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Wages and economic development: Towards an alternative model

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1. Introduction

With the dominance of neo-classical thinking in economics and economic policies, the macroeconomic roles of wages tends to be ignored and, as a result, wage moderation is seen as beneficial to economic growth. The post-Keynesian approach to wages, especially through the concept of "wage-led growth", has attracted little attention from academics and policy makers, despite growing concerns among workers about decades-long wage moderation. However, the recent global economic crisis offers the painful lesson, among many others, that sluggish wage growth constrains economic growth by suppressing growth in consumption demand. This constraint has been overcome in some countries either through debt financed consumption or through accelerating exports, which in turn exacerbate global imbalances. Currently, the macroeconomic risk of wage deflation still remains a serious threat in some part of the developed world.

However, these increasing concerns about the macroeconomic dynamics of wages have not been accompanied by comparable research efforts so that there is a risk that the global debates on wages will be reduced back to the familiar rhetoric games. More importantly, policy implications along with conceptual elaboration about the "macroeconomics of wages" need to be thoroughly developed and presented in a systematic way for the consideration of policy makers, especially in developing countries which are caught in the neo-classical policy doctrine that wage moderation is the key to economic success.

Therefore, it is urgently required to revisit the existing theories and empirical evidence concerning "wage-led growth" and develop their policy implications for the labour market and the economy, considering different circumstances across countries. In doing so, the global policy community will be equipped with theoretical and empirical cases for "solid and equitable" wage increases in terms of not only delivering decent work for workers but also achieving "strong and sustainable" (although not very high) economic growth. In policy terms, this implies that the policies which ensure a systematic linkage between labour productivity and wages, rather than pursuing wage moderation, are advantageous both economically and socially.

In light of these research demands, this paper is intended to outline what are the key issues for research and how they can be addressed. It will first attempt to clarify the meaning of "wage-led" in the simple macroeconomic model and then discuss key thematic issues such as identifying "wage-led" economies, determinants of wage share, the macroeconomic possibility of productivity effects

[*] This paper draws on the paper prepared for the on-going ILO project concerning "New perspectives on wages and economic growth" which involves leading academics such as Marc Lavoie and Engelbert Stockhammer. The final results of the project will be published in articles and reports, including *Global Wage Report*.

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of wages, and the role of wage/income polarization and financialization. The paper will conclude with a short summary.

2. What does "wage-led" mean?: Conceptual clarifications

There appears to be confusions, at least among policy makers, over what is meant by "wage-led". Unfortunately, it is often understood to mean unconditional support for high wages and is categorically denounced. Unless these misunderstandings are properly addressed, meaningful policy debates would be difficult.

In the academic debate the most widely used term is that of "wage-led" **demand**. In the standard macro model, the aggregate demand (*y*) is defined as the sum of consumption (*c*), investment (*i*) and net export (*nx*). Wages (*w*) are known to affect all of the three components. Thus,

y = f(w) = g(c(w), i(w), x(w))

Aggregate demand is wage led if an increase in the wage share leads, other things equal, to an increase in aggregate demand, with the supply side of the economy assumed given:

$\Delta y/\Delta w = \Delta c/\Delta w + \Delta i/\Delta w + \Delta nx/\Delta w > 0$

This is based on the theoretical work of Bhaduri and Marglin (1990) and Blecker (1989), who established that the nature of the demand regime is not a priori defined. Demand in actual economies could be either wage led or profit led, because consumption is usually thought of as being wage led while investment and net exports are expected to be profit led ($w\uparrow \rightarrow c\uparrow$, $i\downarrow$, $nx\downarrow$). (Private) aggregate demand is the sum of consumption, investment and net exports and the total (or net) effect is thus ambiguous. This has recently given rise to a rich empirical literature trying to identify demand regimes by econometric means (Bowles and Boyer, 1995; Onaran and Stockhammer, 2005; Naastepad and Storm, 2006; Hein and Vogel, 2008: Stockhammer et al., 2009). It should be noted that the analysis of the demand regime takes supply conditions as given and is thus (for purposes of economic policy) restricted to a short time horizon.

Wage-led **growth** is a stronger and more long-term concept than wage-led demand as it incorporates the supply-side effects of changes in wages. The concept is stronger because it requires that the growth of the capital stock is also wage-led. The concept is also concerned with a longer time frame, because several of the variables that are usually considered given in the short run have to be regarded as endogenous in the context of growth theory. For wage-led growth to occur it is crucial that investment is wage led in the medium term (note that demand can be wage-led even if investment is profit-led if consumption is sufficiently strongly wage-led). There are two important channels that explain why investment could be wage led. First, if demand is strongly wage led then investment can be pulled along by wage-led demand via the standard accelerator effect in the investment function ($w\uparrow \rightarrow c\uparrow > i\downarrow$ [partial effect with given y] $\rightarrow y\uparrow \rightarrow i\uparrow$ [total effect]). Second, if productivity is wage led (which it is likely to be) and investment reacts to productivity growth, then investment can be pulled along via the link ($w\uparrow \rightarrow$ productivity $\uparrow\rightarrow i\uparrow$). These channels will be discussed later in Section 6 of this paper.

