that from national accounting we obtain Kalecki’s (1971: 82) profit equation:

$$\begin{aligned} \text{Gross profits net of taxes} &= \text{Gross investment} + \text{Export surplus} \\ &+ \text{Government budget deficit} - \text{Workers' saving} \\ &+ \text{Capitalists' consumption.} \end{aligned} \quad (6.1)$$

As the global current account imbalances have exploded in particular since the early 2000s in the course of recovery from the burst of the new economy boom of the late 1990s (Figure 6.1), we take cyclical average data for the trade cycle of the early 2000s in order to distinguish the two



Source: IMF (2010), authors' calculations.

Figure 6.1 Current account balances, 1980–2009, in millions US-\$

Table 6.2 Real GDP growth, average values over the trade cycle, early 1980s – 2008, in per cent

	1. Early 1980s – early 1990s	2. Early 1990s – early 2000s	3. Early 2000s – 2008	Change (3. – 1.), percentage points
Austria	2.25	2.51	2.13	–0.12
Belgium	1.96	2.37	1.84	–0.13
France	2.21	2.15	1.64	–0.57
Germany	2.75	1.50	1.44	–1.31
Greece ^a	0.91	2.66	3.89	2.99
Ireland	3.78	6.99	3.92	0.13
Italy	2.33	1.59	0.73	–1.60
Netherlands	2.55	3.28	1.96	–0.60
Portugal	4.21	2.63	0.82	–3.39
Spain	2.75	3.15	3.02	0.27
Sweden	1.64	2.82	2.42	0.78
UK	2.73	2.54	2.28	–0.45
US	3.33	3.44	2.16	–1.17
Japan ^a	4.30	0.97	1.22	–3.08
China	9.97	9.85	10.66	0.81

Notes:

The beginning of a trade cycle is given by a local minimum of annual real GDP growth in the respective country.

^a adjusted to fit in 3 cycle pattern.

Source: European Commission (2010), World Bank (2011), author's calculations.

types – the ‘debt-led consumption boom’ and the ‘export-led mercantilist’ type – and to allocate the countries in our data set to them. It will be seen, however, that some countries do not fit into any of these two categories.

It should also be noted that the cycle of the early 2000s had more dynamic growth as compared to the previous cycles in some countries in our data set, that is in Greece, Ireland, Spain, Sweden and the catching-up China, whereas in the other countries real GDP growth fell short of the rates of the previous cycles (Table 6.2).

In the cycle of the early 2000s, the ‘debt-led consumption boom’ type of aggregate demand and growth can be found in Greece, Ireland, Spain, the UK and the US (Table 6.3a). All these economies have seen considerable increases in residential property prices and/or in wealth–income ratios in the cycle of the early 2000s (Figure 6.2a, Table 6.4). This was conducive to soaring consumption demand and hence considerable growth contributions of private consumption and domestic demand. Relatively high real GDP growth as compared to the other countries in our data set, but increasing

Table 6.3a Key macroeconomic variables for 'debt-led consumption boom' economies, average values for the trade cycle from the early 2000s – 2008

	Greece	Ireland	Spain	UK	US
Financial balances of external sector as a share of nominal GDP, per cent	12.49	2.88	7.10	2.22	5.00
Financial balances of public sector as share of nominal GDP, per cent	-5.74	-0.13	-0.03	-3.25	-3.51
Financial balance of private sector as a share of nominal GDP, per cent	-6.75	-2.74	-7.07	1.03	-1.49
Financial balance of private household sector as a share of nominal GDP, per cent	-11.44	-6.29	-1.54	-2.70	-1.83
Financial balance of the corporate sector as a share of nominal GDP, per cent	4.69	3.55	-5.53	3.73	0.34
Real GDP growth, per cent	3.89	3.92	3.02	2.28	2.16
Growth contribution of domestic demand including stocks, percentage points	4.10	3.26	3.82	2.53	2.22
Growth contribution of private consumption, percentage points	2.79	1.87	1.74	1.52	1.76
Growth contribution of public consumption, percentage points	0.49	0.59	0.93	0.49	0.37
Growth contribution of gross fixed capital formation, percentage points	0.79	0.79	1.14	0.54	0.14
Growth contribution of the balance of goods and services, percentage points	-0.20	0.66	-0.81	-0.24	-0.06
Net exports of goods and services as a share of nominal GDP, per cent	-10.97	12.23	-4.69	-2.86	-4.87
Change in labour income share as percentage of GDP at current factor costs, from previous cycle, percentage points	-1.40	-5.17	-3.71	-1.32	-1.32
Growth rate of nominal unit labour costs, per cent	3.47	3.95	3.31	2.40	1.93
Inflation (HCPI growth rate), per cent	3.41	3.50	3.33	2.04	2.83
Growth rate of nominal effective exchange rates (relative to 23 countries), per cent	1.60	2.81	1.53	-1.33	-2.84
Growth rate of real effective exchange rates (relative to 23 countries), per cent	2.91	4.97	2.82	-0.75	-2.99

Note: The beginning of a trade cycle is given by a local minimum of annual real GDP growth in the respective country.

Source: European Commission (2010), author's calculations.

Table 6.3b Key macroeconomic variables for 'export-led mercantilist' economies, average values for the trade cycle from the early 2000s – 2008

	Austria	Belgium	Germany	Netherlands	Sweden	Japan	China
Financial balances of external sector as a share of nominal GDP, per cent	-2.26	-3.90	-5.55	-7.15	-7.14	-3.45	-5.86
Financial balances of public sector as share of nominal GDP, per cent	-1.45	-0.56	-2.09	-0.85	1.30	-5.16	-1.41
Financial balance of private sector as a share of nominal GDP, per cent	3.70	4.46	7.64	8.00	5.84	8.61	7.26
Financial balance of private household sector as a share of nominal GDP, per cent	4.68	4.25	5.90	0.16	3.86	3.65	...
Financial balance of the corporate sector as a share of nominal GDP, per cent	-0.98	0.21	1.74	7.84	1.98	4.96	...
Real GDP growth, per cent	2.13	1.84	1.44	1.96	2.42	1.22	10.66
Growth contribution of domestic demand including stocks, percentage points	1.26	1.70	0.85	1.43	1.85	0.75	8.15
Growth contribution of private consumption, percentage points	0.76	0.63	0.18	0.37	0.94	0.61	3.11
Growth contribution of public consumption, percentage points	0.28	0.45	0.16	0.75	0.24	0.29	1.31
Growth contribution of gross fixed capital formation, percentage points	0.19	0.62	0.49	0.35	0.71	-0.16	4.47

Growth contribution of the balance of goods and services, percentage points	0.77	0.14	0.58	0.52	0.57	0.46	2.52
Net exports of goods and services as a share of nominal GDP, per cent	4.35	4.02	5.56	7.63	7.45	1.24	4.90
Change in labour income share as percentage of GDP at current factor costs, from previous cycle, percentage points	-5.54	-1.58	-2.71	-1.64	2.13	-4.73	-2.28 ^a
Growth rate of nominal unit labour costs, per cent	1.05	2.02	0.17	1.88	1.61	-2.12	...
Inflation (HCPI growth rate), per cent	2.12	2.34	1.78	1.94	1.80	-0.06	2.37 ^b
Growth rate of nominal effective exchange rates (relative to 23 countries), per cent	1.21	1.48	2.09	1.37	0.26	-1.92	0.55
Growth rate of real effective exchange rates (relative to 23 countries), per cent	0.55	1.58	0.14	1.56	-0.28	-6.00	0.57

Notes:

The beginning of a trade cycle is given by a local minimum of annual real GDP growth in the respective country.

^a wage share in GDP, no complete trade cycle,

^b consumer price inflation.

Source: European Commission (2010), IMF (2010), Worldbank (2011), Charpe (2011), author's calculations.

Table 6.3c Key macroeconomic variables for 'domestic demand-led' economies, average values for the trade cycle from the early 2000s – 2008

	France	Italy	Portugal
Financial balances of external sector as a share of nominal GDP, per cent	1.25	1.59	9.40
Financial balances of public sector as a share of nominal GDP, per cent	-3.18	-3.16	-3.65
Financial balance of private sector as a share of nominal GDP, per cent	1.93	1.57	-5.75
Financial balance of private household sector as a share of nominal GDP, per cent	3.80	3.91	1.54
Financial balance of the corporate sector as a share of nominal GDP, per cent	-1.87	-2.34	-7.29
Real GDP growth, per cent	1.64	0.73	0.82
Growth contribution of domestic demand including stocks, percentage points	2.13	0.81	1.04
Growth contribution of private consumption, percentage points	1.24	0.44	1.05
Growth contribution of public consumption, percentage points	0.38	0.27	0.20
Growth contribution of gross fixed capital formation, percentage points	0.56	0.08	-0.25
Growth contribution of the balance of goods and services, percentage points	-0.50	-0.08	-0.19
Net exports of goods and services as a share of nominal GDP, per cent	-0.52	-0.07	-8.08
Change in labour income share as percentage of GDP at current factor costs, from previous cycle, percentage points	-0.97	-0.88	0.49
Growth rate of nominal unit labour costs, per cent	2.01	2.95	2.41
Inflation (HCPI growth rate), per cent	1.98	2.36	2.68
Growth rate of nominal effective exchange rates (relative to 23 countries), per cent	1.84	1.92	1.26
Growth rate of real effective exchange rates (relative to 23 countries), per cent	1.98	3.12	1.59

Note: The beginning of a trade cycle is given by a local minimum of annual real GDP growth in the respective country.

Source: European Commission (2010), author's calculations.

Table 6.4 Household gross debt and net wealth, per cent of annual disposable income

	Gross debt			Net wealth		
	1995	2000	2005	1995	2000	2005
Austria	34	...	88 ^a	...	...	...
Belgium	57	...	75 ^a	...	...	...
France	66	78	89	461	547	752
Germany	97	111	107	541	575	578 ^a
Greece	...	...	...	...	...	...
Ireland	48	82	141	...	618	775
Italy	32	46	59	702	820	936 ^a
Netherlands	113	175	246	369	528	515
Portugal	54	...	125 ^a	...	...	...
Spain	59	83	107 ^b	540	646	935 ^b
Sweden	90	107	134	262	387	436
UK	106	118	159	569	750	790
US	93	107	135	510	575	573
Japan	130	136	132 ^b	736	750	725 ^b
China	...	...	...	...	...	...

Notes:

^a 2006.

^b 2004.

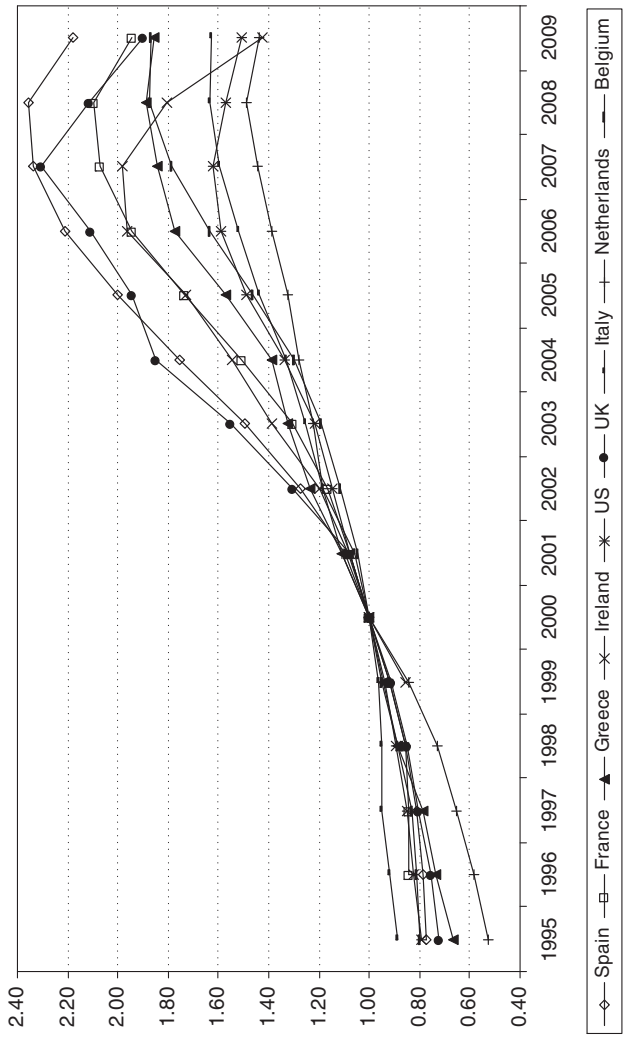
Debt refers to total liabilities outstanding at the end of the period.

Net wealth is defined as non-financial and financial assets minus liabilities. Data is from national statistics.

Source: Girourard et al. (2007, p.9), Goodbody Stockbrokers (2009, p. 30).

household debt and negative financial balances of the private household sector were the consequences. With the exception of the UK, this has also translated into negative balances of the private sector as a whole – with the corporate sector being in surplus in all countries of this group except in Spain. The public sector contributed to a negative domestic financial balance in all the countries, albeit to a different degree – considerably in Greece, the UK and the US, but only marginally in Ireland and Spain. Since aggregate domestic expenditures exceeded national income, these countries had to run current account deficits, that is, financial balances of the external sector were positive for each of the countries pursuing the ‘debt-led consumption boom’ type. In particular Greece, Spain and the US had to rely strongly on the inflow of foreign financial resources.

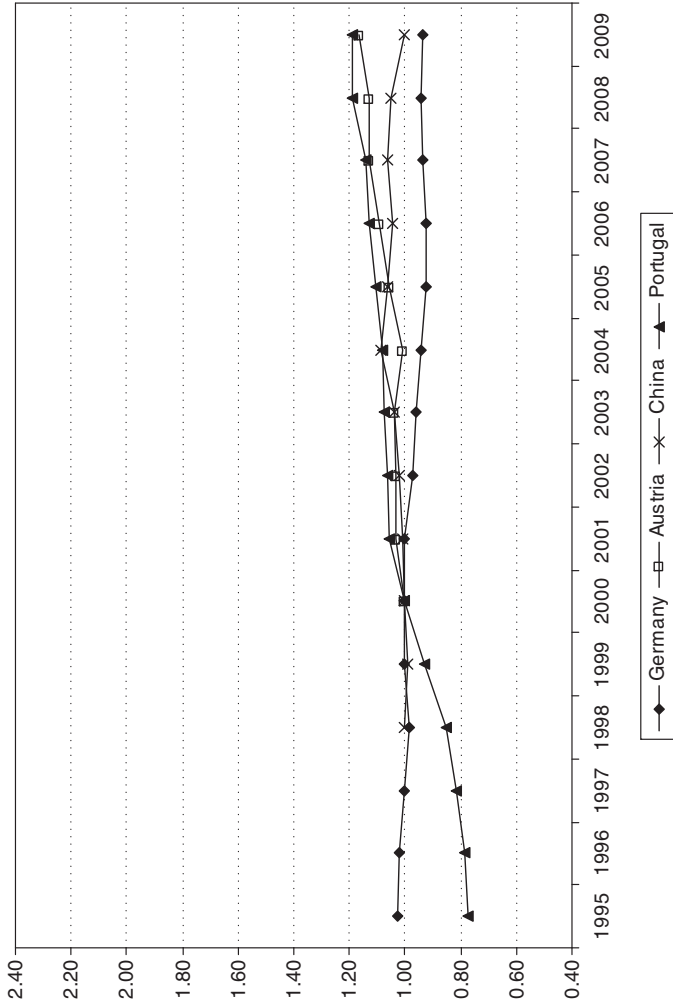
Strong domestic demand growth in the ‘debt-led consumption boom countries’ translated into negative growth contributions of the balance of



Note: Data relate to residential property prices for existing dwellings of all types in the whole country. For the US: existing single-family houses in the whole country.

Source: BIS (2010), author's calculations.

Figure 6.2a Residential property prices for Belgium, France, Greece, Italy, Ireland, the Netherlands, Spain, the UK and the US, 1995–2009, Index 2000 = 1



Note: Data relate to residential property prices for existing dwellings of all types in the whole country.

Source: BIS (2010), author's calculations.

Figure 6.2b Residential property prices for Austria, Germany, Portugal and China, 1995–2009, Index 2000 = 1

goods and services in all of these countries but Ireland, where the growth contribution of external demand was positive. In the case of Ireland, the current account deficit (and the positive financial balance of the external sector) was not due to a deficit in external trade but rather a deficit in the cross-border flows of primary incomes.⁵

For the Euro area countries in this group, above average unit labour cost growth and inflation accompanied by nominal appreciation of the euro, and thus a loss of competitiveness of domestic producers (positive rates of change in the effective exchange rate), may have contributed to the deficits in the balance of goods and services and in the current account. However, the US and the UK managed to improve competitiveness in the course of the cycle of the 2000s, but their current accounts further deteriorated compared to the previous cycle, that is, the financial balances of the external sector increased respectively.⁶ The ‘debt-led consumption boom’ economies were thus the world demand engines of the cycle from the early 2000s to 2008.

The counterparts to the ‘debt-led consumption boom’ economies were the ‘export-led mercantilist’ economies. This group consists of Austria, Belgium, Germany, the Netherlands, Sweden, Japan and China (Table 6.3b). These economies were characterized by surpluses in the balances of goods and services and in the current accounts, that is, the financial balances of the respective external sectors were in deficit. Although some of these countries (Belgium, the Netherlands, Sweden) had seen considerable increases in wealth–income ratios and/or in residential property prices (Table 6.4, Figure 6.2a), whereas others had not (Austria, Germany, Japan, China) (Table 6.4, Figure 6.2b), financial balances of private households remained in surplus in the ‘export-led mercantilist’ countries. The financial balances of the private sectors were strongly positive in each of these countries.

Growth contributions of private consumption and domestic demand were either moderate, as for Austria, Belgium, the Netherlands and Sweden, or very weak, as in the case of Germany and Japan, and these countries considerably relied on positive growth contributions of the balance of goods and services. Only in Belgium was the growth contribution of external demand rather small.

The basis for external surpluses were thus weak domestic demand, on the one hand, but also low unit labour cost growth, low inflation, and, in the case of Japan, nominal depreciation of the currency, on the other hand. For the ‘export-led mercantilist’ Euro area countries the real effective exchange rate relative to 23 industrial economies increased to a lesser extent than in the ‘debt-led consumption boom’ Euro area countries, implying an increase in price competitiveness of the former relative to the

latter. Sweden and Japan managed to increase price competitiveness absolutely. The 'export-led mercantilist' countries have thus benefitted from world demand being driven by the 'debt-led consumption boom' countries. However, following this type came at a price: With the exception of Sweden, and notably the catching-up China, real GDP growth in the export-led countries remained well below real GDP growth in the debt-led economies, particularly in the case of the more closed large economies of Germany and Japan which performed even worse than the more open and smaller economies of Austria, Belgium and the Netherlands.⁷

In the cycle of the early 2000s to 2008, France, Italy and Portugal can neither be considered to have been 'debt-led consumption boom' economies nor 'export-led mercantilist' economies. Growth was rather domestic demand led. Although France and Italy saw significant increases in net wealth-income ratios and in residential property prices (Table 6.4, Figure 6.2a), whereas Portugal did not (Figure 6.2b), financial balances of private households remained positive in all of the three countries. The corporate sector had negative balances in these countries, and together with negative public sector balances this meant current account deficits, which were considerable particularly in Portugal.

Although not experiencing a debt-led consumption boom, growth was driven by domestic demand in the face of rising (Portugal) or only weakly declining (France, Italy) labour income shares and considerable public deficits in each of the countries. The balances of goods and services were negative and so were the growth contributions of external demand. The loss of price competitiveness with respect to the 'export-led mercantilist' Euro area countries, that is, higher unit labour cost growth and higher inflation than in these countries, may have contributed to the external deficit. GDP growth remained particularly weak in Portugal and Italy, whereas France had higher growth than the stagnative mercantilist economies of Germany and Japan, but lower growth than the rest of the countries in our data set.

