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# Income Distribution and Economic Growth: A Critical Approach

**Summary:** The aim of this paper is to review the Kaleckian and post-Kaleckian literature on income distribution and economic growth and question the extent to which they analyse countries' economic regimes and economic performances properly and appropriately to understand countries' economic performances. The debate focuses on the inclusion of profit margin in the investment function as a way to characterize the effective demand regime in the neoliberal era as a profit-led growth regime. Our argument is that this inclusion is not able to evaluate properly the countries' economic growth in terms of the consistency between its effective demand regimes and income distribution.

**Key words:** Effective demand regime, Income distribution, Economic growth, Kalecki.

**JEL:** E12, E25, O40.

The discussion on income distribution and economic growth has gained importance since the emergence of the Great Recession. Central banks and Treasuries of developed countries avoided the collapse of the banking systems and the depression of these economies. The profitability of corporations has increased (Richard Baldwin 2011), but the economic growth of these economies has been low. The difficulties to increase the economic activity, despite the higher profitability of corporations, have brought doubts as to how economic growth is related to income distribution.

According to Marc Lavoie and Engelbert Stockhammer (2014), the crisis has put into question two main features of the dominant economic thinking: the idea of efficiency and stability of non-regulated financial markets; and the idea that wage moderation and labour market flexibility would lead to a more productive, stable and dynamic economy, which eventually would benefit workers. International organizations, such as International Labour Organization (ILO 2016), have questioned this dominant economic thinking and have proposed policies to increase wages and reduce wage inequalities. The argument is that these policies are able to provide higher and sustained economic growth and they would be the most appropriate alternatives to face the next financial and economic crises.

The debate on the effect of income distribution on economic growth had started before the Great Recession and referred especially to the experiences of the post Second World War and the post neoliberal reforms of the 1980s. Political and institutional actions to increase the wage share and decrease wage inequality in the post World War took place under a favourable institutional scenario. Under this scenario, the impact of these political and institutional actions on consumption, invest-

ment and net exports were positive, leading to higher and continued GDP growth, low inflation and fiscal and balance of payments equilibrium. On the other hand, the institutional framework created by the neoliberal reforms since the 1980s redefined the relationship between income distribution and economic growth. Political and institutional actions to increase the wage share and decrease wage inequality were avoided. The financialisation process amplified the possibilities to enhance the demand for credit and financialisation was followed by the globalization era. Increases in effective demand through debt increased GDP growth, but production globalization constrained increases in domestic production, since production became globalised. Production became fragmented and each country and region turned specialized in part of the production of the global supply chain (Paulo Eduardo de Andrade Baltar et al. 2016). So, GDP growth took place with low inflation and it tends to be less intense and discontinued.

The aim of this paper is to review the Kaleckian and post-Kaleckian literature on income distribution and economic growth and question the extent to which they analyse countries' economic regimes and economic performances properly and appropriately to understand countries' economic performances and their relationship to income distribution. More specifically, the objective is to question whether analysing an economy as *wage-led* or *profit-led* is the most appropriate way to understand its dynamics and the changes generated by the neoliberal reforms after breaking down the political/institutional agreement that were important in the *wage-led* growth model that occurred during the post Second World War. The debate focuses on the inclusion of profit margin in the investment function as a way to characterize the effective demand regime in the neoliberal era as a *profit-led* growth regime. Our argument is that this inclusion is not able to evaluate properly the countries' economic growth in terms of the consistency between its effective demand regimes and income distribution.

This paper is organized in three sections. Section one reviews the Kaleckian literature on economic growth and functional income distribution. Section two discusses whether the way the literature evaluates countries' economic performance in terms of the consistency between its effective demand regimes and incomes policy, which accounts for income distribution, is the most appropriate way. And finally, Section three summarizes and concludes the paper.

## 1. Literature Review

The literature on functional income distribution and economic growth establishes a relationship between wage share and economic growth based on Michal Kalecki's (1954, 1971) contributions. There are two different approaches based on Kalecki's contribution. One approach, called in the literature as neo-Kaleckian models, follows the central ideas of Kalecki (op. cit.) on the relationship between income distribution and economic growth, such as Josef Steindl (1979), Amitava Dutt (1984), Lance Taylor (1985), Robert A. Blecker (1989) and Lavoie (2007). The second approach, called post-Kaleckian approach, modifies the central ideas of Kalecki (op. cit.), specially the relationship between income distribution and investment, such as Amit Bhaduri and Stephen Marglin (1990).

