Chapter VII
Kalecki’s Open Economy Macroeconomics

“Keynes’s General Theory was worked out in terms of a closed system….

Here also Kalecki’s work claims priority”

Joan Robinson

In previous chapters our discussion has been confined to the case of a closed economy. The aim of this chapter is to show how Kalecki studied the effects of foreign trade on effective demand. Maybe not everybody, not even Kalecki’s most faithful admirers, would entirely subscribe Joan Robinson’s opening sentence to this chapter. But we claim that Kalecki had a very original and novel approach to analyze open economy macroeconomics, which is very much worth studying today.

I. Foreign trade, profits and effective demand

We have seen that, according to Kalecki, in contemporary capitalism actual output may be lower than potential output due to insufficient demand. To study how and to what extent foreign trade can affect effective demand let us consider some alternative situations concerning the trade balance.

Let us examine a first situation in which imports exist but not exports. Thus, we assume that the economy is opened under certain condition whereas foreign goods are demanded and bought from abroad in exchange of zero exports. In this case imports will be paid with gold reserves, international monetary reserves (previously obtained from past exports) or external debt. This implies either decreasing of national assets or increasing of external
What will be the effect of imports on effective demand and domestic output?

Let us assume that both the level of capitalist expenditure and income distribution are given. Consequently, the total effective demand is given as well. Now, let us assume that part of the domestic demand is transferred from home-made good to imports. In other words, domestic consumers will purchase output from abroad (imports), and some of the demand will be met by foreign suppliers. Imports will absorb purchasing power from the domestic economy, and the effective domestic demand is smaller by a certain amount. The domestic demand falls in the first place because imports absorb domestic purchasing power. But it also falls because the latter brings about a drop in wage consumption, since domestic production and employment have both decreased. Therefore, the level of economic activity is lower. Income and employment will be smaller than otherwise.

Recapitulating, the effect of a trade deficit is that the levels of economic activity are lower than in a situation without trade; the effective demand for domestic production is lower; and the utilization of productive capacities will be lower too.

---

1 In the specific case of a country whose domestic currency is also an internationally accepted currency, such as the USA, its external debt is considered a build up of dollars abroad.

2 We abstract from some secondary effects of such exchanges; for example: foreign trade could modify the levels of domestic capitalist expenditure; but for the time being we consider this as given.
Now let us suppose a second situation: We consider a country which exports, but imports nothing. Goods are sold abroad but the country makes no purchases in the international market. In this way, the country, contrary to what happened in the previous case, accumulates gold, monetary reserves or documents, or receives as method of payment its own previously issued documents. If we assume that the autonomous components of domestic expenditure are given, it follows that the total demand for domestic output rises. Hence, the effective demand is greater. Demand is raised, in the first instance, by an amount equivalent to exports. But there is a second rise associated to the increase in wage consumption due to the larger workers’ consumption brought about by the higher employment level. The country will absorb purchasing power from abroad and, also, will increase its own domestic purchasing power (due to the greater wages paid).

In short, from the point of view of realization of output and profits, foreign trade will be favorable for a certain country only when its trade balance is in surplus; when exports are greater than imports. Then, realized income, profits, employment and degree of utilization of productive capacities will all be greater.

In a closed and private economy, the effective demand fully depends on the capitalists’ and workers’ expenditure. Moreover, such demand determines the level of output and employment. If, for example, capitalists decided to spend less, then demand would be reduced together with output and employment. Now suppose that this economy captures some proportion of the world’s demand and exports a certain value of commodities greater than the value of its previously issued documents.

3 The greater level of employment and wage consumption, are a direct consequence of the production of exportable goods.
imports. Then, if capitalists’ expenditure is not reduced – and there are no a priori reasons why it should be reduced – the effective demand will be augmented, the realization capacity will be greater and the levels of output and employment will be greater too.

Therefore, the export surplus allows increases in income and the utilization of domestic productive capacity. The financial counterpart to this situation is “capital exports”. In other words, countries get into debt with the one country that has trade balance surplus, or the debt, which such country holds with the other countries, is reduced. NOT CLEAR

It may be appropriate here to make a short digression. We will briefly refer to how Kalecki envisioned foreign aid. This is an important subject which we can discuss with the help of our previous analysis. He considers the situation of a donor country “who does not fully use its productive capacity, because of lack of effective demand” (Kalecki and Sachs (1966 [1993]): 63). Accordingly:

“the export surplus...has a ‘multiplier’ effect so that the aggregate domestic expenditure after deduction of the export surplus thus generated is higher than the income which would be generated without the export surplus. We may say, therefore, that by giving economic aid to other countries a developed country with free productive capacity assists its own economy in obtaining a higher level of economic activity. Foreign aid, far from being a burden on it, can perform a very useful role in achieving full employment…” (Kalecki and Sachs (1966 [1993]: 63)\textsuperscript{4}.