For **economic policy** purposes wage-led growth should be the key concept. It basically describes a virtuous circle where wage growth leads to higher demand and higher productivity growth and, as a consequence to higher investment. The concept of wage-led growth is important because of the failure of neoliberalsm to deliver a growth regime that is equitable, stable and sustainable. In this respect, wage-led growth can be contrasted with two growth regimes which have emerged: **finance-led growth** (also called credit-led growth), where growth was fuelled by increasing household debt made possible by asset and property price bubbles and financial engineering (e.g., USA, UK, Ireland); and **export-led growth**, where the main engine of growth have been net exports (e.g., Germany, Japan, Republic of Korea, China). Both of these neoliberal growth regimes have come with wage suppression (and often with wage polarization) (Stockhammer, 2010; Treeck, 2010; Hein 2010). Simply put, stagnant demand from stagnating wages was substituted by demand fuelled by credit in the finance-led regime and by external demand in the export-led regime. A wage-led growth model aims at restoring wage growth and argues that this is consistent with long-term growth.

3. Wage-led growth as an economic policy strategy

Wage-led demand and wage-led growth point to the hard reality of economic structure where the size of the wage share plays a significant role in determining economic growth (irrespective of the types of the policies and institutions "imposed" on the economy). Note that neither wage-led demand nor wage-led growth requires wages (or the wage share) to increase. It is therefore important to distinguish between changes in income distribution (or distributional policy) and the nature of the demand and the growth regime. Indeed, empirical studies suggest that many OECD countries are "wage-led economies" but wage shares have fallen throughout OECD countries (e.g., Naastepad and Storm, 2006).

In order to establish a wage-led growth process, therefore, **economic policy** will have to address issues of income distribution as well as economic structure. As illustrated in Table 1, all four combination between wage-led and profit-led growth demand regimes and "active" and "passive" distributional policies are possible, but not all are equally consistent. In a wage-led economy active distribution policies will result in a growth process, but passive policies will result in stagnation (or instability). Conversely, in a profit-led economy active distribution policies will lead to stagnation and passive policies would lead to a profit-led growth process. This latter scenario is essentially the trickle down argument that neoliberal economists have been making.

Table 1: Possible conceptual framework concerning wage-led economy and distribution policies

Distributional policies **Economic regime**	**Active**	**Passive**
"Wage-led"	Wage-led growth process	Stagnation (or unstable growth)
"Profit-led"	Stagnation or unstable growth)	Profit-led growth process

As an **economic policy strategy,** wage-led growth refers to an economic growth strategy where a range of policies are introduced to boost the wage share (e.g., redistributive polices, stronger minimum wages, and more active use of collective bargaining), which results in higher consumption demand and higher productivity growth which in turn lead to higher investment. As a consequence the productive capacity of the economy is also growing.[2] In short, a "**wage-led growth strategy**" is the *coherent* growth strategy which applies an active distributional policy to a "wage-led" growth regime.

For clarification, the wage-led growth strategy as defined as above should not be understood to imply that it is concerned only with the employed wage earners and thus fails to appreciate the importance of unemployment. The key concern in the framework of wage-led growth is the distribution of total income to capital and labour (*i.e.*, functional income distribution) and the key indicator is the wage share which can be expressed in its simplest form as follows:

Wage share = total wage compensation /total income = (average wages * total wage employment)/total income

It is clear that the wage share can be increased not only by increases in average wages but also by increases in wage employment. For instance, work sharing during economic downturn, which proved effective in maintaining wage share (i.e., stagnating wages plus stable employment) in some countries such as Germany, can be seen as an important of the wage-led growth strategy. Therefore, the wage-led growth strategy is in a sense both "wage-led" and "employment-led", effectively addressing both quantity and quality dimensions of employment. (However, it is overall focussed on formal employment, and research is needed to find ways of incorporating informal employment into the macroeconomic framework).

4. Is the wage-led economy a global norm?: Need for a global mapping

With conceptual clarifications about wage-led growth, it is important to identify which countries belong to the "wage-led economy" and to come up with a rough global mapping which indicates the distribution of different types of economics around the globe. Most existing studies are limited in country coverage (mainly OECD countries) with few exceptions (e.g., Onaran and Stockhammer 2005) and little is known about developing countries such as China, Brazil and South Africa. In addition, the results of these empirical studies are sometimes sensitive to econometric methodologies.

As the issue of "wage-led" economy relates to economic structure, it is possible that an economy experiences a shift in economic regime: wage-led to profit-led, or vice versa. Research is rather scant on this issue. Earlier studies pointed to the role of economic openness and globalization in converting wage-led to profit-led economies (e.g., Germany and Japan, as suggested by Bowles and Boyer, 1995).

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[2] The set of such policies can be extensive. For instance, it is argued that "redistributive, pro-worker interventions in the labour market need not to lead to higher (steady-inflation) unemployment if labor productivity is raised at the same time by proper fiscal, monetary, income and technological polices" (Storm and Naastepad, 2009).

