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WAGE-LED GROWTH: AN INTRODUCTION

Engelbert Stockhammer
Kingston University London, UK

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Abstract

The past decades have witnessed falling wage shares and a polarization of personal income distribution. Average wages and average labour compensation have not kept up with productivity growth. Functional income distribution has shifted at the expense of labour. In many countries personal income distribution has also become more unequal. By many measures income inequality is worse than at any time in the 20th century. At the same time economic growth processes have become imbalanced. Financial crises have become more frequent; household debts have risen sharply; international imbalances have increased, with some countries relying excessively on export growth. This paper argues that the polarization of income distribution and the decline in the wage share play an important role in the generation of imbalanced and unequal growth, and that a pro-labour wage policy will form an important part of a policy package that generates a stable growth regime. A wage-led growth strategy is thus advocated.

Keywords: wage-led growth; income distribution; Keynesian economics; economic policy.

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Address for correspondence: Engelbert Stockhammer, School of Economics, Kingston University London, Penrhyn Road, KT1 2EE, Surrey, UK. E.Stockhammer@Kingston.ac.uk.

1. Introduction

The past decades have witnessed falling wage shares and a polarization of personal income distribution. Average wages and average labour compensation have not kept up with productivity growth. Functional income distribution has shifted at the expense of labour. In many countries personal income distribution has also become more unequal. By many measures income inequality is worse than at any time in the 20th century. At the same time economic growth processes have become imbalanced. Financial crises have become more frequent; household debts have risen sharply; international imbalances have increased, with some countries relying excessively on export growth. This paper argues that the polarization of income distribution and the decline in the wage share play an important role in the generation of imbalanced and unequal growth, and that a pro-labour wage policy will form an important part of a policy package that generates a stable growth regime. A wage-led growth strategy is thus advocated.

The advocacy of a wage-led growth strategy has a long history. It has been articulated in reformist visions within the labour movement and was discussed under the heading of 'underconsumption' in 19th century economics. The theory got a boost from the theories of effective demand developed by Keynes and Kalecki. The modern theoretical debates on wage-led demand based on seminal papers by Rowthorn (1981), Dutt (1984) and Bhaduri and Marglin (1990). The policy-oriented concept of a wage-led growth strategy was prominently used by UNCTAD (2010).

Section 2 of this paper will provide a policy-oriented framework for the analysis of the interaction between distribution and growth. We will distinguish between distributional policies and economic regimes. Pro-labour policies aim at increasing wages, whereas pro-capital distributional policies aim at suppressing wage growth and increasing profit margins. The macroeconomic regime of a country is determined by the structural features of its economy, such as its openness to international trade, its financial system and the characteristics of its welfare state. We will distinguish between wage-led and profit-led economic regimes, or more precisely between wage-led and profit-led demand and supply regimes. In a wage-led regime an increase in the wage share has positive effects that mean

higher economic activity (in the short run) and faster accumulation of capital (in the long run), both through demand-side effects, or faster productivity growth on the supply side. By contrast, a profit-led economic regime would occur whenever a decrease in the share of wages or an increase in the profit margins of firms generate positive effects on the economy.

Section 3 investigates the causes of changes in income distribution, in particular the long-run reduction in the share of wages. Section 4 provides more details as to why an economy would exhibit a wage-led economic regime, looking both at supply-side effects, that is the relationship between the share of wages and labour productivity growth, and at demand-side effects. This section also has a summary of some recent empirical research, providing the approximate size of some key effects on the demand side. Section 5 will classify the actual experience of key economies within this framework. In the era of neoliberalism, growth processes have become imbalanced, either relying on growing debt ratios or on persistent export surpluses. Two growth processes have emerged: *finance-led growth* (also called debt-led growth), where growth was fuelled by increasing household debt made possible by asset and property price bubbles and financial engineering (examples are USA, UK, Ireland) and *export-led growth*, where the main engine of growth have been net exports (examples are Germany, Japan, China). Both of these neoliberal growth processes have come with wage suppression. Finally, section 6 highlights a wage-led growth strategy as a possible alternative. It combines pro-labour distributional policies with structural policies that are favourable to wage-led growth. It has the potential for an equitable and (economically) sustainable growth process.

2. Distribution and growth. A conceptual framework

The relation between distribution and growth had been at the centre of macroeconomic analysis in classical economics, but with the dominance of neoclassical economics in the 20th century, issues of distribution have occupied a secondary place, since income distribution was assumed to be regulated by marginal productivity relations within a perfect competition model. In the following we offer a policy-oriented framework to analyse the

relation between distribution and growth. We will contrast pro-labour and pro-capital distributional policies and wage-led and profit-led demand and supply regimes. Pro-labour policies are distributional policies that shift income distribution in favour of labour. Pro-capital policies do the opposite. Wage-led and profit-led summarize the economic effects of changes in income distribution. Economic regimes therefore, here, refer to economic outcomes that depend on a rich set of institutional determinants.