According to Mário Luis Possas (1987), income distribution affects the intensity GDP grows in Kalecki's (1954, 1971) work; however, it does not determine economic growth. The latter is determined mainly by investment and capitalist consumption. Investment and capitalist consumption determines GDP, and the latter can be more or less pronounced depending on the evolution of income distribution. This is because the propensity to consume out of wages is higher than the propensity to consume out of profits. Capitalist consumption is related to wealth and credit. Only workers consumption is directly related to income. Thus, considering the behaviour of capitalist consumption and investment, the behaviour of GDP will be more pronounced if income distribution changes in favour of workers and it will be less pronounced if income distribution changes in favour of capital.

Following Kalecki (1954), let us suppose, to simplify, that workers consumption is equal to labour income, considering that workers do not have wealth; but neither do they have access to credit. Therefore, we can consider the following equation in the case of a closed economy without government:

$$Y = I + C_K + wY, \quad (1)$$

where  $Y$  is GDP,  $C_K$  is capitalist consumption and  $w$  is the share of wages in total income, i.e.  $w = W/Y$ , where  $W$  is total wages. Rearranging the equation for GDP, we have:

$$Y = \frac{I + C_K}{1 - w}, \quad (2)$$

therefore, if  $w$  raises, the impact of  $I$  and  $C_K$  on  $Y$  is greater.

For Kalecki (1954, 1971), in turn, the determinants of the evolution of income distribution are different from the determinants of the evolution of investment and capitalist consumption. Income distribution does not affect the behaviour of investment and capitalist consumption; it only affects the evolution of GDP, given the behaviour of investment and capitalist consumption.

In short, for Kalecki (1954, 1971), the determinants of economic growth are capitalist consumption and investment. As already discussed, the determinants of income distribution may only intensify or reduce the effect of capitalist consumption and investment on GDP. Thus, for Kalecki, there is always a direct relationship between wage share and economic growth and an incomes policy that increases wages in total income necessarily affects positively GDP growth.

Investment is, then, the main component of effective demand to analyse the behaviour of GDP. Steindl (1979), in the same line as Kalecki (1954), shows that in a capitalist regime of small firms, competition is the mechanism that allows the production capacity to adjust to sales. In an economy with several small producers, the ones that innovate are able to provide the same product with lower cost. The use of this new production capacity, initially increases the relation price/total cost of the industry, because innovative firms sell products at the market price, while their production has lower costs. If the production, including the use of this new capacity, increases more than sales, competition intensifies and prices tend to decrease. Consequently, higher-cost producers will be driven out of the market, because they are not able to produce at lower prices. In this sense, competition makes production capacity to adjust to sales, reducing the relation price/cost, i.e. the profit margin.

Thus, less efficient producers are driven out of the market, and competition adjusts the production capacity to sales. In this adjustment process, profit margin decreases and firms that are more efficient use their production capacity. In this sense, there is an adaptive mechanism in a competitive economy of small firms from the production capacity to sales. Producers that innovate enhance their production capacity. At the same time, the use of this capacity increases competition and the capacity rises in relation to sales. The production capacity of less efficient producers is, then, eliminated. In this process, profit margin may reduce.

Increasing competition is the result of increased production capacity in relation to sales. Besides that, there is an inverse relationship between wage share and profit margin. Wages is part of the production cost and prices decrease in relation to costs, raising the wage share and decreasing the profit share in terms of the GDP.

In an economy of big companies, it is not easy to eliminate production capacity of the industry. Thus, there is no adaptive mechanism of the production capacity to sales. At the same time, profit margin does not decrease when production capacity tends to surpass sales. Because there is no adaptive mechanism of the production capacity to sales, a pressure of greater productive capacity in relation to sales tends to generate a lower use of the production capacity, with no change in profit margin and wage share in income (Steindl 1979). The lower use of the production capacity, even with high profit margin, tends to affect investment negatively.

In the capitalism of big companies, changes in profit margin and in the functional income distribution require substantial innovation, which is able to change the competitive position of these big firms in the market. In this case, these innovations are appropriate to the big firms only. These big innovations are able to change the stable oligopolistic structure of mature economies, changing their competitive position. This possibility is not fully considered by Steindl (1979).