\textsuperscript{4} If the recipient country uses the foreign aid to simply substitute domestic production, without raising effective demand, then an import surplus will appear
We come back now to our previous discussion. While capitalists’ profits in a closed (and private) economy depend on their investment and consumption decisions, in an open economy, profits depend also on their ability to gain net foreign markets (Kalecki, 1977, ch. 7).

As mentioned, the economic meaning of export surplus is that the creditor country does not spend the total received value of its exports in the form of imports. Some proportion of the domestically produced goods is traded, not for goods, but for gold, for foreign exchange, or debt instruments of other countries. In other words, the rest of the countries get into debt with the country which gained the net foreign markets. It is in this sense that Kalecki speaks of capital exports.

When a country exports capital in the previous sense, profits will be greater than they would have been otherwise. And, from this perspective—even though not limited to it- Kalecki remarks that the fight for foreign markets among the main developed capitalist countries has a clear economic basis. This, according to our author, is one of the explanatory factors of imperialism⁵.

It is the export surplus, not total exports, that leads to an increase in demand; thus, exports will not allow by themselves the realization of a greater output; however, exports of capital will have this beneficial effect. Given the

that will reduce output, employment and profits. Bhaduri and Skarstein discuss this case drawing inspiration from Kalecki.

⁵ Kalecki (1939 [1990] and 1967 [1991]) reminds us that this outlook played a great role in the theory of the prominent Marxist revolutionary Rosa Luxembourg (1969). LENIN, HOBSO, ETC
price-wage relation, and the resulting income distribution, an increase in both output and income lead to an increase in profits and wages\textsuperscript{6}.

Now let us analyze this problem from the point of view of the foreign exchange. An economic upswing caused by an increase in exports implies that, since exports are paid in gold or internationally accepted currencies, the country does not have problems in paying the greater imports directly and indirectly required by the increase in exports. Still more, the country’s international reserves increase.

Let us compare that with the effects of an increase in investment. We may state that both an increase of exports and an increase of investment expand effective demand and profits. In either case the latter may stimulate an additional expansion of private expenditure, which reinforces the business upswing\textsuperscript{7}. However, they are not identical in other aspects.

The most important difference between the consequence of the increase of investment and the increase in the export surplus has to do with the situation of the foreign exchange market. The growth of exports brings in foreign exchange and, therefore, a part of it is quantitatively equivalent to the required increase of imports.

\textsuperscript{6} The interested reader may refer to Kalecki’s (1962 [1991]) thoughtful analysis of the economic and political aspects of the West Germany export surplus after World War Two.

\textsuperscript{7} We recall here that about the same time than Kalecki, Keynes (1933 [1982]: 179) had stated an identical point: “..an increase or decrease of our net foreign balance has exactly the same effects and repercussions as an increase or decrease in loan expenditure at home; which is only another way of saying that the effects of net foreign investment are the same of home investment”. The means to prosperity: Mr. Keynes’s reply to criticism (1933). CW, 21, 1982?
and qualitatively transformable into imports. In the case of an economic upswing via an increase of investment (or any other kind of increase of internal demand) although a part of this increase is quantitatively equivalent to the required imports, it is not qualitative nor directly transformable into imports; it is not reflected in gold or in internationally accepted currency, but it is domestic production that can only be expressed in terms of domestic currency. In other words, the increase of investment (and the domestic demand in general) does not allow having more foreign exchange but, on the contrary, it forces to use additional amounts of these means of payment to purchase the new imports required by the new investments.

