Are Developed and Developing Countries Structurally Different? An Analysis of Kalecki's Thought

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Abstract

This paper compares Kalecki's ideas with regard to the economic structure of developed and developing countries. Kalecki highlighted the different role that aggregate demand and supply constraints played in developed and developing countries. Output in the short run was determined by demand in the richest countries, while it was subject to supply bottlenecks in the food and external sectors in developing societies. This difference also had implications for economic growth and income distribution. Nevertheless, one should not interpret Kalecki's theory simply in terms of different "closures", since his analysis goes well beyond model determination and incorporates differences in class politics and state structure, both of which are reviewed in this paper. I finish with an evaluation of the usefulness of Kalecki's ideas under globalization. The Kaleckian politico-economic approach offers a useful starting point to analyze the differences between both sets of countries, but requires adaptations to the global changes that have taken place in the last three decades. In particular, a modern analysis should incorporate the role of transnational corporations and financial institutions and the reduction in the importance of the agricultural bottleneck in many semi-industrialized countries

NOTE: This is a work in progress, please do not quote

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"It may be seen now that the difference between highly developed and developing non-socialist economies can be formulated in a very simple way. In one case, existing resources have to be utilized and modern capitalism has learned the trick of doing it. In the other case, resources have to be built up and this requires far-reaching reforms amounting to revolutionary change" (Kalecki, 1976, 27).

1. INTRODUCTION

The last decade has witnessed the reemergence of development economics as a unique discipline within the mainstream. A new research agenda has been developed concentrating on information failures, the role of institutions and the likelihood of divergence. Building on the work of Rosenstein Road and Hirschman, an increasing number of development economists have questioned the exclusive concentration on market allocation of resources and the dominance of convergence (Ray, 2000).

By recognizing that the process of economic development may have multiple equilibria and that many developing countries are stacked in a low-income trap, this "new" development theory shows a better understanding of the differences between developed and developing countries than more Neoliberal theories. In many occasions, however, they still presume that all countries can be placed in a continuum: all have similar economic challenges and economic problems that can be solved by transforming their institutional structures.

Some schools within heterodox economists have traditionally built a more complex view of the differences between developed and developing countries. The Latin American structuralists, for example, believe that there are long term differences between developed and developing countries, resulting from their different place in the global economy (Rodriguez, 1980; Sánchez-Ancochea, 2005). Divergent export specialization, different socio-economic structures and different mechanisms of generation and diffusion of technological innovation result in permanent asymmetries between developed and developing countries. Various dependentist approaches have used this principle to create a more radical view of the development process in which many of the problems of

developing countries are the result of their relations with developed ones (see Vernengo, 2006 for a review).

Some Anglo-Saxon economists working in the broad Post-Keynesian tradition have used structuralist insights to explore the differences between developed and developing countries. Taylor (1991, 2005) is probably one of the best examples. Nevertheless, they are more an exception than the rule, since most Post-Keynesian economists, following Keynes's lead, have concentrated on the analysis of advanced economies and their institutions. Their models focus on the role of aggregate demand and well-developed financial markets, and usually do not take into consideration the specific characteristics of developing countries.

The work of one of the pioneers of Post-Keynesian economists Michal Kalecki constitutes a brilliant exception and a starting point to remedy this problem. Although he is best known for the discovery of effective demand independently of J.M. Keynes (Robinson, 1976) and the study of socialist economies, Kalecki also made important contributions in the area of economic development (Sachs, 2004). He emphasized the need to "theoretically demarcate the differences in the economic structures of 'capitalist'... and peripheral social formations" (White, 1977, 305) and believed that the role of the state and economic policy in the two sets of countries is radically different.

Kalecki's interest lies not only in his systematic distinction between developed and developing countries, but also in his ability to combine economic and political factors. His work explores the basic economic relations that characterize each set of countries in the short and long run, but also the differences in class structures underneath them. As a result, Kalecki still offers an excellent point of departure to explore the

differences between developed and developing countries under the current stage of global capitalism.

Figure 1 summarizes Kalecki's main conclusions in the comparison between developed and developing countries. The main economic difference is the relative importance of effective demand in output determination and growth. While in developed countries excess capacity in most sectors is the rule in both the short and long run and thus the level of effective demand is crucial, in developing countries a general shortage of capital and bottlenecks in key sectors make supply factors much more important. This central distinction helps to explain differences between both sets of countries in many other economic variables such as income distribution and changes in relative prices. It also explains why, for Kalecki, the state should play a completely different role in both types of economies.

The aim of this paper is to discuss the ideas summarized in figure 1 with some detail and evaluate their significance under globalization. I argue that the Kaleckian politico-economic approach offers a useful starting point to analyze the differences between both sets of countries, but requires adaptations to the global changes that have taken place in the last three decades. In particular, the analysis of the differences between developed and developing countries should carefully consider the role of transnational corporations and financial institutions and the reduction in the importance of the agricultural bottleneck in semi-industrialized countries.

To explore and evaluate Kalecki's analysis of the differences between developed and developing countries, I first describe the model of output determination, the determinants of economic growth, the role of the state and the class structure in Kalecki's work for the case of developed countries (section 2) and later for developing ones

(section 3). The paper concludes with a discussion of the current usefulness of Kalecki's approach to economic development.

Figure 1. Structural differences between developed and developing countries in Kalecki's work.

	DEVELOPED COUNTRIES	DEVELOPING COUNTRIES
Short-term output	Output is determined by	Output is limited by bottlenecks in
determination	effective demand, due to the existence of excess capacity in most sectors. Short-run equilibrium is attained through quantity adjustments alone.	certain sectors, particularly the agricultural sector and the foreign sector. Relative price changes are the main equilibrating force in the short run (although quantity adjustments also take place).
Income distribution	Income distribution is determined by the markup. The markup is determined by the degree of monopoly, which depends on institutional factors such as industrial structure or the relative strength of trade unions. Effective demand expansion by itself does not change income distribution	The wage share is directly determined by the price of necessities (especially food) and not by the markup in the industrial sector. The institutional bottlenecks in agriculture and not the strength of trade unions are the main factors influencing income distribution. Effective demand expansions will give rise to a reduction in real wages and the wage share.
Key sectors	Industrial sector. The primary sector plays a minor role (Kalecki does not explain why).	Agricultural sector. Export sector (although Kalecki did not devote as much time to analyzing it).
Determinants of	The rate of growth of effective	The rate of growth of the
growth	demand, especially investment. Kalecki concentrates on the explanation of the determinants of investment decisions.	production of necessities. An expansion of effective demand will lead to inflation unless constraints in this production are solved.