Income distribution is the outcome of complex social and economic processes, but governments influence it by means of social policy and labour market policy. We define pro-capital distributional policies as policies that lead to a decline in the wage share and pro-labour distributional policies as policies that result in an increase in the wage share. Pro-capital distributional policies are often pursued under the banner of promoting 'labour market flexibility' or wage flexibility. They include measures that weaken collective bargaining institutions (by granting exceptions to bargaining coverage), weakening labour unions (e.g. by changing strike laws), lower minimum wages, weaken employment protection legislation.[1] Pro-labour policies are often referred to as strengthening the welfare state and labour market institutions and include strengthening collective bargaining (e.g. by extending the reach of bargaining agreements to non-unionised firms), strengthening labour unions, increasing unemployment benefits, and reducing wage and salary income inequalities.

Of course there are also other factors influencing income distribution, such as technological changes, globalisation and financialization. These factors have recently played an important role, but we will not elaborate on them here(see section 3), because this section focuses on the interaction of distributional policies and economic regime. We will revisit the determinants of income distribution in the next section.

Table 1. Pro-labour and pro-capital distributional policies

	Distributional policies	Other factors

[1] Here, and in the following, we assume that (effective) labour demand is inelastic (or upward) sloping (for empirical evidence see e.g. Rowthorn 1999). Thus an increase in real wages will correspond to an increase in the wage share.

	Pro-capital	**Pro-labour**	
Policies	"Labor market flexibility" Abolish minimum wages Weaken collective bargaining	"Welfare state" Increase minimum wages Strengthen collective bargaining	Changes in technology Globalisation Financialization
Results	Weak wage growth Wage share ↓ Increased wage dispersion	Rising real wages Stable (or ↑) wage share Decreased wage dispersion	

Next we consider the economic structure. An economic regime is a description of actual economic structures and institutions, including social security provisions, the financial system in place and the degree of openness of the economy. While the economic regime is influenced by various forms of government policy, it should be clear that the nature of the economic regime is not a choice variable for economic policy in any straightforward sense. It should not be understood as the outcome of policy strategy. We will distinguish between wage-led and profit-led economic regimes. Furthermore, following conventional practice we will distinguish between demand-side (both in the short run and in the long run) and supply-side (long-run) considerations. The key demand side variable is the level of aggregate demand, emphasized by Keynesian economists. The key variable for the supply side is productivity growth.

For our purpose, the question is, first, how aggregate demand reacts to a change in income distribution. These effects will be quite complex and are discussed in more depth in section 4. Here we will focus on extreme cases in order to illustrate our framework. Demand may be wage led or profit led. A *wage-led demand regime* means that an increase in the wage share leads to an increase in aggregate demand. The wage-led scenario may arise when higher wages lead to higher consumption expenditures (higher consumption sales may then also induce higher investment expenditures). Conversely, a *profit-led demand regime* means that an increase in the wage share leads to a decline in aggregate demand. Demand may be profit-led if investment is highly sensitive to a reduction in profit margins. High profitability (at a given rate of capacity utilization) may motivate firms to expand their productive capacity and increase investment.

Of course there are many factors other than income distribution that determine aggregate demand: monetary policy, fiscal policy, various shocks such as oil price shocks, the bursting of a stock market bubble, changes in real exchange rates, changes in the growth rate of trade partners, etc. Indeed, for most year-to-year changes, income distribution will only be a minor influence on the determination of aggregate demand, with other developments playing a more prominent role. However, if there are long-lasting, deep changes in income distribution as have occurred in the last quarter century, they will end up having a substantial role.

Table 2. Economic structure: wage-led and profit-led demand and supply regimes

		Demand regime	**Supply regime**
Economic structure	**Profit-led**	Investment very sensitive to profit margins A lower wage share leads to higher investment	Wage restraint leads to productivity-enhancing investment
		A higher wage share leads to lower GDP and slower capital accumulation	Higher Real wage growth leads to slower productivity growth
	Wage-led	The propensity to consume out of wage income is higher than that out of profit income	Wage growth has strong positive effects on labour effort and productivity –enhancing investments
		A higher wage share leads to higher GDP and faster capital accumulation	Real wage growth leads to faster productivity growth
Other factors		Other sources of demand: Government fiscal and monetary policies Financial factors: financial asset and real estate price bubbles Exchange rate evolution and changes in world demand Changes in world commodity prices ...	

Finally, aggregate supply may also be wage led or profit led. The key summary variable for the supply side is labour productivity. Productivity will be profit led, if an increase in wages discourages productivity-enhancing capital investment and, as a result, the growth of labour productivity slows down (most forms of technological progress require capital investment,

this is called embodied technological progress). Increases in wage growth may have a positive effect on productivity growth, if either firms react by increasing productivity-enhancing investments in order to maintain competitiveness or if workers' contribution to the production process improves. This may be the case either because of improved workers' motivation or, in developing countries, if their health and nutritional situation improves. This case is often called the efficiency wage hypothesis, but we may also call it the Webb effect, since a positive causal relationship going from higher real wages to higher productivity was already proposed by Sidney Webb (1912), one of the founders of the London School of Economics, a long time ago.

