

Wage-led Growth

An Equitable Strategy for Economic Recovery

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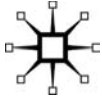
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Foreword

The current global crisis, known as the Great Recession, is challenging much of the 'conventional wisdom' which has dominated economic thinking and policies. In particular, it has raised strong concerns about the widespread view that 'growth should be in the driver's seat and distribution in the backseat'. One important corollary of such trickle-down economics is that wage moderation can boost economic growth and hence reduce poverty. It has sometimes been twisted to suggest that low wages are a necessary condition for economic growth, especially in the early stages of development. This conventional view is now being questioned, as it seems clear that the Great Recession has had much to do with widening income inequality, in terms of both personal and functional income distribution. Yet, not much is known about why income inequality widened, how it impacted the crisis, and what lessons can be drawn from the observed changes.

This volume makes a very important contribution to our understanding of the causes and consequences of inequality, by mainly investigating a critical aspect of income distribution, functional income distribution, that is, the division of national income between capital (the profit share) and labour (the labour income share or wage share). Empirical studies have shown that the share of income going to labour has significantly declined in advanced economies, thus challenging the stylized fact that the division of income between labour and capital is roughly constant.

The contributions to this volume are impressively comprehensive, ranging from theory, to empirical evidence and to policy advice. First, the volume offers a new theoretical framework that can better explain the secular changes in the labour income share and expands empirical knowledge on the subject by exploring these changes in major developing countries, including Brazil, China and South Africa. Second, the authors examine the significance of the various factors underlying the declining labour income share and show the critical importance of financialization, globalization and labour market and social security policies. Third, the volume goes one step further and explores the economic consequences of the shift in functional income distribution. This highly original and extensive research argues that the distributional shifts in favour of capital and the rise in income inequality have reduced economic growth and increased economic instability. In doing

so, it shows that the risk of wage moderation is real and that the debt-led and export-led strategies pursued in many countries are related to these economic problems. Finally, the book outlines a wide range of policy implications, pointing to the need to “rebalance” functional income distribution. This “rebalancing” act in favour of wages will be an essential element of equitable and sustainable growth and requires strong policy coordination at the global level.

The findings of this volume are reflected in the *Global Wage Report 2012/13: Wages and Equitable Growth* published by the International Labour Office (ILO). As emphasized in the report, it is high time for the global community to revisit its past policies and make coordinated efforts and actions in search of balanced and equitable growth that benefits all.

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Preface

The main goal of this book is to go beyond the microeconomic view of wages as a cost having negative consequences on the economy and to consider the positive macroeconomic dynamics associated with wages as a major component of aggregate demand. Wage growth can generate demand growth and productivity growth. Insufficient wage growth, or more broadly the polarization of income distribution have contributed to the economic crisis.

The book is the final product of a joint ILO research project that involves six themes or modules all tied to the potential of a wage-led growth strategy. It examines the causes and the consequences associated with the falling wage share and the rising inequality in income distribution, both on aggregate demand and labour productivity. It revisits existing theories, in particular those that claim that a higher wage share could alleviate the global balance problems that have been associated with new mercantilist policies designed to grow by restraining wage costs relative to those of competitor countries as well as the global financial problems that have been associated with rising household debt needed to sustain consumption. It provides new empirical and econometric evidence regarding the economic cause and potential impact of changing income distribution. It also provides policy strategies and the policy implications of a wage-led recovery. In particular, the book provides an overarching framework used by all the authors of the chapters which, it is hoped, will be useful to both future researchers and policy-makers.

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Introduction

Marc Lavoie and Engelbert Stockhammer

The financial crisis that began in the summer of 2007 turned into the worst economic crisis since the Great Depression of the 1930s. The crisis began in the financial sector, but has since spread throughout the economy. National income levels are well below trend and unemployment rates are double their pre-crisis level. In many countries households and governments remain burdened by high debt levels, which prolong subdued demand. In the euro area the crisis morphed into a sovereign debt crisis, laying bare the dysfunctional nature of the European economic policy regime.

The crisis has led to an intensified debate over the role of the state. The orthodox austerity policies claim to be aimed at reducing government debt; but as they are unable to revitalize demand growth, they often result in rising debt, as is illustrated by the recent UK experience. Austerity policy usually attempts to change not only the size, but also the *nature* of government interventions by reducing welfare expenditures (including pensions) and by privatizing public services. The academic debate is mirrored by increasingly bitter political struggles. Government intervention, almost by necessity, has distributional effects. A strong welfare state usually strengthens labour and the poor as they benefit most from welfare expenditures and public infrastructure. The question of how to engineer a recovery is thus closely tied to the question of who pays for the crisis. The political confrontations have gained in intensity as the effects of the crisis have been felt more widely in the form of rising unemployment, wage cuts, and rising levels of homelessness; they follow three decades of a rapid and historically unprecedented increase in inequality, in which the very top of the income distribution, and, in particular, top earners in the financial sector have gained at the expense of wage earners.

The main goal of the book is to go beyond the microeconomic view of wages as a cost that has negative consequences on the economy and to consider the positive macroeconomic dynamics associated with wages as a major component of aggregate demand. Wage growth can generate both demand growth and productivity growth. Insufficient wage growth and, more broadly, the polarization of income distribution have contributed to the economic crisis, and thus this process has to be reversed. What we need is a new growth strategy, which the ILO (2012), in its latest global wage report, has called 'equitable growth'. This will involve increased domestic consumption, supported by rising wages.

The book is the final product of a research project sponsored by the ILO, which involves six themes or modules all tied to the potential of a wage-led growth strategy. The book examines the causes and the consequences associated with the falling wage share and the rising inequality in income distribution, on both aggregate demand and labour productivity. It revisits existing theories, in particular those which claim that a higher wage share could alleviate the global imbalances problem that have been associated with new mercantilist policies designed to grow by restraining wage costs relative to those of competitor countries as well as the global financial problems that have been associated with rising household debt needed to sustain consumption. The book provides new empirical and econometric evidence regarding the economic causes and potential impact of changing income distribution. It also provides policy strategies and the policy implications of a wage-led recovery. In particular, the book provides an overarching framework, inspired by post-Keynesian economics, that takes into account the impact of changes in income distribution on various aspects of economic activity and aggregate demand in particular (to be explained in the next section). This framework was used by all the authors of the chapters, and it will be useful to both future researchers and policy-makers.

Three views of the crisis

Several arguments have been offered to explain the development of the subprime financial crisis and its devastating consequences. Broadly speaking, we may say that there are three explanations. The first one, closest to the neo-Austrian school, the Chicago school à la Milton Friedman and the so-called 'fresh-water' economists, is that the market system works fairly well as long as market forces are left unhindered.

Thus for these economists, the financial crisis occurred in the United States because of a series of government interferences, such as the overly low US short-term interest rates or the inducements for banks to provide loans to poorer communities, or, looking further, the crisis was triggered by the Chinese government, who rigged exchange rates, thus flooding long-term US bond markets. It is also argued by these economists that the stimulus packages put in place to respond to the crisis only made matters worse and amplified the crisis.

The second point of view, which is best associated with the so-called 'salt-water' economists and New Keynesians, sees the financial crisis as an extreme example of market failure and poor information. Financial innovations, such as securitization, also called the new 'originate and distribute' banking model, which replaced the former 'originate and hold' model, turned out to have unwanted consequences as lenders managed to get rid of bad loans by transforming them into securities. These failures were due in part to inappropriate pay structures in the banking and financial industry, while fraud or quasi-fraud was made possible by the gradual relaxation of financial regulation and the lack of appropriate supervision.

The third explanation, while it recognizes the validity of the micro-economic elements highlighted by the second group of economists, relies in addition on deeper structural causes tied to the evolution of macroeconomic variables, most importantly income distribution. This explanation is usually associated with non-mainstream economists. The economists who rely on the third explanation emphasize the fact that since the 1980s there has been a switch in economic policies, which have moved from policies aiming to promote full employment to policies targeting low inflation. They also emphasize the general transformation of society towards the acceptance of neoliberal precepts, in particular the increasing importance of finance and that of shareholders, a phenomenon which has been called financialization and which is associated with a 'downsize and distribute' model, where firms make profits by reducing the size of their workforce instead of increasing their investment levels. Both of these changes have weakened the bargaining power of labour, leading in most countries to a substantial decrease in the share of wages in national income, as well as to a noticeable increase in wage and income inequality, as described in Tables I.1 and I.2.