6.3 CONCLUSIONS

Against the background of financialization and income re-distribution at the expense of lower wage incomes and the labour income share, a highly fragile constellation at national, regional (Euro area) and global levels had developed in the course of the trade cycle of the early 2000s.⁸ The dynamic 'debt-led consumption boom' type of development in the US and the other countries following this type had to rely on the willingness and the ability of private households to go into debt, and thus on ever rising notional

wealth, in particular rising residential property prices, (seemingly) providing collateral for credit, and on the willingness of the rest of the world to run current account surpluses and thus to supply credit – notably the ‘export-led mercantilist’ countries – in order to finance the related current account deficits in the ‘debt-led consumption boom’ economies. The slowly growing or stagnating ‘export-led mercantilist’ economies, on the other hand, had to rely on the willingness and the ability of the rest of the world – notably the ‘debt-led consumption boom’ economies – to go into debt, because their moderate or weak growth rates were dependent on dynamic growth of world demand and their export markets.

A collapse of the ‘debt-led consumption boom’, as it was triggered by the collapse of the subprime mortgage market in the US in 2007, has therefore not only affected the ‘debt-led consumption boom’ economies themselves, but the ‘export-led mercantilist’ economies were also quickly infected. On the one hand, their export markets collapsed in the crisis and they were facing serious aggregate demand problems. On the other hand, they were infected through the financial markets, because their capital exports got drastically devalued if they were directed towards the risky and now collapsing financial markets of the ‘debt-led consumption boom’ economies. Both channels became effective during the Great Recession. In 2009, real GDP growth in the stagnative ‘export-led mercantilist’ economies of Germany (−4.9 per cent) and Japan (−5.2 per cent) was hit even harder than growth in the main ‘debt-led consumption boom’ economy, from where the crisis started, the US (−2.4 per cent) (IMF 2010).⁹ Also the ‘debt-led consumption boom’ economies have not uniformly been hit by the crisis. Whereas the US, being able to issue debt in its own currency, ‘only’ suffered from the financial and economic crisis, in other countries, notably Greece and Ireland, the crisis also became a public debt crisis and contributed to a currency crisis, that is, the euro crisis which started in 2010, and which will be analysed in more detail in Chapter 8 of this book.

NOTES

1. This chapter is based on Hein (2011a, 2011b). A similar analysis focusing on the G20 economies can be found in Hein/Mundt (2012).
2. In the Bhaduri/Marglin (1990) model the nature of the growth regime does not have to be identical to the nature of the demand regime. One may get wage-led demand, but profit-led growth, as formally shown in Lavoie (1992, pp. 332–40). Such a mixed regime requires a low effect of capacity utilization and a medium effect of unit profits or unit wage costs in the investment function. Empirically, this is hardly found. Usually the estimations yield strong and statistically highly significant effects of the accelerator term on investment and weak and statistically hardly significant effects of unit profits or the profit share.

3. For similar analysis see van Treeck et al. (2007), Bibow (2008), Fitoussi/Stiglitz (2009), Horn et al. (2009), Sapir (2009), UNCTAD (2009), van Treeck (2009b), Wade (2009), Hein/Truger (2010, 2011), and Stockhammer (2010a, 2010b).
4. A similar development took place at the regional level, in particular in the Euro area, as will be outlined and discussed in Chapter 8 of this book.
5. Although the balance of goods and services in Ireland was positive, we have not included it in the 'export-led mercantilist' group of countries discussed below, because Ireland, as the other 'debt-led consumption boom' countries showed a negative financial balance of the private sector and of the domestic sectors as a whole. Surpluses in the balance of goods and services were thus required in order to meet the payment commitments associated with the negative balance of primary incomes and to avoid an even larger deficit in the current account.
6. This may be an indication that changes in the balances of goods and services and in the current accounts are dominated by growth differentials and not so affected much by inflation differentials and changes in the real exchange rate. See Arghyrou/Chortareas (2008) and Schröder (2011) for some evidence.
7. Note that for Germany this finding is well in line with recent studies on the German demand regime which find re-distribution at the expense of the labour income share to positively affect net exports, but this effect to be too small to over-compensate the negative impact of re-distribution on domestic demand, so that the overall demand regime in Germany remains wage led, even under the conditions of increasing globalization (Stockhammer et al. 2011).
8. See for similar arguments also Fitoussi/Stiglitz (2009), Hein/Truger (2010, 2011), Horn et al. (2009) and Stockhammer (2010a).
9. See Hein/Truger (2010) for a case study on Germany in the international context.

7. Requirements for income-led recovery and a Global Keynesian New Deal¹

7.1 INTRODUCTION

In the previous chapters of this book we have shown how the macroeconomics of finance-dominated capitalism, that is, re-distribution at the expense of low wage incomes and the labour income share, dampening effects on real investment in capital stock, and the increasing potentials for wealth-based and credit-financed consumption, have contributed to macroeconomic instability at the national levels of the capitalist economies affected by financialization, and finally at the global level. These developments have then contributed to the severity of the recent financial and economic crisis and made it the Great Recession. From our analysis it follows that a medium- to long-run sustainable recovery strategy for major parts of the world economy should neither follow the ‘debt-led consumption boom’ type nor the ‘export-led mercantilist’ type,² both identified in Chapter 6. This is particularly true for those economies which are characterized by wage-led demand and growth regimes. Tendencies towards over-indebtedness of private households have to be avoided, as well as persistent current account surpluses or deficits which are not due to productivity growth catch-up processes of less developed economies.³ This implies that also profit-led economies, which turn profit-led via the export channel, need to give up export-led strategies because their strategy has to rely on current account deficits in other countries and thus contributes to world wide imbalances. A medium- to long-run recovery strategy has thus to be (mass) income or wage led. In the present chapter we will outline an income- or wage-led recovery strategy imbedded in a Global Keynesian New Deal, which will have to address the three main causes of the Great Recession: the inefficient regulation of financial markets, the increasing inequality in the distribution of income and the rising imbalances at the global (and at the Euro area) level.

7.2 THE CASE FOR A WAGE- OR (MASS) INCOME-LED RECOVERY STRATEGY

A wage- or (mass) income-led recovery strategy, as opposed to ‘debt-led consumption’ or ‘export-led mercantilist’ strategies, means that wages and thus mass incomes will have to rise broadly in line with (potential) output. Labour income shares have to be at least roughly stable in the medium to long run, and may even rise if distribution claims of firms, rentiers, the state or the foreign sector are falling and permit the increase of the labour income share without triggering cumulative inflationary processes. With rising wage shares, the economy may also benefit from wage-push effects on productivity growth, that is, rising real wages and labour income shares pushing firms to speed up the introduction of labour saving innovation into the production process and thus increasing potential growth.⁴ A wage-led recovery strategy would therefore also contribute to overcoming the tendencies towards dampened productivity growth inherent to finance-dominated capitalism and neo-liberalism, as identified in Chapter 4 of this book. As we have argued there, these tendencies may be imposed by the long-run depressing effects of financialization and neo-liberalism on the labour income share, thus dampening the wage-push effect on productivity growth, and through the dampening effects on capital accumulation, with a negative effect on capital embodied technical progress and thus productivity growth.

A wage-led recovery strategy requires addressing the three main causes for the fall in the labour income share in the period of neo-liberalism and financialization, as identified in Chapter 2 of this book: First, bargaining power of trade unions needs to be stabilized and enhanced; second, overhead costs of firms, in particular top management salaries and interest payments, as well as profit claims of financial wealth holders have to be reduced; and third, the sectoral composition of the economy has to be shifted away from the high profit share financial corporations towards the non-financial corporate sector and the public sector.

The key for a wage-led recovery strategy thus lies in reversing the trends in primary functional distribution, but, distribution or incomes policies should also directly focus on reducing inequality of personal distribution of income, particularly of disposable income. This means that the tendencies towards increasing wage dispersion have to be contained and, in particular, that progressive tax policies and social policies need to be applied in order to reduce inequality in the distribution of disposable income.

7.3 A GLOBAL KEYNESIAN NEW DEAL

Distribution or incomes policies should be at the core of, and are thus embedded in a Global Keynesian New Deal,⁵ which more broadly will have to address the three main causes for the severity of the crisis: inefficient regulation of financial markets, increasing inequality in the distribution of income and rising imbalances at the global (and at the Euro area) level. There are three main pillars of the policy package of a Global Keynesian New Deal:

- first, the re-regulation of the financial sector in order to prevent future financial excesses and financial crises;
- second, the re-orientation of macroeconomic policies, in particular in the current account surplus countries; and
- third, the re-construction of international macroeconomic policy coordination and a new world financial order.

7.3.1 Re-regulation of the Financial Sector

The re-regulation of the financial system requires a host of measures which should aim at orienting the financial sector towards financing *real* economic activity, namely real investment and real GDP growth.⁶ This has at least three dimensions:

First, measures which increase transparency in financial markets should be introduced, in order to reduce the problems of uncertainty, asymmetric information, moral hazard, and fraud, which are inherent to this sector in particular. These measures include the standardization and supervision of all financial products. Off-balance sheet operations should be abolished and national and international regulation and supervision of all financial intermediaries (banks, insurance companies, hedge funds, private equity funds, and so on) should be introduced. Since rating can be considered a public good, independent public rating agencies will have to be introduced replacing the private ones. Diversity in the banking sector should be increased in order to increase resilience. Therefore, public and cooperative banks supplying credit to households and small firms, thus competing with private banks, should be strengthened. Financial institutions with systemic relevance should be in public ownership, because stability of these institutions can be considered a public good, too.

Second, re-regulation should generate incentives for economic actors in the financial and non-financial sectors encouraging them to focus on long-run growth rather than on short-run profitability. This includes the reduction of securitization in order to prevent ‘originate and distribute’

strategies which were at the root of the US subprime mortgage crisis. Banks should be induced to do what banks are supposed to do, that is, evaluate potential creditors and their investment projects, grant credit and supervise the fulfilment of payment commitments by the debtor. With regard to financial and non-financial corporate sectors, share buybacks aimed at driving share prices up should be reduced or even abolished. Short-termism of managers in the corporate sector should be minimized by means of reducing stock option programmes and by extending minimum holding periods. Generally, co-determination at the firm level and enhanced rights of other stakeholders in the firm, in particular workers and trade unions, should be strengthened in order to overcome short-termism and to increase the importance of investment into long-term projects improving productivity and developing new products.

Third, measures directed at containing systemic instability should be implemented. These should include equity regulation for all financial intermediaries with counter-cyclical properties, differently from Basel II regulation.⁷ Improved equity requirements would reduce leverage on average, requiring a higher capital base, which should make financial intermediaries more resilient in case of financial crisis.⁸ Furthermore, commercial banks (savings and loans) should be strictly separated from investment banks and from the shadow banking sector in order to prevent contagion in the case of speculation crises in the latter sectors.⁹ The introduction of asset-based reserve requirements (ABRR) for all financial intermediaries should also have stabilizing properties for the financial system as a whole: (i) ABRRs have counter-cyclical properties: Reserves to be held with the central bank increase in an upswing with rising asset prices and they decrease in a downswing and recession when asset prices are falling and free reserves are needed most urgently by financial intermediaries. This stabilizes the financial sector. (ii) ABRRs can also be applied by the monetary authorities in order to prevent over-heating and bubbles in particular markets by means of increasing the reserve requirements for assets generated in these markets. (iii) Differentiated ABRRs can be applied in order to direct credit and investment towards socially preferable areas.¹⁰ Finally, in order to reduce speculation and volatility of short-term financial market flows, a general transaction tax for all financial transactions¹¹ and a general capital gains tax – for corporations as well – should be introduced.

Apart from stabilizing and orienting the financial sector towards financing real economic activity, these measures should affect distribution and thus positively feed back on aggregate demand and growth through the following channels: First, since these measures imply a downsized financial sector they will contribute to an increasing labour income share

through the change in the sectoral composition of the economy. Second, reducing top management salaries and profit claims of financial wealth holders will allow for lower mark-ups in price setting of firms and thus higher income shares for direct labour. Third, re-focussing management's orientation towards long-run expansion of the firm will increase bargaining power of workers and trade unions and therefore have a dampening effect on the profit claims.

7.3.2 Re-orientation of Macroeconomic Policies

The re-orientation of macroeconomic policies – particularly in current account surplus countries – should aim at improving domestic demand, employment and hence also imports into these countries. In Hein/Stockhammer (2010, 2011) a blueprint for a Post-Keynesian macroeconomic policy mix – as opposed to the New Consensus model focussing on labour market deregulation in order to reduce the NAIRU and on monetary policy for short-run real and long-run nominal stabilization¹² has been developed which can be used as an orientation.

First, central bank's interest rate policies should abstain from attempting to fine tune unemployment in the short run and inflation in the long run, as suggested by the New Consensus approach. Varying interest rates have cost and distribution effects on the business sector, which may be effective in achieving inflation targets in the short run, in particular if the economy suffers from accelerating inflation, but not necessarily if accelerating disinflation or deflation prevails, due to the zero lower bound of the nominal interest rate. In the long run, however, rising interest rates, applied successfully in order to stop accelerating inflation in the short run, will feed cost-push inflation again. Therefore, central banks should target low real interest rates in order to avoid unfavourable cost and distribution effects on firms and workers, which would be in favour of the rentiers.¹³ A slightly positive real rate of interest, below the long-run rate of productivity growth, seems to be a reasonable target: Rentiers' 'real' financial wealth will be protected against inflation, but overhead costs for firms will be reduced, allowing for a shift of income distribution in favour of labour with stimulating effects on aggregate demand. Further on, central banks have to act as 'lender of last resort' in periods of liquidity crisis, and central banks should be involved in the regulation and supervision of financial markets, as suggested in the previous sub-section. This includes the definition of credit standards for refinancing operations with commercial banks, the implementation of compulsory reserve requirements for different types of assets to be held with the central bank, in order to channel credit into

desirable areas and to avoid credit-financed bubbles in certain markets, and finally credit controls.

Second, fiscal policies should take responsibility for real stabilization, full employment and also for a more equal distribution of disposable income. This has several aspects. By definition the excess of private saving (S) over private investment (I) at a given level of economic activity and employment has to be absorbed by the excess of exports (X) over imports (M) – including the balance of primary income and the balance of income transfers, thus the current account balance – plus the excess of government spending (G) over tax revenues (T):

$$S - I = X - M + G - T. \quad (7.1)$$

Therefore, with balanced current accounts government deficits ($D = G - T$) have to permanently take up the excess of private saving over private investment in order to assure a high desired level of employment.¹⁴ As is well known from Domar (1944), a constant government deficit–GDP ratio (D/Y) with a constant long-run nominal GDP growth rate (g) will make the government debt–GDP ratio (B/Y) converge towards a definite value:¹⁵

$$\frac{B}{Y} = \frac{\frac{D}{Y}}{g}. \quad (7.2)$$

Therefore, there will be no problem of accelerating public debt–GDP ratios. Furthermore, low interest rates – falling short of GDP growth and hence of tax revenue growth – will prevent that government debt services redistribute income in favour of rentiers.

Permanent government deficits should be directed towards public investment in a wider sense (including increasing public employment), providing the economy with public infrastructure, and public education at all levels (kindergartens, schools, high schools, universities) in order to promote structural change towards an environmentally sustainable long-run growth path. Apart from this permanent role of government debt, which also supplies a safe haven for private saving and thus stabilizes financial markets, counter-cyclical fiscal policies – together with automatic stabilizers – should stabilize the economy in the face of aggregate demand shocks. At the same time, progressive income taxes, relevant wealth, property and inheritance taxes, as well as social transfers, should aim at redistribution of income and wealth in favour of low income and low wealth households. On the one hand, this will reduce excess saving at full employment and thus stabilize aggregate demand, without generating problems

of unsustainable indebtedness for private households. Progressive income taxation and relevant taxes on wealth, property and inheritance thus also reduce the requirements for government deficits. On the other hand, redistributive taxes and social policies will improve automatic stabilizers and thus reduce fluctuations in economic activity.

Fiscal policies will therefore have to play a major role in rebalancing the economy, at the national and at the world scale. In particular current account surplus countries will have to apply more expansive fiscal policies – along the lines sketched above – in order to promote the rebalancing of the world economy.

Third, incomes and wage policies should take over responsibility for nominal stabilization, that is, stabilizing inflation at some target rate which contributes to maintaining a balanced current account. In the end, accelerating inflation is always the result of unresolved distribution conflicts. If distribution claims of firms, rentiers, government and the external sector are constant, nominal wages should rise according to the sum of long-run economy wide growth of labour productivity plus the inflation target.¹⁶ A reduction of claims of the other actors, however, would allow for an increase of nominal wages exceeding this benchmark. In order to contribute to rebalancing the current accounts, nominal wage growth in the current account surplus countries will have to exceed the benchmark for an interim period, whereas nominal wage growth in the deficit countries will have to fall short of the benchmark during the adjustment process. In order to achieve the nominal wage growth targets, a high degree of wage bargaining co-ordination at the macroeconomic level, and organized labour markets with strong labour unions and employer associations, and government involvement if required, seem to be a necessary condition.¹⁷ Legal minimum wage legislation should contain wage dispersion and thus contribute to a more equal distribution of income. Further deregulation of the labour market weakening labour unions, and reductions in the reservation wage rate by means of cutting unemployment benefits, as in the age of financialization and neo-liberalism, however, will be detrimental to nominal stabilization and will rather tend to impose deflationary pressure on the economy.

7.3.3 Re-construction of International Macroeconomic Policy Co-ordination and a New World Financial Order

On the international level, international policy coordination has to make sure that ‘export-led mercantilist’ strategies and the associated pressure on labour unions to moderate wage claims in favour of increasing international competitiveness no longer pay off. This implies that targets for

current account balances have to be included into international policy coordination at the regional and the global level. The implications for the Euro area will be discussed in the following chapter. At the global level the return to a cooperative world financial order and a system with fixed but adjustable exchange rates, symmetric adjustment obligations for current account deficit and surplus countries, and regulated international capital flows seem to be required in order to avoid the imbalances that have contributed to the present crisis and to preclude 'export-led mercantilist' policies by major economies. Keynes's (1942) proposal for an International Clearing Union is the obvious blueprint for this. As is well known, Keynes suggested an International Clearing Union in a fixed but adjustable exchange rate system, with the 'bancor' as international money for clearing operations between central banks, the Clearing Union as an international central bank financing temporary current account deficits, and selective controls of speculative capital movements between currency areas. What is most important for the present situation is that, according to Keynes (1942), whereas permanent current account deficit countries would be penalized in order to contract domestic demand (or to depreciate their currencies), also permanent current account surplus countries should be induced to expand domestic demand and thus to increase imports (or to appreciate their currencies), so that the whole burden of adjustment does not have to be carried by the deficit countries. This should give an overall impetus to world aggregate demand which will be needed in the future, not only in the short run but also in the long run.¹⁸

UNCTAD (2009, pp. 51–3) has recently proposed a system of managed exchange rates which aims at stable real exchange rates by way of nominal wage policies following long-run productivity growth, and an inflation target consistent with stable real exchange rates in each country. Nominal exchange rates would have to adjust if nominal wages and inflation failed to generate stable real exchange rates. In order to prevent speculation under the conditions of rather free movement of capital, the UNCTAD scheme argues that nominal interest rates should be set in such a way that the interest parity conditions would be maintained. Speculative attacks should be countered symmetrically, by both the country under depreciation pressure and the country with an appreciating currency. A redesigned system should be a multi-polar one, with several lead currencies linked to each other through symmetric, managed floating systems with exchange rates automatically adjusted by relative price differentials, and satellites linked to the lead currencies. Although the UNCTAD system seems to be a step into the right direction, it contains at least one major shortcoming: National interest rate policies have to be applied in order for the

interest parity conditions to hold, and thus to counter currency speculation. However, this might contradict our suggestion of a policy of low interest rates geared towards domestic distribution targets. Therefore, the UNCTAD scheme would have to be further developed in order to solve this dilemma of monetary policies in a world of free capital mobility. As is well known, this dilemma can only be overcome if restrictions on capital mobility are imposed.¹⁹ A related scheme will therefore have to be developed.