A *wage-led demand growth regime* is a stronger and more long-term concept than *wage-led demand*. While the latter simply implies that an increase in the wage share will lead to an increase in aggregate demand or in the rate of capacity utilization, the former additionally requires an increase in investment expenditures and productivity growth. Over the long run it implies an increase in the rate of accumulation of the capital stock. In contrast, when an increase in the wage share implies a decrease in the rate of growth of the capital stock and of productivity growth, we then speak of a *profit-led demand growth regime*.

Table 3 puts the analyses of distributional policies and of economic structures together. For simplicity we do not distinguish between demand and productivity regimes, but only discuss the economic regime, i.e., we assume that demand and supply react in a similar direction to distributional changes. This allows to gain insight in the likely growth dynamics of the different regimes and strategies. Between the two sets of distributional policies and the two economic structures, four different combinations are possible. These do have quite different properties. If pro-capital distributional policies are pursued in a profit-led economy, this will result in a profit-led growth process. Inversely, if pro-labour policies are pursued in a wage-led economy, this will result in a wage-led growth process. These are the two cells in the main diagonal in Table 3. In both cases distributional policies and economic structures are consistent. However, if pro-capital policies are pursued in a wage-led economy or if a pro-labour policies are pursued in a profit-led economy, this will result in stagnation, or more likely in practise, will result in unstable growth patterns as growth will have to rely on external stimulation.

Table 3. Viability of growth regimes

		Distributional policies	
		Pro-capital	**Pro-labour**
Economic structure	**Profit-led**	Profit-led growth process	Stagnation or unstable growth
	Wage-led	Stagnation or unstable growth	Wage-led growth process

Table 3 is useful in classifying different political ideologies as the four different combinations allow to classify many important arguments. Take the first cell (pro-capital policies in a profit-led economy). This scenario corresponds to liberal ideology and what is often called the trickle down effect: higher profits are said to lead to improved macroeconomic performance. Workers will eventually benefit from wage cuts as higher profit margins will lead to investment and growth and rewards will eventually trickle down to workers as well, in the form of higher employment rates and higher purchasing power. This scenario could be called 'neoliberalism in theory''.

Table 4. Actual growth strategies in the economic structure/distributional policies framework

		Distributional policies	
		Pro-capital	**Pro-labour**
Economic structure	**Profit-led**	'Neoliberalism in theory': supply-side policies will generate aggregate demand ('trickle down theory')	'Doomed social reforms' TINA
	Wage-led	'actually existing Neoliberalism' – unstable and has to rely on exogenous growth drivers (credit-led growth)	Postwar social Keynesianism

The cell pro-labour policies in a wage-led economy summarizes what many economists (e.g. Marglin and Schor 1990) regard as a key characteristic of the postwar era: the expansion of the welfare state (in advanced economies) led to a golden age of growth.

The next cell (pro-labour policies in a profit-led economy) could be called 'doomed social reforms'. It is the scenario that neoliberals claim would happen if progressive social reforms were implemented. Margaret Thatcher's famous dictum 'there is no alternative' (TINA) makes sense in this cell. Some Marxists use a similar scenario to illustrate the futility of attempts to establish a more humane economy within the capitalist mode of production. Attempts to raise workers' consumption or the wage share inevitably lead to a slowdown of the economy.

Finally there is the cell pro-capital policies in a wage-led economy. We will argue that this describes 'actually existing neoliberalism', where two decades of pro-capital distribution have resulted in a mediocre economic performance with a heavy reliance on a speculative financial sector or on external demand to achieve growth (see section 5 below).[2]

The following sections will summarize some of the available evidence to evaluate which scenario describes actual economies.

3. Decline in the wage share. What are the causes?

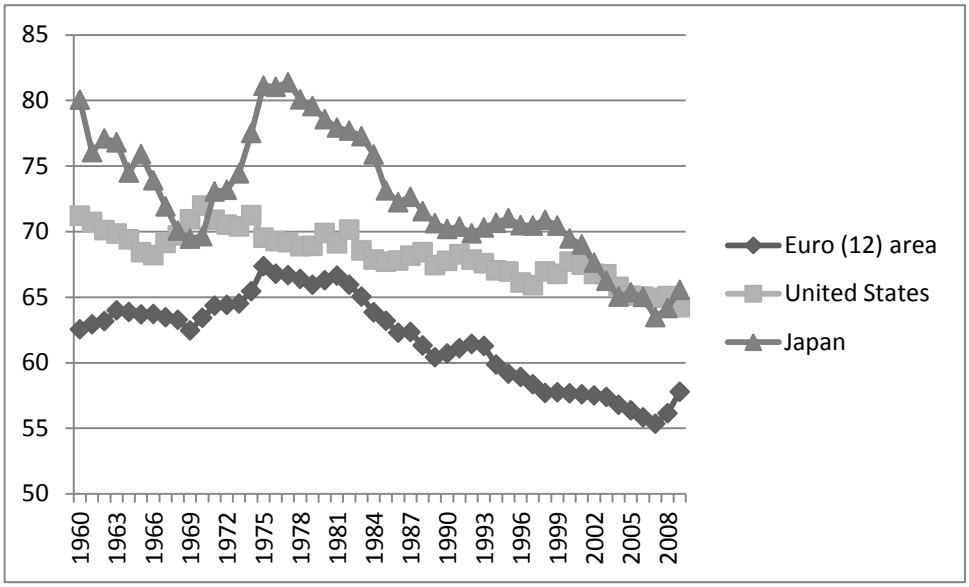
In the last quarter century dramatic changes in income distribution have taken place. This refers to the personal distribution of income as well as to the functional distribution of income.[3] Wage shares have fallen in virtually all OECD countries, with decreases typically being more pronounced in continental European countries (and Japan) than in the Anglo-Saxon countries. In the Euro area the (adjusted) wage share has fallen from 72.5 in 1982 to 63.3% in 2007 (Fig. 1). Personal income distribution has become more unequal in almost all OECD countries (OECD 2008), with the very top income groups increasing their income