These phenomena have led to a change in the way accumulation proceeds. Whereas growth had previously been supported by wage-led consumption, with wages rising broadly in line with labour productivity, growth over the past two decades has been based either on household

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Table I.1 Labour income share as percentage of GDP at current factor costs or wage share in GDP, in percentage, G20 countries, 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 – 2), percentage points
Argentina ^{a,b}	...	38.42	32.79 ^c	–5.63
Australia	66.70	65.76	62.57	–3.19
Brazil ^{a,b}	...	43.33	39.64 ^c	–3.69
Canada	66.89	67.79	63.75	–4.05
China ^{a,b}	15.58	13.11	10.82	–2.28
France	71.44	66.88	65.87	–1.01
Germany	67.11	66.04	63.37	–2.67
India ^{a,b}	34.03	32.25	32.18 ^c	–0.07
Indonesia ^a
Italy	68.70	63.25	62.37	–0.88
Japan ^a	72.38	70.47	65.75	–4.73
Korea, Rep. of ^a	81.62	80.53	76.97	–3.56
Mexico ^a	...	46.35	46.16	–0.19
Russian Federation ^{a,b}	...	45.87	45.56 ^c	–0.31
Saudi Arabia ^a
South Africa ^{a,b}	56.65	54.87	50.18 ^c	–4.69
Turkey ^a	48.07	54.12	50.34	–3.78
United Kingdom	72.98	71.99	70.73	–1.26
United States	68.20	67.12	65.87	–1.25

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, ^b wage share in GDP or in gross value added, ^c incomplete trade cycle

Source: E. Hein and M. Mundt, 'Financialisation and the requirements and potentials for wage-led recovery – a review focussing on the G20', Conditions of Work and Employment Series No. 37, (Geneva: ILO), http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_191782.pdf.

debt (*'debt-led growth'*) or on low wages so as to help generate exports to foreign countries (*'export-led growth'*). These regimes of accumulation eventually proved to be unsustainable. This book offers an analysis

Table I.2 The share of top 1 per cent earners' income in total income, mid-1970s to mid-2000s

Country	Mid-1970s	Mid-2000s	Change, percentage points
G20-countries			
Argentina ^e	9.9	16.8	+6.9
Australia ^d	5.0	9.7	+4.7
Canada ^d	8.2	12.8	+4.6
China ^{a,e}	2.6	5.9	+3.3
France ^d	8.2	8.7	+0.5
Germany ^e	10.4	12.1	+1.7
India ^{b,e}	7.0	9.5	+2.5
Indonesia ^{c,e}	7.2	9.1	+1.9
Italy ^d	7.0	9.2	+2.2
Japan ^d	6.9	9.0	+2.1
United Kingdom ^e	6.1	14.3	+8.2
United States ^d	7.9	18.0	+10.1

Notes: ^a First data point is from the mid-1980s; ^b second data point is from the end of the 1990s; ^c first data point is from the early 1980s.

Source: ^d 2012 OECD *Employment Outlook*, supporting material for chapter 3, Table 3.A2.1; ^e <http://g-mond.parisschoolofeconomics.eu/topincomes/#Database>.

of demand formation and productivity growth as dependent on wage growth and thus sheds light on the central role of functional income distribution in determining growth performance.

The book thus forms part of a renewed interest in the question of whether or not rising inequality is one of the causes of the global financial crisis. Several authors have recently highlighted that inequality may have contributed to the crisis. Raghuram Rajan (2010) was one of the first to highlight the ties between income distribution and the crisis, but his findings were based on what we defined as the first explanation of the crisis. Rajan contends that the observed rising income inequality induced governments to look for new ways to raise aggregate demand. The US administration fostered a new 'ownership society' by encouraging credit growth and, ultimately, the subprime boom. According to this argument, it is not the rise in inequality itself per se that caused the crisis, but rather the government's reaction to rising inequality. Joseph Stiglitz (2012) sees this transformation as an ideological battle

between the Right and the Left, with the upper economic class having taken control of the reins of government and having succeeded in achieving regulation capture, on top of having convinced voters that trickle-down economics was a fact rather than simply a theory. This has allowed the upper classes to pursue and achieve rent-seeking. For Stiglitz the negative effects of rising inequality are mostly to be found on the supply side. Thomas Palley (2012) argues that economists and economic theory are very much to blame for the global financial crisis, because of their focus on supply-side economics and the optimal properties of unfettered markets, while ignoring the demand-generating process. What he calls ‘emergency Keynesianism’ – expansionary monetary and fiscal policies in crisis periods – is unlikely to succeed, because it ignores the underlying problem, that of the structural lack of aggregate demand, caused by excessively low wages and overly large income dispersion. However, he does not provide systematic evidence for this claim. James Galbraith (2012) presents a novel measure of economic inequality and argues that it reflects a concentration of wealth at the very top of the distribution. It has been brought about by financial rather than real forces. Interest rates, stock market booms and international payments, but not technology or education are responsible. While Galbraith repeatedly stresses inequality as a cause of the crisis, he is rather vague about the exact mechanisms and criticizes the Bush administration and its drive for an ownership society for a deterioration of lending standards.

All of these contributions share a focus on the experience of the United States. Our approach differs, firstly, in systematically highlighting the link between income distribution and demand formation, in particular the effect of wage growth on consumption growth. This link is substantiated empirically. Second, we take an internationally comparative approach, highlighting that different countries have adopted different strategies in dealing with the rise in equality. The US debt-led growth model is only one variant among many. Other countries have pursued export-led growth strategies. Both strategies do rely on rising imbalances (the former on rising debt ratios, the latter on rising trade imbalances). A wage-led growth strategy offers a sounder macroeconomic alternative.

Presentation of the six chapters

The objective of the first chapter, by Marc Lavoie and Engelbert Stockhammer, is to present the common framework of the book and to clarify the concept of a wage-led growth strategy, which combines

pro-labour distributional policies with structural policies that strengthen a wage-led economic regime. One of the main findings of the research project, based on data from the last thirty years or so, is that aggregate demand and productivity in most G20 countries would respond favourably to an increase in the wage share. Looking at aggregate demand specifically, we thus can say that most countries are in a wage-led regime. This, however, must not be confused with the fact that most countries over the last three decades have pursued pro-capital distributional policies that have led to a decrease in the share of labour and/or to an increase in income inequality, as exemplified by Tables I.1 and I.2. These two concepts, a wage-led demand regime and pro-labour distributional policies, must thus be distinguished, although we could say that pursuing pro-labour distributional policies in an economy whose structure is such that this economy is in a wage-led regime would constitute an appropriate wage-led growth strategy. The argument of Lavoie and Stockhammer is that neoliberalism as it has occurred in practice has meant that most countries have instead pursued pro-capital distributional policies that have generated stagnant or unstable growth processes because these countries are mostly in a wage-led economic regime, thus necessitating external drivers such as household debt or export-led growth to maintain GDP growth. Lavoie and Stockhammer also explain that while a number of countries may be in a profit-led *total* demand regime when taking into account all elements of aggregate demand, including net exports, nearly all of them are in a wage-led *domestic* demand regime when only domestic demand is taken into account. Thus while pro-capital distributional policies may be demand-enhancing when a country is taken in isolation, this will not generally be the case when all countries are considered as a whole.

But why is it that the wage share has fallen in most countries, both industrialized and developing ones, since the 1980s? This is the question that Engelbert Stockhammer endeavours to answer in Chapter 2. He recalls that from the mainstream standpoint, income distribution is determined primarily by technological developments, along the lines of the marginal productivity theory, the argument being that technical progress has been capital-augmenting, thus leading to an increase in the share of capital income. An alternative view, which is common to all the authors of the book, is that income distribution is mainly a matter of bargaining power. Thus globalization, financialization and the abandonment of full-employment policies (welfare state retrenchment) would all lead to a reduction in the bargaining power of labour and, consequently, generate a reduction in the wage share. Stockhammer thus

provides an econometric analysis that intends to measure the impact of these various factors, for both industrialized and developing countries, by estimating a wage share equation that includes proxies of these factors. In the case of advanced economies, high unemployment rates and high GDP growth rates have a clear negative impact on the wage share. In addition, union density and the share of government consumption in GDP have a substantial positive effect on the wage share, whereas the ratio of foreign assets and liabilities to GDP (financialization) and the ratio of exports and imports to GDP (globalization) both have a substantial negative effect on the wage share. By contrast, the technological proxies – the capital to labour ratio and the share of information and communication technologies – once all these other effects are taken into consideration, have a minor negative impact on the wage share. When advanced and developing countries are combined, using a slightly different set of variables for 71 countries, similar results are obtained, with financialization having the largest negative effect on the wage share, while globalization and welfare state retrenchment also have a negative effect. Ironically, technological change, here also including changes in the sectoral composition of manufacturing and agriculture, has a positive effect on the wage share. Stockhammer thus concludes that the main cause of the decrease in the share of wages in national income has been the drop in the bargaining power of labour over time, and not technological change, which implies that the increase in the profit share and in income inequality can be reversed by appropriate policies.