Kalecki (1954, 1971) considers profit margin and functional income distribution as given when analysing the determinants of economic growth from investment and capitalist consumption. It is implicit in his work, such as in Steindl's (1979) contribution, that a certain stability of the competitive positions of firms in an oligopolistic market should be considered; i.e. they do not consider changes in the competitive position of oligopolistic firms.

In short, considering an oligopolistic market, any change in wage share will necessarily be positively related to economic growth, because it intensifies the effect of capitalist consumption and investment on GDP. Blecker (1989) advances the analysis and introduces the relation of the economy with the rest of the world in the discussion of functional income distribution and economic growth; i.e. Blecker (op. cit.) includes the external trade to the relevant analysis. In this sense, GDP is determined by household consumption ( $C$ ) and investment ( $I$ ), but also by exports ( $X$ ) and imports ( $M$ ).

$$Y = C + I + X - M, \quad (3)$$

where consumption, in this case, relates mainly to workers consumption, i.e.  $wY$ .<sup>1</sup>

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<sup>1</sup> Government expenditure is not considered here, but its inclusion would not change the analysis.

Even under this neo-Kaleckian approach, when considering an open economy, there is the possibility of an inverse relationship between economic growth and wage share. If we consider the world economy as a whole, the only possibility is a direct relationship between wage share and economic growth, but considering each economy separately, an inverse relationship can take place (Blecker 1989).

Higher wage share can worsen net exports and, therefore, GDP of small open economies in which net exports ( $X - M$ ) are sensitive to changes in the relation domestic prices/international prices, and have high income elasticity of demand for imports. Higher wage share implies higher costs in relation to other economies and it implies higher consumption and therefore higher imports due to the high income elasticity of demand for imports. Consequently, it can deteriorate net exports and GDP.

The effect of higher wage share on economic growth would be positive if the effect of higher wage share on consumption of domestic production were greater than the negative effect on net exports. This would be the case of a big economy, relatively closed to trade, and with net exports insensitive to changes in domestic/international prices as well as low income elasticity of demand for imports.

In short, the effect of higher wage share will be negative on economic growth if the positive effect on consumption is lower than the negative effect on net export. This is probably the case of a small open economy, especially when net exports are sensitive to domestic/international prices and when income elasticity of demand for imports is high. On the other hand, the effect of higher wage share would be positive on economic growth if the positive effect on consumption is greater than the negative effect on net export. This is probably the case of a big and relatively closed economy, especially when net exports are insensitive to domestic/international prices and when income elasticity of demand for imports is low.

To conclude, in a neo-Kaleckian model that follows the main characteristics of Kalecki's (1954, 1971) model, the determinants of income distribution are different from the determinants of consumption and investment. In a closed economy, there is a positive relationship between wage share and economic growth. Nevertheless, there is the possibility of an inverse relationship between wage share and economic growth when considering an open economy, as suggested by Blecker (1989).

According to Blecker (1989, pp. 396-397), neo-Kaleckian models often "assume that firms determine their prices by charging a fixed percentage mark-up over some measure of direct or prime costs (per unit labour and material costs). In an open economy, however, firms must take foreign competition into account in setting their mark-up rates. (...) The notion that international competition can squeeze profit margin (and the profit share) is incorporated into the model *via* a flexible mark-up price rule". Thus, the consideration of international competition limits the possibility of increases in wage share and the effects of this higher wage share on GDP growth.

The main difference between neo- and post-Kaleckian models relates to the effect of income distribution on investment. Post-Kaleckian models, such as Bhaduri and Marglin (1990), go beyond Blecker's (1989) considerations of the effect of international competition on income distribution and economic growth. Post-Kaleckian models consider that profit share affects the behaviour of investment. This change in

Kalecki's investment function reinforces the possibility of an inverse relationship between wage share and economic growth. Wage share affects consumption and therefore reinforces the effect of investment on GDP; but it also affects investment decision, which is the main determinant of the GDP.

In Kalecki's (1954) investment function, internal profit accumulation is included in the equation to incorporate the principle of increasing risk of investment when firms need external financing. The higher the share of investment financed with debt, the higher is the risk associated with this investment. Thus, the internal accumulation of profits of firms has a positive effect on investment because it means less need of debt and/or better possibilities to acquire debt when necessary. Kalecki (op. cit.) also incorporates in the equation changes in profit and changes in the stock of capital. Both variables indicate changes in production capacity utilization that would suggest to entrepreneurs whether there is a need for more investment. This is the way Kalecki (op. cit.) shows the effects of expected profitability on investment that do not necessarily correspond to the actual profitability.