[2] Although some researchers would argue instead that reliance on free market mechanisms and more flexible labour markets have generated large increases in world real income over the last three decades (Balcerowiz and Fisher, 2006). But these authors forget to compare the last decades to the evolution of the 1950s and 1960s. For rich discussions of neoliberalism see Harvey (2003) and Glyn (2006).

[3] Personal income distribution refers to the distribution of income across households (or individuals) irrespective of the type of income involved. Functional income distribution refers to the distribution of income between wages and capital incomes (usually referred to as 'profits').

shares substantially in the Anglo Saxon countries, in particular in the USA (Piketty and Saez 2003; Atkinson et al. 2011). In a multi-country study Daudey and Garcia-Penalosa (2007) show that there is a positive correlation between changes in personal and functional income distribution. Overall, median real wage growth has clearly lagged behind productivity growth since around 1980. This constitutes a major historical change as wage shares had been stable or increasing in the postwar era.

Figure 1. Adjusted wage shares in the Euro area, the USA and Japan, 1960-2009



Source: AMECO

This has recently led to a renewed interest in the determinants of the distribution of income, with major economic research institutions like the OECD and the IMF publishing prominent studies. OECD (2008) documents changes in personal income distribution. IMF (2007a) and European Commission (EC 2007) investigate changes in functional income distribution and OECD (2007) analyses the wage elasticity of the labour demand function. IMF (2007a) and EC (2007) make a strong case that technological change has been the main cause of changes in functional income distribution, that globalization (of trade and production) has also played an important role and, finally, that changes in labor market institutions have played a minor role. Technological change is empirically measured as ICT (Information and Communication Technology) investment or ICT services. The general thrust of the argument is in line with the neoclassical theory of income distribution, which regards distribution as essentially technologically determined.

Globalization also features prominently in the debate. The standard trade-theory argument is built on the Stolper and Samuelson (1941) Theorem, which states that the *abundant* factor will gain from trade liberalisation. For Northern countries, supposedly, this is capital whereas labor is abundant in developing countries such as China and India that have recently entered the global economy. Globalization is thus supposed to benefit capital in the north and labor in the south. [4]

While the Stolper-Samuleson argument describes a competitive long-run equilibrium, the Political Economy of trade approach highlights distributional effects of globalization in a bargaining setting. For example, Rodrik (1997) argues that trade liberalization (even among similar countries will affect distribution and will benefit the more *mobile* factor, which will typically be capital. Unlike the Stolper-Samuelson approach, Rodrik's argument is set in a bargaining framework. The change in distribution takes place because of a redistribution of rents, not because of the equalization of factor costs. Moreover, in the Stolper-Samuelson theorem one would expect distribution to change *after* production has been relocated. In contrast, Epstein and Burke (2001) argue that due to threat effects redistribution can take place without changes in production locations.

While there are differences in the theoretical arguments the empirical assessment is rather clear. All studies find substantial effects of globalization on functional income distribution. For example IMF (2007a) concludes "globalization is one of several factors that have acted to reduce the share of income accruing to labor in advanced economies" (IMF 2007a, 161).

[4] The Stolper-Samuelson theorem assumes that firms have not market power and that neither capital nor labor are mobile; its effects take place through trade in competitive equilibrium. However, the recent period of globalization has been marked by an increase in capital mobility. "If capital can travel across borders, the implications of the theorem weaken substantially" (EC 2007, 45). Moreover, classical international trade theory is unable to explain the actual pattern of trade, which takes place mostly among developed countries. According to standard trade theory it is not obvious why North-North trade should affect income distribution (assuming that relative factor prices are similar). Second, labor is not a homogenous input. While unskilled labor (in the North) may lose from globalization, skilled labor may indeed gain. If so, it is a priori not clear how the total wage share in the North should be affected.