Class composition	Industrial workers and capitalist oligopolistic firms. Power struggle between the two determines income distribution and also state policies.	Complex class structure in which rural actors play a central role. Power relations and property structure in agriculture explains the low growth rate of national income. Class structure leads to the maintenance of the status quo and limits the effectiveness of state intervention.
Role of the state	Expansion of effective demand. State intervention benefits all social classes but it is constrained by the opposition of big business to expansive policies.	Increase in the overall rate of investment with a concentration on agriculture and the foreign sector. Elimination of institutional bottlenecks in agriculture (through land reform, etc). Planning is necessary to assure high rates of economic growth. State intervention is negative for powerful actors.

2. THE ECONOMIC STRUCTURE OF THE DEVELOPED COUNTRIES

2. 1. Determination of output in developed countries: the role of aggregate demand. 1

Although Kalecki has often been treated as a follower of Keynes in the discovery of the concept of effective demand, his model was developed before Keynes and differs from it in several important elements, particularly its accent on the relevance of income distribution, social classes and prices in the determination of income (Laski, 1987).

Kalecki's basic model assumes a closed economy with no public sector. National income is equal to national product and the structure of determination is as follows:

- 1. National income (= national output) is distributed between profits, P, and wages, W.
- 2. The labor share in national income is determined through a markup theory of prices where the degree of monopoly plays a central role.
- 3. Investment demand determines the level of profits.

Although a discussion of Kalecki's theory of prices is beyond the scope of this paper, it is important to underline its main elements in order to explain how the labor share on national income is determined.² Kalecki distinguishes two types of prices: 'demand-determined' prices and 'cost-determined' prices. Demand-determined prices are characteristic of the primary sector (which has a relatively inelastic supply in the short run) and do not play a significant role in developed economies. Cost determined prices, on the contrary, are used in all other sectors, in which supply is normally elastic due to the existence of excess capacity.

Cost-determined prices are crucial for the determination of income distribution among social classes. Kalecki develops a model of price determination at the firm level,

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¹ In this section I will only present the ideas in Kalecki's work that are important to draw a comparison between developed and developing countries. For a full account of Kalecki's model see Sawyer (1982, 1985b).

where prices depend on average prime costs (costs of wages and materials) and the average price in the industry and aggregates it subsequently to the industry level.³ As it is well know in the Post-Keynesian literature, a central variable of the analysis is the "degree of monopoly" that reflects the power that companies in different sectors have to set prices. The degree of monopoly depends on the level of concentration in the industry, the importance of advertising relative to sales, the degree of capital intensity (measured by the ratio of overhead costs to prime costs) and the strength of trade unions (Kalecki, 1971, chapter 5).⁴

Keynes uses the theory of markup pricing to determine the analysis of income distribution and effective demand. A series of simplifications with regard to the economic structure allow him to conclude that the labor share in an industry depends on the degree of monopoly (which determines the markup) and the ratio of material bill to the wage bill (Kalecki, 1971, chapter 6). While the wage share depends on institutional and technical factors, the level of profits is determined by investment demand. While the closed economy model that Kalecki uses to demonstrate this fact is well known in the literature, it may be useful to restated it here:

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² The following explanation is based on Kalecki (1971), chapters 5 and 6.

³ This process of aggregation is not without its problems. For Steedman (1992), the fact that Kalecki's theory of markup prices abstracts from interindustry relations and uses the unrealistic concept of vertical integration makes many of its conclusions very weak. For example, for him it is not possible to establish any clear relation between the average markup and the wage share. These criticisms, however, do not take into consideration the fact that Kalecki's theory of prices is one of partial analysis (Sawyer, 1992) in which "it is not mathematical precision which is so important as relevance in terms of potential concrete application for the analysis of output, employment and growth" (Kriesler, 1992). This last analysis and not the theory of prices in itself is what interest us in this paper.

⁴ The concept of degree of monopoly has usually been misunderstood (Robinson, 1977). It should not be seen as the difference between price and marginal cost or average cost (as Lerner did) but "as those institutional and environmental influences which affect firms' pricing behavior" (Reynolds, 1996, 76). For a critical account of the concept of 'degree of monopoly' in Kalecki see Balasubramanian (1997, pages 61 and 62).

⁵ The fact that profits and wages (measured by the wage share) are determined so differently clearly shows that, in a capitalist society, payments to labor and capital are very different from each other. While workers

- 1. Workers do not save and as a result wages are their only income⁶;
- 2. Profits are the only income of the capitalist class (the salaries of firm managers are treated as profits);
- 3. Capitalists spend their profits on consumption (C_k) and investment (I).
- 4. Capitalists' consumption (C_k) depends on past profits.

All these assumptions can be summarized in the following set of equations:

$$Y = W + P \tag{1}$$

$$Y = C_k + C_w + I \tag{2}$$

$$W = C_{w} \tag{3}$$

$$P = C_k + I \tag{4}$$

$$C_k = cP + A \tag{5}$$

where c is the marginal propensity to consume out of profits, A is a parameter, and for simplicity it has been assumed that profits are stable overtime ($P_t = P_{t+1}$).