But is there any evidence that an increase in the wage share could have positive effects on aggregate demand? Özlem Onaran and Giorgos Galanis endeavour to examine this question through a vast econometric study that deals with 16 of the G20 countries. This sample covers approximately 80 per cent of the world GDP. Onaran and Galanis estimate three equations that measure the impact of a change in the profit share on three of the four components of aggregate demand: consumption, investment and net exports. The impact of an increase in the wage share on consumption is usually positive because wage recipients have a higher propensity to consume than do the recipients of profit. By contrast, an increase in the wage share normally has a negative impact on investment, as lower profit margins are likely to decrease the incentive to invest. Finally, an increase in the wage share will also have a negative impact on net exports, as such increases are usually associated with higher unit costs, which reduce competitiveness. Whether the first effect is larger than the second one, or larger than the sum of the last two, is an empirical question. The authors find that all 16 countries of

the G20 sample, as well as the whole of the euro area, are in a domestic demand-led regime. Of these, only Australia, Canada, Mexico, Argentina, China, India and South Africa exhibit a profit-led total demand regime. However, Onaran and Galanis demonstrate that if all countries were to simultaneously decrease their wage share by one percentage point, only Australia, China and South Africa would benefit from an expansion of aggregate demand, while the world GDP would decrease by 0.36 percentage points. This shows clearly that the world economy is in a wage-led demand regime. The authors also point out that it is possible to find a scenario whereby all countries would benefit from an increase in their wage share even if this increase is smaller for countries that are in a profit-led total demand regime. They thus conclude that a global wage-led recovery is one way out of the current recession.

The chapter by Servaas Storm and C.W.M. Naastepad investigates the supply-side effects of higher wage growth, in particular the effect of productivity growth. Whereas Stockhammer as well as Onaran and Galanis focus on the wage share, Storm and Naastepad start their analysis by considering the growth rate of wages. Storm and Naastepad rely on the Dutch experience since the early 1980s as a case study of the economic impact brought about by the interrelationship between the growth rate of wages and the growth rate of productivity. They point out that real wages have two effects on productivity growth: first, a direct effect, which is usually positive, as higher real wages will induce firms to introduce more productive methods of production so as to safeguard their profits; secondly, an indirect impact, which arises because higher real wages will have an impact on aggregate demand, as pointed out empirically in the previous chapter, and the change in the rate of growth of aggregate demand will feed a change, of the same sign, in the growth rate of productivity, with this last relationship being called the Kaldor–Verdoorn effect. Storm and Naastepad explain that in the case of the Netherlands there was an overly slow increase in real wages and a fall in the wage share for over twenty years. Because the Netherlands are in a wage-led demand regime, this led to a slowdown in the growth rate of aggregate demand, which itself induced very slow productivity growth. It was this slow or nearly zero-productivity growth that explained the Dutch employment miracle of the 1980s and 1990s, when unemployment rates fell both in absolute and relative terms, because the low growth rate of demand surpassed the even lower growth rate of labour productivity, thus generating a fair growth rate of employment. Based on consensual estimates of the Kaldor–Verdoorn effects and of the relatively weak impact of wage growth on demand growth in the

euro zone and in the United States, Storm and Naastepad deduce that most countries that are in a wage-led demand regime are likely to be in a profit-led employment regime. This means that faster increases in real wages are likely to generate slower increases in employment. As a result of their findings Storm and Naastepad conclude that whereas pro-labour policies are favourable to productivity growth and to aggregate demand (as shown in the previous chapter), they are likely to be unfavourable to job creation. This implies that, to avoid this contradiction, pro-labour policies, in most wage-led regimes, must be accompanied by supportive fiscal and monetary policies. Some could infer from the above that wage-restraining policies should be pursued; but such policies, although they are likely to reduce unemployment by creating low-wage jobs, will keep aggregate demand and productivity stagnant. This is an option that Storm and Naastepad reject, and which they encourage trade unions to reject as well, because it leads to stagnant living standards and also removes the possibility of rising living standards accompanied by a reduced number of working hours.

We have so far focused our attention on the distribution of functional income, that is, the wage and profit shares in national income. However, as we saw in Table I.2, personal income, including wage income, has also been subjected to large changes over time. The income share of recipients of the top decile and, most particularly, the top 1 per cent or even 0.1 per cent has increased considerably in a large number of countries. Until now, we have argued that the greater inequality in income distribution is likely to have slowed down aggregate demand, as high-income earners have a higher propensity to save than do low-income earners. And indeed, there is a great deal of literature that argues that income inequality is inimical to fast growth, in contrast to the past mainstream view that argued that income inequality was a necessary side effect of growth and efficiency. But can we draw any other consequence from this change in the distribution of personal income? This is the task that Simon Sturn and Till van Treeck have assigned to themselves. To do so, they examine the case of three quite different countries: the United States, China and Germany. Van Treeck and Sturn first argue that the rising income inequality in the United States has led to a change in the consumption and borrowing behaviour of American households. After having increased working hours, and having easy access to credit, for the purposes of both consumption and housing, middle-income Americans have reacted to the growing gap between their revenues and those of their better-to-do neighbours by increasing the extent of their borrowing and thus reducing their saving rates. This has led to structural changes – a debt-led consumption boom

as well as a real estate boom – and not merely to temporary changes in debt so as to absorb transitory changes in income as argued by the mainstream. Another consequence of this structural change has been the large US current account deficits, which have arisen from this fall in aggregate household saving and the expenditures of rich income recipients on luxury goods coming from abroad. By contrast, China and Germany have both suffered from a lack of domestic aggregate demand, thus experiencing large current account surpluses, because, besides the standard effect of differential household saving rates by deciles, rising income inequality and greater job insecurity have induced households to save more. In China, the rise in household income inequality in the context of an underdeveloped financial system and a weak social and health safety net can be identified as one of the main causes of this rise in the propensity to save, while in Germany stagnant incomes as well as labour market deregulation and welfare state reforms have induced households to raise their precautionary savings.

The final chapter, written by Eckhard Hein and Matthias Mundt, looks at the role of financialization as a cause of the crisis and explicitly discusses a broader economic policy package, highlighting that the wage-led growth strategy should be part of, what they call, a Global Keynesian New Deal to achieve a long-run stable recovery. Hein and Mundt first assess the three main causes of the deep recession that arose as a consequence of the subprime financial crisis: inefficient regulation of the financial markets; increased inequality in income distribution; and large global imbalances. They focus in particular on the effects of the process of financialization that we have already mentioned. In a number of countries, notably the United States, the United Kingdom and Australia, this has generated a ‘debt-led consumption boom’ regime. The main features of this regime are weak investment in capital stock, because of the shareholder value orientation of management, short-termism regarding high target rates of return on equity, large distributions of dividends and substantial capital gains. The latter have supported an expansion of consumption expenditures, this expansion being itself encouraged by easier access to credit and the concomitant increase in financial and real estate wealth. These higher consumption expenditures have vindicated high profit margins despite relatively low investment expenditures. But because these debt-led countries tend to generate current account deficits, other countries – such as China, Indonesia, Japan, the Republic of Korea and Germany – have chosen ‘strongly export-led mercantilist’ policies, generating growth through their exports to these debt-led consumption boom countries. As the financial crisis and the Great Recession have shown, the imbalances

generated by such strategies are unsustainable in the long run. Hein and Mundt thus recommend a wage-led recovery strategy embedded into their Global Keynesian New Deal. The wage-led growth strategy requires enhanced trade union bargaining power, a reduction of managerial overheads and the profit claims of financial wealth holders, and the downsizing of the profit-intensive financial sector. More generally, the New Deal requires first, the re-regulation of the financial sector in order to prevent future financial excesses and financial crises; second, the reorientation of macroeconomic policies towards stimulating and stabilizing domestic demand, in particular in the current account surplus countries; and third the reconstruction of international macroeconomic policy co-ordination and a new world financial order along the lines of Keynes's international clearing union, so as to discourage countries from adopting export-led mercantilist policies based on low wages or low wage growth. The chapter by Hein and Mundt thus concludes this book on wage-led growth strategies with a broad vision of the economic policies that are needed for a sustainable economic recovery.