A third set of factors that influence income distribution is financial deregulation (or more broadly speaking, financialization).[5] Financial deregulation has had two important effects on the bargaining position of labor. First, firms have gained more options for investing: they can invest in financial assets as well as in real assets and they can invest at home as well as abroad. They have gained mobility in terms of the geographical location as well as in term of the content of investment. Second, it has empowered shareholders relative to workers. The development of a market for corporate control has aligned management's interest to that of shareholders (Lazonick and O'Sullivan 2000, Stockhammer 2004). Rossmann (2009) illustrates this with reference to private equity funds, which buy firms by way of debt that is transferred to the firm. The surplus is siphoned to the private equity fund through dividend payments or fees. The restructured firms then are heavily burdened with servicing their debt and have little alternative to pursuing an aggressive cost-cutting strategy. For countries, where data is available, the increase in dividend payout is well documented (Duménil and Lévy 2001). Power et al (2003) document the increasing income share of rentiers.

So far few econometric studies on changes in functional income distribution have included financialization variables. ILO (2008) argues that "financial globalization has led to a depression of the share of wages in GDP" (ILO 2008, 39), but does not provide evidence. Jayadev (2007) analyses the effect of financial openness and trade openness on the wage share in an econometric analysis covering up to 80 countries for the period 1970-2001. The openness variables are legal measures on openness. Capital account openness and trade openness are found to have negative effects on the wage share. Remarkably, IMF (2007b) in a study on *personal* income distribution within countries has included foreign direct investment (FDI) stocks.

In a detailed study attempting to replicate and extend IMF (2007a) and EC (2007) Stockhammer (2009) finds that the results for technological change are not robust, whereas the effects of globalisation are confirmed. He then extends the estimation specifications to

[5] Financialization refers to the increased influence of financial institutions and financial motives on non-financial activities.

include a measure for financial globalisation and allows for different effects of trade union density in countries where trade union membership is a precondition for receiving unemployment benefits. He finds that financial globalisation has strong effects and the organisational strength of labour unions has a robust effect.

4. Economic effects of a declining wage share

While the previous section has discussed the causes of the decline in the wage share, this section turns to its effects. It is standard in economic theory to distinguish between the demand-side and supply-side effects., where demand effects refer to changes in expenditures for a given productive capacity and technology, while supply-side effects involve changes in machinery and technology. The key summary variable for the supply side is (the growth of) labour productivity. We will follow the same distinction here, being understood, as was pointed out in the second section, that demand effects can spill over to the growth rate of capital accumulation. [6]

4.1 Demand effects

What are the effects of change in the wage share on aggregate demand? Aggregate demand consists of private consumption expenditures , investment expenditures, net exports and government expenditures. In the following we focus on the reaction of the private sector and treat government expenditures as an exogenous policy variable.

A change in income distribution will have several effects on the components of demand that pull in different directions. First, consumption expenditures are likely to be a positive function of the wage share. Higher wages will typically lead to higher consumption expenditures because wage earners normally have a higher propensity to consume than

[6] Mainstream economics regards demand effects as purely short-run effects as it regards the economy to be strongly anchored in a supply-determined equilibrium to which the economy will return. Keynes, who pioneered the analysis of demand formation, was rather sceptical of long-run analysis. Post-Keynesian economics, built on the works of Keynes, Kalecki and Steindl, highlight that aggregate demand plays a crucial role even in the long run.

recipients of capital income. This is because workers are typically poorer than capitalists (or other recipients of capital income). Furthermore, a large proportion of gross profits are saved by firms in the form of retained earnings. The size of this income distribution effect will depend on the difference in income between capital and labour, on the social security system, which influences savings rates, but also on other features such as house prices and capital gains on the stock market. Second, investment expenditures are likely to react negatively to an increase in the wage share, i.e., to a decrease in the profit share (for a given level of national income). From an intuitive point of view, a reduction in the profit share for a given level of national income implies that the profit margins of firms have gone down. Since expected future profits ought to be an important stimulant for investment, a reduction in profit margins, i.e., a reduction in the profit rate assessed at normal rates of utilization of capacity ought to have a negative effect on investment. The precise effect will depend on the structure and liquidity of the financial system and on what Keynes called the psychology of the investor, e.g. after a financial crisis firms may be reluctant to investbecause of increased uncertainty. Thirdly, net exports are likely to react negatively to increases in the wage share because, for a given exchange rate, the increase in the wage share will decrease profits margin and/or make exports less competitive abroad. The size of this effect will depend on the degree of openness of the economy and the types of products that the economy is importing and exporting.

The effects on the three aggregates thus pull in different directions. An increase in the wage share is likely to increase consumption, but decrease investment and net exports. The net effect is not clear a priori, but will depend on the relative size of these effects. If the consumption effect is stronger than the investment and net export effects then the overall effect is positive and the economy is in a wage-led demand regime. Conversely, if investment and net exports react more strongly, the overall effect of an increase in the wage share on demand is negative and the demand regime is called profit led. This distinction is based on the theoretical work of Bhaduri and Marglin (1990) and Blecker (1989).

Note that the model outlined above includes net exports. One country's exports are some other country's imports. This raises the possibility of a fallacy of composition: while each

individual country can increase its demand by exporting more, not all countries can do so at the same time. The world economy overall is a closed economy. It is thus interesting to look at the domestic effect and the total effects (i.e., including net exports) separately. The domestic effects only include the effects on consumption and investment and should be interpreted as a scenario when the change in the wage share affects all trading partners simultaneously. It can be thought of a change in the world wage share.