7.4 CONCLUSIONS

In this chapter we have drawn the economic policy conclusions from our previous analysis. We have argued that a sustainable recovery strategy from the crisis can neither follow the ‘debt-led consumption boom’ nor the ‘export-led mercantilist’ type, but has to be income or wage led. We also argued that a wage-led recovery strategy has to address the main causes for the falling labour income share in the period of neo-liberalism and financialization: First, bargaining power of trade unions has to be stabilized and enhanced; second, overhead costs of firms, in particular top management salaries and interest payments, and profit claims of financial wealth holders have to be reduced; and third, the sectoral composition of the economy has to be shifted away from the high profit share financial corporations towards the non-financial corporate sector and the public sector. Furthermore, the tendencies towards increasing wage dispersion have to be contained and, in particular, progressive tax policies and social policies need to be applied in order to reduce inequality in the distribution of disposable income.

We have claimed that a wage-led recovery strategy is at the core of and has to be embedded in a Global Keynesian New Deal, which more broadly will have to address the three main causes for the severity of the crisis: inefficient regulation of financial markets, increasing inequality in the distribution of income and rising imbalances at the global (and at regional) levels. The three main pillars of the policy package of a Global Keynesian New Deal have been finally outlined: first, the re-regulation of the financial sector in order to prevent future financial excesses and financial crises; second, the re-orientation of macroeconomic policies towards stimulating and stabilizing domestic demand, in particular in the current account surplus countries; and third the re-construction of international macroeconomic policy co-ordination and a new world financial order. We have shown that each of these pillars is intimately linked with an income- or wage-led recovery strategy.

NOTES

1. This chapter draws on Hein (2011a, 2011b, 2011c) and on Hein/Truger (2011, 2012). Some of the arguments have also been outlined in Hein/Mundt (2012).
2. For a critique of export-led strategies see also UNCTAD (2010, pp. 77–97).
3. Since deficits or surpluses in the balance of goods and services are mainly affected by growth differentials it may be too restrictive to require balanced current accounts from developing countries in a productivity catch-up process. However, the risks of indebtedness in foreign currency with persistent deficits in the current accounts have to be considered as well.
4. See Chapter 4 and Bhaduri (2006), Casetti (2003), and Dutt (2006b) for theoretical models and Hein/Tarassow (2010), Marquetti (2004), Naastepad (2006), and Vergeer/Kleinknecht (2007) for empirical results.
5. With the focus on functional income distribution and incomes policies our suggestions are perhaps closer to Kalecki (1944, 1971, pp. 156–64) than to Keynes (1936, 1943). We have chosen the term Global Keynesian New Deal nonetheless for political marketing reasons.
6. For a more detailed list of required regulations see, for example, Ash et al. (2009), Fitoussi/Stiglitz (2009), Herr (2011), and Wade (2009).
7. On the problems of Basel II regulations see for example Guttman (2011) and Springler (2007).
8. On counter-cyclical capital requirements see Goodhart (2009).
9. See Herr (2011) for more explicit arguments on this issue.
10. On the properties of asset based reserve requirements see, in particular, Palley (2003, 2004, 2010a).
11. See Schulmeister et al. (2008) for a recent proposal.
12. For the New Consensus model see for example Goodfriend/King (1997), Clarida et al. (1999) and Woodford (2003).
13. See Rochon/Setterfield (2007) for a review of Post-Keynesian suggestions regarding the ‘parking it’ approach towards central banks’ interest rate policies and the rate of interest central banks should target.
14. This is, of course, the ‘functional finance’ view, pioneered by Lerner (1943). See also Arestis/Sawyer (2004b).
15. A constant government debt–GDP ratio (B/Y) requires that government debt and GDP grow at the same rate $g = \Delta B/B = \Delta Y/Y$. Since the government deficit $D = G - T = \Delta B$, it follows that $B/Y = (D/Y)/g$.
16. Trade unions would have to acknowledge that there are other ways to redistribute income apart from wage bargaining: ‘The classical day-by-day bargaining for wages is not the only way of influencing the distribution of national income to the advantage of the workers.’ (Kalecki 1971, p. 164)
17. See Hein (2002) for a review of the literature on the macroeconomic effects of wage bargaining institutions.
18. See also Davidson (2009, pp. 134–42), Guttman (2009), Kregel (2009), and Wade (2009).
19. See Keynes’s (1942, pp. 187–9) proposal for an International Clearing Union, in which he also allows for selective capital controls. See also Davidson (2009, pp. 134–42) and Wade (2009).

8. The European financial and economic crisis: alternative solutions from a Post-Keynesian perspective¹

8.1 INTRODUCTION

Against the background of finance-dominated capitalism and its macroeconomic consequences outlined in the previous chapters, and as the latest outcome of the world wide financial and economic crisis, which started in 2007 in the US and rapidly spread over major parts of the world economy, in late 2011 the European Union (EU) and the Euro area are facing the most serious crisis since the introduction of the euro in 1999. Greece in early 2010, Ireland in late 2010 and Portugal in early 2011 were the first three Euro area economies with serious public debt problems, and there are serious concerns that more member countries might follow.² These problems triggered massive increases in interest rates on public debt of these economies and finally public debt crises with rescue measures introduced by the EU member countries together with the International Monetary Fund (IMF). The financial and economic crisis in the Euro area has revealed a number of important flaws in the economic policy framework in Europe. It has become clear that the EU and the Euro area suffer from a serious lack of appropriate institutions and policy concepts which would allow for coping with the crisis – or would even have prevented the crisis. First, the explicit guarantee of public debt of member countries by the monetary authority of the currency union, the European Central Bank (ECB), is excluded from the treaties and regulations of the EU. Therefore, member country governments issue debt in a common currency, the euro, but not in their own currency, in the sense that their own central bank would guarantee the monetization of this debt if required. Second, fiscal transfers among member countries have also been ruled out by the treaties, so that government debt of a single member country is not guaranteed by the community of member country governments as a whole. Third, there have been no efficient mechanisms to prevent the building up of external macroeconomic imbalances across the Euro area countries, which in the crisis contributed to the rapid increases in government deficits and debt

and to the massive doubts regarding the creditworthiness of some member countries, given the first two deficiencies.

The current debate over the reform of the economic policy framework in the EU and the Euro area is still dominated by the paradigm that has led to the crisis. There seems to be no consciousness among governments and their mainstream policy advisors regarding the first two problems mentioned above. And despite the recognition that current account imbalances contributed to the crisis, the policy reactions of European governments and the European Commission are still characterized by a narrow focus on budget deficits and public debt, and by a lack of understanding of the role of a central bank in guaranteeing public debt. At the same time, there is a continued call for intensified deregulation of labour and product markets, in an attempt to raise the 'competitiveness' of the Euro area as a whole. These measures are conceptually flawed and will, therefore, hardly be able to initiate recovery.

However, some important urgency measures have been taken to stabilize financial markets and prevent government defaults. These are, first, the introduction of the European Financial Stability Facility (EFSF) as well as the European Financial Stabilization Mechanism (EFSM) and the European Stability Mechanism (ESM), which will assume the role of providing external financial assistance to Euro area member states in trouble after June 2013 or even in 2012, and most recently the extensions of the stabilization tools for the EFSM and ESM agreed at the meeting of the heads of state or government of the Euro area and EU institutions in July 2011 (Council of the EU 2011b). Second, and maybe more importantly, the interventions of the ECB into secondary government bonds markets, buying government debt of those countries which are in trouble, have so far prevented a collapse of these markets and have provided some relief for the countries under attack.

But these measures are far from solving the first two major institutional deficiencies mentioned above. The recent meeting of the European Council (2011b) in December 2011 has not even considered the proposal of Eurobonds (or Stability Bonds) put forward by the European Commission (2011b) which could have been a first step towards the remedy of these problems, and there is no general political support for the ECB's intervention into government bonds markets aimed at stabilizing these markets and dampening the upwards pressure on interest rates on government debt.

Further more, the rescue measures for the financial sector are combined with the requirements of restrictive fiscal and wage policies as conditions to get access to the EFSF and the ESM, a tighter Stability and Growth Pact (SGP), a new 'Euro Plus Pact', and a 'New Fiscal Compact' among

Euro area member countries, which will impose deflationary pressures on major parts of the Euro area and will thus prevent stabilization (or reduction) of public debt–GDP ratios.³

In March 2011, for example, the European Council (2011a, p.2) ‘endorsed the priorities for fiscal consolidation and structural reform. It underscored the need to give priority to restoring sound budgets and fiscal sustainability, reducing unemployment through labour market reforms and making new efforts to enhance growth’. In particular, the European Council (2011a, p.2) requires reductions of the structural budget deficits of ‘well above 0.5 per cent of GDP’ for 2012 in most countries, in order to restore ‘confidence’.⁴ The ‘Euro Plus Pact’ agreed upon at the March 2011 European Council (2011a) is hence mainly targeted at improving competitiveness by means of monitoring wage setting, in particular in the public sector, at labour market reforms increasing ‘flexicurity’, life-long learning and reducing taxes on low-paid labour, and at improving sustainability of public finances by means of extending effective retirement ages, reducing early retirement and implementing fiscal rules (that is, ‘debt brakes’) into national legislation.⁵ These commitments in the ‘Euro Plus Pact’ shall be reflected in the annual National Reform and the Stability Programmes, which are assessed by the Commission, the Council, and the Eurogroup in the context of the so called European Semester, and will thus have a major impact on European economic policies in the years to come.

This approach has been underlined by the agreement of the Euro area heads of state and governments in December 2011 (European Council 2011b). The ‘New Fiscal Compact’ reinforces the target of balanced or in surplus government budgets, that is, structural deficits shall not exceed 0.5 per cent of GDP. This target shall be introduced into the national legal systems at a constitutional level. Further more, deviations from this target shall trigger automatic correction mechanisms. Such automatism, including sanctions imposed by the European Commission, shall also be applied if a country breaches the 3 per cent of GDP limit for its government deficit, unless a qualified majority of the Euro area member states opposes. Furthermore, it has been agreed to reduce government debt exceeding the 60 per cent of GDP threshold, irrespective of the macroeconomic constellation.

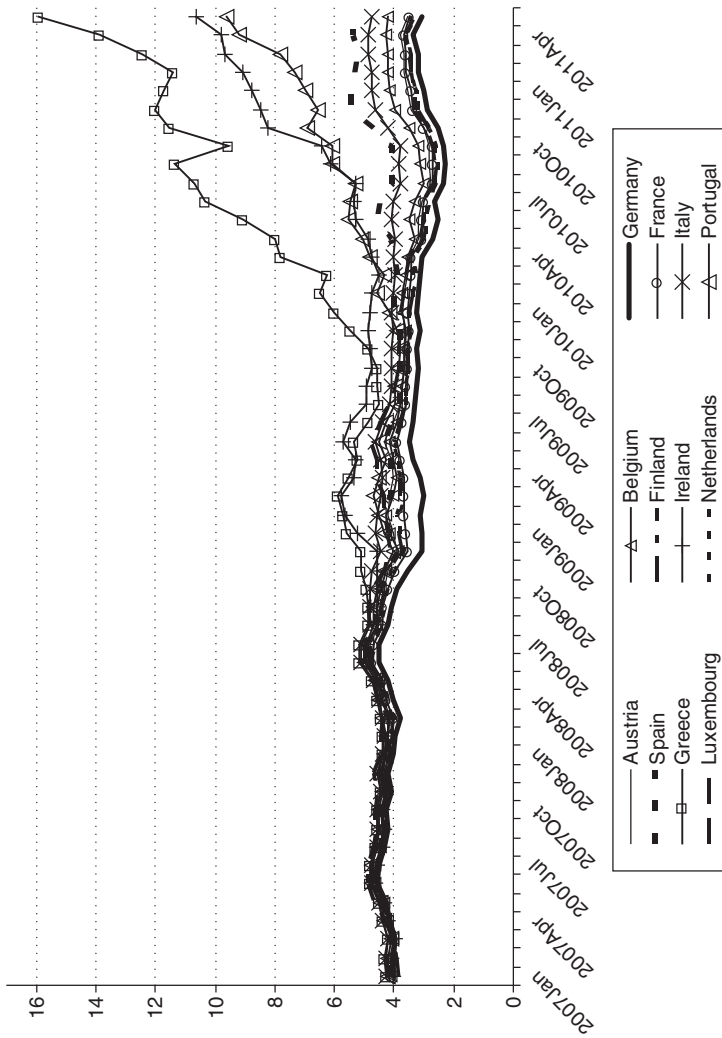
In this chapter, we will argue that the Euro area will continue to face serious threats of deflationary stagnation and a collapse of the euro as a common currency, unless the institutional and structural causes for the public debt and euro crises outlined above are overcome. We will first analyse in Section 2 the imbalances, which have been built up in the Euro area and which are at the roots of the present crisis, given the institutional structure which, in principle, precludes fiscal transfers among member

countries and the guarantee of member country debt by the ECB. Since the economic policy framework and the prescribed macroeconomic policies in the EU are still dominated by the now discredited New Consensus Macroeconomics (NCM) theoretical framework, we will then develop an alternative macroeconomic policy model based on Keynesian and Post-Keynesian principles in Section 3. Reiterating the basic principles of a Post-Keynesian macroeconomic policy approach as compared to the NCM approach, we will then apply this Post-Keynesian approach to the Euro area. Section 4 will conclude.

8.2 IMBALANCES IN THE EURO AREA AT THE ROOTS OF THE EURO CRISIS

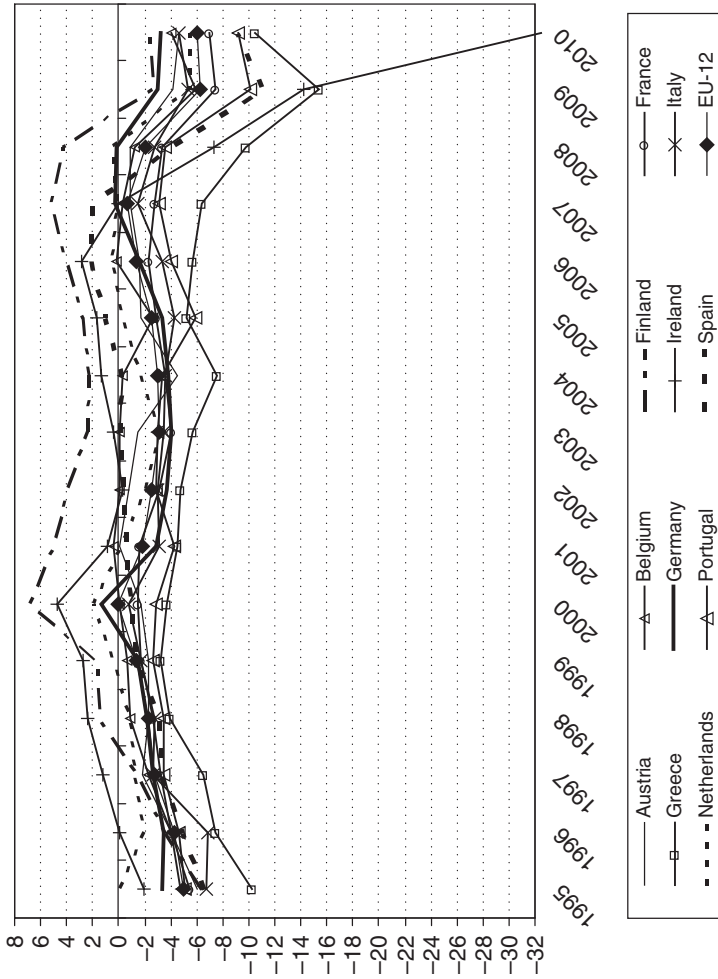
The current euro crisis is considered by many observers – above all by the dominating economic policy makers and advisors in Germany and also in the European Commission – as a crisis of government deficits and debt.⁶ A first casual look at the developments might even seem to confirm this view. Since the start of the global financial crisis the spreads of government bonds of Euro area member countries relative to German bonds started to rise, most notably for Greece, Ireland, Portugal, and Spain (GIPS) (see Figure 8.1). This development continued, especially for Ireland and Greece and particularly so in mid-2009. In spring 2010 the development escalated dramatically again in the Greek case. Emergency measures had to be taken in order to prevent Greek government default – and possibly government defaults in the aforementioned other member countries as well. The relief provided by the rescue package for Greece and the Euro rescue fund set up to prevent further problems for other governments proved to be very short-lived. In October 2010 spreads for Irish government bonds increased dramatically again so that in November of the same year, the Irish government finally decided to request assistance by European rescue funds. In spring 2011, the Portuguese government had to do the same.

Mainstream economics and economic policy debates see the high and rising government debts, and the failure of the SGP to contain government deficits and debt, as the main reason for the crisis and therefore the most important problem to be tackled in the Euro area. From that point of view the main threat for the euro is caused by governments, which have run irresponsibly high deficits leading public finances to the brink of default. However, even a casual look at the data raises many doubts regarding this point of view (see Figures 8.2 and 8.3). For Greece, of course, the picture seems clear, as the budget deficit was outstandingly large over the whole period since the mid-1990s. For Portugal, however, the picture is less clear,



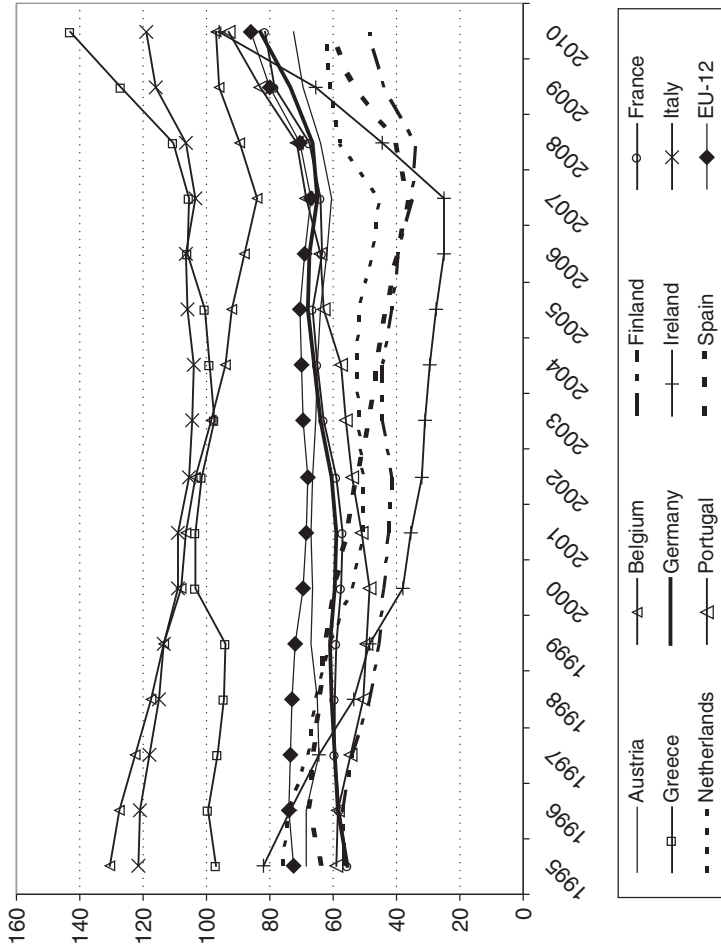
Source: ECB (2011), own representation.