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1

Wage-led Growth: Concept, Theories and Policies¹

Marc Lavoie and Engelbert Stockhammer

1.1 Introduction

The subprime financial crisis that started in 2007 and which became the global financial crisis challenges economists and policy-makers to reconsider the theories and policies that had gradually been accepted as conventional wisdom over the last thirty years. It is widely recognized that the global financial crisis has called into question the efficiency and stability of unregulated financial markets. This chapter argues that it has also demonstrated the limitations and even falsehood of the claim that wage moderation, accompanied by more flexible labour markets as well as labour institutions and laws more favourable to employers, will ultimately make for a more stable economy and a more productive and dynamic economic system.

The introductory chapter has recalled that in a large number of countries the past decades have witnessed falling wage shares and a polarization of personal income distribution. As will be argued in the next chapter, we believe that these phenomena are, at most, only partially associated with technical change and changes in the composition of output, and that the essential cause of the long-run evolution of income distribution and its rising dispersion is the change in economic policies and in the institutional and legal environment that has been more favourable to capital and its high-end supervisory employees over the last thirty years or so.

It is time to reconsider the validity of these pro-capital distributional policies, and to examine the possibility of an alternative path, one based on pro-labour distributional policies, accompanied by legislative changes and structural policies that will make a wage-led growth regime more likely, that is, pursue what we call a *wage-led growth strategy*,

which, in our view, will generate a much more stable growth regime for the future. This issue is particularly important in view of the fact that the financial crisis has plunged many economies in recession, thus further weakening the ability of workers to resist attempts to lower wages or real wages, and hence with the consequence, at the macroeconomic level, of further reducing the wage share in national income.

The advocacy of a wage-led economic strategy has a long history. It has been articulated in reformist visions within the labour movement and in nineteenth-century economics the phenomenon was discussed under the heading of 'underconsumption'.² Within the Marxist tradition, underconsumption theories have been discussed as problems in the realization of profit.³ These ideas received a further boost from their endorsement by Keynes, when he proposed his theory of effective demand, arguing that excessive saving rates, relative to deficient investment rates, were at the core of depressed economies. In the more recent academic debate, post-Keynesian economists have done the most to analytically clarify the relation between income distribution and effective demand.⁴ More recently, the policy-oriented concept of a wage-led growth strategy was prominently used by UNCTAD (2010, 2011).

A standard objection to the consideration of the underconsumption thesis, or the consideration of problems related to the lack of effective demand, is that long-run growth – the trend rate of growth, also called the potential growth or the natural rate of growth – is ultimately determined by supply-side factors, such as the growth rate of the labour force and the growth rate of labour productivity. While adepts of the so-called 'endogenous growth theory' will recognize that investment in human capital or research and development may end up modifying the potential growth rate, they usually set aside the idea that actual growth rates could have an influence on potential growth rates. Yet, since the advent of the global financial crisis, government agencies and central banks in many industrialized countries have lowered their forecasts of long-run real growth, thus demonstrating clearly that weak aggregate demand does have an impact on potential growth. As Dray and Thirlwall (2011, p. 466) recall, 'it makes little economic sense to think of growth as supply constrained if, within limits, demand can create its own supply'. This explains why we shall focus on the income distribution determinants of aggregate demand, paying less attention to the supply-side factors.

The main objective of the present chapter is to provide an accessible introduction to the topic of a wage-led growth strategy for policy-makers. Another important objective is to present the overarching

framework underlying the efforts of the authors of the other chapters of the book, thus also providing an introduction to the notions of *wage-led* and *profit-led* economic *regimes*, in the hope that other researchers will adopt these distinctions and embark on the kind of empirical research required to assess whether various other individual countries or regions are in a wage-led or a profit-led regime.

In the next section, section 1.2, we provide a policy-oriented framework for the analysis of the interaction between distribution and growth. We will need to make a distinction between distributional policies and a macroeconomic regime. It is important to make these conceptual definitions and distinctions because they are not always obvious to non-economists. On the one hand governments can pursue pro-labour or pro-capital distributional policies, which aim respectively to increase or decrease the share of wages in national income; while on the other hand we have wage-led and profit-led economic regimes, which are associated with the structural macroeconomic features of the country under investigation. More technically, distributional policies are about the *determinants* of income distribution, the economic regime is about the *effects* of changes in income distribution on the economy. We will also see how policies and regimes can interact to create either stable and high growth processes or whether some combination can lead instead to slow or unstable growth processes.

In section 1.3, we shall examine 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 also demand-side effects, which is our main concern in this section and in this chapter. Section 1.4 provides a summary of the key empirical findings regarding demand and productivity regimes. Finally, section 1.5 argues that since the world economy as a whole is likely to be in a wage-led regime, an economically sustainable process of growth requires the adoption of a wage-led strategy, with pro-labour distributional and structural policies. This will generate a wage-led growth process, which will ultimately be favourable to all concerned, including employers.

1.2 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 twentieth century, issues of distribution have been neglected, since income distribution was assumed

to be regulated by marginal productivity relations within a perfect competition model, with wages for various occupations being determined by the pure market forces of supply and demand. But such a mechanical model of wage determination and income distribution does not hold up in a world where monopsonist features, imperfect competition and economic and social power come into play.⁵ In such a world, in contrast to the ideal world of market fundamentalism, market forces do not produce optimum results and there is room for modifying income distribution. In the following we offer a policy-oriented framework to analyse the relation between distribution and growth. We start by contrasting pro-labour and pro-capital distributional policies.

1.2.1 Pro-capital versus pro-labour distributional policies

Income distribution is the outcome of complex social and economic processes, but governments directly influence it by means of tax policy, social policy and labour market policy. As shown in Table 1.1, we define as pro-capital distributional policies those policies that lead to a long-run decline in the wage share in national income, while pro-labour distributional policies are policies that result in an increase in the wage share. Pro-capital distributional policies usually claim to promote 'labour market flexibility' or wage flexibility, rather than increasing capital income. They include measures that weaken collective bargaining institutions (by granting exceptions to bargaining coverage), labour unions (for example, by changing strike laws) and employment protection legislation, as well as measures (or lack of measures) that lead to lower minimum wages. There are also measures that alter the secondary income distribution in favour of profits and the rich, such as exempting capital gains from income taxation, or reducing the corporate income tax. Ultimately, pro-capital policies impose wage moderation.

Pro-labour policies, in contrast, are often referred to as policies that strengthen the welfare state, labour market institutions, labour unions, and the ability to engage in collective bargaining (for example, by extending the reach of bargaining agreements to non-unionized firms). Pro-labour policies are also associated with increased unemployment benefits, higher minimum wages and a higher minimum wage relative to the median wage, as well as reductions in wage and salary dispersion. All else being equal, with a pro-labour distributional policy, the wage share will remain constant or will increase over the long run, as real wages grow in line with labour productivity or exceed productivity. By contrast, in the case of a pro-capital distributional policy, real wages will not grow as fast as labour productivity.

Of course, there are also other factors influencing income distribution, such as technological changes, trade policy, globalization, financialization and financial deregulation. These factors have recently played an important role (Stockhammer 2013), but we will not elaborate on them here, as we wish to focus on the interaction of distributional policies and economic regime.

1.2.2 Profit-led versus wage-led economic regimes

So far we have considered the economic policies pursued by a government, which could alter income distribution in favour of profits or of wages or the median wage. Next we consider the following question: knowing that income distribution is shifting in favour of profits or wages, what is the effect of such a shift on economic performance? For instance, if income distribution in a country is shifting in favour of profit recipients, does this by itself have favourable consequences on aggregate demand in the short run, on the growth rate of aggregate demand in the long run, or on the growth rate of labour productivity? If indeed this shift towards profits has favourable repercussions on the economy, as we have just defined them, then we shall say that this economy is in a *profit-led economic regime*. If not, if the shift towards profits has a negative impact on the economy, then the economy is in a *wage-led economic regime*. By symmetry, we can argue that economies that, all else being equal, experience rising wage shares that induce a favourable outcome are part of a wage-led regime, while rising wage

Table 1.1 Pro-labour and pro-capital distributional policies

Distributional policies			
	Pro-capital	Pro-labour	Other factors
Policies	‘Labour market flexibility’ Abolish minimum wages Weaken collective bargaining Impose wage moderation	‘Welfare state’ Increase minimum wages Strengthen collective bargaining	Changes in technology Globalization Financialization
Results	Weak wage growth Wage share ↓ Increased wage dispersion	Rising real wages Stable (or ↑) wage share Decreased wage dispersion	

shares that generate an unfavourable outcome indicate the presence of a profit-led regime. This is all summed up in Table 1.2. At this stage, we do not attempt to distinguish between demand and productivity effects, but only discuss the economic regime, assuming for the moment that demand and productivity react in a similar direction to distributional changes. We shall tackle this issue in more detail in the next section.