Regarding the consumption behaviour, the saving differential between rich and poor is well established empirically. As an illustration Table 5 reports the saving rates for different income groups for Germany. In 1995 the bottom quarter of the income distribution had saving rate of 7.3%, whereas the richest quarter had as saving rate of 13.8%. Saving rates clearly increase with income level. Germany experienced a dramatic increase in inequality in the last decades. This also affects different saving propensities. In 2007 the lowest quartile had a saving rate of 4.1% whereas the richest quartile had a saving propensity of 15.8%.

Table 5. Saving rates by income group for Germany

	1995	**2001**	**2007**
bottom quartile	7.3	5.4	4.1
3rd quartile	9.5	9.3	8.0
2nd quartile	11.3	10.1	9.0
top quartile	13.8	13.1	15.8

Source: Stein (2011) based on SOEP (Socio-Economic Panel) data

These models have recently inspired a rich empirical literature trying to identify demand regimes by econometric means. Table 6 gives an overview of the empirical results. These studies differ by the countries and time period covered as well as by the method employed (see Hein and Vogel 2008 Table 1 and Stockhammer and Stehrer 2011 for more extensive discussions) and are thus difficult to compare. Overall the majority of studies find that domestic demand regimes tend to be wage-led, whereas international trade turns many economies into a profit-led regime.

Table 6. Econometric studies on wage-led and profit-led demand regimes

	Domestic Demand		*Total Demand*	
	wage-led	**Profit-led**	**wage-led**	**Profit-led**
Euro area	SOE09		SOE09	
Germany	BB95, NS07, HV08, SHG11, SS11		NS07, HV08, SHG11	BB95
France	BB95, NS07, SE07, HV08, SS11		(SO04), NS07, HV08	BB95, SE07
NL	NS07, SS11	HV08	NS07	HV08
Austria	SE08, HV08, SS11			SE08, HV08
UK	BB95, NS07, HV08	SS11	BB95, NS07, HV08	
Japan	BB95	NS07		BB95, NS07
USA	BB95, HV08, OSG12, (SS11)	NS07	BB95, HV08, OSG12	(SO04), NS07, BFT06

Note. Reference in brackets denote statistically insignificant results.
BB95: Bowles and Boyer 1995; BFT08: Barboso-Filho and Taylor 2006; ES07: Ederer and Stockhammer 2007; HV08: Hein and Vogel 2008; NS07 Naastepad and Storm 2006-07; OSG12: Onaran et al. 2012; SO04: Stockhammer and Onaran 2004; SE08: Stockhammer and Ederer 2008; SHG11: Stockhammer et al 2011; SOE09: Stockhammer et al 2009; SS11: Stockhammer and Stehrer 2011

To illustrate the orders of magnitude involved Table 7 summarizes the results for a large, relatively closed economy, the Euro area and for a small open economy, Austria (based on Stockhammer et al 2009 and Stockhammer and Ederer 2008 respectively). A 1%-point increase in the wage share would lead to an increase in consumption by 0.37 (%-points of GDP) in the Euro area and 0.36 in Austria. Investment would decline by 0.07 and 0.15 respectively. Domestic demand is wage led in both cases (by .3 in the EU12 and .21 in Austria). The net export effect is -0.09 in the EU12, but -0.39 in Austria. The total demand regime is thus wage led in the EU (a 1%-pt increase in the wages share leads to a .21%-pt increase in demand), but profit led in Austria (-0.18).[7]

[7] While I consider these values plausible, other researchers disagree. Naastepad and Storm (2006/07) tend to find much higher investment effects and much lower net export effects. These results are based on single-equation estimators. Systems estimators tend to find stronger profit effects (Barbosa -Filho and Taylor 2006, Flaschel and Proano 2007). My experience is that the consumption effect is rather reliable, though often rather small in Anglo-Saxon countries. Investment effects are usually very sensitive to the exact specification of the estimation equation. This is probably because profits and demand are highly correlated and investment is a highly pro-cyclical variable itself. The net export effect depends on assumptions about the exchange rate. Several early studies did not allow for globalisation to affect the wage-sensitivity of exports. Two concluding comments on the literature need to be made: first, the simultaneity issue between distribution and demand lurks unresolved in the background. Second, the set of control variables controlling for other factors is rather limited in most estimations.