Figure 8.1 10-year government bond yields, selected countries, January 2007 – May 2011



Source: European Commission (2011a), own calculations.

Figure 8.2 General government financial balance relative to GDP, selected countries, 1995 to 2010, in per cent



Source: European Commission (2011a), own calculations.

Figure 8.3 General government gross consolidated debt relative to GDP, selected countries, 1995–2010, in per cent

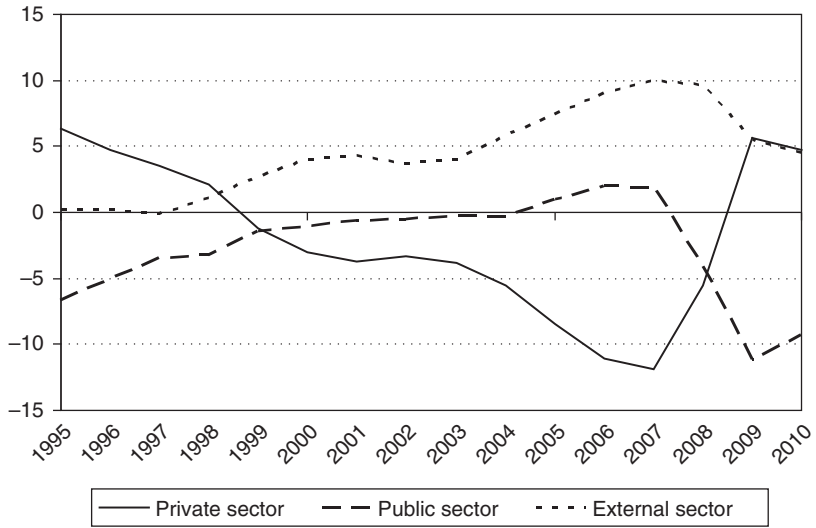
as the budget deficit was not larger than that of Germany for a long period of time. And most strikingly, both Ireland and Spain looked perfectly well before the crisis as they seemed to follow the SGP in an almost ideal manner. Ireland ran a budget surplus of 3 per cent of GDP in 2006 and Spain had a surplus of 1.9 per cent in 2007. Turning to gross government debt in relation to GDP, which should in theory be a much better indicator for the sustainability of public finances, the evidence for the purely fiscal view of the crisis becomes even weaker: Portugal used to have a considerably smaller debt burden than Germany. And in 2007 gross government debt in relation to GDP was only 25 per cent in Ireland and 36 per cent in Spain, far below the 60 per cent threshold of the SGP. From this perspective, nobody would have suspected any risk of government default in Portugal, let alone in Ireland or Spain.

The fact that, against the institutional background of the Euro area, the aforementioned countries nevertheless ran into trouble must thus be due to other imbalances: For both Spain and Ireland it is well known that before the crisis unfolded, the private sector had gone deeply into deficit, partly as a consequence of a housing price bubble and a construction boom. Once the crisis struck, it was the government that had to step in and go into deficit. The interconnection of public, private and foreign deficits and surpluses can be explored more systematically if one recalls that the following accounting identity holds for any economy:

$$\begin{aligned} & \text{Public sector financial balance} + \text{Private sector financial balance} \\ & + \text{Foreign sector financial balance} = 0. \end{aligned} \quad (8.1)$$

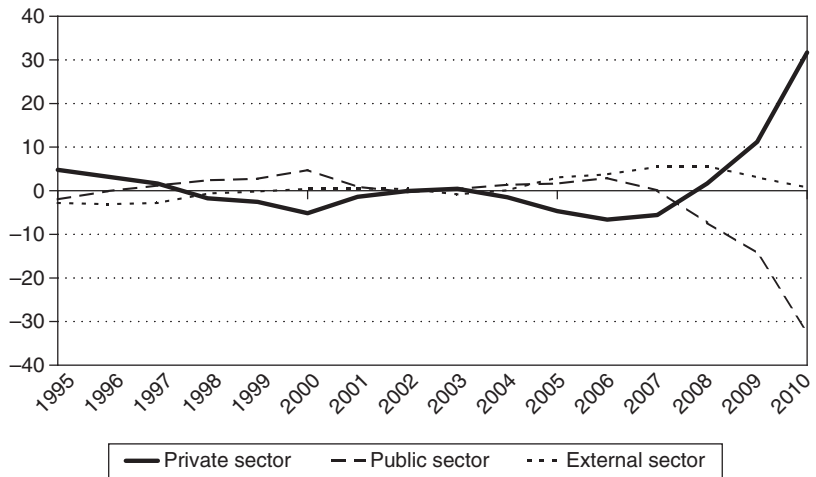
This simply means that any particular sector in the economy cannot run a surplus, without the remaining two sectors of the economy running a joint deficit of exactly the same magnitude. And if one country runs a current account surplus, then at least in one other country the government or the private sector has to run a financial deficit, and so on.

Figures 8.4 and 8.5 show the financial balances of the private sector, the public sector and the external sector for Spain and Ireland respectively. Although the figures are more striking for Spain, in both countries huge deficits of the private sector (more than 5 per cent of GDP in Ireland for some years and more than 10 per cent of GDP in Spain) were associated with (relatively small) surpluses in the government balances and to a much larger extent with current account deficits against the rest of the world (surpluses of the respective external sectors). When the bubble growth came to a sudden end as the result of the crisis, the private sector balances quickly turned into surplus and governments stabilizing the economy had



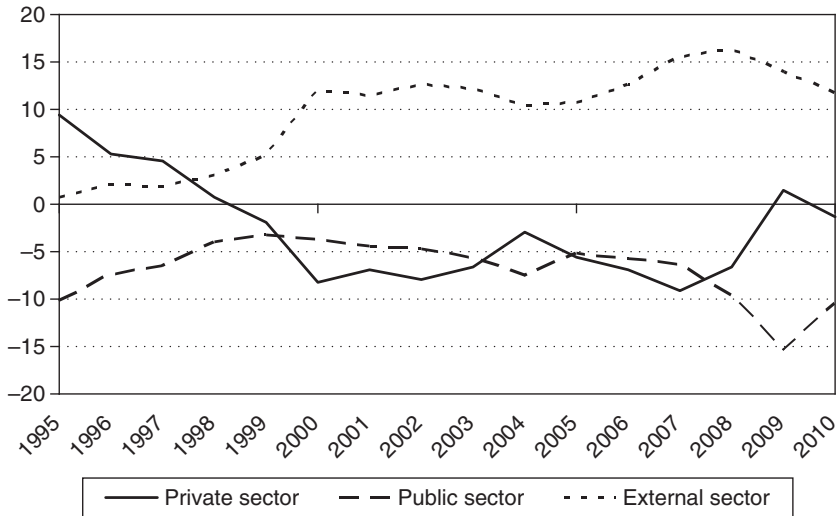
Source: European Commission (2011a), own calculations.

Figure 8.4 *Sectoral financial balances as a share of nominal GDP, Spain, 1995–2010*



Source: European Commission (2011a), own calculations.

Figure 8.5 *Sectoral financial balances as a share of nominal GDP, Ireland, 1995–2010*



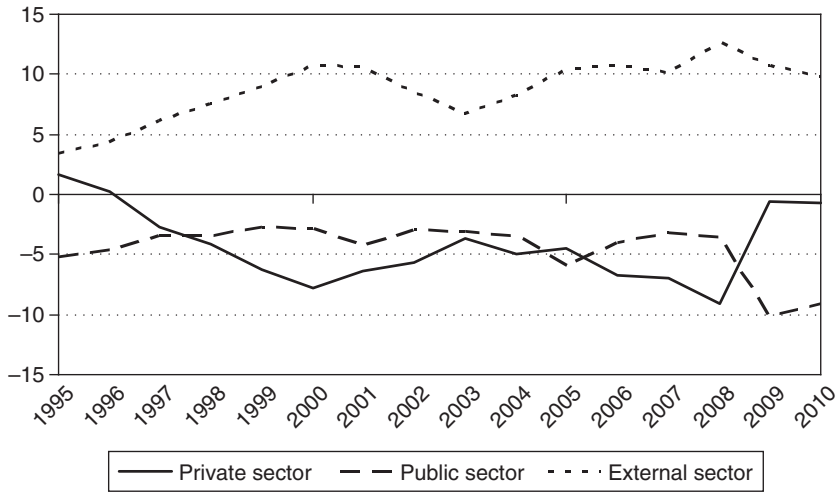
Source: European Commission (2011a), own calculations.

Figure 8.6 Sectoral financial balances as a share of nominal GDP, Greece, 1995–2010

to accept dramatic increases in government deficits. Therefore, the ‘unsustainable’ government deficit turns out to be a consequence of probably unsustainable private and external sector balances in the first place.

In fact, if one takes a look at two other economies currently in trouble with their public debt, we obtain a similar picture for them. In Greece (Figure 8.6), as well as in Portugal (Figure 8.7), both the private sector and the government sector continuously ran deficits after the introduction of the euro. Those deficits had to be financed by capital inflows and hence current account deficits of about 12 per cent of GDP in the case of Greece, and about 10 per cent of GDP in the case of Portugal, before the crisis. After the crisis, in both countries the government stepped in to prevent the economy from collapsing when the private sector reduced deficits or turned into surplus again, leading to rising public deficits and the ‘problems of government debt’ currently in the focus of public attention.

Therefore, it seems that the current euro crisis is rooted in earlier private deficits and current account imbalances and has not been caused by excessive public deficits. In the four countries outlined above, the private sector obviously tended to spend more than its income. This was associated with government surpluses (Ireland, Spain) or amplified by government deficits



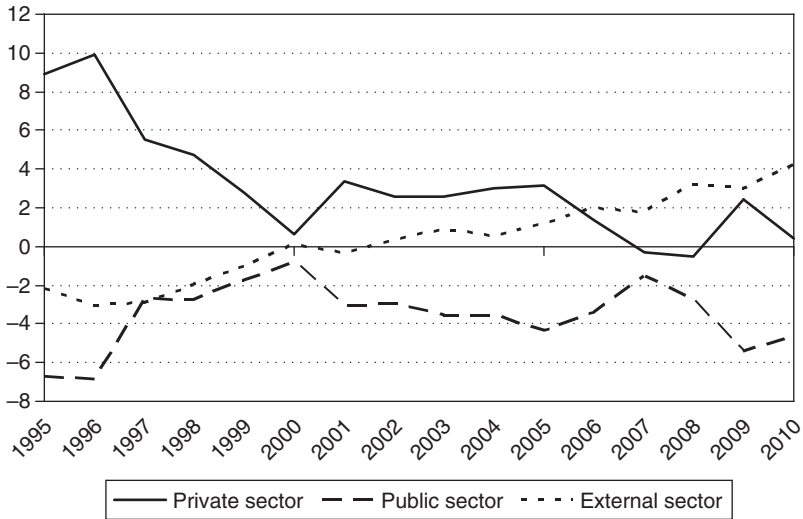
Source: European Commission (2011a), own calculations.

Figure 8.7 *Sectoral financial balances as a share of nominal GDP, Portugal, 1995–2010*

(Portugal, Greece), which led to very high and rising current account deficits in the four countries.

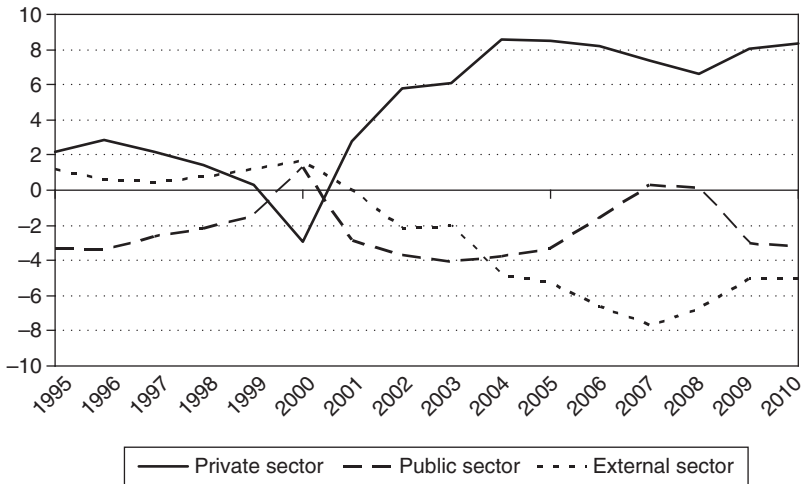
For Italy, which is sometimes considered part of the GI(I)PS countries, the picture is less clear (Figure 8.8). In this country the private sector balance was consistently positive. Therefore the government deficit could be financed partly by the private sector surplus and partly by the capital inflows associated with the moderate, but continuously rising, current account deficit. When the crisis hit, the improvement in the private sector balance was compensated mostly by a rather modest increase in the government deficit.

Obviously, there must be a counterpart to the rising current account deficits of the GIPS countries. Since the current account of the Euro area as a whole has been roughly balanced (European Commission 2011a), there must have been other countries in which the private sector has consistently spent much less than it earns. If in such cases the government is not willing (or is prevented by the SGP) to run a correspondingly high deficit, then this will imply – taking GDP as given – a deficit of the foreign sector, that is, a current account surplus. Within the Euro area there are at least four countries for which such characteristics hold: Germany, the Netherlands, Austria and Belgium, with Germany as the largest Euro area country being the most important one (Figure 8.9).



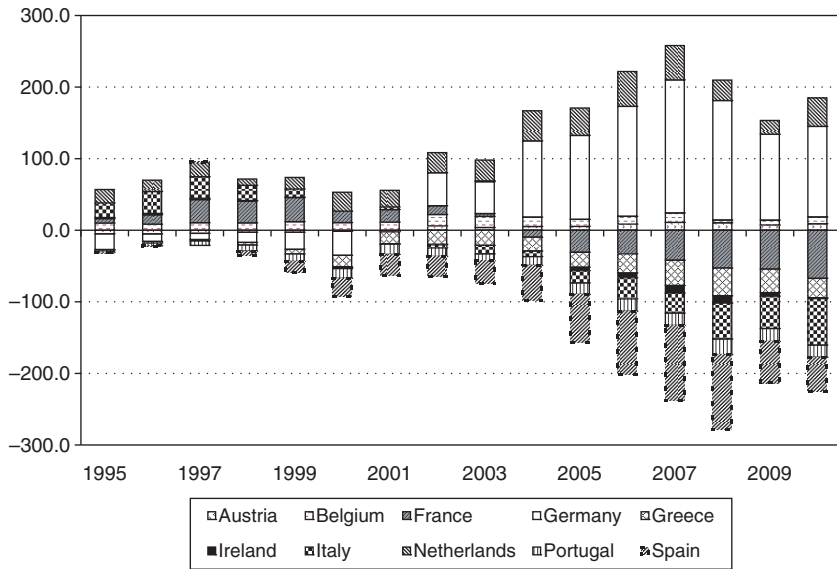
Source: European Commission (2011a), own calculations.

Figure 8.8 Sectoral financial balances as a share of nominal GDP, Italy, 1995–2010



Source: European Commission (2011a), own calculations.

Figure 8.9 Sectoral financial balances as a share of nominal GDP, Germany, 1995–2010



Source: European Commission (2011a), own calculations.

Figure 8.10 *Current accounts in billions ECU/euro, selected Euro area countries, 1995–2010*

The economic imbalances in the Euro area as expressed by the current account developments can be summarized with the help of Figure 8.10. As can be seen, the imbalances have increased almost continuously since the introduction of the euro in 1999 peaking in the year 2007, just before the crisis unfolded. For most of the countries (with the notable exception of Ireland) the current account is dominated by the balance of goods and services, that is by net exports of goods and services.

As can be seen from Table 8.1, with the exception of Ireland, the current account deficit countries in trouble have had negative growth contributions from their net exports, whereas the surplus countries had, on average from 1999 to 2007, positive growth contributions. Since the development of the balance of goods and services (in real terms) mainly depends on two factors, the growth of domestic demand (relative to foreign demand) and on international price competitiveness (relative to trading partners), we will now take a look at the indicators of these factors.

As a proxy for the first factor we look at the growth contributions of real domestic demand on average over the period from 1999 to 2007 and compare it to the average for the old Euro area (EU-12) (Table 8.1).

Table 8.1 Key macroeconomic indicators for imbalances, selected Euro area countries, 1999–2007, average values

	Consumption boom deficit economies			Slow growth deficit economies			Surplus economies				
	Greece	Ireland	Spain	Italy	Portugal	EU-12	France	Austria	Belgium	Germany	Netherlands
Financial balances of external sector as a share of nominal GDP, per cent	11.5	1.4	5.7	0.6	9.5	-0.4	0.1	-1.5	-4.5	-2.9	-6.8
Financial balances of public sector as share of nominal GDP, per cent	-5.3	1.6	0.1	-2.8	-3.6	-1.8	-2.6	-1.8	-0.5	-2.1	-0.5
Financial balance of private sector as a share of nominal GDP, per cent	-6.2	-3.0	-5.8	2.2	-5.8	2.2	2.6	3.3	4.9	5.0	7.3
Financial balance of private household sector as a share of nominal GDP, per cent	-9.3	...	-1.0	4.3	0.3	...	4.0	4.4	4.3	5.1	0.1

Table 8.1 (continued)

	Consumption boom deficit economies			Slow growth deficit economies			Surplus economies				
	Greece	Ireland	Spain	Italy	Portuga.	EU-12	France	Austria	Belgium	Germany	Netherlands
Financial balance of the corporate sector as a share of nominal GDP, per cent	3.1	...	-4.8	-2.1	-6.1	...	-1.5	-1.3	0.5	-0.1	7.0
Annual real GDP growth, per cent*	4.2	6.5	3.8	1.5	1.8	2.2	2.2	2.5	2.3	1.6	2.0
Annual growth contribution of domestic demand including stocks, percentage points - of which private consumption, percentage points - of which public consumption, percentage points	4.7	5.7	4.8	0.8	1.9	2.1	2.7	1.6	1.9	0.7	2.0
	2.7	2.9	2.3	0.7	1.5	1.1	1.5	0.9	0.8	0.5	0.8
	0.8	0.9	0.9	0.4	0.4	0.4	0.4	0.3	0.4	0.2	0.8

- of which gross fixed capital formation, percentage points	1.3	1.4	1.6	0.2	0.0	0.6	0.8	0.3	0.6	0.2	0.4
Annual growth contribution of the balance of goods and services, percentage points	-0.6	1.4	-1.0	-0.2	-0.1	0.1	-0.4	0.8	0.4	0.9	0.5
Net exports of goods and services as a share of nominal GDP, per cent	-11.3	13.5	-3.8	0.6	-9.0	1.6	0.3	3.6	4.3	3.9	6.7
Annual growth rate of nominal unit labour costs, per cent	3.1	3.1	3.0	2.5	2.7	1.6	1.7	0.6	1.6	0.0	2.2

Table 8.1 (continued)

	Consumption boom deficit economies			Slow growth deficit economies			Surplus economies				
	Greece	Ireland	Spain	Italy	Portugal	EU-12	France	Austria	Belgium	Germany	Netherlands
Annual inflation (HCPI growth rate), per cent	3.2	3.7	3.2	2.3	3.0	2.1	1.7	1.9	2.0	1.5	2.3
Annual growth rate of nominal effective exchange rates (relative to 23 countries), per cent	0.8	0.9	0.7	0.9	0.4	...	0.7	0.6	0.6	0.9	0.5
Annual growth rate of real effective exchange rates (relative to 23 countries), per cent	1.5	2.2	1.6	1.5	1.2	...	0.6	-0.4	0.5	-1.2	1.1

Notes:

- * Growth contributions for some countries may not add up to GDP growth rates even for individual years in the AMECO data.
- ** Balance adjusted such that the sum of household and corporation sub-sectors equals the private sector balance as a whole.