Whether an economy is under a profit-led or a wage-led regime is affected by the structure of the economy. It will depend in part on the existing income distribution in the country, but also on various behavioural components, such as the propensity to consume of wage earners and recipients of profit incomes, on the sensitivity of entrepreneurs to changes in sales or in profit margins, and on the sensitivity of exporters and importers to changes in costs, foreign exchange values, and changes in foreign demand, as well as the size of the various components of aggregate demand – consumption, investment, government expenditures and net exports. While an economic regime also depends on the various economic structures and institutions, as well as various forms of government policy, it should be clear that the nature of the economic regime as defined in Table 1.2 is not a choice variable for economic policy in any straightforward sense. It should not be understood as designed by economic policy, but rather as determined by the institutional structure of the economy.

We can now bring together the analyses of distributional policies and of economic regimes, as shown in Table 1.3. Between the two sets of distributional policies and the two economic regimes, four different combinations are possible with 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 1.2 Definition of profit-led and wage-led regimes

		Overall impact on the economy	
		Expansionary	Contractionary
Income distribution change imposed on society	An increase in the profit share	Profit-led regime	Wage-led regime
	An increase in the wage share	Wage-led regime	Profit-led regime

Table 1.3. In both cases distributional policies and economic structures are consistent with each other. However, if pro-capital policies are pursued in a wage-led economy or if pro-labour policies are pursued in a profit-led economy, this will result in stagnation. In practice, inconsistent distributional policies and regimes are also likely to evolve towards unstable growth patterns as growth will have to rely on external stimulation.

Table 1.3 is useful in classifying different political ideologies as the four different combinations allow us to classify many important arguments. Take the first cell (pro-capital policies in a profit-led economy). This scenario, as shown in Table 1.4, corresponds to liberal ideology and what is often called trickle-down economics. Policies more favourable to profit recipients and to employers and their high-ranking employees are said to lead to improved macroeconomic performance. Under such a scenario, the average worker will eventually benefit from wage cuts and harsher working conditions as higher profit margins will induce entrepreneurs and executive officers to work harder and invest in more numerous machines and more productive capacity, so that 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’. It rests on the idea of a trickle-down process whereby increasing profits lead to virtuous cycle of higher growth that ultimately also benefits labour and the poor.

The cell that mixes pro-labour policies in a wage-led regime summarizes what many economists (for example, Marglin and Schor 1990) regard as a key characteristic of the post-war era. The expansion of the welfare state (in advanced economies) led to a golden age of growth which was favourable to both workers and entrepreneurs, as rising real wages generated large increases in labour productivity and profits until the 1970s.

Table 1.3 Viability of growth regimes

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

Table 1.4 Actual growth strategies in the economic regime/distributional policies framework

		Distributional policies and strategies	
		Pro-capital	Pro-labour
Economic regime	Profit-led	‘Neoliberalism in theory’ Trickle-down capitalism	‘Doomed social reforms’ (TINA)
	Wage-led	‘Neoliberalism in practice’ – Unstable, has to rely on exogenous growth drivers (debt-led growth or export-led growth)	Social Keynesianism Post-war Golden Age

The next cell (pro-labour policies in a profit-led economy) could be termed ‘doomed social reforms’. It is the scenario that neoliberals claim would happen if progressive social reforms were implemented. Margaret Thatcher’s famous dictum, later repeated by several think-tanks and even left-wing politicians, that ‘there is no alternative’ (TINA), makes sense in this cell. Some Marxists use a similar scenario to illustrate the futility of attempts to restore a more humane economy within the capitalist mode of production. Within this cell, attempts to raise workers’ compensation or the wage share inevitably lead to a slowdown of the economy, as such changes in income distribution are inconsistent with the profit-led regime of the economy, usually leading to their quick abandonment.

Finally there is the fourth cell, which combines pro-capital distributional policies with a wage-led regime. We will argue that this describes ‘neoliberalism in practice’ in several countries, since two or more decades of pro-capital redistribution policies have resulted in a general increase in economic inequalities and in a mediocre economic performance relative to the performance achieved in the Golden Age.⁶ Furthermore, this neoliberalism in practice, has been accompanied by a heavy reliance on a bloated financial sector or on external demand, which has generated economic and financial instability. The reliance on these external drivers – export-led growth and debt-led growth – constitutes an attempt to circumvent the slow growth inherent to the contradiction between the pro-capital distribution policies being pursued by society and the intrinsic properties of an area under a wage-led economic regime, as explained in detail by Hein and Mundt (2013) in the final chapter of the book.

Thus far, we can conclude that if several countries, or if some regions, are under a wage-led regime, then pro-capital policies that pertain to boost the confidence of employers will fail. These policies will not generate favourable effects on aggregate demand and productivity. In a wage-led regime, what we need instead are pro-labour policies, which will help to generate sustainable growth. In other words, in a wage-led regime, what we need is a wage-led growth strategy. What we now have to examine are the factors that determine whether an economy is in a wage-led or a profit-led regime. And we shall see later still the results of a set of empirical studies on this specific question.

1.3 Profit-led or wage-led economic regimes?

In this section, we wish to present the tools that will help us distinguish between wage-led and profit-led economic regimes. Following conventional practice among researchers in the field established since Boyer (1988), we will distinguish between demand regimes and productivity regimes, although, as we shall see, the overall effects on aggregate demand and productivity growth are interdependent. We first deal with the demand side, emphasized by Keynesian economists.

1.3.1 Demand regimes

To assess whether an economy is in a *wage-led demand regime* or in a *profit-led demand regime*, we need to consider the four components of gross domestic product (GDP), that is, the four components of aggregate demand, which are private consumption (C), private investment (I), government expenditure (G), and net exports (NX , exports minus imports), which we can write as:

$$AD = C + I + G + NX$$

Broadly speaking, we will say that an economy is in a wage-led demand regime when an increase in the wage share (or a decrease in the profit share) leads to an increase in the sum of the components of aggregate demand; and we will say that an economy is in a profit-led demand regime when an increase in the profit share (or a decrease in the wage share) leads to an increase in the sum of the components of aggregate demand.

It is customary to consider that the first three components of aggregate demand – consumption, investment and government expenditure – are the *domestic* components of aggregate demand. This will thus allow us

to make the distinction between the *domestic demand* regime and the *total demand* regime. Since it is difficult to treat government expenditures as anything but exogenous, to assess the domestic demand regime we only need to consider the impact of a change in income distribution on consumption and investment.

Let us start with the effect of an (exogenous) increase in the wage share (or in real wages at constant labour productivity) on private consumption. If the propensities to consume out of profits and out of wages are the same, then the change in real wages will have no impact whatsoever on consumption, which is the standard assumption in mainstream models, where income distribution plays no role. However, if the propensity to consume out of wages is higher than the propensity to consume out of profits, then a shift in income distribution towards wages will induce an increase in consumption demand. This occurs because the redistribution of income towards a higher wage share generates an increase in consumption expenditures, since wage earners spend a greater portion of their income than profit recipients. A decrease in wage dispersion, providing a greater share of income to the lower quintiles, would lead to a similar result. These effects are at the core of the arguments of the underconsumptionist economists who highlight the detrimental impact of rising or high profit shares, as can be found in the modern and canonical Kaleckian models of Rowthorn (1981), Taylor (1983) and Dutt (1987).

These consequences are well supported by empirical evidence, which shows that the propensities to save out of profits are much higher than those to save out of wages (in part because firms, by definition, save all of their retained earnings) and which also shows that the propensities to save of the richest quintiles are higher, as one would expect, than those of the poorest quintiles.⁷ These effects reinforce each other since wage earners generally are poorer than most profit recipients. Capital gains on real estate and the stock market may reduce somewhat the differential between the propensities to consume of wage earners and profit recipients, and this differential will also be affected by the existing social security system.