Therefore, there is a need for global mapping from the perspective of wage-led growth (at least for G20 countries). One important issue underlying this mapping exercise is the proposition of "asymmetry": while all countries can be wage-led economies simultaneously, all countries cannot be profit-led economies. Of course, this proposition is based on the assumption (or empirical fact) that a profit-led economy is likely to be export-oriented. Considering that this assumption may not hold for some countries (e.g., the US), a weaker version of this proposition is that only a small group of countries can be profit-led. In other words, a wage-led rather than a profit-led economy is the global *norm*, and therefore, this should the base for development policies in developing countries. This issue is related to on-going debates on global rebalancing.

5. Falling wage share: Causes and consequences

There has already been a growing body of research which documents the declining trend of wage share and its causes (for ILO contributions, see ILO, 2008a; 2008b and 2010). This trend is particularly puzzling, given that the wage share has also been falling in wage-led economies. This raises two interesting questions: determinants of wage share and the consequences of falling wage share.

First, concerning the determinants of wage share, the role of technological changes appears to have been mis-presented and over-estimated (IMF 2007a and 2007b; EC 2007). This "conventional wisdom" has already been challenged by ILO (2008a and 2008b). More recently, Stockhammer (2009) checked the robustness of the earlier studies and found that their conclusions suffer econometric problems. In his econometric model which corrected these problems, technological changes are no longer statistically significant. Interestingly, Stockhammer found that globalization (as measured by economic openness) and labour market institutions such as union density are the major determinants of the wage share. However, these studies are limited to OECD countries, and questions remain if these findings can be extended to the global economy. Some pioneering studies which cover developing countries (ILO 2008a and 2008b) indicated the importance of globalization and labour market institutions, largely in line with Stockhammer (2009). Yet these conclusions are still tentative and more empirical evidence based on more rigorous statistical analysis is needed.

Second, the consequences of falling share deserve serious attention as well, as they may give invaluable policy lessons. According to the simply conceptual framework in Table 1, falling wage share (due to "passive" policies) in the wage-led economy may have the risk of leading to lower growth and/or macroeconomic instability. Given the trend of growing inequality in income distribution before Great Recession, one crucial hypothesis is if such widening inequality, coupled with financialization, has been the key contributor to the crisis (Fitoussi and Stiglitz, 2009; Rajan, 2010; Reich 2010). In fact, the critical importance of the linkage between income distribution and macroeconomic stability has already been recognized in Post-Keynesian literature (see Godley and Lavoie 2007), and advances have been made in macroeconomic modelling and econometric studies (e.g., Charpe, 2010; Kumhof and Rancière, 2010; Horn et al., 2009).

6. Do high wages reduce or increase investment/productivity: The linkage between wages, investment, and productivity

One of the most familiar arguments against high wages is that they kill investment and cut productivity growth. This view is well established in the conventional NAIRU (Non-Accelerating Inflation Rate of Unemployment) approach which assumes a straightforward trade-off between high wages and low investment. However, this "conventional wisdom" can be questioned from the perspective of the wage-led growth. Simply put, what is missing from this view is the macroeconomic benefits of high wages in terms of their impacts not only on consumption demands but also on investment and productivity. In fact, the productivity-enhancing effects of higher wages are well known at the workplace level as "efficiency wages" either in theories or empirical studies (e.g., Bewley, 1999). It will be interesting to see if this micro-level logic can be extended to the macroeconomic level. This constitutes a critical element of wage-led growth.

Evidence is already available. For instance, Storm and Naastepad (2011) provide both theoretical and empirical cases for the macroeconomic version of efficiency wages. They identify three possible channelling mechanisms. Higher wages can lead to: (a) increasing capacity utilization; (b) increasing labour productivity through better use of production technologies or the deepening of division of labour; (3) promoting innovation and technological progress. However, higher wages as "beneficial constraints" for productivity growth do not seem to be automatically guaranteed. Rather, certain conditions must be met for the win-win outcome to materialize, and this is the issue which requires further research (*ibid*).

7. Concluding remarks: the potentials of research on "wage-led growth"

Considering the growing need for an alternative macroeconomic framework based on the lessons from Great Recession, this paper has explored the potentials of wage-led growth which basically challenges the perception of "wage moderation" as a necessary condition for economic growth. The premise of the paper is that the wage-led economy can create economic outcomes which are more stable and sustainable at both national and global levels. Particular attention has been paid to the issues which the model of wage-led growth needs to be addressed in order for it to be recognized as a serious alternative model for policy makers. In doing so, attempts have been made to provide a way of clarifying the meaning of "wage-led" in terms of aggregate demand, economy and policy strategy. Based on these conceptual clarifications, some of common confusions over the concept of "wage-led" have been addressed. Then, the paper outlined key research questions including the determinants and consequences of growing inequality in functional income distribution (e.g., wage share) and the macroeconomic dynamics which they may create, especially with a view to the developments leading to Great Recession.

It is hoped that more research effort will be mobilized, especially within ILO, to determine the possibility of wage-led growth as an alternative policy strategy. Such work will succeed only when reliable theoretical and empirical responses are provided to a number of key outstanding issues, some of which have been discussed in this paper.

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