It is worth recalling here Kalecki’s (1933 [1990]: 173) comment on this point in full:

“the tension in the balance of payments which accompanied `domestic exports’ from the start, in the case of an upswing stimulated by securing a surplus in foreign trade arises only at the point when investment has reached a level several times greater than this surplus, i.e. at an advanced stage of the boom. Moreover, it is probable that prior to this a considerable improvement in the economic situation which does not involve balance of payment difficulties will lead to an inflow of foreign capital…It is worth mentioning that the ‘natural’ upswing based on the automatic increase in investment activity does not enjoy these advantages, and if there is not inflow of foreign capital, it will be confronted with the same balance of payments difficulties as the upswing based on `domestic exports’“

II. Wages, profits and effective demand in the open economy

Kalecki (1933 [1990]: 167) calls here `domestic exports’ a situation whereby “the government borrows from the capitalists at home, spending the proceeds of the loan, e.g. on armaments, payment of unemployment benefits, or public works.”
In this section we will discuss firstly the relationship between changes in wages and changes in profits in an open economy, and then we extend the analysis to discuss the relationship between changes in wages and changes in output and employment. When examining this relation in a closed economy, we stated that a wage increase, for example, did not affect the amount of profits, since these depend entirely on the capitalist expenditure, which does not change in the current period. That is, the cost increase is exactly matched by the increase of sales. Thus, gross profits, defined as the difference between sales and costs, are not altered.

In an open economy the final result is different. A part of both the wage consumption and of the intermediate material is bought outside the domestic economy. When wages increase the national sales swell, in the first place, in a magnitude equivalent to the increase of wage consumption on domestic goods (we suppose that the wage-earners do not save). To this we should add the increase of domestic input sales. However, costs increase in an amount equivalent to the total increase of wages, plus the increase in the imported wage consumption, plus the increase in the cost of total inputs, both home-made and imported.

From the previous argument we can deduce that when wages increase, the increase of sales is less than the increase of costs, and thus the total gross profit will be reduced. It is also easy to appreciate that the reduction of profits will be greater when the ratio of imports of this economy is greater; in particular, such reduction will be greater when the ratio of consumer imports to wage consumption is greater.

---

9 The case of a wages fall is symmetrical and therefore it is not necessary to examine it separately.
We will now discuss the relationship between wages, output and employment in the open economy. This is a crucial point because, as stated before, a basic tenet of classic and neoclassical macroeconomics is the claim that (downward) flexibility of nominal (and real) wages can ensure full employment.

In this context, Kalecki argued that in an open economy a reduction of wages with a given nominal exchange rate is equivalent to a real currency depreciation. Now, let us assume that a fall in money wages and the consequent real currency depreciation were indeed capable of bringing about an expansion of both employment and output. Then it would follow that capitalist economies are endowed with a very powerful built-in full employment mechanism. In fact, unemployment would sooner or later bring about a reduction in nominal wages, to be followed by a decline of domestic prices. Given the nominal exchange rate, the decline in prices would enhance competitiveness. The latter would improve the trade balance and stimulate effective demand, thus mitigating unemployment. The process would only stop when the economy achieves full employment because only then nominal wages would cease to fall.

It is no wonder, then, that practical orthodox economists nowadays put much more emphasis on the repercussion of flexible wages upon international competitiveness. Academic orthodox economists, however, still pay lip service to either the so-called “Keynes” effect or the “Pigou” effect or both, as the mechanisms that would allegedly ensure full employment.\(^\text{10}\)

\(^{10}\) Certainly, Keynes was much more skeptical than contemporary orthodox economists on the impact of lower wages, prices and interest rate on investment and effective demand (i.e. what is now labelled the “Keynes effect”).
We will begin our exposition with a detailed presentation, in Kalecki’s own words, of how he dealt with the issue being considered. He says:

“A reduction in wages and the consequent fall in prices will obviously improve the competitive position of the goods produced by a given country in the world market, and thus will contribute to an expansion in the volume of exports. This would affect production and employment favourably. However, the reduction of wages…exerts an opposite influence as well, so that the final outcome is by no means certain.

Indeed, the reduction of wages in a given country has obviously no influence on the price of imported raw materials. Therefore the prices of goods manufactured from them decline pro tanto more slowly. As a result, real wages decline (in addition to the decrease caused by the ‘rigidity’ of prices)...Consequently the purchasing power of the workers is correspondingly lower, and has an adverse effect on the industries producing wage goods.

The final outcome of the reduction of wages depends on the extent to which the reduction of wages and prices will increase the volume of exports” Kalecki, 1939 [1990]: 37; emphasis in the original).