Bhaduri and Marglin (1990) go further in their investment equation and incorporate the positive effect of profit margin on investment. The authors assume that investment is a function of the actual profit rate and show that when decomposing the profit rate, we have profit share, degree of capacity utilization rate and a technical coefficient. For the authors, given the technical coefficient, investment is a function of the profit margin and capacity utilization. In this sense, profit margin and capacity utilization should be treated as independent and separate arguments in an investment function.

So, for Bhaduri and Marglin (1990), the accumulation rate of capital is a function of current profit. The latter depends, for a given technical capital/productive capacity relation, on the profit margin and the degree of capacity utilization. For a given utilization, higher profit margin means greater profit rate and greater capital accumulation. Since there is an inverse relationship between profit margin and wage share, higher wage share would be related to lower investment.

In this sense, an increase in wage share has a positive effect on consumption, and therefore, on GDP. However, at the same time, higher wage share means lower profit share and lower profit margin, which in turn, have a negative effect on investment. So, a policy to increase the wage share can have positive or negative effects on GDP, depending on the impact on investment and consumption. In short, Bhaduri and Marglin (1990) incorporate the possibility of an inverse relationship between wage share and economic growth, but in this case, this effect takes place through investment and not through net exports such as in Blecker (1989).

## 1.1 Income Distribution, Economic Growth and Economic Regime

The way Kalecki (1945, 1971) incorporates income distribution, there is always a positive relationship between the evolution of wage share in total income and the degree the economy grows. The relevant literature expresses this direct relationship between wage share in total income and GDP growth as *wage-led growth*. In Kalecki (op. cit.) and in the neo-Kaleckian models, economic growth of a closed economy is always *wage-led growth*.

In the post-Kaleckian models, on the other hand, there is the possibility of an inverse relationship between wage share in total income and economic growth even in a closed economy, depending on the impact of changes in functional income distribution on consumption and investment. If the effect on consumption is greater than the effect on investment, economic growth would be *wage-led*, and if the impact on investment is greater than the impact on consumption, economic growth is *profit-led*. Even in post-Kaleckian models, the determinants of income distribution is analysed separately from the impact of income distribution on economic growth, i.e. economic regime (*wage-led* or *profit-led*).

According to Lavoie and Stockhammer (2014), the determinants of income distribution relates to collective bargaining institutions that condition workers fight for higher purchasing power of salaries (laws for minimum wage, labour unions, employment protection and so on). Wage share also depends on the possibility of transferring costs to prices associated with the use of labour in the production. On the other hand, the effect of the evolution of income distribution (wage share and workers income inequality) on the performance of the economy depends on its structure. The latter affects the impact of income distribution on consumption and investment and define the macroeconomic regimes as *profit-led* or *wage-led*.

Distributive policies can be pro-capital or pro-labour (Lavoie and Stockhammer 2014). Pro-capital policies are related to a decrease in wage share in total income. These measures aim at labour market flexibility, weaker collective bargaining, labour unions and institutions to protect employment as well as measures such as exempting capital gains from income taxation and favouring profit. Pro-labour policies are related to policies that increase wage share in total income. This would be the case of measures to strengthen workers, such as the welfare state, labour market institutions, trade unions and the ability to engage in collective bargaining, as well as minimum wage, employment protection, and so on.

When the income distribution policy is known, i.e. whether the policy is pro-labour or pro-capital, the next step is to evaluate the effect of these policies on the performance of the economy. In short, it is possible to analyse what happens to economic growth if wage share increases or decreases. An economic regime is *profit-led* if a change in income distribution policy is in favour of profits (or against workers); this would have favourable repercussions on economic performance. The same is valid when a policy of increasing wages generates lower economic growth. An economic regime is *wage-led* when increases in the wage share induces higher GDP growth or when measures that favour profits have negative impact on the performance of the economy.