The favourable effects of higher wage shares on consumption and aggregate demand may, however, be overturned by the detrimental effects of a higher wage share on private investment expenditures. Most Kaleckian economists argue that expected profitability depends on past realized profitability, and hence on sales, relying on the strength of the accelerator effect, and thus believing that investment should not be negatively affected by an increase in the wage share.⁸ By contrast, Marxists

and several other economists tend to claim instead that expected profitability depends on the share of profits in national income, that is, on the profit margin of firms, or, more precisely, on the profit rate that firms expect to achieve on their capital when capacity is utilized at its normal rate (see Lavoie 1995, pp. 795–800). As higher real wages, all else constant, imply lower profit margins and lower profitability at the normal rate of capacity utilization, it implies a downward shift of the investment function. These profitability effects have been formalized by Bhaduri and Marglin (1990), the article of which is famous for having defined the dichotomy between wage-led and profit-led demand regimes. Similar formalizations of the investment function were also adopted by Kurz (1990), Taylor (1991) and Blecker (2002), as well as by many authors wishing to assess the presence of these regimes in empirical studies. This variant of the canonical Kaleckian model is often referred to as the post-Kaleckian model of growth and distribution. It is worth quoting Bhaduri and Marglin in full here:

Any increase in real wage rate, depressing profit margin and profit share ..., must decrease savings and increase consumption to validate the under-consumptionist thesis... Nevertheless, aggregate demand ($C + I$) may still rise or fall depending on what impact that lower profit margin/share has on investment. Since it is plausible to argue that, other things being equal, a lower profit margin/share would weaken the incentive to invest, the contradictory effects of any exogenous variation in the real wage on the level of aggregate demand become apparent. A higher real wage increases consumption but reduces investment, in so far as investment depends on the profit margin. (Bhaduri and Marglin 1990, p. 378)

Table 1.5 summarizes the various factors that will determine whether the structure of an economy is such that it is in a wage-led or a profit-led demand regime. Of course, there are many more factors other than income distribution that determine aggregate demand: monetary policy, fiscal policy, various shocks such as oil price shocks, the bursting of stock market bubbles, changes in real exchange rates, changes in the growth rate of foreign GDP, and so on. 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 1.5 Economic structure: wage-led and profit-led demand regimes

	Demand regime	
	Profit-led	Wage-led
Economic structure	Small differentials in propensities to consume Investment is highly sensitive to profitability and accelerator parameter is low Very open economy with high net export price elasticity and high import income elasticity	Propensity to consume out of wages is much higher than the propensity to consume out of profits Investment is not sensitive to profitability and accelerator parameter is high Relatively closed economy with low net export price elasticity and low import income elasticity
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...	

1.3.2 Demand regimes with net exports

So far, we have not taken into account net exports, having only discussed the domestic components of aggregate demand. It is usually argued that an increase in real wages or the wage share will have a negative impact on the trade balance. It is further argued that the negative effects on net exports of a higher wage share are more likely to be significant in small open economies with high net export price elasticity. Finding out whether an economy is in a wage-led or profit-led demand regime, *in total*, one must thus consider the net effect of an increase in the wage share on the three private components of aggregate demand – consumption, investment and net exports – and hence the net effect is not clear a priori and will depend on the relative size of the effects on the three components.

Blecker (1989, 2011) as well as Bhaduri and Marglin (1990) have examined the possible effects of changes in income distribution on net exports. If wages are pumped up, without a rise in export prices, this will lead to a reduction in profit margins and may render some exports unprofitable; if prices are pushed up, some export products will no longer be competitive. As Blecker (1989, p. 404) said, ‘this is essentially

the case of a ‘profit squeeze’, in which profit margins are compressed between domestic costs on the one side and foreign competition on the other’.⁹ Hence an economy which is in a profit-led domestic demand regime will normally necessarily be in a profit-led total demand regime as well. Table 1.6 shows this and summarizes the various possibilities when distinguishing between the effects of an increase in the wage share on domestic aggregate demand and the effects on total aggregate demand, also taking into account the foreign sector.

To take into account international trade and net exports when assessing the impact of changes in income distribution certainly adds a degree of complexity. First, the favourable domestic impact of an increase in the wage share may get reversed once we consider the effects on net exports, as shown in Table 1.6. As long as the negative impact of a higher wage share on profitability is not too large, we may be easily persuaded that ‘there is no necessary antagonism between capitalists and workers in a mature capitalist economy characterized by excess capacity: it is possible to increase both real wages and employment on the one hand, and realised profits and growth on the other hand. This comforting conclusion must be drastically revised in the light of the model of an open economy... The possibility of a conflict between a redistribution towards wages and maintaining international competitiveness greatly reduces the prospects for a happy coincidence of worker’s and capitalists’ interests’ (Blecker 1989, pp. 406–7).¹⁰

But there is a second delicate point in the case of an open economy – the possibility of an error of composition – especially when an economy

Table 1.6 Effects of an increase in the wage share and domestic and total demand regimes

		Effect on total aggregate demand, including net exports	
		Positive	Negative
Effect on domestic aggregate demand (investment and consumption)	Positive	Wage-led domestic demand regime and wage-led total demand regime	Wage-led domestic demand regime and profit-led total demand regime
	Negative		Profit-led domestic demand regime and profit-led total demand regime

is in a domestic wage-led demand regime. It is worth quoting Blecker's views on this in full:

A situation in which competitive wage cuts (or 'wage restraints') are pursued in all countries will potentially harm the interests of workers everywhere: real wages will be sacrificed, as long as mark-ups are flexible; but employment will not increase, as long as the competitive gains cancel each other out. In this case, the regressive effect of multilateral wage cuts on income distribution could well lead to a world-wide depression of demand and employment. On the one hand, if workers in all countries increase their money wages, and if the international competitive effects roughly cancel out, then the world economy as a whole can potentially enjoy wage-led growth – provided that firms still feel sufficient competitive pressures to compel them to cut their mark-ups in response to the wage increases. (Blecker 1989, p. 407)

Knowing whether the economy is within a *domestic* wage-led or profit-led regime is important in itself. Since 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 simultaneously. The world economy overall is a closed economy. It is thus essential to look at the domestic effect and the total effects (that is, including net exports) separately. The domestic effects of *the world economy* only include the effects on consumption and investment and should be interpreted as a scenario where the change in the wage share affects all trading partners simultaneously. It can be thought of as the result of a change in the world wage share. Thus, while a country may be under a profit-led demand regime when considering the total effect of an increase in the wage share, a simultaneous increase in the wage share of all countries may still have a positive effect on the aggregate demand of a profit-led country if its domestic demand is wage-led. We will see that this is indeed the case when we go over the most recent empirical results related to demand regimes.

1.3.3 Productivity regimes

So far we have dealt with aggregate demand. What about supply effects? From our standpoint, the key summary variable for the supply side is labour productivity. Thus this section will focus on the productivity regime.

Productivity will be profit-led if an increase in wages discourages productivity-enhancing capital investment and, as a consequence, the growth of labour productivity slows down (as 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 enhanced workers' motivation or, in developing countries, if their health and nutritional situation improves. This case is often referred to as the efficiency wage hypothesis in the mainstream literature.¹¹ But we may as well call it the Webb effect, since a positive causal relationship going from higher real wages to higher productivity was already proposed a long time ago by Sidney Webb (1912), one of the founders of the London School of Economics. The main features of the two productivity regimes are presented in Table 1.7.

Defined as we just did, even mainstream economists might recognize that all economies are in a wage-led productivity regime, since mainstream economists would argue that rising real wages induce firms to invest in more capital-intensive methods, which, under the standard assumptions of neoclassical production functions, would lead to higher labour productivity.¹² We may, however, also take into account indirect effects, based on another branch of post-Keynesian economics – the Kaldorian branch – as do Boyer (1988), Setterfield and Cornwall (2002) as well as Naastepad and Storm (2010), to assess whether a productivity regime is wage-led or profit-led.