Source: European Commission (2011a), own calculations.

Concerning the current account surplus countries, in Germany the GDP growth contribution of domestic demand was considerably weaker than the EU-12 average. Austria also had a well below EU-12 average growth contribution of domestic demand, and in Belgium and the Netherlands it was slightly below EU-12 average, too. As for the second group, the deficit countries, the case is very clear for Ireland, Spain and Greece, where the growth contribution of domestic demand by far exceeded the EU-12 average. Portugal and Italy, however, were slightly below EU-12 average and over the whole period even a little bit below Belgium and the Netherlands.

Regarding the second indicator, international competitiveness, we use the development of nominal unit labour costs since the introduction of the euro in 1999 until 2007 (Table 8.1). Obviously, within the group of surplus countries Germany is the country with the slowest unit labour cost growth; between 1999 and 2007 unit labour costs almost stagnated. Austria used to follow the German example until 2004, since then its unit labour cost growth has accelerated a little, but it is still way below EU-12 average. Belgian unit labour costs grew almost perfectly in line with the EU-12 average, whereas in the Netherlands it went visibly faster, although this is almost entirely due to a rather steep increase in the first years of the euro; since 2003 there has been a remarkable deceleration. Taking a look at the current account deficit countries, the picture is very clear for all of them: their unit labour cost growth has been much faster than that of the EU-12 average. In particular, it has exceeded the 2 per cent rate consistent with the ECB inflation target (2.5 per cent in the case of Italy, 2.7 per cent for Portugal and 3 per cent in the case of Spain), whereas the EU-12 average rate (1.6 per cent) is below this target rate. The relative inflation rates mostly reflect the differences in unit labour cost growth: The current account surplus countries mostly have inflation rates below EU-12 average, whereas in the current account deficit countries inflation exceeds EU-12 average.

So far we have argued that instead of the financial balance of the government the financial balances of all three sectors should be taken into account, and that this will automatically bring into focus the imbalances in the current accounts of Euro area member countries as the major object of concern. In the analysis we have shown that differences in international price competitiveness and differences in domestic demand growth should have been the main factors driving the development of the balance of goods and services and correspondingly the current account imbalances within the Euro area.⁷

With respect to the underlying economic reasons for the current account deficits/surpluses we refer to our analysis in Chapter 6 of this

book. Austria, Belgium, the Netherlands, and above all Germany have been identified as countries following the ‘export-led mercantilist’ type of development under the conditions of finance-dominated capitalism. In particular Germany combined a strategy of wage restraint and welfare state reforms, which led to a dramatic increase in income inequality and a stagnation of private consumption demand, with a retrenchment of the state and highly restrictive fiscal policies (see Hein/Truger 2009, Horn et al. 2010). Greece, Ireland and Spain, however, were among the ‘debt-led consumption boom’ economies with high growth contributions of private consumption and considerably negative financial balances of the private household sector, based on increasing housing prices, in particular. Italy and Portugal, as well as France, fit with none of these two types and can rather be considered to have been domestic demand led.

8.3 A POST-KEYNESIAN MACROECONOMIC POLICY-MIX FOR THE EURO AREA

The current crisis of the Euro area, far from indicating that individual member countries have lacked discipline in terms of fiscal consolidation and structural reforms, clearly reveals the conceptual limits of the so-called New Consensus Macroeconomics (NCM), on which much of the existing economic policy framework in the Euro area is based.⁸ In these NCM models there is an impact of macroeconomic policies, in particular monetary policies, on output and employment, but only in the short run. Due to nominal and real rigidities, for which microfoundations based on imperfectly competitive markets are presented, the short-run Phillips curve is upward sloping in inflation-output or -employment space. In the long run, however, there is no effect of macroeconomic economic policies on the ‘Non Accelerating Inflation Rate of Unemployment’ (NAIRU), which is exclusively determined by structural characteristics of the labour market, the wage bargaining institutions and the social benefit system. Therefore, inflation-targeting monetary policies applying the interest rate tool are able to stabilize output and employment in the short run, but in the long run they are neutral with respect to real variables and only affect inflation (Fontana/Palacio-Vera 2007). A reduction of the NAIRU requires deregulation and flexibilization of wage bargaining and the labour market. Fiscal policy is downgraded by the NCM and is restricted to support monetary policies in achieving price stability by means of balancing the budget over the trade cycle.⁹

Put in a nutshell, the intended interaction of the three different modes for macroeconomic policy-making in the EU and the Euro area

broadly follows the NCM approach and can be summarized as follows:¹⁰ Monetary policy follows an interest rate rule, whereby the policy rate is changed in response to deviations of (expected) inflation from target and of (expected) output from its supply-determined potential given by the NAIRU. The sole objective of the ECB is to maintain inflation at the target of below, but close to, 2 per cent. It is argued that this is the best contribution that monetary policy can make to economic growth at the Euro area level. The role of fiscal policy is to 'balance the budget' over the medium term and to never run excessive deficits, that is, government deficits above 3 per cent of GDP. Moreover, the government debt–GDP ratio must not exceed 60 per cent. Hence, while there is some room for manoeuvre for automatic stabilizers and discretionary fiscal policy to react to country-specific shocks, fiscal policy nevertheless is confined to playing a rather passive role, with an emphasis on 'sound' public finances. As a consequence, as individual member countries have lost interest rate and exchange rate policies as macroeconomic stabilization tools, and with fiscal policy subject to the constraints of the SGP, flexible wages and prices and, more generally, flexible and deregulated labour, product and financial markets are expected to provide efficient adjustment mechanisms in the presence of macroeconomic shocks and to ensure full employment and macroeconomic stability.

In light of the present crisis, the emphasis on inflation targeting via short-term interest rate policy, as the only stabilizing macroeconomic policy tool, and on financial, goods and labour market deregulation, which was actively pursued by the EU and justified theoretically by the NCM, appears very much flawed. First, the belief in the rationality and therefore the inherently stabilizing properties of deregulated financial markets has been thoroughly undermined by the bursting bubbles and the near collapse of the financial system. Therefore, second, the central bank's sole preoccupation with price stability as opposed to regulating and supervising the financial markets as well as exercising an extended lender of last resort function becomes dubious. Third, due to the zero lower bound for nominal interest rates and the effects of potentially depressed sales and profit expectations on real investment decisions of the private sector, the central bank cannot stabilize the real economy and prevent deflation in times of deep crises. Fourth, even if central banks are able to reduce inflation to the target level whenever the economy is facing accelerating inflation in the short run, in a conflicting claims framework of inflation generation it has to be taken into account that higher interest rates mean higher costs for firms which will again push inflation in the medium run (Hein/Stockhammer 2010). And fifth, with country-specific differences in the patterns of inflation, in financial asset price and in credit developments,

as well as in macroeconomic trends within a currency union, the ECB focussing on a Euro area-wide inflation target (which has been roughly met since 1999), cannot be expected to respond towards inflation differentials between countries, nor to country-specific shocks to output and employment. For these purposes other policy actors and instruments are required.

As will be seen below, the Post-Keynesian macroeconomic policy mix targeted at overcoming the present crisis radically differs from the NCM approach. The macroeconomic policy mix for the Euro area outlined in this chapter is part of a broader Global Keynesian New Deal, which we presented in Chapter 7 of this book. This policy package should include the re-regulation of the financial sector, the re-orientation of macroeconomic policies and the re-construction of international macroeconomic policy co-ordination and the introduction of a new world financial order. In the present chapter we will focus on the re-orientation of macroeconomic policies and its international co-ordination within the EU and the Euro area, in particular. The presentation will take place in three steps. In the first step we will recall the Post-Keynesian macroeconomic policy assignment, which we outlined in Chapter 7. In the second step we will apply this approach to the Euro area assuming that in the long run each country should grow at a rate consistent with a balanced current account. In the third step we will then lift this restriction and consider that long-run growth dynamics may persistently tend to violate balanced current accounts, in particular due to productivity catch-up processes, and that a currency union should be able to provide the institutional conditions to cope with the related imbalances.

8.3.1 The Basic Principles of a Post-Keynesian Macroeconomic Policy Mix

Following the Post-Keynesian approach developed in Hein/Stockhammer (2010, 2011) and already outlined in Chapter 7 of this book, macroeconomic policies should be co-ordinated along the following lines:

First, central bank's interest rate policies should abstain from attempting to fine tune unemployment in the short run and inflation in the long run, as suggested by the NCM, but should focus on targeting low real interest rates in credit and financial markets in order to avoid unfavourable cost and distribution effects on firms and workers, which would be in favour of rentiers. A slightly positive long-term real rate of interest, below the long-run rate of productivity growth, was seen to be a reasonable target. Furthermore, central banks have to act as 'lender of last resort' in periods of liquidity crises, and should be involved in the regulation and the supervision of financial markets.

Second, incomes and wage policies should take responsibility for nominal stabilization, that is, stable inflation rates. If distribution claims of firms, rentiers, the government and the external sector are constant, nominal wages (w) should rise according to the sum of long-run economy wide growth of labour productivity (\hat{y}) plus the inflation target (\hat{p}^T):

$$\hat{w} = \hat{y} + \hat{p}^T. \quad (8.2)$$

A reduction of claims of the other actors, however, would allow for an increase of nominal wages exceeding this benchmark. In order to achieve the nominal wage growth targets, a high degree of wage bargaining co-ordination at the macroeconomic level, and organized labour markets with strong labour unions and employer associations, and government involvement if required, seem to be a necessary condition. Further deregulation of the labour market, weakening labour unions, and reductions in the reservation wage rate by means of cutting unemployment benefits, however, will be detrimental to nominal stabilization and will rather impose deflationary pressure on the economy.

Third, fiscal policies should take responsibility for real stabilization, full employment and also a more equal distribution of disposable income. With a roughly balanced current account ($X-M$), government deficits ($D = G-T$) have to permanently take up the excess of private saving (S) over private investment (I) in order to assure a high desired level of employment:

$$D = G - T = S - I - (X - M). \quad (8.3)$$

A constant government deficit–GDP ratio (D/Y) with a constant long-run nominal GDP growth rate (g) will make the government debt–GDP ratio (B/Y) converge towards a definite value (Domar 1944):

$$\frac{B}{Y} = \frac{D}{gY}. \quad (8.4)$$

Therefore, there will be no problem of accelerating public debt–GDP ratios. Furthermore, low interest rates – falling short of GDP growth and hence of tax revenue growth – will prevent that government debt services redistribute income in favour of rentiers.

Apart from this permanent role of government debt, which should be used for government investment in a wider sense and which also supplies a safe haven for private saving and thus stabilizes financial markets,

counter-cyclical fiscal policies – together with automatic stabilizers – should stabilize the economy in the face of aggregate demand shocks. Appropriate tax policies and social benefits should aim at redistribution of income and wealth in favour of low income and low wealth households. This will reduce excess saving at full employment and thus stabilize aggregate demand, and it will improve automatic stabilizers and thus reduce fluctuations in economic activity.

8.3.2 The Post-Keynesian Macroeconomic Policy Mix Applied to the Euro Area

Applying the Post-Keynesian macroeconomic policy mix to the Euro area takes place in two steps. In the first step we assume that in the medium to long run each of the member countries should grow at a rate consistent with a balanced national current account. Starting from Thirlwall's (1979, 2002, Chapter 5) derivation of the balance of payments constrained growth rate,¹¹ this growth rate for the single economy in the Euro area is given by:¹²

$$\hat{Y}_d^b = \frac{(1 + \eta + \psi)(\hat{p}_d - \hat{p}_f) + \varepsilon \hat{Y}_f}{\pi}, \quad \eta, \psi < 0, \quad \varepsilon, \pi > 0, \quad (8.5)$$

where \hat{Y}_d^b is the balance of payments constrained growth rate of GDP for the domestic economy, \hat{Y}_f is the foreign GDP growth rate, that is, the growth rate of the rest of the Euro area since its current account with the rest of the world is roughly balanced and should remain so in the future, \hat{p}_d is domestic inflation, \hat{p}_f is foreign inflation, that is, inflation in the rest of the Euro area, η is the price elasticity of the demand for exports, ψ is the price elasticity of demand for imports, ε is the income elasticity of the demand for exports and π is the income elasticity of the demand for imports. Disparities in ε and π among countries are considered to reflect differences in non-price competitiveness. With given foreign GDP growth and given foreign inflation, the balance of payments constrained growth rate of a single economy can be improved by lower domestic inflation, provided that $1 + \eta + \psi < 0$, that is, the Marshall-Lerner condition holds, a higher income elasticity of domestic exports, or a lower income elasticity of domestic imports.

Applying the model to the member countries of the Euro area means that each of the member countries should grow at its balance of payments constrained growth rate, that is, avoid current account surpluses and current account deficits. Each of the countries should also target the same rate of inflation and thus equalize domestic and foreign inflation. This is so

because a rate of inflation below the foreign rate will mean a higher balance of payments constrained growth rate of the country under consideration; it implies, however, a lower balance of payments constrained growth rate of the other countries of the Euro area, provided that its current account with the rest of the world is roughly balanced. Following this rule therefore implies that the balance of payments constrained growth rate for each of the member countries becomes:

$$\hat{Y}_d^b = \frac{\varepsilon \hat{Y}_f}{\pi} = \frac{\hat{X}}{\pi}. \quad (8.6)$$

Note that with balanced current accounts within the currency area, and with equal rates of inflation, GDP growth rates of member countries may nonetheless differ, depending on the relative income elasticities of demand for exports and imports. Also note that the improvement of the balance of payments constrained growth rate of a single country within a currency area, by means of increasing the income elasticity of exports or by reducing the income elasticity of imports, has the adverse effect on the balance of payments constrained growth rate of the rest of the currency area, because it will mean increasing its income elasticity of imports and decreasing the income elasticity for its exports – assuming a roughly balanced current account of the currency area with the rest of the world. One might, therefore, wish to argue that in an ideal currency union, income elasticities of intra-union exports and imports should be equal, and the balance of payments constrained growth rate for each member country should therefore be given by the growth rate for the currency union as a whole, as in equation (8.7). However, as will be seen below, we do not apply this requirement for the present Euro area.

$$\hat{Y}_d^b = \hat{Y}_f. \quad (8.7)$$

In order to improve the growth rate of the Euro area as a whole, and thus the balance of payments constrained growth rate for each member country, and to provide the conditions and incentives for each country to grow at a rate consistent with balanced current accounts, major institutional reforms in the EU and the Euro area are required.

First, the institutional setting of the ECB and its monetary policy strategy have to be modified so that the ECB is forced to take into account the long-run distribution, employment and growth effects of its policies, and to pursue a monetary policy targeting low real interest rates. In a first step, an adjustment towards the objectives of the US Federal Reserve might be helpful, which include stable prices, maximum employment and moderate

long-term interest rates on an equal footing (Meyer 2001). In its monetary policy strategy the ECB should refrain from fine tuning the economy in real or nominal terms and should rather target low interest rates, such that long-term real interest rates remain below Euro area average productivity growth in the medium run. This should be conducive to real investment and growth in the Euro area. The ECB, moreover, ought to focus on financial market stability. Instead of the blunt instrument of the interest rate it should introduce those instruments which are appropriate to contain bubbles in specific asset markets in specific countries or regions, that is, credit controls or asset-based reserve requirements (Palley 2004, 2010a). Further more, the ECB should act as a lender of last resort to the banking system, and it should guarantee public debt of the Euro area member countries, allowing these countries to issue debt in their 'own currency'.

Second, the orientation of labour market and social policies towards deregulation and flexibilization, still prevalent in the EU and the Euro area, will have to be abandoned in favour of re-organizing labour markets, stabilizing labour unions and employer associations, and adopting Euro area-wide minimum wage legislation.¹³ This could provide the institutional requirements for the effective implementation of nominal stabilizing wage policies. Nominal wages should rise according to the sum of long-run average growth of labour productivity in the national economy plus the target rate of inflation for the Euro area as a whole. This would contribute to equal inflation rates across the Euro area, it would prevent improving the balance of payments constrained growth rate of a single country at the expense of the rest of the Euro area, and it would thus prevent mercantilist strategies based on nominal wage moderation in general.

Third, the SGP at the European level has to be abandoned and needs to be replaced by a means of coordination of national fiscal policies at the Euro area level which allows for the short- and long-run stabilizing role of fiscal policies. Hein/Truger (2007) have suggested the coordination of long-run expenditure paths for non-cyclical government spending, that is, those components of spending which are under control of the government. Such expenditure paths could be geared towards stabilizing aggregate demand in the Euro area at full employment levels, and automatic stabilizers plus discretionary counter-cyclical fiscal policies could be applied to fight demand shocks. In order to avoid current account imbalances within the Euro area, these expenditure paths would have to make sure of the following: On average over the cycle and the average tax rate in each member country given, as a first approximation, the government deficits in single countries would have to be roughly equal to the excess of private saving over private investment in the respective country, such that the current accounts are roughly balanced at a high level of aggregate demand and

employment ($S - I = G - T$), and GDP growth is close to the balance of payments constrained growth rate of the individual country.

Fourth, attempts at effective macroeconomic *ex ante* policy coordination among monetary, fiscal and wage policies at the Euro area level will have to be made in order to contribute to an improvement of Euro area average growth rates – with positive feedbacks on the balance of payments constrained growth rates for each of the member countries. For this the Macroeconomic Dialogue (Cologne-Process) provides an institutional basis.¹⁴

Fifth, on the global level, the EU should push for a return to a world financial order with fixed but adjustable exchange rates, symmetric adjustment obligations for current account deficit and surplus countries, and regulated international capital markets in order to avoid the imbalances that have contributed to the severity of the present crisis, as outlined in Chapter 6.

8.3.3 How to Deal With Existing (and Persisting) Current Account Imbalances?

As we have shown in Section 8.2 the basic problem underlying the present euro crisis, apart from the absence of a convincing guarantee of Euro area member country public debt by the ECB, are the massive current account imbalances which have developed within the Euro area. Whereas on average over the period from 1999–2007, GDP growth in Greece, Ireland, Spain and Portugal has exceeded their respective balance of payments constrained growth rates, GDP growth in Austria, Belgium, Germany and the Netherlands has fallen short of the respective balance of payments constrained growth rates. From this it follows that the immediate task for the member countries is to adjust actual growth to the respective balance of payments constrained growth rates. This orientation is important in order to rebalance economic development in the Euro area, even if the ECB would guarantee public debt of Euro area member countries and thus contribute to stabilizing the markets for public sector debt. However, we will conditionally relax this requirement further below.

For the current account surplus countries this means that they should use expansive fiscal policies to increase domestic demand and adjust actual growth to their balance of payments constrained growth rates. This would lift foreign growth for all the current account deficit countries and raise their balance of payments constrained growth rates, and would thus allow the current account deficit countries to reduce their deficits. For a transitional period, the current account surplus countries should also increase their rates of inflation relative to the rates of inflation in the current

account deficit countries (equation 8.5), lowering the balance of payments constrained growth rate in the surplus countries and increasing it in the deficit countries. Unit labour cost growth should therefore exceed the sum of national productivity growth plus the Euro area inflation target (equation 8.2) during the adjustment process.