Table 7

	Effects on private excess demand (in % of GDP)	
	EU 12 (openness <15%)	**Austria (openness > 50%)**
Consumption	0.37	0.36
Investment	-0.07	-0.15
Domestic sector	***0.30***	***0.21***
Net exports	-0.09	-0.39
Total effect	**0.21**	**-0.18**

Source: EU12 Stockhammer et al 2009; Austria: Stockhammer and Ederer 2008

These results have important policy implications for regional economic integration. Take the Euro area as an example. As elsewhere, wage shares have fallen drastically in the Euro area. This has been encouraged by the European Commission, which has advocated a strategy of improving competitiveness for a long time (European Commission 1995, 1996, 1997). Indeed many European countries have implemented 'wage pacts' that combine wage restraint with other policy measures (Schulten 2002). The results in Table 7 illustrate an important economic difference between the Euro area and its member states. While many member states are small open economies, in which a wage restraint may boost demand via exports, the Euro area as a whole is a large, relatively closed economy. Most trade of Euro member states takes place within the Euro area. A wage cut in the Euro area will increase net exports, but domestic demand will shrink by more. Wage policy is thus in a prisoners' dilemma-type situation. For individual member states wage restraint may be an attractive strategy, but if everyone pursues it, it will have negative effects. European wage coordination would, at least in principle make it easier to overcome the prisoners' dilemma and internalize the externalities of wage agreements (Stockhammer 2008, Hein and Truger 2004). However, the differences in wage bargaining systems make this difficult in practise.

4.2 Supply side effects

On the supply side, the key question is how changes in the wage share or in real wages affect productivity growth (or more broadly speaking, technological progress). Mainstream economists typically argue that competitive markets are most conducive to growth and, in the next step, argue for labour market (and product market) deregulation. Critical economists highlight that labour market institutions can not only have positive social effects as they help overcome market failures, but they also may have positive effects on economic growth because good labour relations will improve the propensity of workers to contribute to the production process.

Recently, this has inspired several empirical studies. Storm and Naastepad (2009) investigate labour market institutions in twenty OECD countries. They find that relatively regulated and coordinated ('rigid') institutions lead to higher productivity growth. Hein and Tarassow (2010) analyse the link between income distribution and productivity growth for six OECD economies by means of time series analysis and report that higher profit shares have a negative effect on productivity growth. Vergeer and Kleinknecht (2011) perform a panel analysis for OECD countries from 1960 to 2004 and find that higher wage growth leads to higher productivity growth. They interpret this as implying that stronger labour market institutions lead to faster long-run growth. These studies face challenges in identifying the direction of causality and the distinction between short-run and long-run effects; and more research is certainly needed. However, it seems fair to conclude that the available evidence does not suggest that real wage growth has any negative long-run effect on labour productivity growth.

Wages have a dual function in capitalist economies. They are a cost of production as well as a source of demand. An increase in the wage share has several effects on demand and whether actual demand regimes are wage led or profit led is subject to an ongoing academic debate. Our interpretation of the available evidence is that domestic demand regimes are likely to be wage led in most economies. In open economies the net export effects may overpower the domestic effects and total demand in many individual countries may well be profit led. However, countries trade among each other. Larger geographical (or economic)

areas are therefore likely to be wage led. The world economy overall is probably in a wage-led demand regime. There is comparatively less research on the supply-side effects of an increase in the wage share. However, there are several studies that find positive effects of wage increases on productivity growth, suggesting that the long-term effects of wage expansion are unlikely to be harmful.

5. Classifying recent growth regimes and strategies: credit-led growth, export-led growth or wage-led growth

Neoliberalism came with the promise that deregulation of goods markets, labour markets and financial markets would lead to higher growth and increased welfare. Higher inequality was to be accepted because it yields economic benefits. In our terminology, neoliberalism posited a strongly profit-led economic regime. But Neoliberalism has failed to deliver on its promise. Growth rates in the allegedly overregulated postwar era were higher than in the neoliberal phase. Deregulation did indeed generate increased inequality, but without much of the benefits that were supposed to come with it.

But if the world economy is indeed wage led, how did neoliberal economies grow at all? Neoliberalism, in practice, has operated in the south-east cell of Tables 3 and 4, pursuing a strategy based on pro-capital distributional policies, but within an essentially wage-led economic structure. Such a strategy will lead either to stagnation – or it has to rely on external factors for stimulating growth. Indeed the latter is what has characterized the performance of what we might call 'actually existing neoliberalism'. Instead of generating a robust growth path based on the profit-investment link, growth has relied on either financial bubbles and rising indebtedness (in short, finance-led growth) or it has relied on a mercantilist strategy based on export surpluses (Stockhammer 2011, Horn and van Treeck 2011). Boom-bust cycles driven by stock markets, property markets or capital flows have been a key feature of actually existing neoliberalism: the Latin American crises of the 1980s and of the mid 1990s (the Peso crisis), the EMS (European Monetary System) crisis (1992/93), the South East Asia crisis (1997/98), the dot.com bubble burst 2000/01 and the Great Recession of 2008/09.

To understand this pattern one has to appreciate the central role of financial deregulation for the neoliberal growth model. Financial deregulation has allowed financial innovation and has given rise to speculative boom bust cycles and, over long periods, to increasing debt levels for financial institutions and households. Booms on stock markets and property markets often attract capital inflows that fuel the bubbles further (Reinhart and Reinhart 2008). But the liberalization of capital flows also means that some countries will have to have current account surpluses and net capital outflows. International financial deregulation thereby has given rise to two symbiotic growth models: a credit-led growth model (with capital inflows) and an export-led model (with capital outflows). While growth has been driven by consumption growth fuelled by rising household debt in the Anglo-Saxon countries, and especially in the leading country, the USA, other countries have subdued domestic demand, including that arising from the government sector, and have heavily relied on net exports as the key growth engine.