Table 1.7 Economic structure: wage-led and profit-led productivity regimes

		Productivity regime
Economic structure	Profit-led	Wage restraint leads to productivity-enhancing investment
		Higher real wage growth or a higher wage share leads to slower productivity growth
	Wage-led	Wage growth has strong positive effects on labour effort and productivity-enhancing investments
		Higher real wage growth or a higher wage share leads to faster productivity growth

In this case, we must also incorporate the demand effects. Kaldorians have for a long time argued that supply-side growth is endogenous, thus predating the mainstream theories of endogenous growth. This is the so-called Kaldor–Verdoorn law, for which there is a substantial amount of empirical evidence (McCombie and Thirlwall 1994; McCombie 2002) and the formal origins of which can be traced back to Kaldor’s (1957) technical progress function. The Kaldor–Verdoorn law claims that there is a positive relation between the growth rates of GDP and the growth rate of labour productivity. In other words, demand-led growth will have an impact on the supply components of growth (Léon-Ledesma and Thirlwall 2002; Dray and Thirlwall 2011). More simply, it is claimed that there is a positive causal relationship going from the growth rate of the economy to the growth rate of labour productivity (and even the growth rate of the labour force).¹³

What does the Kaldor–Verdoorn relation imply for the assessment of the productivity regime? Suppose there is an increase in the wage share or in growth rate of real wages. As argued before, the partial effect on productivity growth is likely to be positive. In the case of a wage-led demand regime the indirect Kaldor–Verdoorn effect will reinforce the direct productivity effect. Hence in this case, the total productivity effect will always be positive and we will always have a wage-led total productivity regime. Take now the case of a profit-led demand regime. An increase in the wage share or in the growth rate of real wages will generate a decrease in the growth rate of the economy. The Kaldor–Verdoorn effect will translate this decrease into a decrease in the growth rate of labour productivity. However, this indirect negative effect of increasing the growth rate of real wages may be partially or entirely wiped out by the direct positive productivity effect, assuming once more a wage-led partial productivity regime, as empirically verified for Organisation for Economic Co-operation and Development (OECD) countries by Storm and Naastepad (2008, p. 535) and Hein and Tarassow (2010, pp. 747–9). Thus, although the economy is in a profit-led demand regime, the effect on labour productivity growth of an increase in the wage share may be positive overall, since the direct positive productivity effect of the increase in the wage share or in the growth rate of real wages may still overwhelm the negative indirect productivity effect arising from the decrease in economic activity generated by wage expansion in this regime. Table 1.8 summarizes the possible combined results of the productivity and demand regimes when the partial productivity regime is wage led, which is the most likely case, and the wage share or the growth rate in real wages is increased.

Table 1.8 Total productivity effect of an increase in the wage share, when the partial productivity regime is wage-led

Demand regime	Partial productivity effect	Indirect productivity effect (Kaldor–Verdoorn effect)	Total productivity effect (sum of partial and indirect effects)
Profit-led	Positive	Negative	Positive or negative
Wage-led	Positive	Positive	Positive

So far we have assumed that economic activity or economic growth has an effect on the growth in labour productivity. But we have not yet taken into account the possibility that productivity growth could have a feedback effect on economic growth and economic activity. Thus what happens on the productivity front as result of changes in income distribution could have an additional indirect effect on the demand regime. Since the various possible cases of this interdependence between the demand and the productivity regimes are discussed extensively by Storm and Naastepad (2013), here we simply mention the fact that the feedback effects of productivity growth on output growth may transform an apparent profit-led demand regime into a wage-led one (whereas the opposite is impossible). This will happen when the total productivity effects of an increase in the wage share are positive and large, and when the positive effects of productivity growth on aggregate demand overwhelm the presumably weak negative effects of a higher wage share on aggregate demand (Hein and Tarassow 2010, pp. 737–9).

1.4 Summary of empirical estimates

The previous section has developed a conceptual framework to define wage-led and profit-led economic regimes. The key components of this framework have been investigated empirically by various authors, including those who participate in the current book. Here we report their main results.

1.4.1 Demand effects

The Bhaduri and Marglin (1990) post-Kaleckian model has recently inspired a rich empirical literature that attempts to identify demand regimes by econometric means. Hein and Vogel (2008), Stockhammer and Stehrer (2011) and Onaran and Galanis (2013) offer extensive

discussions of the literature, so here we only present a quick assessment. Although they use different methods and rely on different sources of data and time periods, a vast majority of the studies agree that the few OECD countries that have been studied turn out to be running under wage-led domestic demand regimes. The results are less homogeneous when it comes to the total demand regimes, with different authors often coming to different conclusions regarding the same country.

Onaran and Galanis (2013) in the present book provide new consistent estimates for most G20 countries, which are summarized in Table 1.9. This presents the effects of a reduction in the (adjusted) wage share. More precisely, it details the effects of a one percentage point increase in the profit share of an individual country on the components of demand of that country (columns A, B and C), on private excess demand (the sum of those three components, column D) and on aggregate demand (taking multiplier effects into account, column E). Comparing the estimates of columns A and B, it can be verified that their sum is always negative and hence that all the countries of the sample are in a wage-led domestic demand regime, thus retrieving the consensus result that was achieved in previous studies. The impact of the increase in the profit share on private excess demand (column D) is negative in a majority of countries, thus meaning that these countries are in a wage-led total demand regime, but there are still a number of countries that have a profit-led total demand.

However, as countries trade with each other, the effects of changes in income distribution in individual countries are not the same as the effects that would arise as a result of a worldwide change in income distribution. Thus the table also reports the results of simulating the complex interactions of the international demand components. Column G gives the results for a simultaneous ('worldwide') decrease in the wage share in all G20 countries by one percentage point. This effect is negative in the vast majority of the countries. Several countries that were in a profit-led total demand regime, when assessed individually, nonetheless do suffer reductions in demand if their trade partners also experience a decline in the wage share. Indeed, total G20 GDP declines by 0.36 per cent in reaction to a worldwide one percentage point decline in the wage share, thus helping to explain why even countries that are in a profit-led total demand regime might suffer nevertheless from a worldwide reduction in the wage share.

These results have important policy implications. They indicate that, at least with regard to aggregate demand, an internationally coordinated wage-led growth strategy seems viable. Aggregate demand in the world economy is clearly wage led. While there are some countries

Table 1.9 Summary of the results of Onaran and Galanis (2013): effects of a national and global one percentage point increase in the profit share

	Effects of national increase in profit share on:					Effect of worldwide increase in profit share on aggregate demand
	C/Y	I/Y	NX/Y	private excess demand/Y	aggregate demand	
	A	B	C	D (A+B+C)	E	
Euro area-12	-0.439	0.299	0.057	-0.084	-0.133	-0.245
Germany	-0.501	0.376	0.096	-0.029	-0.031	-
France	-0.305	0.088	0.198	-0.020	-0.027	-
Italy	-0.356	0.130	0.126	-0.100	-0.173	-
United Kingdom	-0.303	0.120	0.158	-0.025	-0.030	-0.214
United States	-0.426	0.000	0.037	-0.388	-0.808	-0.921
Japan	-0.353	0.284	0.055	-0.014	-0.034	-0.179
Canada	-0.326	0.182	0.266	0.122	0.148	-0.269
Australia	-0.256	0.174	0.272	0.190	0.268	0.172
Turkey	-0.491	0.000	0.283	-0.208	-0.459	-0.717
Mexico	-0.438	0.153	0.381	0.096	0.106	-0.111
Korea, Rep. of	-0.422	0.000	0.359	-0.063	-0.115	-0.864
Argentina	-0.153	0.015	0.192	0.054	0.075	-0.103
China	-0.412	0.000	1.986	1.574	1.932	1.115
India	-0.291	0.000	0.310	0.018	0.040	-0.027
South Africa	-0.145	0.129	0.506	0.490	0.729	0.390

Note: The global simulation excludes Germany, France and Italy since they are part of the euro zone.

Source: Onaran and Galanis (2013, Table 2).

‘Effect of worldwide change in profit share on aggregate demand’: effect of a simultaneous change in the profit share in all countries, including domestic multiplier effects and international trade effects

that are individually profit led, the positive effect of the profit share on demand relies on net exports. Effectively this means that some individual countries can successfully pursue ‘beggar-thy-neighbour’ policies via wage moderation, but this does not constitute a viable strategy for

demand on a global scale. If all countries pursue wage moderation policies, a much smaller subset of the countries in a profit-led total demand regime will still benefit from their pro-capital distributional policies. This highlights the need for policy-makers to realize the role of wages as a source of demand. On a more technical level, it highlights the need for international coordination when dealing with wage and social policies, so as to prevent a race to the bottom in wages.