Three immediate conclusions can be drawn with the support of this model. First, equation (4) should be interpreted as stating that in a capitalist economy capitalist spending determines profits and not the other way around. This is so because "capitalists may decide to invest more in a given period than in a preceding one, but they cannot decide to earn more" (Kalecki, 1971, 79). Second, profits result from the investment decisions of the capitalists, which determine the path of the economy.⁷ This can be easily seen substituting (4) into (5)

⁶ This assumption reflects the empirical fact that in capitalism "the driving force towards savings is not a 'taste' for savings, but the survival and growth requirements of firms' (Sawyer, 1982, 105).

receive a payment for a productive service, capitalist firms are entitled to the net social product as owners of the means of production (Nell, 1992). This conclusion is also valid for developing countries.

⁷ Kalecki assumes that capitalists' current consumption depends on past profits and as a result concludes that profits are determined by past investment decisions and not by current investment. To keep things simpler, however, this exposition abstracts from this issue of time.

P = cP + A + I, which means that

$$P = (A + I) / (1 - c)$$
 (6)

Third, investment decisions, in conjunction with the markup established by firms, determine the level of national income (Reynolds, 1996) in advanced capitalists economies. Equation (7) and equation (1) alone constitute the basis to determine output in the short run, which is equal to total wages plus total profits,

$$P = (A + I) / (1 - c)$$
 (7)

$$W = \alpha Y$$
 where α is the wage share (8)

Since $Y = W + P = \alpha Y + P$

 $Y = P / (1 - \alpha)$ and substituting P by its value we get,

...
$$Y = (I + A) / (1 - \alpha)(1 - c)...$$
 (9)

Equation (9) summarizes Kalecki's model of short run output determination for advanced economies. National output depends on the degree of monopoly and the ratio of raw materials to the wage bill (both determined the wage share, α), investment decisions and fixed consumption of the capitalists, and the marginal propensity to consume out of profits.

The introduction of more realistic assumptions about the economy adds some new determinants to total output but does not change the structure of determination of the model. In particular, the inclusion of a government and a foreign sector will give rise to the following changes in equation (9),

1. The wage share in total output will now be equal to $V/Y = \alpha'Y + G/Y$ where G represents the wage bill in the public sector and it is assumed to be independent of total output, and α' "does not depend merely on the factors underlying the distribution of

national income, but is influenced also by the effect of the tax system on profits" (Kalecki, 1971, 98).

- 2. P net of taxes = $I + (X-M) + PD + C_k$, where (X-M) and PD are the trade balance and the public deficit respectively (Kalecki, 1971, chapter 7).
- 3. Total output, Y, is equal to total income (W + P) plus total indirect taxes, E (which Kalecki's assumes to be relatively stable in the short run).

As a result, total national output in an open economy with public sector is equal to

$$Y = [(I' + B + A) / (1 - \alpha')(1 - c) + E$$
where $I' = I + (X-M) + PD$.⁸

Equations (9) and (9') illustrate the direct link between income distribution and output determination in Kalecki's view and show why the political analysis of class conflict is so important. Both equations also show two important characteristics of Kalecki's interpretation of developed economies that distinguish them from developing ones. First, total output is determined by effective demand and income distribution and is consistent with the existence of unemployment. Second, the behavior of the economy is determined by the manufacturing sector while the primary sector, despite having an inelastic supply in the short run, does not play any substantial role. Although Kalecki does not explain why this is so, the capacity of developed countries to import primary goods and pay for them with industrial exports and the small size of the agricultural and

⁹ As Kalecki shows in chapter 3 of his 1971 book a reduction in real wages will only be effective in eliminating unemployment in the short run, when the reduction in consumption demand is matched by an equal increase in effective demand out of profits. But this is not likely to happen, because capitalists' consumption is relatively stable in the short run, and investment demand depends on long-term profitability.

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⁸ Notice that in this equation Y represents national output and not national income. In equation (11) Y represented both since they were equal.

mining sector in the economy as a whole are two plausible explanations for this important structural characteristic of advanced countries.

2.2. Determinants of growth in developed countries

For Kalecki, the study of long-run growth is not very different from the analysis of short-run equilibrium and fluctuations. He believes that "the long-run trend is but a slowly changing component of a chain of short-period situations; it has no independent entity" (Kalecki, 1991, 435). As such, it is not surprising that in his account long run growth in advanced economies is determined by effective demand generated mainly by investment and that the explanation of the determinants of investment decisions becomes the central task of a theory of growth.

Kalecki was not satisfied with the Keynesian concentration on 'animal spirits' as an explanation of investment and regarded it as somehow irrational (Robinson, 1977). In his vision, new investment is mainly determined by three factors:

- 1. The level of gross savings out of profits (S). The fact that in Kalecki's short-term model investment always gives rise to an equal amount of savings out of profits at the macro-level does not rule out the existence of external financial constraints at the firm level (Dymski, 1996). Due to these constraints, caused by capital market imperfections, savings out of profits become the main resource to finance capital expansion.
- 2. The desire to get a 'standard rate of profit' out of new investment (π) , which determines whether "the investment decisions taken in a given year are to be equal to entrepreneurial savings, exceed them, or fall short of them" (Kalecki, 1991, 441).

¹⁰ Although Kalecki did not elaborate this idea any further, it seems that he did not agree with the notion that there is a long-period equilibrium around which the economy fluctuates and which is not affected by

3. The existence of technical innovations, since inventions raise expected profitability and as a result stimulate investment (Robinson, 1977).

A model developed by Kalecki (1991) and further refined by Sawyer (1996) introduces all these variables in an investment function. Together with the equations previously introduced, it also gives a result for income as a function of past investment. Kalecki's analysis illustrate how his theory of growth is no more than a refined extension of his model of short-term output determination. In the long run as in the short run, the rate of economic growth in developed countries will be determined by effective demand and usually will not be limited by supply constraints. Moreover, there is no reason to assume that this rate of growth will be consistent with full employment of capital and labor (Sawyer, 1996). Finally, it is important to recognize that the rate of economic growth is not 'mechanically' given but "is a phenomenon rooted in past economic, social and technological developments" (Kalecki, 1991, 450). As such, state intervention, the institutional framework of the social system and the interplay of different social classes are very relevant in its determination (Sawyer, 1985a).