The idea stressed by post-Kaleckians is that the nature of the economic regime (*profit-led* or *wage-led*) depends on the structure of the economy, i.e. the impact of consumption on GDP (multiplier effect) and the effect of profit margin on investment, and therefore on GDP. This structure, in turn, influences the impact of income distribution on consumption and investment. The distribution policy, as discussed above, can be separated into two groups, *pro-capital* and *pro-wage*, and they can be related to the country's economic regime, i.e. *profit-led* and *wage-led*. Accordingly, if the distribution policy were consistent with the country's economic regime, this

economy would present a good performance, and if distribution policy were inconsistent with the economic regime, the opposite would take place. Table 1 summarizes the four possibilities that relates to income distribution policies and economic regimes.

**Table 1** Distribution Policy and Economic Regime

		Economic regime	
		<i>Profit-led</i>	<i>Wage-led</i>
Distribution policy	<i>Pro-capital</i>	Good GDP performance	Bad GDP performance
	<i>Pro-wage</i>	Bad GDP performance	Good GDP performance

Source: Own construction.

According to Lavoie and Stockhammer (2014), pro-capital policies in a *profit-led* economy correspond to the neoliberal ideology, in that workers would benefit through a *trickle-down* economics. The idea of *trickle-down* economics is that higher GDP growth means higher employment that, in turn, can favour workers and the purchasing power of salaries, despite the pro-capital policy.

Pro-labour policies in a *wage-led* regime correspond to the post Second World War period, when many developed economies promoted the expansion of the Welfare State (Lavoie and Stockhammer 2014). Pro-labour policies in a *profit-led* regime correspond to the stagflation period, when policies in favour of labour continue to take place, but the structure of these economies is different from the post-war period. During stagflation, higher wage share has a negative impact on investment that surpasses the positive impact on consumption (Lavoie and Stockhammer 2014).

And finally, pro-capital policies in a *wage-led* regime correspond to what has been observed since 1980 after the neoliberal reforms. Lavoie and Stockhammer (2014, p. 20) interpret this situation as “neoliberalism in practice”. During this period, it is possible to note a decrease in wage share followed by poor economic performance. According to the post-Kaleckian approach, this is because the positive effect of higher profit share on investment is lower than the negative effect of lower wage share on consumption.

In short, according to post-Kaleckians, the relation between functional income distribution and economic growth can be direct or indirect, depending on the characteristics of the economy. In this sense, it is important to verify the effects of income distribution on economic growth empirically; to do so it is crucial to verify the structural characteristics of the economy in question and understand whether this influence is direct or indirect. There is a vast literature of empirical work that estimates these relations in the case of different countries and different periods (for empirical literature on this topic, see Emilie Daudey and Cecilia García-Peñalosa 2007; Eckhard Hein and Lena Vogel 2008; Stockhammer, Özlem Onaran, and Stefan Ederer 2009; Onaran, Stockhammer, and Lucas Grafl 2011; Martin Adler and Kai D. Schmid 2012; Onaran and Giorgos Galanis 2012; Stockhammer and Onaran 2012; Eva Schlenker and Schmid 2013; Blecker 2015; Edward N. Wolff 2015).



## 2. Criticisms of the Wage-Led / Profit-Led Growth Approach

There is a debate whether the inclusion of profit margin besides the degree of capacity utilization in the investment function, as suggested by Bhaduri and Marglin (1990), is appropriate. Tracy Mott and Edward Slattery (1994, p. 79) suggest that: “there is a sound argument for taking investment to be affected by the level of profit as a proxy for cash flow, independently of concerns for the level of sales or the rate of capacity utilization”. This refers to Kalecki’s principle of increasing risk. According to Mott and Slattery (op. cit.), the justification for the inclusion of capacity utilization is straight forward, but it is not clear that the justification for investment as an increasing function of profit share, the latter being used to capture investment profitability.

The inclusion of the level of profit in the investment function is not to capture the profitability of investment, but to take into account the risk to finance investment with debt. Investment profitability can be different from the current profitability of the firm and the investment profitability is a result of the use of the new capacity created by this investment.

Thus, for Mott and Slattery (1994, p. 72): “investment which lowers costs by increasing productivity will increase profitability at any level of utilization if the productivity gains will be captured in subsequently higher mark-ups and utilization will not decrease, regardless of the previous level of the mark-up. Investment in expanding plant and equipment will not be profitable unless sales are high enough, which may require some lowering of the mark-up”.

For Mott and Slattery (op. cit.), the contribution of Bhaduri and Marglin (1990) was to show that there were problems in the logic of the stagnationist model developed from the ideas of Kalecki (1954, 1971) and Steindl (1979) when considering an open economy. However, Bhaduri and Marglin (op. cit.) did not express properly the nature of the problems created by an open economy.