As mentioned, Kalecki remarked upon the similarity between a wage fall and a depreciation of the exchange, adding that “[t]he two cases differ only in

Also, we recall that before The General Theory Kalecki (1933 [1990]) proposed, and used this so-called “Keynes effect” to discuss the “classical” full-employment mechanism. Finally, Keynes considered in chapter 19 of The General Theory (somewhat indirectly, but nevertheless quite clearly) the importance and limits of the “Pigou effect”. However, it was Kalecki (1944 [1990]) who thoroughly demolished the “Pigou effect”.

that in the former the wages decline and the prices of imported raw materials remain unchanged, while in the latter the wages remain unaltered (in terms of domestic currency), and the prices of imported raw materials increase in inverse proportion to the currency depreciation” (Kalecki 1939 [1990]: 38).

Based on his analysis, he concludes: “even in such a case [in an open system, J. López., M. Assous] the reduction of wages does not necessarily lead to an increase in employment, and the prospects of raising the aggregate real income of the working class are even dimmer. In particular, under the system of high and rising tariffs it is very likely that a reduction of wages will have an adverse effect on employment also in an open economy ” (Kalecki 1939: 38).

Kalecki’s analysis is concise, but we can elaborate on it and rigorously examine the effects of a wage fall in an open economy with the help of his theory ¹¹.

Let us first of all recall that aggregate demand depends on total profits, divided by the relative share of profits in the national income. Total profits are equal to the autonomous component of expenditure; namely, capitalist expenditure on consumption and on investment, plus the trade surplus (we assume away government expenditure). It follows that, when the Marshall Lerner condition is fulfilled, the wage fall will bring about a rise in the trade balance, and so also in total profits and in the autonomous components of expenditure.

Nevertheless, as previously shown, Kalecki was rather skeptical about the elasticity of exports with respect to improved competitiveness, especially

¹¹ See the Appendix for a formal discussion of the issues considered below.
when trade barriers are high. Therefore he did not rule out the possibility that profits actually fall.

However, we still need to see what happens with the relative share of profits in the national income. In Kalecki’s theory of the profit share, this share rises when the degree of monopoly gets higher, or when the ratio of aggregate cost of materials to the wage bill augments. Now, there are several reasons why the relative share of profits (wages) in output may rise (fall) when nominal wages drop.

In the first place, the wage drop entails a rise in the ratio of the materials bill to the wage bill, because the price of imported inputs has not fallen. Besides that, under imperfect competition it is likely that firms raise their mark-up on unit prime costs. The reason is as follows. It is true that unit prime cost fell thanks to the wage fall. However, the domestic price of the competitive imports did not fall. Why then would firms fully pass on to consumers the cost reduction? If they do reduce prices, they are likely to do so in a smaller proportion than the cost fall, because the price of the foreign competitors did not fall. In other words, Kalecki’s theory of the degree of monopoly may rise when wages fall.

Now, when the relative share of profits in income augments, income gets re-distributed against workers, which have a higher propensity than capitalists; consequently, aggregate demand is bound to fall. In other words, the shift from wages to profits would impart a deflationary bias to output, and would offset any improvement in the trade balance on effective demand, or would magnify its reduction if it had actually fallen¹².

¹² If we used instead a conventional Keynesian specification, we would have (abstracting from the autonomous part of consumption):
On the basis of Kalecki’s approach, we therefore come to the conclusion that in an open economy, output may also contract as a result of a fall in wages, because this fall tends to reduce the share of wages in value added. Moreover, this fall may take place even when the Marshall-Lerner condition is fulfilled.

Finally, given the equivalence between wage fall and currency depreciation, we can infer from Kalecki’s reasoning another important result. Namely, the effect of currency depreciation on output and employment may also be negative; a conclusion that is contrary to the one envisioned by the conventional economic analysis. Indeed, the latter assumes that a flexible exchange rate can guarantee both trade balance equilibrium, and full employment. But in Kalecki’s view there is no security whatsoever that a more competitive real exchange rate will, by itself, ensure full employment.

Critics of Kalecki’s conclusions may raise two objections. One is that he was reasoning in a context where barriers to trade were high. The other is that even if a wage fall may contract aggregate demand, this will be a short-run result. In the medium- and long-run, the situation will be reversed. Let us ponder over these two objections.

Apparently, Kalecki confined his conclusion to a “system of high and rising tariffs...”. Nowadays, when trade has been greatly liberalized, we can

\[ Y = \frac{I + (X - M)}{s} \]

Here, s is the saving propensity. Again, if the wage fall entailed a change in the distribution of income, s would rise, offsetting any rise that may occur in the trade balance.
expect that a change in a country’s relative wages, and prices, vis-à-vis other countries, may have a greater effect on the trade balance. In other words, if we assume a wage fall, we may expect that – disproving Kalecki’s skepticism—the trade balance, and so also profits, will rise.