The major task for the current account deficit countries, with the exception of Ireland,¹⁵ will be to improve their balance of payments constrained growth rates. This means countries must contribute to a reduction of the inflation differentials with respect to the surplus countries, by means of unit labour cost growth below the sum of national productivity growth plus the inflation target. In order to prevent the risk of deflation in these countries during the process of adjustment, the Euro area inflation target should be increased above the rather ambitious present target of 'below, but close to 2 per cent' for the harmonized index of consumer prices (HICP). Current account deficit countries have to increase the income elasticity of demand for their exports and to reduce the income elasticity of demand for imports by means of industrial, structural and regional policies; this means they have to improve their non-price competitiveness.¹⁶ In fact, export growth in Greece (6.1 per cent average annual growth in 1999–2007) and Spain (5.3 per cent) have been rather dynamic, but imports have grown even more.¹⁷ These countries would therefore have to reduce their income elasticities of demand for imports. Italy and also France have had the weakest export growth (2.8 per cent and 3.8 per cent respectively) among the countries considered in our study, with import growth exceeding export growth. These countries would have to focus on increasing the income elasticity of demand for their export goods. Due to the still considerable negative balance of goods and services, Portugal should aim at both increasing the income elasticity of demand for its exports and reducing the income elasticity of its imports, although export growth has already exceeded import growth in the past.

Even if these adjustment processes of actual and balance of payments constrained growth rates in each of the Euro area member countries take place, we would not expect complete adjustment in the short or medium run. Growth rates of member countries will differ due to productivity catch-up processes and it is hard to imagine that these differences in growth rates will be matched by reverse differentials in inflation rates or by inverse relative income elasticities of demand for exports and imports. In other words, it is not very likely that the more rapidly growing catching-up countries will have lower inflation, higher income elasticities of demand for their exports, and lower income elasticities of demand for imports than the slowly growing more advanced economies, so that actual growth differentials will be matched exactly by balance of payments constrained

growth differentials. Therefore, current account surpluses and deficits will arise due to these differentials.

Coordinating fiscal policies and government deficits at the Euro area level should therefore take tolerable current account deficits associated with catch-up processes into account in the short and medium run. With a constant current account deficit–GDP ratio ($\Delta L_d / Y_d$) and constant nominal GDP growth (\hat{Y}_d), the foreign liabilities–GDP ratio (L_d / Y_d) of a current account deficit country will be constant, too, that is, the growth rates of foreign liabilities and nominal GDP will be equal ($\hat{Y}_d = \hat{L}_d$) (see Appendix 8B):

$$\hat{Y}_d = \hat{L}_d = \frac{\Delta L_d}{L_d} = \frac{\frac{\Delta L_d}{Y_d}}{\frac{L_d}{Y_d}} \Rightarrow \frac{L_d}{Y_d} = \frac{\Delta L_d}{\hat{Y}_d}. \quad (8.8)$$

Provided that nominal GDP growth exceeds the nominal interest rate, also the foreign debt service–GDP ratio will not rise. Furthermore, the higher the sustainable growth trend of the catching-up economy, the higher will be the tolerable current account deficit–GDP ratio for a given maximum foreign liabilities–GDP ratio.¹⁸ As derived in Appendix 8B, in a currency union with a balanced current account with the rest of the world and therefore with a zero net foreign assets/liabilities position, a constant net foreign liabilities–GDP ratio of the current account deficit member countries will be associated with a rising net foreign assets–GDP ratio of the current account surplus member countries, provided that GDP growth in the deficit countries exceeds growth in the surplus countries. Alternatively, a constant net foreign assets–GDP ratio of the surplus countries will be accompanied by falling net foreign liabilities–GDP ratios of the deficit countries, or net foreign assets–GDP ratio of surplus countries will be rising and net foreign liabilities–GDP ratios of deficit countries will be falling.

Sustainably higher growth than that of the surplus countries on Euro area average should therefore be the ultimate criterion for tolerable current account deficits in the coordination process of economic policies within the Euro area. Current account deficits of countries with a below surplus country average GDP growth rate, and the related current account surpluses, should not be tolerated and should be tackled symmetrically, that is, by both deficit and surplus countries, with the measures discussed above.

Current account deficits will have to be financed by capital imports. Appropriate financial regulations, avoiding excessive asset price inflation

and credit bubbles, are key prerequisites for sustainable growth and for the stability of productivity growth catch-up processes and the related current account deficits and net foreign liabilities position. Long-term capital flows as a means of finance of acceptable current account deficits are therefore most important. Long-term direct investment may be the most stable and beneficial, but structural effects (and also the outflow of profits) have to be taken into account, as the example of Ireland in the recent past has taught us. If capital inflows are financed by credit, the focus should be on long-term credit.

Therefore, the EU and the Euro area will have to develop institutions which take care of the transfer of the current account surpluses of the more slowly growing mature member countries to the catching-up less developed economies. First, the ECB will have to explicitly guarantee public debt of all member countries, current account deficit and surplus countries, and thus stabilize financial markets and keep interest rates on government debt low. Second, fiscal policies among the Euro area member countries will have to be coordinated along the lines developed above: On average over the cycle and the average tax rate in each member country given, the government deficits would have to be roughly equal to the excess of private saving over private investment in the respective country, taking into account acceptable current account deficits or surpluses given by catch-up processes and thus differential long-run growth rates. Third, the European Investment Bank, together with the European regional and structural funds and the government institutions of the recipient countries, should be involved in directing private capital flows into appropriate sectors and areas of the current account deficit countries which facilitate real catch-up processes and avoid bubbles in certain sectors (that is, in housing or financial sectors).

8.4 CONCLUSIONS

In this chapter we have analysed the institutional and economic policy deficiencies of the Euro area and the EU, which are at the roots of the Greek, the Irish and the Portuguese public debt crises and the related euro crisis that started in 2010: the lack of an explicit guarantee of member countries' public debt by the ECB, the exclusion of fiscal transfers among member countries, in principle, and the current account imbalances which have built up in the Euro area since 1999. Since the current reform debate in Europe and the macroeconomic policy measures applied are still grounded in the theoretical framework of the NCM, these reforms are likely to fail and to create either further deflationary pressure and/or a

resurgence of macroeconomic imbalances. We have, therefore, described some key ingredients of an alternative macroeconomic policy model based on Keynesian and Post-Keynesian principles. Having recalled the basic principles of a Post-Keynesian macroeconomic policy approach, we have applied this approach to the Euro area. We have derived that stabilizing wage and fiscal policies will have major roles to play in order to cope with the current account imbalances and to initiate recovery for the Euro area as a whole. Furthermore, we have derived a criterion for acceptable current account deficits for macroeconomic policy coordination within the Euro area. Finally we have argued that the EU and the Euro area will have to develop institutions and policies which, on the one hand, guarantee public debt of all the member countries, and which, on the other hand, provide the stable financing of acceptable current account deficits and thus stable transfers of current account surpluses of the mature more slowly growing countries to the more rapidly growing and catching-up member countries.

NOTES

1. This chapter draws on Hein et al. (2012).
2. See Evans (2011) for a detailed account of the crisis in the Euro area.
3. See the agreements of the meeting of the Economic and Financial Affairs Council (ECOFIN) on 15 March 2011 (Council of the EU 2011a), the conclusions of the meeting of the European Council (2011a) on 24/25 March 2011, the statement by the heads of state or government of the Euro area and EU institutions on 21 July 2011 (Council of the EU 2011b), and the statement by the Euro area heads of state and governments on 9 December 2011 (European Council 2011b).
4. See also the agreement the ECOFIN regarding the reform of the SGP and the surveillances of economic policies (Council of the EU 2011a).
5. The 'Euro Plus Pact' also briefly mentions the reinforcement of financial stability and tax policy coordination.
6. See for example the argument of the German Federal Ministry of Finance (2011) in the German Stability Programme submitted to the European Commission and the European Council (2011a) in its proposal for the 'Euro Plus Pact'.
7. The relative weights of these two determinants would have to be examined in more detail. Recent studies by Argyrou/Chortareas (2008) and Schröder (2011) have shown that imbalances may be dominated more by growth differentials and less by inflation differentials and changes in the real exchange rate.
8. For the NCM see Goodfriend/King (1997), Clarida et al. (1999) and Woodford (2003), and for detailed critiques of the NCM, see Arestis (2009, 2011a), Arestis/Sawyer (2004a), and Hein/Stockhammer (2010).
9. As Fontana (2009) and Setterfield (2007) have shown, however, fiscal policies could be introduced into the NCM as a stabilising device.
10. See also Arestis (2011b) on the NCM and European economic policy making.
11. See Appendix 8A for the derivation of the balance of payments constrained growth rate.
12. McCombie (2002, p. 15) nicely summarizes the balance of payments constrained growth model as follows: 'The central tenet of the balance of payments constrained growth model is that a country cannot run a balance of payments deficit for any length of time

that has to be financed by short-term capital flows and which results in an increasing net foreign debt–GDP ratio. If a country attempts to do this, the operation of the international financial markets will lead to increasing downward pressure on the currency, with the danger of a collapse in the exchange rate and the risk of a resulting depreciation/inflation spiral. There is also the possibility that the country's international credit rating will be downgraded. Consequently, in the long run, the basic balance (current account plus long-term capital flows) has to be in equilibrium. An implication of this approach is that there is nothing that guarantees that this rate will be the one consistent with the full employment of resources or the growth of productive potential'.

13. Of course, this does not imply the same minimum wage rate for the whole Euro area, but country-specific minimum wages, which, however, should be set according to some Euro area wide rule.
14. See Hein/Niechoj (2007), Hein/Truger (2005) and the papers in Hein et al. (2005) for the deficiencies of macroeconomic policies and macroeconomic policy co-ordination in the Euro area and for an outline of required institutional reforms.
15. In the case of Ireland, the current account deficit was not due to a deficit in external trade but rather a deficit in the flows of primary incomes. Ireland shows huge surpluses in the balance of goods and services which, however, fell short of the net payment commitments associated with the negative balance of primary incomes.
16. Following Thirlwall (2002, p. 78), 'The only sure and long-term solution to raising a country's growth rate consistent with balance of payments equilibrium on current account is structural change to raise ϵ and to reduce π '. Remember that ϵ is the income elasticity of the demand for exports and π is the income elasticity of the demand for imports.
17. Data is calculated from European Commission (2011a).
18. Dullien (2010) and Dullien/Schwarzer (2009) have proposed an 'External Economic Stability Pact' for the Euro area countries allowing for external deficits or surpluses of 3 per cent of GDP. For deficit countries this would stabilize foreign debt at 60 per cent of GDP, for surplus countries the foreign assets–GDP ratio would also become 60 per cent, assuming that trend nominal GDP growth amounts to 5 per cent. The advantage of this suggestion is that it includes symmetric adjustment obligations for deficit and surplus countries as soon as external deficits or surpluses exceed these thresholds. However, the proposed target or threshold ratios would have to be differentiated for individual countries because tolerable current account deficits should be based on different growth dynamics. In Appendix 8B we also show that with different growth dynamics foreign liabilities–GDP ratios of current account deficit countries and foreign assets–GDP ratios of current account surplus countries cannot be stabilized simultaneously.

APPENDIX 8A: BALANCE OF PAYMENTS CONSTRAINED GROWTH IN A CURRENCY UNION

Following Thirlwall (2002, Chapter 5), we can derive the balance of payments constrained growth rate in the following way. We start with a current account equilibrium:

$$p_d X = p_f e M, \quad (8A.1)$$

where p_d is domestic prices, p_f is foreign prices in foreign currency, e is the exchange rate, X is the yields from exports, and M is payments for imports (this ignores primary incomes coming from and going abroad and income transfers).

Equation (8A.1) in growth rates gives:

$$\hat{p}_d + \hat{X} = \hat{p}_f + \hat{e} + \hat{M}. \quad (8A.2)$$

Exports are determined in the following way:

$$X = Q_1 \left(\frac{p_d}{p_f e} \right)^\eta Y_f^\varepsilon, \quad \eta < 0, \varepsilon, Q_1 > 0, \quad (8A.3)$$

with η denoting price elasticity of demand for exports, ε income elasticity of demand for exports, Y_f foreign income, and Q_1 a positive constant. From equation (8A.3) we get for the growth rate of exports:

$$\hat{X} = \eta(\hat{p}_d - \hat{p}_f - \hat{e}) + \varepsilon \hat{Y}_f. \quad (8A.4)$$

Imports are given as:

$$M = Q_2 \left(\frac{p_f e}{p_d} \right)^\psi Y_d^\pi, \quad \psi < 0, \pi, Q_2 > 0, \quad (8A.5)$$

with ψ denoting price elasticity of demand for imports, π income elasticity of demand for imports, Y_d domestic income, and Q_2 a positive constant. From equation (8A.5) we get for the growth rate of imports:

$$\hat{M} = \psi(\hat{p}_f + \hat{e} - \hat{p}_d) + \pi \hat{Y}_d. \quad (8A.6)$$

Substituting equations (8A.6) and (8A.4) into equation (8A.2) yields the domestic rate of growth which is consistent with a current account equilibrium:

$$\hat{Y}_d^b = \frac{(1 + \eta + \psi)(\hat{p}_d - \hat{p}_f - \hat{e}) + \varepsilon \hat{Y}_f}{\pi}. \quad (8A.7)$$

Since in a currency union the exchange rate among member countries is fixed, as they all use the same currency, the balance of payments constrained growth rate for the individual member country becomes:

$$\hat{Y}_d^b = \frac{(1 + \eta + \psi)(\hat{p}_d - \hat{p}_f) + \varepsilon \hat{Y}_f}{\pi}. \quad (8A.8)$$

APPENDIX 8B: CURRENT ACCOUNT IMBALANCES AND NET FOREIGN ASSETS/LIABILITIES

In a two country model, net foreign liabilities of the domestic economy (L_d) are equal to net foreign assets of the foreign economy (A_f):

$$L_d = A_f. \quad (8B.1)$$

Current account deficits (surpluses) mean a change in net foreign liabilities (assets) and hence:

$$\Delta L_d = \Delta A_f. \quad (8B.2)$$

Dividing equation (8B.2) by equation (8B.1), it follows that the growth rate of net foreign liabilities of the domestic economy has to be equal to the growth rate of net foreign assets of the foreign economy:

$$\hat{L}_d = \frac{\Delta L_d}{L_d} = \hat{A}_f = \frac{\Delta A_f}{A_f}. \quad (8B.3)$$

A constant net foreign liabilities–GDP ratio, or a constant net foreign assets–GDP ratio, requires that net foreign liabilities, or net foreign assets, and nominal GDP of the respective economy grow at the same rate:

$$\frac{L_d}{Y_d} \text{ constant, if } \hat{L}_d = \hat{Y}_d, \quad (8B.4.a)$$

$$\frac{A_f}{Y_f} \text{ constant, if } \hat{A}_f = \hat{Y}_f. \quad (8B.4.b)$$

Taking into account equation (8B.3) this means that the constancy of both, the net foreign liabilities–GDP ratio of the domestic economy and the net foreign assets–GDP ratio of the foreign economy, requires that the two economies have to grow at the same rate:

$$\frac{L_d}{Y_d} \text{ and } \frac{A_f}{Y_f} \text{ constant, if } \hat{L}_d = \hat{Y}_d = \hat{A}_f = \hat{Y}_f. \quad (8B.5)$$

By definition in a two country model net foreign liabilities have to grow at the same rate as net foreign assets. GDP growth rates of the domestic economy and the foreign economy, however, will not necessarily be equal. If this is the case, only one country can see a constant net foreign liabilities–/net foreign assets–GDP ratio, whereas the other will witness continuously falling or rising net foreign liabilities–/net foreign assets–GDP ratios. If we assume that the current account deficit country, the domestic economy, grows at a higher speed than the current account surplus country, the foreign economy, hence $\hat{Y}_d > \hat{Y}_f$, either a constant foreign liabilities–GDP ratio of the domestic economy will be accompanied by a rising foreign assets–GDP ratio of the foreign economy; or a constant foreign assets–GDP ratio of the foreign economy will be accompanied by a falling foreign liabilities–GDP ratio of the domestic economy. Of course, one may also obtain both, falling foreign liabilities–GDP ratios of the domestic economy and rising foreign assets–GDP ratios of the foreign economy.

From equations (8B.3), and (8B.4.a) and (8B.4.b) we also obtain that the net foreign liabilities–GDP ratio for the domestic country and the net foreign assets–GDP ratio of the foreign economy are given as:

$$\hat{L}_d = \frac{\Delta L_d}{L_d} = \frac{\frac{\Delta L_d}{Y_d}}{\frac{L_d}{Y_d}} \Rightarrow \frac{L_d}{Y_d} = \frac{\frac{\Delta L_d}{Y_d}}{\hat{Y}_d}, \quad (8B.6.a)$$

$$\hat{A}_f = \frac{\Delta A_f}{A_f} = \frac{\frac{\Delta A_f}{Y_f}}{\frac{A_f}{Y_f}} \Rightarrow \frac{A_f}{Y_f} = \frac{\frac{\Delta A_f}{Y_f}}{\hat{Y}_f}. \quad (8B.6.b)$$

With constant current account deficit–GDP ratios, or current account surplus–GDP ratios, and constant nominal GDP growth rates, the net

foreign liabilities–GDP ratio, or the net foreign assets–GDP ratio, will converge towards a definite value. As should be clear from the arguments put forward above, this can only hold for both economies simultaneously if their GDP growth rates are the same.

9. Summary and conclusions

In this book we have provided a systematic macroeconomic perspective on finance-dominated capitalism and its crisis. We have argued that from a macroeconomic perspective financialization has, since the early 1980s, affected long-run economic developments in the developed capitalist economies in particular through the following three channels: re-distribution of income at the expense of low labour incomes, dampening of investment in real capital stock, and an increasing potential for wealth-based and debt-financed consumption. Against the background of these basic macroeconomic tendencies, rising current account imbalances at the global, but also at the European level have developed and have contributed to the severity of the Great Recession.

In Chapter 2 three dimensions of re-distribution in the course of financialization and neo-liberalism since the early 1980s have been outlined and examined for the major Euro area countries, Austria, Belgium, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, and Spain, for Sweden and the UK as EU countries outside the Euro area, and for the US, Japan, and China: functional distribution, personal distribution and the development of top incomes. We have shown that the period of finance-dominated capitalism was associated with falling labour income shares in almost all of these countries, with increasing inequality in personal income distribution in many countries and with rising income shares of the very top incomes, in particular in the UK and the US. Since we consider the development of functional income distribution to be the key to the understanding of the distributional effects of financialization, we have examined the functional income shares more closely from a Kaleckian perspective. We have argued that financialization and neo-liberalism have contributed to the falling labour income share since the early 1980s through three main channels. First, the shift in the sectoral composition of the economy from the public sector and the non-financial business sector with high labour income shares towards the financial business sector with a lower labour income share has contributed to the fall in the labour income share for the economy as a whole. Second, the increase in management salaries as a part of overhead costs, together with rising profit claims of the rentiers, that is, rising interest and dividend payments of the corporate sector, have

been associated with a falling labour income share for non-supervisory workers. Third, financialization and neo-liberalism have weakened trade union bargaining power through several channels: increasing shareholder value orientation of management, sectoral shifts away from the public sector and the non-financial business sector with stronger labour unions in many countries to the financial sector with weaker unions, deregulation of the labour market, and liberalization and globalization of international trade and finance.

In Chapter 3 we identified theoretically and empirically the main channels of influence of financialization on investment in real capital stock. We have also taken into account the effects on functional income distribution outlined in Chapter 2 and some rudimentary expansive effects on household consumption, without yet integrating household debt into the picture, in order to derive some macroeconomic results within a Kaleckian distribution and growth model. Regarding investment in capital stock, financialization has been associated with increasing shareholder power vis-à-vis management and labourers, an increasing rate of return on equity and bonds held by rentiers, and decreasing managements' animal spirits with respect to real investment, which each have partially negative effects on real investment of firms. Regarding consumption, financialization has been considered to imply a tendency towards higher propensities to consume out of current income. And regarding distribution, financialization has been viewed to be conducive to a falling labour income share, in particular.