Considering that profit share does not affect directly investment and wages have a higher propensity to consume compared to profits, there would always be a direct relationship between wage share, economic activity and economic growth. However, Mott and Slattery (1994), in line with Blecker (1989), consider that the relationship between income distribution and economic growth is affected by the external trade.

In a closed economy, higher wage share has a positive influence on consumption. If consumption increases the capacity utilization, investment would also increase. Profit share in total income would be lower due to higher wage share, but total profit would probably be higher, if workers have their consumption equal to their wages.

In an open economy, the relationship between income distribution and the degree of capacity utilization is more complicated, because higher purchasing power of wages can be accompanied by lower competitiveness of this economy. In this case, higher purchasing power of wages would generate less net exports, with negative effects on domestic production and total profit. The effect of a higher purchasing power of wages on consumption would be lower than in the case of a closed economy. If it were not enough to compensate the reduction in net exports, it would lead

to a lower use of the productive capacity, which would deteriorate by the reduction in investment. Thus, in an open economy, there is the possibility that a higher wage share takes place with lower economic growth.

Thus, international competition can constrain the mark-up and help to increase the purchasing power of wages. However, the lower international competitiveness and the purchasing power of wages increasing more than productivity, there is the possibility of a lower capacity utilization and lower economic growth. In this case, lower investment is part of this lower economic growth, and it is not the result of the possible negative effect of lower profit share. According to Mott and Slattery (1994, p. 79), “the major macroeconomic effect of increased international competition (...) has been to steepen the inflation and employment trade-off. That is, macroeconomic stimulus, especially if through the lowering of interest rates, but also by leaking out in import demand, has tended to threaten greater inflation through currency depreciation per number of job created than in more closed economies. And high interest rates used to fight inflation, by appreciating a nations’ currency, caused more unemployment than in a more closed setting. This is associated with a squeeze on mark-ups but also with greater support for austerity to hold wage cost down and to prevent rentier interests from suffering due to inflation”.

The *wage-led* growth model prevailed in developed countries during the post Second World War period, when Nation-states had autonomy on the economic activity of their economies. This autonomy was supported by a strong public control of private financial activities in different countries and Nation-states coordinated the exchange of currencies and financial capital flows between countries.

The institutional framework that supported a *wage-led* growth started to deteriorate when Nation-states lost the control over inflation and over the currency exchange rates since the end of the 1960s. This took place at the same time the competition of manufactured goods between developed countries increased, followed by a lower autonomy of Nation-states on the economic and financial activities of their countries.

Changes in the institutional framework altered the relationship between income distribution and economic growth. On the one hand, public action changed, moving from the support to employment and to the purchasing power of wages to an increasing liberalisation of the labour markets and of private financial activities. On the other hand, production and finance tended to be more internationalised, affecting price formation and the relationship between income distribution and effective demand.

Thus, it is not trivial to explain the characteristics of the effective demand regime in the neoliberal era as opposed to the effective demand regime of the post World War period characterized by a *wage-led* growth regime. To characterize this neoliberal period as a *profit-led* growth regime, by simply including the profit share in the investment function, is not enough to explain properly the relationship between income distribution and economic growth and it gives the wrong idea that profitability and capital accumulation can be reinforced only by policies that support a reduction in the purchasing power of wages.

Blecker (2015) attempts to explain the relationship between income distribution and economic growth after the neoliberal reforms, emphasizing the possibility of different outcomes for the impact of income distribution on economic activity when the time length is considered. According to Blecker (op. cit.), several empirical studies conclude that a number of countries are *profit-led*, because they show an inverse relationship between wage share and GDP growth. However, these studies use statistical methods that capture the short-run relationship between wage share and economic activity. With the use of more appropriate statistical methods to capture the relationship between income distribution and GDP growth in the long-run, the results for the same countries may indicate a *wage-led* growth (Blecker 2015).

In developed countries since the 1980s, the tendency to increase the purchasing power of wages has been lower than increases in productivity. Therefore, wage share has tended to decrease in these countries. However, the comparison with the post Second World War period shows a more unstable GDP growth with lower growth trend as well as a lower investment rate. These results suggest that in the long-run, economic growth is *wage-led* and that the tendency to lower wage share has contributed to the poor macroeconomic performance of developed countries.