2.3. Class structure in the developed countries

Kalecki's macroeconomic model in which income distribution plays a central role is influenced by his broader vision of the workings of capitalism. In his view, advanced

short period forces. As such, he did not agree with either the standard neoclassical approach or the surplus value approach (Sawyer, 1996).

¹¹ This conclusion has been criticized by different economists such as Eatwell, Committeri, etc, who have argued that excess capacity is inconsistent with long-run equilibrium (Dutt, 1990). Dutt, however, shows that this is not necessarily the case (p. 59)

capitalist countries are not characterized by perfect competition and harmony of interest among different groups but by the existence of big industrial oligopolistic firms and a power struggle between workers and capitalists. ¹² This conflict of interests between workers and big oligopolistic corporations in the industrial sector determines to a certain extent the evolution of both the market for output and the market for labor. ¹³

As it has been shown in the first section, the market for (industrial) output is characterized by excess capacity and markup pricing, both of which are features of oligopolistic economic structures (Sawyer, 1995a). The markup of prices over prime costs is at the heart of the economic struggle between workers and capitalist firms and constitutes the main determinant of the distribution of income.

For Kalecki, "high mark-ups in existence will encourage strong trade unions to bargain for higher wages since they know that firms can 'afford' to pay them" (Kalecki, 1971, 161). The consequence of this behavior is not clear. Firms may decide to maintain their markups and pass the whole cost increase into prices. This response is likely to lead to a wage-price spiral with very negative consequences on the overall rate of inflation. If firms are not able to pass on all the wage increase and are forced to reduce the markup (due, for example, to the existence of high inter-industry competition), a redistribution of national income from profits to wages will take place (Kalecki, 1971). ¹⁴ This

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¹² "Only by dropping it (the assumption of perfect competition) and penetrating the world of imperfect competition and oligopolies are we able to arrive at any reasonable conclusion on the impact of bargaining for wages on the distribution of income" (Kalecki, 1971, 159) and as a result on output determination.

¹³ It is interesting to note that the interplay between workers and oligopolistic firms was also central to Raul Prebisch's analysis of developed countries and for its explanation of the deterioration in the terms of trade. See Rodriguez (1980) and Sanchez-Ancochea (2005) for explanations.

¹⁴ Although Kalecki stressed the role of the markup in the process of collective bargaining between unions and firms, many post-Kaleckians such as Sawyer (1985a) concentrate on the struggle over money wages, which is influenced by the existence of a target real wage at the aggregate level and by a target relative nominal wage at the sectoral level.

redistribution, however, will only be feasible if there is excess capacity and as a result prices are not determined by demand conditions.

The fact that prices are not demand-determined has another important consequence. It makes an expansion of output without a modification of real wages possible. When there is excess capacity and no supply constraints in the economy, an expansion of employment is not inflationary and does not need to be accompanied by a reduction in real wages or the wage share in national income. This possibility will obviously reduce the probability of social conflicts and will tend to increase the political stability of the system.

The preceding analysis gives rise to four conclusions relevant for this paper. First, industrial workers and oligopolistic firms are the central economic players in developed countries and their interrelation determines the level and composition of national production. Second, it is possible to increase effective demand and output without affecting the income shares of the two classes. Third, income distribution is mainly determined by class struggle and not by mere economic factors. Fourth, inflation is not created by supply constraints or by the growth of money supply but is the result of conflicting income claims among social classes (Arestis, 1996). The class struggle between labor and capital does not only take place in the economic realm. In fact, as it will be shown in the next section, for Kalecki the success of the state in the maintenance of full employment also depends on the relative influence that workers and big firms have in the shaping of the government's agenda.

2.4. The role of the state in developed countries

As we have seen in the first two sections, for Kalecki, effective demand, particularly of investment goods, is the main determinant of the level of output in the short run and,

together with technical change, of the rate of economic growth in the long run in advanced countries. In these economies no price mechanism will lead to the elimination of unemployment and, as a result, there is no reason to expect full employment of resources either in the short or in the long run unless investment is so high as to absorb all savings out of profit (Kalecki, 1976).

This required level of private investment, however, only takes place during the peak of the business cycle. At any other time, excess capacity, generated paradoxically by high rates of investment in the past and pessimistic expectations about the future conditions of the economy, is likely to lead to a low level of investment demand and consequently to low levels of output and employment.

The main role of the state in such economies is to generate enough additional demand through public spending to compensate private investment shortages and assure both output stability and full employment of capital and labor (Kalecki, 1976). As such, the efficiency of the public sector and the composition of the budget are not nearly as important as the absolute level of public expenditure. In fact, although an increase in public investment and/or social spending is (using Kalecki's term) "more rational," any government intervention that creates additional purchasing power (e.g. spending in armament) will be effective in achieving economic and political stability (Kalecki, 1976).

The generation of effective demand by the public sector does not necessarily require an increase in the budget deficit (Kalecki, 1976). It is easy to demonstrate that expansive measures financed by certain taxes such as a tax on private capital or an ex-

post tax on the extra-profits generated by public spending will also give rise to an increase in effective demand and output.¹⁵

In developed countries, therefore, the government does not face any significant material obstacle for the implementation of necessary economic policies since these policies do not require an increase in public deficits or high levels of planning. Moreover, state intervention, even when it consists of armament purchases or taxes on profits, benefits all social classes because it reduces unemployment and increases mass consumption and overall profits without modifying the income shares of the two classes (Kalecki, 1976).

This does not mean, however, that the state will confront no opposition when it decides to increase public spending to assure full employment. Kalecki (1971, chapter 12) maintains that big corporations will oppose expansive policies for three different reasons:

- 1. Expansive policies reduce the role of private capital in the determination of employment and as a result limit the influence of big firms in economic policy;
- 2. Big corporations do not usually like the composition of the public budget (dominated by public investment and mass consumption subsidies);
- 3. Full employment reduces the capacity of the capitalist class to discipline workers and maintain wage inflation under control.