However, we must also consider two other effects of greater openness to trade, which affect the relative share of profits in output. First, the importance of the international market, and of competitive imports, for domestic producers, is greater than in the past. Secondly, imports today have a greater weight in material costs and on total direct costs.

To discuss the consequences of bringing in the first factor, let us assume that wages, and so also the unit prime cost, fall. If the domestic price of competitive imports do not fall (and they will not fall unless competitive imports are “priced to the market”), then domestic prices may drop in a smaller proportion than unit costs. Also, since prices abroad have not fallen, prices of exports may not fall at all. In other words, both firms catering to the domestic market and to the export market may raise their degree of monopoly when wages fall, because the pressure of competition from foreign goods becomes weaker.

The second factor, the greater weight of imports in material costs and total direct costs, also plays a relevant role. To examine this issue, let us again assume wages fall. Then, other things equal, this would entail a rise in the ratio of the materials bill to the wage bill. Moreover, that rise will be all the greater, the more rigid are the prices of material inputs. We may expect that when the share of imported material inputs is larger, their prices will also be stickier.
In sum, in economies more open to trade than in Kalecki’s time, there are also strong factors that may prevent any compensatory rise in aggregate demand when wages, and consumption per workers, fall. Of course, the same argument can be extended to the impact of a currency depreciation.

We discuss now the long-run inference about the association between a wage fall and output and employment. Let us assume that a wage fall in an open economy does cause a decline in output and employment. Is it really true that this will be only a short-lived situation? Not necessarily. The contraction of output and employment may be drawn out. This is a likely occurrence because the reduction in the degree of utilization of capacities will probably have a detrimental effects of on investment decisions and future investment. In other words, the short-run negative impact of a wage fall may extend into the long-run. As the recent discussion on “wage-led” and “profit-led” regimes has made it clear, whether a wage fall will stimulate investment or not, and long-run growth, depends on the weight of the different arguments of the investment function (Bhaduri and Marglin,; Boyer and ; Blecker). Indeed, that fall raises profits, but reduces the degree of utilization of the productive capacity.

Let us assume a simple investment function, where investment depends positively on profits and on capacity utilization. Then, if the elasticity of investment with respect to profits is higher than the elasticity with respect to utilization, a wage fall will have a short-run negative effect on output and employment, but that effect will reverse after a certain time-lapse, because investment will start growing at a faster rate (a “profit-led” regime). But of course, if the elasticity of utilization is the higher, then the short-run negative effect on output of the wage fall will extend to the long-run.
IV. Taxes, profits and employment in the open economy

We will consider now the effects of an expansionary fiscal policy stance on the trade balance. As should be obvious, just like any increase in demand, a rise in public spending will cause an increase in output, and therefore also in imports. This has a twofold implication. On the one hand, the rise in imports will reduce the expansive effect of this expenditure (the "multiplier"), "leaking" part of the increase of demand towards the rest of the world. The outwards "leakage" will be all the greater, as long as the coefficient of imports is greater.

In the extreme case when the internal productive capacity is totally or almost totally occupied then the increase in demand will cause a rise in internal prices and haphazard rationing or both. Therefore an abrupt elevation in the coefficient of imports will take place. As a result, the increase of the demand will almost totally or totally “leak” towards the rest of the world. Output and employment will not rise or they will rise very slightly, and instead, a rise in the level of prices will occur.

On the other hand, the increase in the public expenditure will cause a worsening of the trade balance of the country that - given the magnitude of the increase- will be greater accordingly to the magnitude of the expansive effect of the expenditure and the height of import coefficient. This normally will affect the balance of payments of the country even more: the worsening of the trade balance can stimulate capital flight, in view of the fear of a future devaluation or exchange control.

We can also infer that in economies having structural difficulties to keep the balance of payments in check, the capacity of the State to manage demand through its expenditure is considerably limited by external considerations.
Finally, it is also easy to see that in an open economy, Kalecki’s statement that taxing profits will not reduce profits after taxes is no longer valid. We can easily understand this point when we recall that profits after tax in an open economy include the trade surplus. Now, if indeed taxes on profits do not immediately diminish capitalist expenditure, then they will bring about an expansion of demand. But the latter will provoke a rise in imports and a reduction in the trade surplus. Accordingly profits will be reduced. Anyway, from this it does not necessarily follow that private investment will also fall and long run growth of output and employment will be jeopardized. Indeed, if the elasticity of investment with respect to capacity utilization is high, and is larger that the elasticity of investment with respect to profits, then investment need not fall at all because capacity utilization rose. For in this case the fall in profits will be more than offset by the rise in capacity utilization. Therefore, long run growth may be even stimulated.