1.4.2 Productivity 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 not only can labour market institutions have positive social effects as they help to 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, which are surveyed by Storm and Naastepad (2013). Naastepad (2006) found that a one percentage point increase in real wages would lead to a 0.52 percentage point increase in labour productivity for the Netherlands. Storm and Naastepad (2009) investigate labour market institutions in twenty OECD countries from 1984 to 2004. They find that relatively regulated and coordinated ('rigid') institutions lead to higher productivity growth. Vergeer and Kleinknecht (2010–11) perform a panel analysis for OECD countries from 1960 to 2004 and also find that stronger labour market institutions lead to faster long-run growth. Both studies also look at the impact of real wage growth on productivity growth. Both Storm and Naastepad (2009) and Vergeer and Kleinknecht (2010–11) find that faster real wage growth leads to faster productivity growth, the former with an elasticity ranging from 0.50 to 0.55 while the latter gets numbers ranging from 0.31 to 0.39 for a longer time period. Hein and Tarassow (2010) analyse the link between income distribution and productivity growth for six OECD economies by means of time series analysis over the 1960–2007 period. They also report that faster real wage growth leads to faster productivity growth, the elasticity running around 0.30 except for Austria where it reaches 0.67.

All of 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. Indeed, simple national growth accounting makes it clear that faster productivity growth should be associated with faster real wage growth, thus bringing about the problem of reverse causality. However, Marquetti (2004) has found that while real wages appear to Granger-cause productivity, the reverse is not true – there is unidirectional causality. This would thus justify studies that pertain to study the impact of real wage growth on productivity growth.

Storm and Naastepad (2013) summarize these findings by positing that, as a reasonable order of magnitude (for advanced economies), one can assume that a one percentage point increase in real wage growth leads to a 0.38 percentage point increase in labour productivity growth. This illustrates that higher real wages induce firms to increase labour productivity in order to protect their profitability. Hence, despite the small number of studies, it seems fair to conclude that the available evidence suggests that real wage growth has a positive long-run effect on labour productivity growth. This is important for economic policy as it suggests that excessive wage constraint is likely to lead to weak productivity performance, while a wage-led growth strategy is consistent with positive developments on the supply side.

Indeed, Storm and Naastepad (2013) suggest that countries, such as the Netherlands, which seem recently to have been successful in achieving full employment with pro-capital income distribution policies, obtain such results because slow growth in real wages has also generated slow growth in labour productivity, thus so avoiding the advent of technological unemployment, but at the cost of slow improvements in living standards.

1.5 Conclusion: Wage-led growth – a viable economic strategy

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 understanding 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 larger geographical (or economic) areas are likely to be wage led. The most recent empirical studies show that the world economy overall is in a wage-led demand regime and if all countries pursue pro-labour

distributional policies simultaneously, even countries that are profit-led will experience increases in aggregate demand, their economic activity being driven up by faster growth abroad. This can be contrasted to a situation where all countries are pursuing an export-led strategy: it is clear that only half of them will be successful, as all countries cannot be simultaneously net exporters.

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 likely to be favourable to the economy.

There is an alternative to neoliberalism. A wage-led growth strategy is a viable option and the most likely strategy to succeed if coordinated internationally.¹⁴ A wage-led growth strategy would combine pro-labour distributional social and labour market policies, along with a proper regulation of the financial sector.

Distributional policies that are likely to 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.¹⁵ All of these policies go against orthodox economic wisdom and, under the perceived pressure to reduce public budget deficits, current economic policy seems to be moving in the opposite direction, with calls for government austerity policies, which are most likely to affect the middle class and the poor, and calls for structural reforms – a euphemism for more flexible labour markets and reduced wage rates. However, in times of crisis and with a lack of effective demand, what economies need is more state involvement, not less. A successful policy package to economic recovery needs to have sustained wage growth 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 refocussing of the financial sector on narrow banking, the elimination of destabilizing financial innovations, and a higher fiscal contribution of the financial sector (for example, in the form of a financial transactions tax). Briefly put, as suggested by Hein and Mundt (2013), what is needed is a 'Global Keynesian New Deal'.

Notes

1. The paper was presented at a session of the Regulating for Decent Work (RDW) conference, held at the ILO, Geneva, 6–8 July 2011. We wish to thank participants for their remarks and questions – in particular, Pierre Laliberté, Eckhard Hein and Simon Sturn.
2. See Bleaney (1976) for a historical account of underconsumptionist theories.
3. For example, Baran and Sweezy (1966).
4. Based on the analysis of Kalecki (1971), Steindl (1952) and Bhaduri (1986), the benefits of a wage-led growth strategy has been resurrected and formalized by several Kaleckian or post-Keynesian authors, starting with Rowthorn (1981), Taylor (1983), Dutt (1987) and Lavoie (1995). Taylor (1988) showed early on that when emerging countries had enough capacity to adjust, a wage-led growth strategy made sense.
5. It has sometimes been argued that because several empirical studies of aggregate production functions have yielded estimates of the output elasticities of factors that were consistent with the predictions of marginal productivity theory under conditions of perfect competition (because these elasticities equated pretty closely the shares of wages and profits), it was possible to conclude that markets behaved as if they were fully competitive. But it has since been shown that this success was achieved because what the regressions of aggregate production functions are really measuring are the wage and profit shares, not the output elasticities, as the regressions are in fact estimating national accounting identities. See Lavoie (2007) and Felipe and McCombie (2013) for a review of this critical literature.
6. 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 (Balcerowicz and Fisher, 2006). But these authors forget to compare the last decades to the evolution of the 1950s and 1960s. Harvey (2003) and Glyn (2006) offer insightful discussions of neoliberalism in practice.
7. Both Marglin and Bhaduri (1990) and Bowles and Boyer (1995) found that this differential in propensities to save out of profits and out of wages was around 0.40 on average over several countries. This is in line with the estimates of Onaran and Galanis (2013).
8. Kalecki's equation, in its simplified version where wages are all consumed and profits are all saved, says that realized profits are equal to the value of investment expenditures. If investment depends on realized profits, the equation would imply that higher real wages that induce higher investment expenditures would always lead to higher profits, and hence taking profitability into account would never allow us to modify our previous conclusions. This has been called the paradox of costs by Rowthorn (1981): higher wage costs reduce profits for a single firm, but with the accelerator they increase overall profits if all firms face similar cost increases.
9. An increase in real wages may not have a negative effect on net exports if it arises as a result of a spontaneous change in the pricing strategy of firms, with producers and exporters deciding to reduce their profit margins.
10. Blecker refers to a mature economy, but it should be pointed out that Taylor (1983) figured that less developed countries also operate with excess capacity, and hence that the Kaleckian model also applies to emerging countries.

11. A meta-analysis – a regression on regressions – here based at the firm and industry level and conducted by Krassoi Peach and Stanley (2009), has shown that the best statistical studies find a strong and robust evidence of this efficiency wage effect, thus showing that higher real wages lead to higher productivity. This positive link is even reinforced when controlled for simultaneity.
12. Indeed, this is tied to the standard assumption of a downward-sloping labour demand curve. One could also define an employment regime, which would depend on an interaction of the demand regime and the productivity regime, as defined in the rest of this subsection (see Storm and Naastepad 2012). Keynes doubted that a wage cut would stimulate employment and thought that, at least in some circumstances, it might decrease employment (Keynes 1936, chapter 19). This latter case is akin to a wage-led employment regime. For modern post-Keynesian discussions of employment and wages, see Lavoie (2003) and Stockhammer (2011).
13. McCombie (2002, p. 106) says that the Verdoorn coefficient is in the 0.3 to 0.6 range, meaning that a one percentage point addition to the growth rate of output will generate a 0.3 to 0.6 percentage point increase in the growth rate of labour productivity, a number which is also consistent with the one obtained recently by Storm and Naastepad (2008). Hein and Tarassow (2010), looking at 1960–2007 data, find a similar range for European countries, but a lower range for the United Kingdom and the United States, between 0.1 and 0.25.
14. It is sometimes argued by Marxist authors that wage-led demand regimes are unstable, meaning that high output and employment growth rates achieved with high wage shares will generate further increases in the wage share because of the stronger bargaining power of workers. Thus the feedback effects of aggregate demand and employment on income distribution, effects that we have not considered in this paper since we assumed the wage share to be an exogenous element, can make the wage-led demand regime unstable in that growing wage shares and higher growth may create a reinforcing cycle (Stockhammer 2004). This argument however omits the feedback effects driven by the productivity regime. Fast output growth may not entail fast employment growth, because of the rise in productivity growth generated by the Kaldor–Verdoorn effect, as explained in detail in Storm and Naastepad (2013).
15. Meta-analysis has shown that raising minimum wages do not lead to reduced employment, in contrast to what is asserted by mainstream authors on the basis of a partial equilibrium analysis. Doucouliagos and Stanley (2009) demonstrate that the minimum wage literature is contaminated by publication bias, and that the best studies support the claim that there is no negative relationship between minimum wages and employment.

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