As a result of the opposition of big corporations to expansionary measures, the class struggle between workers and capitalists is extended to the political arena. While the capitalist class promotes policies that stimulate private investment, or at least do not increase taxes, the masses will pressure for an increase in consumption subsidies and

¹⁵ See Kalecki (1971, chapter 4) and also Kalecki (1976, chapter 2).

other social spending. Since measures aimed at increasing private investment (such as lowering interest rates or marginal tax rates) usually fail in achieving full employment, democratic governments are likely to implement policies of stop and go that will give rise to 'political business cycles' (Kalecki, 1971, chapter 12).

3. THE ECONOMIC STRUCTURE OF THE DEVELOPING COUNTRIES

3.1. Determination on output in developing countries: a three-sector model

The main economic problem for developing countries, which distinguishes them from developed ones, is that even when capital is fully utilized, they are "still not capable of absorbing all available labor" (Kalecki, 1976, 23). In these economies effective demand alone does not determine output in the short run. Due to the existence of supply constraints in different sectors of the economy, changes in relative prices (such as the real wage rate) are also indispensable to assure equilibrium. These changes, however, will always have an impact on both long run growth and income distribution.

For Kalecki there are three different supply constraints that affect the level of output in the economy: lack of productive capital, the low level of production of food and other 'essentials' and the difficulties to expand them, and the lack of foreign exchange (Sawyer, 1985b).

Kalecki did not agree with the neoclassical assumption that capital and labor are perfect substitutes and believed that most productive processes have a strong element of 'fixed factors' (Sawyer, 1985b). This has two important consequences for developing countries, where excess capacity is not the rule. First, the possibility of expanding employment once a particular form of capital equipment has been installed is very limited. As a result the amount of capital invested and not the level of effective demand

determines short-term equilibrium. Second, and more important, the number of techniques available in the production process is limited by bottlenecks in key sectors. In particular, a massive extension of labor-intensive techniques is not possible unless there is a substantive expansion in the supply of food and other essentials (Kalecki, 1976, chapter 1).

The constraints in the agricultural sector (where food and other essentials are produced) and the lack of foreign exchange are at the heart of Kalecki's analysis of underdevelopment. While he devoted much more attention to the first one, he believed that the foreign constraint might be more difficult to solve (Kalecki, 1976, chapter 6).¹⁶

Lim (1991) illustrates the Kaleckian thinking for developing countries in a three-sector model. If there is excess capacity in both the primary sector (that contributes to the determination of real wages) and the industrial sector, an exogenous increase in aggregate demand will give rise to an increase in real production in both sectors without affecting relative prices or income distribution.¹⁷ When there are bottlenecks in the agricultural sector, however, an exogenous increase in demand will give rise to changes in relative prices and the distribution of income, together with an increase in the production of industrial goods. The chain of changes will be as follows,

1. An increase in both wages and profits in the export sector;

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¹⁶ "For quite a time many economists believed that foreign trade would never become a bottleneck (…) However, the majority of developing countries must struggle against the obstacle of an inadequate and inelastic world demand for their feasible exports" (Kalecki, 1976, 71). This clearly shows that Kalecki considered the balance of payments constraint a huge problem for developing countries and acknowledged the difficulties of solving it in the short run. See McFarlane (1996) for an opposite opinion on the importance of this subject for Kalecki.

¹⁷ For Kalecki this is the normal situation in developed countries. He illustrates it with a traditional two-sector model that distinguishes between consumption and investment (Kalecki, 1971). This model was not described in the discussion of developed countries because it does not add any extra information about the determination of aggregate output.

- 2. An increase in demand for industrial goods, which (with excess capacity) will give rise to an increase in output, wages and profits in this sector;
- 3. An increase in demand for wage goods caused by the increase in the nominal wage bill in the other two sectors. Since real production in this sector cannot increase in the short run, this expansion of demand will give rise to an increase in the price of food.

This price increase will generate 'forced savings', acting as an equilibrating force in the economy as a whole (Kalecki, 1976, chapter 5). The final result of the demand expansion will be an increase in the production of industrial goods, an increase in the relative price of wage goods (food and essentials) and a reduction in both real wages and the wage share.¹⁸

The existence of foreign exchange constraints will affect relative prices and the income share of different capitalists, but it will not lead by itself to a reduction in the wage share. In Lim's model a shortage of foreign exchange will cause a reduction in the level of investment and as a result will obstruct the expansion of the industrial good sector, which is likely to be more capital-intensive than the other two. In this situation an exogenous increase in demand will have the following effects¹⁹:

1. An increase in both total wages and profits in the export sector;

goods) when making their wage demands.

¹⁸ The reduction in real wages is caused by an increase in wage good prices that is not matched by a similar nominal wage expansion. This expansion will not take place, despite the increase in labor demand, due to the existence of 'surplus labor' in agriculture (Kalecki, 1971, chapter 5). Kalecki, however, points out that workers are likely to respond to the initial price increase with a demand for higher wages, which will trigger a wage-price spiral (Kalecki, 1976, chapter 5). In the model described in this paper this will only happen if workers from the industrial good sector have some bargaining power (despite the existence of surplus labor) and if they take into consideration all prices in the economy (and not only the price of wage

In this model the expansion of demand can only come from an increase in X_0 . Although this expansion will solve the shortage of foreign exchange and investment goods, there is still likely to be a bottleneck in the short run due to the lag between the import of capital goods and their installation in plants (Lim, 1990, 12, note 5).

- 2. Capitalists from the export sector will increase their demand for industrial goods. Since production in the industrial good sector cannot increase, there will be a rise in the price of industrial goods. This price increase will give rise to an expansion of profits and demand in the industrial good sector and to further price increases.
- 3. The initial increase in the wage bill of the export sector will also cause an increase in demand in the wage good sector. This will produce an expansion of either prices (if the sector has supply constraints) or production in the wage good sector.

In many developing economies both types of supply constraints are likely to coexist. In this case, an exogenous expansion in effective demand will only trigger changes in relative prices and income distribution. Real wages in all sectors and profits (in relative terms) of the export sector will decline, and an increase in the rate of inflation is likely to occur.