While admittedly not all countries fit this dichotomy of credit-led and export-led growth models neatly, it is useful as it captures an important part of the dynamics behind the growing international imbalances and it highlights that both models compensate for a lack of domestic demand. Both growth models have occurred in centre as well as in the periphery. In particular in Europe the central countries (Germany and its smaller cousins) have features of export-led growth, whereas the peripheral countries within the Euro zone have had credit-led growth. Table 8 gives a stylized classification of important countries.

Table 8. Growth models of actually existing Neoliberalism

	Credit-led	*Export-led*
Centre	US, UK	Germany, Austria, Japan
Periphery	Greece, Ireland, Portugal, Spain	China

Two statistics will help substantiate the usefulness of the distinction in credit-led and export-led economies. First, Table 9 gives the increase in household debt (as % of GDP) in major European economies and the USA (comparable data for Japan and China were not readily available). While household debt declined in Germany by 11.34%-points of GDP from

2000 to 2008, it grew by a modest 7.9%-points in Austria, but it grew by well above 25%-points in the credit-led group. In the USA and the UK it grew by 26%-points and 28.13%-points respectively. In Greece, Portugal and Spain, household debt increased by 35.46, 37.38 and 33.84%-points. In Ireland it even grew by a staggering 62.72%-points.

Table 9. Increase in household debt, 2000-2008

Germany	-11.34	USA	26
Netherlands	32.83	UK	28.13
Austria	7.91	Ireland	62.72
		Greece	35.46
		Spain	33.84
		Italy	18.32
		Portugal	27.38

Source: Eurostat: Financial Flows and Stocks by Sector; USA: Flows of Funds; Ireland starts 2001 instead of 2000

It turns out that those countries with rising household debt, with few exceptions, have also been the countries that ran current account deficits, whereas those with little changes in household indebtedness have been the countries with current account surpluses.[8]

Table 10. International imbalances: current account as % of GDP, 2007

Germany	7.9	United Kingdom	-2.7
Austria	3.6	United States	-5.2
Netherlands	8.7		
		Greece	-14.5
Japan	4.8	Ireland	-5.3
China	5.2	Spain	-10.0
		Portugal	-9.4
		Italy	-2.4

Source: OECD

In 2007, i.e., before the financial crisis, Germany and Austria had current account surpluses of 7.9% and 3.6% (of GDP) respectively, while Japan and China had current account surpluses of 4.8% and 5.2%. On the other hand the USA and the UK had deficits of 5.2% and

[8] In a sense, this is not unexpected, since by identity, as pointed out in particular by the late Wynne Godley, domestic household net borrowing + corporate net borrowing + public borrowing = current account deficit.

2.7%, and Greece, Ireland, Portugal and Spain had deficits of 14.5%, 5.3%, 9.4% and 10% respectively.[9]

Actually existing neoliberalism has not led to a growth process via investment. Rather it has relied on other factors for growth. Rising household debt has temporarily made up for wage growth (Barba and Pivetti 2009) in the credit-led growth model; increasing trade surpluses have been the growth engine of a second group of countries, that have followed an export-led growth model. Both of these growth models are not sustainable. Financial bubbles eventually burst and debts have to be serviced and possibly repaid (for otherwise, bankruptcy occurs), while export-led growth relies on other countries to import and leads to the impoverishment of the importing countries and to growing international imbalances.

6. Wage-led growth – a viable economic strategy

But there is an alternative to neoliberalism. If, as we have argued, the world economy (and, indeed, large countries and or economic blocks) are indeed wage led, then a wage-led growth strategy is a viable option. A wage-led growth strategy would have to combine pro-labour distributional social and labour market policies with a regulation of the financial sector.

Distributional policies that increase the wage share and reduce wage dispersion include increasing or establishing minimum wages, strengthening social security systems, improving union legislation and increasing the reach of collective bargaining agreements. All of these are against orthodox economic wisdom and, under the perceived pressure to reduce budget deficits, economic policy is recently moving in the opposite direction. However, in times of crisis and a lack of effective demand, what economies need is more state involvement, not less. A successful policy package to economic recovery will also have sustained wage growth

[9] With the exception of Ireland current account positions and net export positions are similar. Ireland, in past decades, has had current account deficits, but net export surpluses. This is because of the large amount of repatriated profits, thus leading to a large discrepancy between GDP and GNP.

as one of its core building blocks. Only when wages grow with productivity growth will consumption expenditures grow without rising debt levels.

To be successful a modern version of a wage-led growth strategy will require a restructuring of the financial sector. The deregulated financial sector has fuelled speculative growth and resulted in the worst recession since the 1930s. If a repeat of the crisis is to be prevented, this will require managing international capital flows, a re-focussing of the financial sector on narrow banking, the elimination of destabilizing financial innovations, and a higher fiscal contribution of the financial sector (e.g., in the form of a financial transactions tax).

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