As in the preceding literature, introducing these channels into a Kaleckian demand-led growth model has yielded different potential accumulation regimes for an era of finance-dominated capitalism. Depending on the values of the model parameters, 'finance-led growth', 'profits without investment' and 'contractive' regimes may emerge. Only in the 'finance-led growth' regime is increasing shareholder power overall expansive with respect to the rates of capacity utilization, profit and capital accumulation, whereas in the 'profits without investment' regime the effects on the rates of capacity utilization and profit remain expansive but capital accumulation gets depressed, and in the 'contractive' regime there is a depressing effect on all three endogenous variables of the model.

Analysing the medium-run stability and viability of these regimes in a simple stock-flow consistent distribution and growth model has given the following results: Only the 'finance-led growth' regime yields medium-run stability of the financial structure of the firm sector and of capital accumulation. This regime, however, requires a very special parameter constellation: only weakly negative effects of increasing shareholder power on management's animal spirits, a low rentiers' propensity to save, a

low profit share, a low elasticity of investment with respect to distributed profits and internal funds, and a high responsiveness with regard to capacity utilization. In particular, a medium-run increase in the gross profit share associated with financialization may turn the stable financial structure unstable. More realistic parameter constellations giving rise to 'profits without investment' or 'contractive' regimes have turned out to yield cumulatively unstable medium-run results regarding the financial structure of the firm sector and the rate of capital accumulation. In the face of rising shareholder power, a rising rentiers' rate of return and falling managements' animal spirits, these regimes are liable to systemic instability characterized by increasing outside finance-capital ratios, that is, rising debt plus rentiers' equity-capital ratios, and falling goods market equilibrium rates of capital accumulation and hence to a macroeconomic 'paradox of outside finance'. Falling labour income shares triggered by financialization increase the likelihood of these unstable regimes. Therefore, under the conditions of the 'contractive' and the 'profits without investment' regimes there exists a considerable systemic medium-run instability potential regarding the financial structure of the corporate sector of the economy and regarding capital accumulation.

In Chapter 4 we focussed on the long-run effects of financialization on capital accumulation and productivity growth – and hence on potential growth of the economy – in a simple Kaleckian endogenous growth model. We have found that under special conditions increasing shareholder power may indeed have positive effects on capital accumulation and productivity growth and hence on potential growth of the economy, as implied by the claims of the early protagonists of the concept of shareholder value orientation. However, such a regime does not only require directly positive effects of increasing shareholder power on the productivity regime – or only weakly negative effects if there are strongly positive effects on the demand regime. It also requires expansive effects of increasing shareholder power on capital accumulation via the demand regime of the economy – or only weakly negative effects if there are strongly positive effects on the productivity regime. (Strongly) positive effects on the productivity regime have recently been questioned by the protagonists of the shareholder value concept themselves and this has also been questioned on empirical grounds. Positive effects on the demand regime, on the other hand, require extreme assumptions with respect to the determinants of saving and investment. Empirical studies on the effects of financialization and increasing shareholder power on firms' real investment and on the prevailing demand regime, reviewed in Chapter 3, have cast doubt on such an outcome. Therefore, although being able to generate high levels of demand and profits at the macroeconomic level for considerable periods of

time, building on wealth-based and debt-financed consumption demand, increasing financialization and shareholder power seem to cause a general weakness in capital accumulation. This not only generates financial and real instability, as has been analysed in Chapter 3, but depressed capital accumulation is also very likely to feed back negatively on productivity growth and hence on long-run potential growth of the economy.

In Chapter 5 we explicitly addressed the effects of finance-dominated capitalism on private household consumption and indebtedness in a Kaleckian distribution and growth model with workers' debt. We have included three important features of finance-dominated capitalism into the model: a fall in animal spirits of the firm sector with respect to real investment in capital stock, redistribution of income at the expense of the labour income share and increasing credit to workers' households. We have shown that lending of rentiers to workers can compensate for the depressing effects of lower animal spirits of firms with respect to real investment and of redistribution at the expense of workers in the short and in the medium run, without necessarily triggering cumulative processes of increasing indebtedness. However, if workers' debt–capital ratios exceed some threshold value the system will turn unstable in the medium run.

If the endogenously determined rate of profit exceeds the rate of interest, indicating that expansive effects of new lending exceed the contractive effects of interest payments due to a higher stock of debt, stable medium-run debt-led regimes may emerge, in which a higher and stable workers' debt–capital ratio is associated with higher and stable rates of capacity utilization, capital accumulation and growth. However, if the endogenously determined rate of profit falls short of the rate of interest, indicating that expansive effects of new lending fall short of the contractive effects of interest payments on the stock of debt, a stable medium-run debt-burdened regime may emerge, in which a higher and stable workers' debt–capital ratio is associated with lower but stable rates of capacity utilization, capital accumulation and growth.

In the medium-run stable constellations, a reduction of lending of rentiers to workers will cause a lower equilibrium workers' debt–capital ratio, which will be associated with stable but lower capacity utilization and capital accumulation, in the debt-led constellation. In the debt-burdened constellation a reduction of lending to workers will make equilibrium capacity utilization and capital accumulation increase and the workers' debt–capital ratio will decrease.

As soon as workers' debt–capital ratio exceeds the upper limit of stability, it will keep on increasing and feeding back negatively on the goods market equilibrium. If rising indebtedness of workers and a collapsing economy induce rentiers to reduce lending to workers, this will further

dampen economic activity and capital accumulation while workers' debt–capital ratio will keep on rising. The market economy will thus be characterized by a macroeconomic 'paradox of debt' and will require external stabilization. Such an unstable process may be triggered by an increase in rentiers' lending to workers, which makes workers' debt–capital ratio exceed the upper limit of stability, and/or a fall in animal spirits of the firm with respect to investment in capital stock and/or a rise in the rate of interest, which each lower the upper limit of stability.

In Chapter 6 we focussed on the global imbalances which have arisen, in particular in the latter period of finance-dominated capitalism and which have contributed to the severity of the Great Recession. We argued that, against the background of partially depressing effects of finance-dominated capitalism via redistribution of income and via investment in capital stock, some countries have relied on debt-led soaring consumption demand as the main driver of aggregate demand and GDP growth, whereas others have focussed on mercantilist export-led strategies as an alternative to generating demand. We examined the set of countries introduced in Chapter 2, derived an *ex post* typology along the lines mentioned above, and discussed the related global current imbalances.

We have argued that against the background of financialization and income re-distribution at the expense of lower wage incomes and the labour income share, a highly fragile constellation at national, regional (Euro area) and global levels had developed in the course of the trade cycle of the early 2000s. The dynamic 'debt-led consumption boom' type of development of the US and the other countries following this type had to rely on the willingness and the ability of private households to go into debt, on the one hand, and on the willingness of the rest of the world – notably the 'export-led mercantilist' countries – to run current account surpluses and to supply credit, on the other hand. The increasing debt–financed consumption of private households was based on ever rising notional wealth generated, in particular, by rising residential property prices, which (seemingly) provided collateral for credit. The slowly growing or stagnating 'export-led mercantilist' economies had to rely on the willingness and the ability of the rest of the world – notably the 'debt-led consumption boom' economies – to go into debt, because their moderate or weak growth rates were dependent on dynamic growth of world demand and their export markets. A collapse of a 'debt-led consumption boom' type of development, as it was triggered by the collapse of the subprime mortgage market in the US in 2007, therefore not only affected the 'debt-led consumption boom' economies themselves, but the 'export-led mercantilist' economies were as well quickly infected. On the one hand, their export markets collapsed in the crisis and they were facing serious aggregate demand

problems. On the other hand, they were infected through the financial markets, because those capital exports which were directed towards the risky and now collapsing financial markets of the ‘debt-led consumption boom’ economies got drastically devalued. Both channels became effective during the Great Recession.

In Chapter 7 we have drawn the economic policy conclusions from our previous analysis. We argued that a sustainable recovery strategy from the crisis should neither follow the ‘debt-led consumption boom’ nor the ‘export-led mercantilist’ type of development, but it needs to be (mass) income or wage led. A wage-led recovery strategy has to address the main causes for the falling labour income share in the period of neo-liberalism and finance-dominated capitalism, as discussed in Chapter 2: First, bargaining power of trade unions has to be stabilized and enhanced. Second, overhead costs of firms, in particular top management salaries and interest payments, and profit claims of financial wealth holders have to be reduced. And third, the sectoral composition of the economy has to be shifted away from the high profit share financial corporations towards the non-financial corporate sector and the public sector. Furthermore, the tendencies towards increasing wage dispersion have to be contained and, in particular, progressive tax policies and social policies need to be applied in order to reduce inequality in the distribution of disposable income.

We have claimed that a wage-led recovery strategy is at the core of and has to be embedded in a Global Keynesian New Deal, which more broadly will have to address the three main causes for the severity of the crisis: inefficient regulation of financial markets, increasing inequality in the distribution of income, and rising imbalances at the global (and at regional) levels. The three main pillars of the policy package of a Global Keynesian New Deal have been finally outlined: first, the re-regulation of the financial sector in order to prevent future financial excesses and financial crises; second, the re-orientation of macroeconomic policies towards stimulating and stabilizing domestic demand, in particular in the current account surplus countries; and third, the re-construction of international macroeconomic policy coordination and a new world financial order. We have shown that each of these pillars is intimately linked with an income- or wage-led recovery strategy.

Finally, in Chapter 8 we turned to the euro crisis as the latest fallout of the crisis of finance-dominated capitalism. We analysed the institutional and economic policy deficiencies of the Euro area and the European Union (EU), which are at the roots of the euro crisis that started in 2010: the lack of an explicit guarantee of member countries’ public debt by the European Central Bank (ECB), the exclusion of fiscal transfers among member countries, in principle, and the current account imbalances which have

built up in the Euro area since 1999. Since the current reform debate in Europe and the macroeconomic policy measures applied are still grounded in the theoretical framework of the New Consensus Macroeconomics (NCM), these reforms are likely to fail and will create either further deflationary pressures and/or a resurgence of macroeconomic imbalances. We have, therefore, described some key elements of an alternative macroeconomic policy model based on Keynesian and Post-Keynesian principles and applied these to the Euro area. We have derived that stabilizing wage and expansive fiscal policies will have major roles to play in order to cope with the current account imbalances and to initiate recovery for the Euro area as a whole. Furthermore, we have derived a criterion for acceptable current account deficits for macroeconomic policy coordination within the Euro area. Finally we have argued that the EU and the Euro area will have to develop institutions and policies which, on the one hand, guarantee public debt of all the member countries, and which, on the other hand, provide the stable financing of acceptable current account deficits and thus stable transfers of current account surpluses from the mature more slowly growing countries to the more rapidly growing and catching-up member countries.

Summing up, in this book we hope to have made clear that re-regulating the financial sector is an important ingredient for a more stable, equal and sustainable growth path after the Great Recession and its outfalls, but that focussing exclusively on the financial sector and its regulation will be seriously incomplete. In order to overcome the underlying roots and causes of the crisis, we need to take a macroeconomic perspective and to address the macroeconomic channels of transmission and consequences of finance-dominated capitalism. This means that the effects on income distribution, the effects on investment in capital stock, the private household indebtedness problems associated with soaring consumption demand in the face of stagnating mass incomes, and the emerging global and regional imbalances have to be in the focus of crisis related economic research and have to be tackled by future economic policies. We hope to have provided some crucial elements for such an endeavour.

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Index

- accelerator mechanism 41, 117
- aggregate demand 25, 26, 31, 36, 72, 85, 87, 104, 106–7, 108, 109, 117, 120, 122, 132, 135, 137–41, 166, 168–9, 183
- animal spirits 49, 50–54, 57, 58, 63, 70, 85, 87, 91, 93, 94, 99, 100–101, 104–7, 112, 116
 - and medium-run equilibrium 61–2
- Argitis, G. 30
- asset-based reserve requirements (ABRR) 137, 168
- Atkinson, A.B. 13, 15, 16, 17, 18, 19, 20, 21
- Austria
 - current account balances 154, 156
 - demand regimes 118–19
 - as export-led mercantilist economy 130, 131, 162, 168
 - government bond yields 148
 - government debt relative to GDP 150
 - government financial balance relative to GDP 149
 - household debt/net wealth 127
 - key macroeconomic indicators for imbalances 157–60, 161
 - key macroeconomic variables 124–5
 - labour income share 11, 13
 - personal income distribution 14
 - real GDP growth 122
 - residential property prices 128
- automatic stabilizers 139–40, 163, 166, 168
- Bach, S. 9, 19
- balance of payments constrained
 - growth rate of GDP 166–71, 175–6
- Baran, A.B. 24
- Barba, A. 84
- Belgium
 - current account balances 154, 156
 - as export-led mercantilist economy 130, 131, 162
 - government bond yields 148
 - government debt relative to GDP 150
 - government financial balance relative to GDP 149
 - household debt/net wealth 127
 - key macroeconomic indicators for imbalances 157–60, 161
 - key macroeconomic variables 124–5
 - labour income share 11, 13
 - personal income distribution 14
 - real GDP growth 122
 - residential property prices 128
- Bhaduri, A. 41, 44, 48, 67, 70, 85–6, 117, 118–19
- bonds held by rentiers 43–61
- book overview 3–7
- Boone, L. 84
- Bowles, S. 118
- Boyer, R. 25, 41, 118
- business income 19, 20
- capacity utilization rate 21–2, 25, 36, 41, 42, 45–6, 48–9, 51, 52–4, 57, 63, 67–9, 70–72, 87, 88, 101–2, 104, 112–14
 - medium-run equilibrium rate 94–8
 - short- and medium-run effects 105–8
 - short-run equilibrium rate 92–4
- capital accumulation
 - and household consumption 40–41
 - investment in capital stock 37–40
 - overview 4–5
 - potential macroeconomic regimes 41–3
 - short- and medium-term effects 105–8

- stock-flow consistent distribution and growth model 43–62
- summary and conclusions 181–2
- capital accumulation rate 92–8, 99, 101–4, 105–8
- capital imports 171–2
- capital income 8–9, 19, 20
- capital stock investment
 - basic model 67–9
 - demand regime 69–72
 - increasing shareholder power and overall regime 74–80
 - overview 2, 4
 - productivity regime 72–4
 - summary and conclusions 180–81
- capital–potential output ratio 44, 67, 68–9, 87, 88
- capitalism types 120–31
- Cassetti, M. 67, 73
- central banks 89, 137, 138–9, 141, 164
 - as lender of last resort 138, 163, 164, 168
 - see also* European Central Bank (ECB)
- China
 - current account balances 121
 - demand regimes 118–19
 - as export-led mercantilist economy 130
 - income re-distribution 9
 - key macroeconomic variables 124–5
 - personal income distribution 14
 - real GDP growth 122
 - residential property prices 128
 - top income share 18
- consumer credit, access to 40–41, 83, 86, 87
- consumption and household debt
 - basic model 87–92
 - and capital accumulation 40–41
 - effects of changes in parameters on medium-run equilibrium 99–105
 - introduction 83–7
 - medium-run equilibrium 94–8
 - overview 3, 5
 - short- and medium-run effects 105–8
 - short-run equilibrium 92–4
 - summary and conclusions 182–3
- ‘contractive’ regimes 42, 43, 52–4, 57, 58, 61, 63–4, 72, 74, 76–80, 86, 94, 105–6, 108–9
- Cordonnier, L. 41
- Cornwall, J. 66
- cost plus pricing procedures 22
- creditworthiness 41, 83, 86, 87, 89, 94, 117, 145
- Crotty, J. 37, 70
- current account imbalances
 - dealing with 169–72
 - Euro area 145–62
 - and net foreign assets/liabilities 176–8
 - see also* global imbalances
- Cynamon, B. 41, 83
- Dallery, T. 25, 37, 39
- debt-burdened regimes 86, 104, 105 107–10
- debt-led consumption 40–41, 83–6, 105, 107, 108–10
- debt-led consumption boom economies 120, 122–3, 127–8, 130–31, 162
 - effects of global crisis 131–2
- demand regime 69–72, 117–20
 - effect of changes in shareholder power 74–80
- disposable income 127, 135, 139, 142, 165
- distributed profits, shareholders’
 - demand for 66, 68
 - see also* dividend payments; interest payments to rentiers
- ‘distribution channel’ 71
- dividend payments
 - and capital investment 37–44, 47–8, 50, 59–60, 61–2
 - and household debt 83–5, 88, 90–91
 - and income distribution 22, 25–7, 29–31, 33
 - and productivity growth 68–9, 70–71, 73
- Domar, E.D. 13, 165
- domestic demand, GDP growth contribution 161
- ‘domestic demand-led’ economies 126, 162
- ‘downsize and distribute’ strategy 31, 37, 48, 66, 69, 78–9

- Dreger, C. 84
 Dumenil, G. 29
 Dühaupt, P. 28, 29
 Dutt, A.K. 24, 67, 70, 72, 73, 86, 89
- economic actors, incentives 136–7
 Ederer, S. 118, 119
 Eichner, A. 25
 employment 138, 139, 162–7
 Epstein, G.A. 2, 25
 equity held by rentiers 43–61, 68, 85, 88, 89
 equity regulation 137
 ‘Euro Plus Pact’ 145–6
 Eurobonds 145
 European Central Bank (ECB) 144, 145, 147, 161, 163, 164, 167–8, 169, 172
 European Commission 145, 146, 147
 European Council 145–6
 European financial and economic crisis
 imbalances in Euro area at roots of 147–62
 overview 6–7, 144–7
 post-Keynesian macroeconomic policy-mix for Euro area 166–9
 summary and conclusions 184–5
 European Financial Stability Facility (EFSF) 145–6
 European Financial Stabilization Mechanism (EFSM) 145
 European Investment Bank 172
 European Stability Mechanism (ESM) 145–6
 exchange rates 22–3, 123, 125, 126, 130–31, 160, 169, 175–6
 managed system of 141–2
 expansion frontier 37–40
 ‘expansive’ regimes 41, 63, 72, 74, 76–80, 81, 85–6, 105–6, 108–9
 ‘export channel’ 134
 export growth 170
 export-led mercantilist economies 120, 122, 124–5, 130–31, 141, 162
 effects of global crisis 132
 exports, income elasticity of 166–7, 170–71, 175–6
 external sector financial balances 123, 124, 126, 127, 130, 131, 151–5, 157
- Fama, E.F. 73
 Fazzari, S. 41, 83
 finance frontier 37–40
 finance-led growth regime 41, 42–3, 53–4, 57, 58
 financial market-oriented remuneration schemes 37, 39, 73
 financial markets
 liberalization 26–8, 32
 regulation and supervision 138–9, 164, 168, 171–2
 transparency 136
 financial sector
 de-regulation 40–41, 86, 137, 163
 increasing relevance compared to financial sector 21–4, 27, 28, 31, 135
 re-regulation 136–8
 financial structure, medium-run equilibrium and stability 54–6
- Finland
 government bond yields 148
 government debt relative to GDP 150
 government financial balance relative to GDP 149
 fiscal policies 145–6, 162, 166
 coordination of 168–9, 171, 172
 re-orientation of 139–40
 fiscal transfers 144–7
 Fontana, G. 162
 foreign assets–GDP ratios 171–2
 and current account balances 176–8
 foreign debt service–GDP ratios 171
 foreign income 175–6
 foreign liabilities–GDP ratios 32, 171–2
 and current account imbalances 176–8
- France
 capital investment decisions 39–40
 current account balances 121, 156
 demand regimes 118–19
 as domestic demand-led economy 131, 162
 government bond yields 148
 government debt relative to GDP 150
 government financial balance relative to GDP 149
 household debt/net wealth 127