An expansion of capital imports would reduce the shortages of both essentials and foreign exchange. Although this expansion could ease the process of short-term adjustment, Kalecki believed that capital imports would have negative consequences in the longer run (Kalecki, 1976, chapters 5 and 6):

- 1. If capital imports are in the form of aid, they will usually have a high political price attached to them.
- 2. Onerous capital imports will be a burden for the balance of payments and will increase the likelihood of foreign exchange constraints in the future.
- 3. Foreign direct investment will reduce the economic and political ability of the state to implement its own national development plan, because it takes place in particular sectors of the economy, such as the production of raw materials for export, and it increases the political influence of transnational corporations.

3.2. Bottlenecks as determinants of economic growth in developing countries

As we have just seen in the preceding section, there are substantial structural differences between developing and developed countries in the determination of output in the short run. In the former, a general shortage of capital together with bottlenecks in key sectors of the economy make effective demand and quantity adjustments much less important than in developed countries. Changes in relative prices such as the real wage and in income shares of different classes (which in developing economies do not depend on the degree of monopoly) are the ones acting as adjusting forces, increasing the social and political instability of the system.

These structural differences between the two sets of countries are also present in the pattern of long run growth. In advanced economies economic growth is determined by the evolution of effective demand, especially investment demand, and usually benefits all social classes. In contrast, in developing countries a process of growth that is both equitable and sustainable in the long run will not take place unless certain bottlenecks are taken into account.

For Kalecki in particular, economic development is "dependent to a great extent on the rate of increase of the supply of necessities", especially of food (Kalecki, 1976, 98). ²⁰ In his view, the rate of growth of necessities, which is conditioned by institutional factors such as the structure of property and power relations, determines the overall rate

²⁰ When studying long-run growth in the developing world, Kalecki assumes that economic development requires two conditions: no inflationary increases of necessities, in particular, of food and no taxes levied on lower income groups or in their consumption (Kalecki, 1976, chapter 7). This assumption reflects the central role that social justice played in Kalecki's vision of a good society (Sachs, 1999).

of growth. This rate of growth, however, will only be reached if total consumption is restricted and the required level of investment is achieved.

Kalecki illustrates this structure of determination with the following equations:

$$g_n = q + e(r - q) \tag{10}$$

$$g_c = f(r) \tag{11}$$

where g_n , g_c , q, and r are respectively the growth rates of necessities, consumption, population and the economy as a whole and e is the average income elasticity of demand and is smaller than one.

Equation (10) establishes the growth rate of the production of necessities that is necessary to prevent a reduction in consumption of necessities per capita. This rate of growth will be determined by the growth of demand for necessities. Assuming that aggregate personal consumption increases proportionally to national income, the expansion of demand will be given by the sum of population growth and the increase in demand caused by the rise in income per capita.

Equation (11) establishes the maximum growth rate of consumption that is consistent with a certain rate of growth in the economy as a whole. While the first derivative of this function is positive, the second is negative. This reflects the fact that an increase in the rate of economic growth requires a rise in the relative share of investment in national income and, as a result, a reduction in the share of total consumption (Kalecki, 1976, chapter 7).

In developing countries g_c can be taken as given and equation (10) and (11) determine the other two growth rates. Although Kalecki does not use it for this purpose, this model can also be applied to describe long run growth in advanced economies. In this case bottlenecks do not exist and the growth of investment is exogenously given.

The growth of investment demand determines the rate of growth of consumption and of the economy as a whole. The rate of growth of total output together with the growth rate of population will determine demand for necessities, which will be covered without any problem by an expansion of supply.

The basic structure of this model can be extended to include the impact of shortages of foreign exchange on economic growth. The impact of foreign constraints can also be seen in model described in the previous section, in which economic expansion is basically determined by export growth (provided that the primary sector grows simultaneously). The existence of capital imports will obviously reduce the influence of the export constrain and also of the bottleneck in agriculture on economic growth (Kalecki, 1976, chapter 7). The sustainability of high rates of growth in the long run, however, depends on the elimination of all bottlenecks in the economy.

The elimination of these bottlenecks is not possible unless there is a radical social, economic and institutional change in developing countries. As we will see in the next sections, this kind of change requires an active participation of the state in the economy, both as planner and reformer. The problem is that the same classes and institutions that are responsible for the existence of economic bottlenecks will also try to block the implementation of the required public policies.

3.3. Class structure in developing countries.

Kalecki's account of the economic causes of underdevelopment is not particularly original. Both the so-called pioneers of development and the Latin-American structuralist school also believed that bottlenecks of different kinds limit the prospects of growth in developing countries. While their analysis generally gave more attention to foreign constraint or to the low levels of industrial investment than to the existence of

bottlenecks in the agricultural sector, they shared Kalecki's conclusions that developing countries require a significant increase in the rate of investment and that government planning is absolutely essential (Bustelo, 1998).

Kalecki's main originality, however, is his accent on the socio-political roots of these economic bottlenecks (White, 1977). In his view class structure is the main cause of the developing countries' backwardness. This explains why his analysis of classes and institutions in these countries is much more complex than that of developed countries.

In developing economies class interplay in rural areas is more important to explain economic dynamics than the conflict between industrial workers and big businesses. In these areas semi-feudal relations are still in place and the ownership of land is highly concentrated. While a small number of landowners hold the majority of the land, most of the rural inhabitants are either small tenants of that land or owners of very small holdings. As a result, they are very poor and usually exploited by both merchants and moneylenders (Kalecki, 1976, chapter2).

For Kalecki agricultural investment is not likely to increase within this institutional structure. Landowners have not incentives to invest because they are not directly involved in production and normally behave as rentiers. Meanwhile, small tenants and peasants do not have enough resources to expand production. When governments try to implement policies (such as land reform) to modify this structure "a formidable counteraction develops in a variety of ways" (Kalecki, 1976, 27). As a result, only under exceptional circumstances will the state succeed at least partly in the implementation of necessary reforms.