V. Economic links between nations

Kalecki was well aware of the vital role of the foreign sector for the evolution of any economy. He was also conscious of the importance for the macroeconomy of coordinated action by different nations. Thus, in a very early paper (published under the pseudonym, Henryk Braun, in a socialist magazine) he put forward the following idea: “Finally, we should mention yet another possibility [to overcome the world crisis of the 1930s], namely …individual states, or group of states, starting up major public-investment schemes, such as construction of canals or roads, and financing them with government loans floated on the financial market, or with special government credits drawn on their banks of issue” (Kalecki, 1932 [1990], 53). He remarked, however, “…if it
were to be carried out on a large scale, it would have to be co-ordinated by an international agreement of the individual capitalist governments, which, given today’s quarrelling imperialism, is almost out of the question” (Ibid, 53)\textsuperscript{13}.

However, Kalecki did not elaborate much further on the topic, and for the rest of his life concentrated mostly on issues dealing with the closed economy. In fact, his participation in the debate initiated by Keynes on the organization of the post-war system of international trade and finance was rather limited\textsuperscript{14}. Nevertheless, during the 1940s he published two short papers where he reflected on the macroeconomic links between nations. The first one, written with E. S. Schumacher, was published in the context of the discussion about

\textsuperscript{13} One year later, Keynes published in \textit{The Times} a series of 4 papers, which would later appear as “The Means to Prosperity”. In those papers Keynes argued along similar lines to Kalecki, but with greater optimism. To overcome the world crisis countries should embark on large-scale loan-financed expenditure, and this would necessitate international coordination among leading capitalist countries. Keynes’ ideas were put forward to influence the public opinion, but especially the participants of the XXX Conference (search reference). Many years later the Argentine Raul Prebisch, the founding father of ECLAC and of the Latin American structuralist school of economics, would recall the importance and novelty of Keynes’ proposals “written with great lucidity and without the theoretical complications of \textit{The General Theory}”. Prebisch would also evoke his disappointment because Keynes’ ideas were not taken up at that Conference.

\textsuperscript{14} Was this due to his scepticism about any possibility of coordination between capitalist nations? ACLARAR
Keynes’ and White’s plan\textsuperscript{15}. The authors agreed with the aim of the two previously mentioned plans. That aim was to promote expansion rather than contraction. Expansion in the sense of a promotion of the international division of labour and also of facilitating an increase of effective demand in all countries. However, they went beyond the Keynes and White proposals. They imagined a very ingenious mechanism, with three main features. First, “countries can have any surplus they may like, but will not, by hoarding their surpluses, endanger or ruin the international liquidity of others” (Kalecki and Schumacher, 1943 [1997]):227). Second, they distinguished three typologies of countries, according to their level of development and to their international economic position. Third, they suggested attaching an International Investment Board to the Clearing Board. We think it important to describe their proposal in detail.

Kalecki and Schumacher’s idea aimed at the following: “(i) to make it possible for any country desiring to have an export surplus to hoard unlimited amounts of gold or bancor...(ii) to safeguard countries needing an import surplus for purposes of reconstruction, readjustment, and industrialization [“A” countries] against any long-term deterioration in their international liquidity; and (iii) to provide an instrument for international policy by means of which help can be given to countries which cannot be included under (ii) [“B” countries] to

\textsuperscript{15} The paper was published in a special issue of the \textit{Bulletin of the Oxford University Institute of Statistics}, devoted to the discussion of the organization of the post-war system of international trade and finance. Kalecki and Schumacher, as well as T. Balogh, the other contributor to the volume, worked at the Institute.
maintain a long-term balance in their current account” (Kalecki and Schumacher, 1943 [1997]: 228).

To carry out this international strategy, they proposed the attachment of an “International Investment Board to the International Clearing [Union] which decides the amount of long-term loans which might be granted to deficit countries” (Ibid, 229), distinguishing between (i) and (ii) countries. Moreover, to ease the international situation of ‘B’ countries the “Board should have the power to direct borrowers receiving development loans to use them fully or partly to increase their imports from specified ‘B’ countries” (Ibid, 230).