However, in the short-run, there is a direct correlation between profit share and the level of economic activity. During the recovery of the business cycle, unemployment rate is high and the productivity of total workers is low; this so because the proportion of overhead labour in total employment is high (Lavoie 1995, 2014; Blecker 2015). Therefore, at the beginning of the recovery, nominal wages do not increase, while productivity increases, reducing the share of overhead labour in total employment. So, the recovery initiates a decrease in the wage share and improvements in competitiveness can raise net exports, reinforcing increases in the profit share. Continuing recovery induces increases in investment and the higher investment rate reinforces increases in the profit share. However, continued improvements in the economic activity modify the situation and create conditions to reverse the cycle and change the income distribution path. Before this, eventual increases in prices and wages reduce the economic competitiveness of the economy, worsening net exports and the profit share in total income. But, it is the reversion of investment that leads to the contraction in the economic activity, leading to a symmetrical movement in the profit share compared to the expansion phase. Increases in the share of overhead labour in total employment reduce the productivity of total workers, reinforcing the effects of lower investment rate on the profit share.

Changes in the institutional framework as a result of the neoliberal reforms contribute to reinforcing the direct correlation between profit share and the level of economic activity. In particular, the liberalisation of private financial activity increases the possibility of household debts; and higher consumption through debt, reinforces increases in profit share when the economic activity is high. Higher household debt, disproportional to increases in wages, contributes to raising the profit share, but it also tends to raise the debt services as a proportion of household income. Thus, debt can contribute to intensifying the movement of high economic activity, but it also shortens the cycle phase in relation to the post Second World War period. In the latter, the possibilities of debt were lower and there was the public support in favour of improvements in the purchasing power of wages.

Consequently, economic growth after the neoliberal reforms of the 1980s would be less promising and with a lower long-run tendency. In each phase of the cycle, profit share varies in the same direction as economic activity, but in the long-run, the wage share decreases and wage inequality increases, affecting negatively the long-run economic growth. In the short-run, GDP growth seems to be *profit-led*, but in the long-run, it is still *wage-led*. The abandonment of policies that support the purchasing power of wages and the labour market along with financial liberalisation do not invert the effective demand regime in terms of long-run trend. It only generates a tendency to wage inequality and a decrease of wage share in the long-run. GDP growth becomes more irregular and with a lower long-run trend.

### 3. Final Remarks and Conclusions

There is a vast literature on income distribution and economic growth based on Kalecki. Some authors follow the basic ideas of Kalecki (1954, 1971) in which income distribution may reinforce the effect of investment and capitalist consumption on the economic activity. Under this approach, the determinants of investment and capitalist consumption are different from the determinants of income distribution. Other authors, however, include the income distribution as an important determinant of investment, and therefore it has other effects on economic activity apart from the ones already pointed out by Kalecki (op. cit.); thereby opening the possibility that an inverse relationship between wage share and economic activity takes place.

Kaleckian literature analyses countries' economic performances in terms of the consistency between its income distribution policies and its effective demand regimes. A favourable policy to wage share in an economy with a *profit-led* demand regime would generate a bad performance of GDP, inflation and balance of payments disequilibrium. A policy not favourable to the wage share in a *wage-led* economic regime would also generate a poor performance of the economy, ending up in low economic growth, high unemployment rate and high income inequality. A favourable policy to the wage share should be implemented in economies with *wage-led* demand regimes. In a *profit-led* economy, an adequate incomes policy would be the one against the wage share. In this case, however, a healthy performance of the economy would generate a trickle-down movement in favour of workers that would also be benefitted by the high economic activity.

The criticism of the inclusion of profit share in the investment function and a better characterization of the effects of the neoliberal reforms on the relationship between income distribution and economic growth, reinforce the way Kalecki considered income distribution. The latter hypothesised income distribution as a supporting actor in the capitalist dynamic, highlighting investment and capitalist consumption as the main actors in this dynamic.

In a closed economy, Kalecki's proposal is adequate, because the income distribution determination by the competition of firms, their suppliers and employees, in stable market structures, is not affected by the economic activity. In an open economy, this issue is more complicated, because the level of economic activity can affect the competitiveness of the economy and alter income distribution. In this case, however, the wage share continues to affect positively the performance of the economy, in terms of long-run trend. An unfavourable policy to wage share would worsen the product growth trend.

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