The physical and institutional constraints to the expansion of food supply have a direct impact on overall income distribution. While in developed countries the degree of

monopoly is the main determinant of the wage share, in developing economies income distribution is highly influenced by the price of essentials. An expansion of the production of these goods and not an increase in the political power of unions is necessary to increase the level of real wages.

An increase in the level of development, however, causes a continuous change in the way income distribution is determined. Industrial output increases and the proportion of agricultural products in workers' consumption decreases. As a result the importance of the bottleneck in the supply of food drastically diminishes and the struggle over the level of the markup between industrial workers and capitalists become much more important for the determination of real wages and the wage share (Fitzgerald, 1990).

During the process of development an increase in the level of concentration in the industrial sector will also take place, leading to an increase in the power of big industrial businesses and a rise in the degree of monopoly. Moreover, Kalecki also acknowledges that industrialization usually involves an expansion of foreign direct investment, which causes an extension of the monopolistic behavior of industrial firms to the developing world (Kalecki, 1976, chapter 5).

3.4. The role of the state in developing countries.

Kalecki believed that the state has to play a very different role in developing countries than in advanced economies (Kalecki, 1976, chapter 2). While in developed countries the private sector is reasonably efficient in the allocation of resources and the only role of the state is to increase effective demand through public spending, developing countries face structural problems that private agents and the market cannot solve by themselves.

For Kalecki the main objectives of state intervention in these countries are to improve the productive capacity of the country and to eliminate bottlenecks that affect key sectors of the economy (especially the primary sector) so as to bring about an acceleration of the rate of growth without a reduction in the standard of living of the poor. The following set of policies is required to achieve these central objectives:

1. An expansion of the production of necessities, especially food

The expansion of agricultural output requires a raise in both productivity per man and productivity per acre. Both can be easily achieved through different technical measures supported by the state such as "small scale irrigation, proper use of manure, double cropping, application of fertilizers and improved seeds, etc" (Kalecki, 1976, 19).

The problem, however, is that the institutional structure of the rural sector prevents the implementation of any of these measures and act as a constraint on growth. In countries like India, the feudal and semi-feudal relations in land tenure do not encourage the introduction of innovations. In this kind of setting "a radical acceleration of the development of agriculture is impossible if substantial institutional changes are not introduced" (Kalecki, 1976, 26). The state has to lead such changes with the implementation of a land reform and other measures (creation of public credit banks, government purchases of grain, etc) that increase the power and economic resources of the peasants (McFarlane, 1996).

2. An expansion of investment in the economy as a whole

For Kalecki unemployment and low standards of living in developing countries result mainly from a shortage of capital equipment (Kalecki, 1976). As a result, a substantial

increase in the rate of investment in all sectors of the economy becomes a central requirement for development. Since the market cannot be expected to allocate resources for investment in an efficient manner, the state is the main responsible of that expansion (White, 1977).

An increase in public investment, however, is not enough. The 'effectiveness of investment' is much more important in developing than in developed countries. For Kalecki the state has to be very careful with its investment projects in order to increase the rate of economic growth. This implies (McFarlane, 1996),

- 1. Choosing the right materials for buildings and factories;
- Choosing the appropriate level of techniques, which does not require adopting always the newest ones;
- 3. A tough evaluation of any capital-intensive project, including an analysis of its fiscal implications;
- 4. A balanced allocation of resources among different sectors of the economy. ²¹

3. Imposition of taxes on the rich

For Kalecki the increase in public spending needs to be financed by a similar increase in taxes, since developing countries should never rely on foreign capital imports or public deficits too heavily (Kalecki, 1976). Higher taxes are also needed to reduce consumption and raise the overall rate of savings and private investment.

²¹ For Kalecki choosing allocating investment resources among different sectors is probably the most important task of the state. For him, "the individual interests of firms cannot, of course, be taken as identical with the social priorities (…) were we to go by market indicators alone, we should have a lop-

sided development" (Kalecki, 1976, 73).

Taxes should only be levied on high-income groups, either through direct taxes on income and profits or through indirect taxes on the consumption of non-essentials. This is so for a variety of reasons,

- 1. For Kalecki a process of growth should never depress real wages or reduce the level of consumption of the poor;
- The reduction in non-essential consumption will shape economic development in the direction of the expansion of industries of mass production that benefit all social groups;
- 3. The reduction in capitalists' consumption will help to reduce the demand for imported luxuries and, as a result, will free foreign exchange that can be used to import capital goods and necessities.

The set of policies just described requires a much higher level of government intervention than in developed countries. For Kalecki in developing countries "it will be necessary to plan not only the volume, but also the structure of investment; because (...) a proper allocation of investment between production of necessities, non-essentials and investment goods is indispensable" (Kalecki, 1976, 25). This will obviously imply similar levels of planning than in socialist economies. Planning in developing countries, however, has to face some problems that socialist countries never encountered (Kalecki, 1976, chapter 3):

1. Institutional constraints in certain sectors of the economy such as the primary sector. As we have seen, the expansion of the supply of necessities will not be possible unless there is a radical reform in the relations of power and in the property structure in the rural areas. This reform will obviously face a strong opposition from powerful agents such as landowners and moneylenders.

- 2. States in developing countries have to direct private investment. This cannot be done without a minimum collaboration from capitalists.
- 3. States have to finance public investment through taxation on the rich and on foreign companies. This is not easy because these two groups of agents usually have a strong influence in the design of public policies and are able to push for low tax rates. Moreover, they also have a much higher ability to evade taxes than most other groups in society.

For Kalecki all these social and institutional obstacles will make state intervention in general and planning in particular very difficult. Nevertheless, a significant strength of his theory of development is an attempt to identify the social forces and class structure that will make sate intervention possible (White, 1977). In particular he introduces the concept of 'intermediate state' (IS) as a historical category that refers to a set of new non-socialist countries where the state is likely to play a central role (Skouras, 1985).