Nevertheless, the authors concluded their reflection with a strong warning: “If investment decisions have to be taken by an international authority, there arises, of course, a political problem of first magnitude…investment decisions, and decisions directing a borrower to make his purchases in one particular country, involve a high degree of political responsibility” (231).

Kalecki continued his reflection some years later. In a very concise paper, he recognized that “world multilateralism can secure a better utilization of world resources than bilateralism or regional blocks (although in the latter case the difference may not be so great). Nor does multilateralism raise the political issues that may be in the formation of regional blocks. It is therefore superior to other systems provided that it is workable; i.e. provided that it is operated under conditions of such a kind that no difficulties in balancing imports of goods and services with exports arise for full-employment countries” (Kalecki 1946 [1990]: 409/10). He then inquired about the necessary conditions for a multilateral system capable of contributing to full employment in all countries wishing to carry out full employment policies.
Kalecki showed that if all countries maintained full employment on the basis of a sufficient level of internal demand, then no country will experience difficulties in balancing its foreign trade. **VERY STRANGE PARAGRAPH NEEDS CLARIFICATION** However, if some major countries do not achieve full employment but have a great demand for imports, other countries may still reach full employment without difficulties in balancing their foreign trade. In any event, multilateralism would be unworkable if employment in major industrial countries is subject to strong fluctuations. On the other hand, he was skeptical that the trade balance problems of the full-employment countries could be solved by introducing trade restrictions or currency depreciation. Trade restrictions would mean “the failure of multilateralism to secure the international division of labour” (Ibid, 412). Currency depreciation may not solve the situation for the reasons given above in this chapter.

Kalecki then argued that other possibilities exist to make multilateralism compatible with the pursuit of full employment. He mentioned two cases: “(i) that each country should maintain full employment based on domestic expenditure, and on net foreign expenditure financed by international long-term lending; (ii) that the level of long-term lending from not fully employed countries should be sufficiently high” (Ibid, 416). He warned, however, that if these conditions were not met “a breakdown of multilateralism and its replacement by another system of international trade is unavoidable” (Ibid, 416).

**APPENDIX**

We begin with the equilibrium output equation (demand side) in an open economy with no government, which reads:

\[ Y = I + C_k + C_w + E \]  

(2.1)
\[ E = X - M \]

Here, I is (private) investment, \( C_k \) is capitalist consumption, \( C_w \) is workers consumption and \( E \) is the trade balance. \( X \) and \( M \) are exports and imports respectively, in domestic currency at constant prices.

This equation shows that if the domestic components of expenditure are given, effective demand, and therefore, income and output, will be greater when exports are greater than imports.

Let us look now at the role of the export or import surpluses with the aid of the schemes of reproduction. For the simplified model we originally included three departments. Now we consider a fourth specialized department, which produces the total export surplus \( E \).

We can express this as:

<table>
<thead>
<tr>
<th>Departments</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>( I )</td>
</tr>
<tr>
<td>C_k</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>( C_k )</td>
</tr>
<tr>
<td>C_w</td>
<td></td>
<td></td>
<td>( C_w )</td>
<td></td>
<td>( E = (X-M) )</td>
</tr>
<tr>
<td>Wages</td>
<td>( W_1 )</td>
<td>( W_2 )</td>
<td>( W_3 )</td>
<td>( W_e )</td>
<td>( W )</td>
</tr>
<tr>
<td>Profits</td>
<td>( P_1 )</td>
<td>( P_2 )</td>
<td>( P_3 )</td>
<td>( P_e )</td>
<td>( P )</td>
</tr>
<tr>
<td>Income</td>
<td>( I )</td>
<td>( C_k )</td>
<td>( C_w )</td>
<td>( E )</td>
<td>( Y )</td>
</tr>
</tbody>
</table>

Let us take into consideration Department III, which corresponds to the production of wage goods. Its profits \( (P_3) \) will equal to \( C_w - W_3 \), so:

\[ P_3 = W_1 + W_2 + W_e \] \hspace{1cm} (2.2)

Adding \( P_1 = P_2 + P_e \), to both sides of the equation, we get

\[ P = I + C_k + E \] \hspace{1cm} (2.3)

Our last equation indicates that the total gross profits obtained over the period equals the capital expenditure and the export surplus.

Let us now examine the effect of the export surplus “multiplier”. If imports are held constant, an increase in exports allows the effective demand to
increase as well, and therefore, the produced and realized profits will increase too. On the other hand, if income distribution is assumed constant, a rise in income will involve a proportional rise in total wages.