- key macroeconomic indicators for imbalances 157–60
- key macroeconomic variables 126
- labour income share 11, 13
- personal income distribution 14
- real GDP growth 122
- residential property prices 128
- top income share 16
- wage shares 29
- full cost pricing 22
- functional income distribution 8–9
 - potential causes of change in 21–32
- Galanis, G. 119
- Germany
 - capital investment decisions 39–40
 - current account balances 154, 156
 - demand regimes 118–19
 - export growth 170
 - as export-led mercantilist economy 130, 131, 162
 - government bond yields 148
 - government debt relative to GDP 150
 - government financial balance relative to GDP 149
 - household debt/net wealth 127
 - key macroeconomic indicators for imbalances 157–60
 - key macroeconomic variables 124–5
 - labour income share 11, 13
 - personal income distribution 14
 - real GDP growth 122
 - residential property prices 128
 - sectoral financial balances as share of GDP 155
 - top income share 16
 - wage shares 28, 29–30
- Gini coefficient 9–10, 13, 14
- Girouard, N. 84, 127
- global imbalances
 - overview 5–6, 116–20
 - summary and conclusions 183–4
 - and types of capitalism under financialization 120–31
- Global Keynesian New Deal
 - financial sector re-regulation 136–8
 - macroeconomic policy re-orientation 138–40
 - re-construction of international macroeconomic policy co-ordination and new world financial order 140–42
- globalization 26–8, 32–3, 117
- Godley, W. 42, 43
- goods and services balances 123, 125, 126, 130, 131, 156, 159, 161, 170
- goods market equilibrium 52, 57, 60–62, 69–72, 91–4
 - effects of increase in shareholder power 50–54
 - and saving, investment 45
 - stability in 49–50, 55–6, 70, 91–2, 96–8, 101–2, 112
- Gordon, R. 118
- government bonds 144, 145, 147, 148
- government debt–GDP ratios 139, 149–50, 151, 153, 163, 165
- government downsizing 27, 28, 31
- government spending 139, 168
- Grafl, L. 119
- Graham, J. 81
- Greece
 - current account balances 156
 - as debt-led consumption economy 162
 - export growth 170
 - financial and economic crisis 147, 153, 154
 - government bond yields 148
 - government debt relative to GDP 150
 - government financial balance relative to GDP 149
 - household debt/net wealth 127
 - key macroeconomic indicators for imbalances 157–60, 161
 - key macroeconomic variables 123
 - labour income share 12, 13
 - personal income distribution 14
 - real GDP growth 122
 - residential property prices 128
 - sectoral financial balances as share of GDP 153
 - gross profit targets 26, 27, 29
 - growth–profit trade-off 37–40, 53–4, 70, 90

- Harcourt, G.C. 25
- harmonized index of consumer prices (HICP) 170
- Harrod, R.F. 60, 67
- Hein, E. 24, 25, 30–31, 38, 42, 43, 44, 73, 118, 119, 138, 162, 163, 164, 168
- Hicks, J. 73
- Horn, G. 162
- hostile takeovers 26, 37, 48, 49, 69, 70, 73
- household debt
 - basic model 87–92
 - and capital accumulation 40–41
 - effects of changes in parameters on medium-run equilibrium 99–105
 - introduction 83–7
 - medium-run equilibrium 94–8
 - overview 3, 5
 - short- and medium-run effects 105–8
 - short-run equilibrium 92–4
 - summary and conclusions 182–3
- household gross debt/net wealth 127, 130
- housing wealth 40–41, 83–4, 85
- imported raw materials prices 22–3, 26–8, 30
- imports, income elasticity 167, 170–71, 175–6
- income elasticity of demand 166–7, 170–71, 175–6
- income inequality 6, 9, 19, 21, 33, 62, 116, 135–6, 142, 162, 179
- income-led recovery
 - case for a wage- or (mass) income-led strategy 135
 - financial sector re-regulation 136–8
 - Global Keynesian New Deal 136–42
 - international macroeconomic policy co-ordination and new world financial order 140–42
 - macroeconomic policy re-orientation 138–40
 - overview 6
 - summary and conclusions 184
- income re-distribution
 - evidence 26–32
 - Kaleckian approach 21–6
 - measures to affect 137–8
 - overview 2, 3–4
 - potential channels of influence 21–32
 - summary and conclusions 179–80
 - trends since early 1980s 8–21
- incomes policies 135, 136, 165
- re-orientation of 140
- industrial sector, income distribution 21–3
- inflation 130, 131, 138, 140, 161
- inflation-targeting 162–4, 166–8, 169–70
- inside finance–capital ratio 45, 46–7, 54–5
- institutional development, EU 172
- interest payments on debt 24–5, 27, 29–31, 41, 68, 85–94, 99, 102, 104–8
- impact on capital investment 37–40
- interest payments on government debt 144, 145, 172
- interest payments to rentiers
 - and capital accumulation 39–42, 46–50, 56–62
 - and household debt 83–5, 88, 90–91
 - and income distribution 19, 20, 22, 26, 29–31
 - and productivity growth 68–71, 73
- interest rate policies 138–9, 141–2, 162–3, 164, 165, 167–9
- ‘internal means of finance channel’ 25, 39–43, 48–9, 51, 70–71, 116
- International Clearing Union, proposal for 141
- international macroeconomic policy co-ordination, reconstruction of 140–42
- International Monetary Fund (IMF) 144
- investment function 42–3, 45, 48–9, 51, 67, 70, 117
- Ireland
 - current account balances 156
 - as debt-led consumption economy 162
 - financial and economic crisis 147, 151, 153
 - government bond yields 148

- government debt relative to GDP 150
- government financial balance relative to GDP 149
- household debt/net wealth 127
- key macroeconomic indicators for imbalances 157–60, 161
- key macroeconomic variables 123
- labour income share 12, 13
- personal income distribution 14
- real GDP growth 122
- residential property prices 128
- sectoral financial balances as share of GDP 152
- top income share 17
- Italy
 - current account balances 156
 - demand regimes 118–19
 - as domestic demand-led economy 131, 162
 - export growth 170
 - financial and economic crisis 154
 - government bond yields 148
 - government debt relative to GDP 150
 - government financial balance relative to GDP 149
 - household debt/net wealth 127
 - key macroeconomic indicators for imbalances 157–60, 161
 - key macroeconomic variables 126
 - labour income share 12, 13
 - personal income distribution 14
 - real GDP growth 122
 - residential property prices 128
 - sectoral financial balances as share of GDP 155
 - top income share 17
- Japan
 - current account balances 121
 - demand regimes 118–19
 - as export-led mercantilist economy 130, 131
 - household debt/net wealth 127
 - key macroeconomic variables 124–5
 - labour income share 10, 13
 - personal income distribution 14
 - real GDP growth 122
 - top income share 18
- Jayadev, A. 29
- Jensen, M. 5, 66, 73, 81
- Kaldor, N. 72
- Kalecki, M. 37, 46, 48, 70, 117, 120
- Kaleckian distribution and growth model 21–6, 67–9, 72–4, 87–92
- Kenyon, P. 25
- Keynes, J.M. 141
- Krippner, G.R. 68
- labour costs 22–3, 25, 26, 46, 68, 87, 95, 117, 123, 125–6, 159, 161
- labour income share 41–2, 43, 85, 117, 131, 135, 137–8
 - potential channels of influence 21–32
 - trends since early 1980s 8–21
- labour market deregulation 26, 27, 31–2, 138, 140, 145, 162, 163, 165, 168
- labour productivity growth 67, 72–5, 140, 165, 168
- labour–output ratio 22–3, 44, 45, 67, 87
- Lavoie, M. 24, 25, 37, 38, 42, 43, 70, 72
- Lazonick, W. 5, 31, 37, 48, 66
- lender of last resort 138, 163, 164, 168
- leverage 37, 137
- Levy, D. 29
- Ludvigson, S. 83
- Macroeconomic Dialogue (Cologne-Process) 169
 - macroeconomic growth regimes 41–3
 - macroeconomic indicators, current account imbalances 156–61
 - macroeconomic policy co-ordination 168–9, 171, 172
 - re-construction of 140–42
 - macroeconomic policy re-orientation 138–40
 - macroeconomic policy-mix
 - applied to Euro area 166–72
 - basic principles 164–6
 - macroeconomic variables
 - debt-led consumption economies 123
 - domestic demand-led economies 126

- export-led mercantilist economies 124–5
- managers' preference for growth 37–40
- Manne, H.G. 73
- Marglin, S. 44, 48, 67, 70, 117, 118–19
- mark-up pricing 21–7, 30–32, 45–51, 54, 56, 61, 68, 69, 87–9, 95, 138
- market income 9, 13, 19, 20
- Marterbauer, M. 30
- Marx, K. 73
- material costs 22–3, 26–8, 30
- Meckling, W.H. 5, 66, 73
- Medlen, C. 43
- Mehra, Y.P. 83
- mergers and acquisitions 26, 27, 37, 43, 48, 68
- Meyer, L.H. 168
- minimum wage 140, 168
- Minsky, H. 84
- Molero Simmaro, R. 119
- multiplier–accelerator business cycle model 85
- Naastepad, C.W.M. 73, 118
- national fiscal policy coordination 168–9, 171, 172
- National Reform and the Stability Programmes 146
- neo-liberalism 1–2
- Netherlands
 - current account balances 154, 156
 - demand regimes 118–19
 - as export-led mercantilist economy 130, 131, 162
 - government bond yields 148
 - government debt relative to GDP 150
 - government financial balance relative to GDP 149
 - household debt/net wealth 127
 - key macroeconomic indicators for imbalances 157–60, 161
 - key macroeconomic variables 124–5
 - labour income share 11, 13
 - personal income distribution 14
 - real GDP growth 122
 - residential property prices 128
 - top income share 16
- New Consensus Macroeconomics (NCM) 138, 147, 162–4, 172–3
- 'New Fiscal Compact' 145–6
- nominal wage rate 22–3, 45, 46, 68
- Non Accelerating Inflation rate of Unemployment (NAIRU) 138, 162–3
- non-financial sector, relevance compared to financial sector 21–4, 27, 28, 31, 135
- notional wealth 40–41, 83, 84, 85
- O'Sullivan, M. 5, 31, 37, 48, 66
- Onaran, Ö. 40, 83, 119
- Orhangazi, Ö. 39, 40, 81
- 'originate and distribute' strategy 40–41, 83, 117, 136–7
- outside finance–capital ratio 43, 45, 46–7, 51, 54–63
- overhead costs 21–7, 29–31, 135, 138
- owner–manager conflict 37–40
- Palacio-Vera, A. 162
- Palley, T. 85, 86, 168
- paradox of costs 93
- paradox of debt 61, 108–10, 183
- paradox of growth 54
- paradox of outside finance 61, 63, 181
- paradox of profits 54
- paradox of saving 94
- paradox of thrift 104
- personal income distribution 8, 9–10, 13–19
- Piketty, T. 13
- Pitelis, C. 30
- Pivetti, M. 84
- Ponzi finance 84, 86, 141–2
- Portugal
 - current account balances 156
 - as domestic demand-led economy 131, 162
 - export growth 170
 - financial and economic crisis 147, 151, 153, 154
 - government bond yields 148
 - government debt relative to GDP 150
 - government financial balance relative to GDP 149
 - household debt/net wealth 127
 - key macroeconomic indicators for imbalances 157–60, 161

- key macroeconomic variables 126
- labour income share 12, 13
- personal income distribution 14
- real GDP growth 122
- residential property prices 128
- sectoral financial balances as share of GDP 154
- top income share 17
- Post-Keynesian analysis of the firm 38–9
- Post-Keynesian macroeconomic policy-mix 162–4, 173
 - applied to Euro area 166–9
 - basic principles 164–6
- Power, D. 25
- ‘preference channel’ 39–40, 43, 49, 70–71, 72, 116
- price competition 24, 26–8, 45–8, 68–9, 87–8
- price elasticity of demand 166, 175–6
- price stability 162–3
- primary sector, income distribution 21
- ‘principle of increasing risk’ 25, 37, 48, 70
- principle–agent conflict 66
- private sector financial balances 123, 124, 126, 127, 130, 131, 151–5
- productivity growth
 - basic model 67–9
 - demand regime 69–72
 - increasing shareholder power and overall regime 74–80
 - overview 4–5
 - productivity regime 72–4
 - summary and conclusions 181–2
- profit rate 37–9, 44, 46, 48
- profit rate on capital stock 88, 104, 106, 107
- profit share 46, 48, 51, 54, 68, 73–4, 87–8, 100–101, 104, 106, 107
- profit-led demand 44, 117–20
- ‘profits without investment’ regime 41–3, 53–4, 57, 58, 120
- propensity to consume 41–2, 83–4, 85, 86, 89, 94
- propensity to invest 37, 70
- propensity to save 45, 48, 52–6, 59–60, 63, 69, 71, 72, 89, 91–2, 94, 99, 101–2, 104, 106, 107
- public debt 144–62
- public debt–GDP ratio 139, 165–6
- public investment 139
- public sector financial balances 123, 124, 126, 127, 131, 135, 142, 151–5, 157
- Rappaport, A. 73, 81
- real GDP growth 122, 131, 132
- redistributive policies 9, 13, 135, 139–40, 142, 166
- rentiers’ income
 - development of share of 29–30
 - and financing of capital stock 45
 - propensity to consume out of 41–2, 71–2, 83–4, 89, 94
 - propensity to save out of 45, 48, 52–6, 59–60, 63, 69, 71, 72, 89, 91–2, 94, 99, 101–2, 104, 106, 107
- rentiers’ rate of return on equity and bonds 43–56
 - and medium-run equilibrium 56–61
- rentiers’ saving, loaned to workers 89–92, 95, 101–2, 104, 106–8
- residential property prices 128–9, 130, 131, 132
- ‘retain and invest’ policy 37
- retained earnings–capital ratio 46–7
- retained profits 22, 29–30, 45–8, 50, 68–70, 91, 116
- Rowthorn, R.E. 24, 67, 70, 72
- Ryoo, S. 42
- Saez, E. 13
- saving propensity 45, 48, 52–6, 59–60, 63, 69, 71, 72, 89, 91–2, 94, 99, 101–2, 104, 106, 107
- saving rate 48, 69, 70–71, 91
- saving–capital rate 45, 48, 49–50
- Schoder, C. 30–31
- sectoral composition of economy 21–4, 26–8, 31, 135, 138
- sectoral financial balances 152–5
- semi finished goods prices 26–7, 30
- service sector, income distribution 21–3
- Setterfield, M. 66
- share buybacks 39, 42, 43, 68, 73, 90, 116, 137

- shareholder power
 effect on demand and productivity regimes of rises in 74–80
 medium-run effects of rises in 56–62
 short-run effects of increases in 50–54
- shareholder value orientation
 and capital stock investment 37–40
 macroeconomic results 41–3
- short-termism 27, 31, 37, 39–40, 70, 73, 90, 137
- skill-biased technical change 32
- Skott, P. 42
- Slacalek, J. 84
- Spain
 current account balances 121, 156
 as debt-led consumption economy 162
 demand regimes 118–19
 export growth 170
 financial and economic crisis 147, 151, 153
 government bond yields 148
 government debt relative to GDP 150
 government financial balance relative to GDP 149
 household debt/net wealth 127
 key macroeconomic indicators for imbalances 157–60, 161
 key macroeconomic variables 123
 labour income share 12, 13
 personal income distribution 14
 real GDP growth 122
 residential property prices 128
 sectoral financial balances as share of GDP 152
 top income share 17
- speculative attacks 84, 86, 141–2
- Stability and Growth Pact (SGP) 145–6, 147, 154, 163, 168
- stabilization measures 110, 138–40, 145–6, 163, 165
- Steindel, C. 83
- Steindl, J. 24, 61
- stock issues 37, 73
- stock market wealth 41, 48, 85
- stock option programmes 19, 20, 49, 70, 137
- stock-flow consistent distribution and growth model
 animal spirits and medium-run equilibrium 61–2
 basic model 44–50
 financing of capital stock and rentiers' income 45
 medium-run effects of financialization and rising shareholder value 56–62
 medium-run equilibrium and stability of financial structure 54–6
 pricing and distribution 44–5
 rentiers' rate of return and medium-run equilibrium 56–61
 saving, investment and goods market equilibrium 45
 short-run effects of financialization and increasing shareholder power 50–54
 variables 45–50
- stock-flow-consistent models 42–3
- Stockhammer, E. 24, 31–2, 37, 39–40, 70, 81, 118, 119, 138, 163, 164
- Storm, S. 118
- subprime mortgage crisis 132, 137, 183
- Sweden
 as export-led mercantilist economy 130, 131
 household debt/net wealth 127
 key macroeconomic variables 124–5
 labour income share 10, 13
 personal income distribution 14
 real GDP growth 122
 top income share 18
- Sweezy, P.M. 24
- systemic instability 63, 87, 137, 181
- Tarassow, A. 73
- target rate of return pricing 22, 25
- tax revenues 139–40, 165
- Taylor, L. 42, 73
- technical progress 32, 67, 70, 72, 117, 135
- Thirlwall, A.P. 166, 175
- Tobin's q 42–3, 44
- top incomes 9, 13–20
- top management salaries 19–20, 22–3, 26, 27, 28, 29, 135, 138

- trade liberalization 26–8, 32
- trade union bargaining power and activities 24–7, 30, 31–2, 47, 69, 73, 87–8, 135, 137–8, 140, 165, 168
- Truger, A. 162, 168
- UK
- capital investment decisions 39–40
 - current account balances 121
 - as debt-led consumption economy 130
 - demand regimes 118–19
 - household debt/net wealth 127
 - key macroeconomic variables 123
 - labour income share 10, 13
 - personal income distribution 14
 - real GDP growth 122
 - residential property prices 128
 - top income share 15
- UNCTAD 141–2
- unemployment rate 30–31, 73, 140, 146, 162, 164
- unemployment threat 48, 69
- US
- capital investment decisions 39–40
 - current account balances 121
 - as debt-led consumption economy 130
 - demand regimes 118–19
 - household debt/net wealth 127
 - key macroeconomic variables 123
 - labour income share 10, 13
 - personal income distribution 14
 - real GDP growth 122
 - residential property prices 128
 - subprime mortgage crisis 132, 137, 183
 - top income share 15, 20
 - wage shares 28, 29–30
 - wealth-based consumption 83
- US Federal Reserve 167–8
- van Treeck, T. 25, 38, 39, 40, 42–3, 68, 81
- Verdoorn, P.J. 72
- Vogel, L. 118, 119
- wage policies 145–6, 165, 168–9
- re-orientation of 140–41
- wage-led consumption 105
- wage-led demand 44, 117–20
- wage-led recovery strategy 135
- wage-push effect 73–4, 117, 135
- Walterskirchen, E. 30
- wealth-based consumption 40–43, 83, 85–6
- Wood, A. 25
- worker' bargaining power 24–7, 30, 31–2, 47, 69, 73, 87–8, 135, 137–8, 140, 165, 168
- workers' consumption 88–9, 106
- workers' debt 86–7, 89, 90–102, 103, 105–10
- short- and medium-run effects 105–8
- workers' debt–capital ratio 84–7, 89, 90–91, 92–8, 99–101, 105–8, 109–10
- and stability of short-run goods market equilibrium 112–13
- workers' debt–income ratio 84–7, 89, 94–5, 98, 106, 107, 108, 109–10
- 'working rich' phenomenon 19
- world financial order, re-construction of 140–42, 169