IS are characterized by three different features (Skouras, 1985). First and more important, an alliance of the lower-middle class and the rich peasantry performs the role of the ruling class. Second, private ownership coexist with a very powerful and active state. Third, IS are neutral and non-aligned in the international arena. IS arise from exceptional circumstances such as a relative lack of power of the indigenous capitalist class, the existence of a numerous lower-middle class and the possibility of receiving foreign capital free of political strings (Kalecki, 1976, chapter 4).

In IS the public sector is likely to play a decisive role in the process of development. This is so not only because the state controls a large proportion of productive resources, but also because both the lower-middle class and the rich peasants will benefit from state intervention. Public investment will increase productive capacity

without forcing small firms out of business (something that does not happen when investment is mainly undertaken by big business); land reform will be harmful for feudal landowners but beneficial for the rich peasants; the expansion of the public sector will create new professional opportunities for the middle class, etc. State intervention in IS, however, will not be optimum from a social point of view because it will not benefit either the industrial workers or the landless peasants.

Kalecki's notion of IS is imprecise and unfinished (Skouras, 1985). Moreover, it does not contemplate the existence of different interests within the state and within the ruling class, and does not take sufficiently into account the influence of developed countries and, in particular, transnational corporations in developing countries (White, 1977). Nevertheless, it represents a notable effort to analyze the impact of the class structure in the state and the process of development, making Kalecki member of a selected group of economists who develop both an economic theory of state intervention and a political explanation of state behavior.

4. CONCLUSIONS: TOWARDS A KALECKIAN THEORY OF ECONOMIC DEVELOPMENT IN THE XXI CENTURY.

Social and economic institutions are not universal but vary considerably over space and time. Different countries and different times differ in multiple variables, including the behavior of economic actors, the working of markets, the relative importance of price and quantity adjustments. While this is true for any two pair of countries, the structural differences between developed and developing economies are particularly significant.

Kalecki is one of the few great economists that analyzed these differences in a systematic way, developing a different model of the economy for the two sets of countries. As it has been discussed in this paper, in his view the overall shortage of capital and the existence of severe bottlenecks in key sectors of the economy make effective demand much less important in developing countries than in developed ones. As a result the determination of income distribution and relative prices, the causes of inflation and the prospects for growth are very different.

While Kalecki's accent on bottlenecks in the agricultural sector may be outdated (at least for the case of semi-industrial countries), his concentration on economic structure and the long-term differences between developed and developing countries and his description of the general role of the state is still very valuable. The current main problems of developing countries (technological backwardness, low levels of investment, disguised unemployment, external constraints) cannot be successfully understood unless their structural differences with respect to the advanced economies are closely analyzed.

An additional feature of Kalecki's approach makes it even more interesting for development economists today. He does not limit his work to a description of the economic differences between developed and developing countries but also tries to find out its underlying sociopolitical causes. Combining Marxist-based concepts with a more orthodox approach to economic problems, he shows that disparities in the class structure are at the heart of the economic differences between developed and developing countries and explain the backwardness of the latter (White, 1977). As a result, his account of the process of development and his policy recommendations go far beyond the traditional debates over balanced and unbalanced growth, the need of a big push, stabilization, etc.

A 'renovation' of Kalecki's theory should concentrate on two subjects: the impact of globalization and the increasing role of financial institutions.²² While Kalecki recognized the different role of external factors in developed and developing countries, he did not place them at the center of his analysis. He believed that foreign exchange bottlenecks and the imperialist behavior of advanced economists would harm the prospects for development but considered domestic constraints even more important.²³ While this attitude, although polemical, had some justification when Kalecki wrote most of his work, it is totally unwarranted in the current era of globalization.

Two features of the process of globalization are particularly important and have affected developed and developing countries in a very different way (Sánchez, 1999). Firstly, transnational corporations (TNCs) have become a crucial player in the world economy. They currently dominate world trade, control new technology and exercise a huge influence in the prospects for growth of developed and, especially, developing countries. The rise of TNCs has reduced the opportunities for small, national firms to compete in international markets, has weakened the bargaining power of workers and has made the design of independent government policies much more difficult. Their role in developed countries can be easily incorporated in the Kaleckian model through their effect on the degree of monopoly (Sawyer, 1999). Their presence, however, requires larger modifications in Kalecki's analysis of developing economics, which are influenced by TNCs in their ability to export, the relative strength of different social classes and different sectors, the efficacy of government planning, etc. Nevertheless the increasing

²² For the following discussion I will follow Sawyer, M. (1999), adapting his ideas to developing countries. ²³ When reviewing a book from Manoilesco in 1938 Kalecki wrote, "to represent the free trade as the only obstacle for the economic progress of backward countries is to divert attention from such urgent social problems as land reforms and others" (Kalecki, 1938). While he slightly changed this view during the post-

relevance of TNCs does not eliminate the validity of Kalecki's method and of many of his conclusions.

The second feature of globalization that needs to be emphasized is the increase in the volume of international financial transactions, most of which are short-term portfolio sales and purchases.²⁴ This process has increased the importance of domestic financial institutions and has given the financer class, which is less committed to the local economy, an increasing influence in the process of economic decision-making (Amadeo and Baduri, 1991). It has also led to a rise in interest rates, speculative investment and economic instability without significantly increasing the amount of productive capital available in the economy. Its impact has been more harmful for developing countries than for developed ones, something Kalecki himself would have expected (see end of section 3.1).

Kalecki's analysis of both sets of countries concentrate on the real side of the economy and pays little attention to financial variables (Sawyer, 1999). Nevertheless both his models of the economy and his analysis of the class structure can be easily expanded to include them. This expansion will require the inclusion of the financer class as a bottleneck on growth and development, the analysis of the role of the banking system in the expansion of aggregate expenditure, and the incorporation of Minsky's notion of financial fragility to the Kaleckian analysis (Sawyer, 1999).

War years (given more significance to external bottlenecks), he always concentrated on the study of domestic constraints to development.

²⁴ Only one example will be enough to illustrate the dimension of this phenomenon. The gross volume of foreign exchange transactions in a single day in 1989 was just under one third of the value of world exports for the whole year (Milberg, 1998).

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