The explanation for this export surplus “multiplier” effect (in other words, the multiplier derived from the increase of such surplus) is quite simple and comes from the schemes of reproduction recently discussed. Such surplus involves a greater level of domestic output, hence, higher levels of employment, wage and wage consumption. Contrariwise, when purchasing goods from abroad which were previously home-made, the output and employment levels of Departments I and II will be smaller and – given the income distribution – so will be the levels in Department III. But profits will also be reduced.

Let us now recall equation (2.3), as well as our previous equations (I. ) and (I.)\textsuperscript{16}:

\[
P = I + C_k + E \quad \text{(2.3)}
\]

\[
C_k = A + \lambda P
\]

\[
Y = \frac{P}{e}
\]

\[
Y = \frac{I + C_k + X - M}{e} \quad \text{(2.4)}
\]

Rearranging and substituting we get:

\[
P = \frac{I + A + E}{1 - \lambda} \quad \text{(2.5)}
\]

\textsuperscript{16} A and \( \lambda \) are the autonomous part of capitalist consumption and the parameter relating capitalist consumption to profits, respectively, and \( e \) is the share of profits in income. \( G_k \) is total capitalist expenditure.
\[ Y = \frac{I + A + E}{e(1 - \lambda)} \] (2.6)

Now, it can be easily seen that an increase in the export surplus leads to an increase in profits equal to:
\[ \Delta P = \frac{\Delta E}{1 - \lambda} \]

and an increase in effective demand and income equal:
\[ \Delta Y = \frac{\Delta E}{e(1 - \lambda)} \]

The previous expression shows that the increase in the total realized income is greater than the profit increase, due to the increase in wages that accompanied the income increase (\( \Delta Y = \Delta P + \Delta W \)). On the other hand, the profit increase is greater than the export surplus increase because the former leads (even though with a lag), to a greater level of capitalist consumption, which will also lead to greater profits (\( \Delta P = \Delta E + \Delta C_k \)).

Let us discuss in more detail the extent of the expansionary role of the external sector. An increase of exports, for example, causes an increase of profits and of national income. But the increase of exports itself implies that - when increasing the domestic production- greater imports will be required.

Let \( \gamma \) be the ratio of total imports to total output. In order to simplify, let us suppose that the ratio is the same for all of the productive sectors. Let us recall equation (2.6):
\[ Y = \frac{I + A + E}{e(1 - \lambda)} \]

In an economy where all the productive departments are vertically integrated, we can write this equation as follows:
\[ Y = \frac{I(1 - \gamma) + C_k(1 - \gamma) + X(1 - \gamma) - C_w\gamma}{e} \] (2.7)
We assume now a given level of capitalist consumption in the short term. In other words, we assume away any growth in capitalist consumption that may be induced by higher profits. Then we can obtain the growth of income that is caused by a change in exports ($\Delta Y_e$).

$$\Delta Y_e = \frac{AX(1 - \gamma) - \Delta C_w \cdot \gamma}{e}$$

That is to say, only a part of the growth of exports expands the effective demand and output; the other part of this change in exports "pays" the additional imports that the export growth induces.

From another angle of vision, when an increase in exports happens, just a part of it contributes to the increase in profits. The other part is used for "paying" the ensuing imports. Namely:

$$\Delta X = \Delta E + \Delta M$$
$$\Delta E = \Delta X - \Delta M$$

The expansive effect of the increase of exports (its "multiplier") on profits and on output will be -given the coefficient $e$- all the greater, the smaller is the ratio of imports ($\gamma$) of the economy. In other words, the lower is $\gamma$, the smaller the outwards leakage of the domestic demand will be.

We can now specify the relationship between the change in exports and the change in imports. Supposing the ratio of imports $\gamma$ is constant we obtain:

$$\gamma \Delta Y = \Delta M$$

If we abstraction from the change of capitalist consumption that is induced by the change of profits, from (VII.4) we get:

$$\Delta Y = \frac{\Delta E}{e}$$

Substituting we get:
\[
\frac{\Delta E}{e} = \frac{\Delta M}{\gamma}
\]

From here we get:

\[
\frac{\Delta E}{\Delta M} = \frac{e}{\gamma}
\]

Consequently we can say that the relation between the increase of surplus (\(\Delta E\)) and the increase of imports that it brings about (\(\Delta M\)) is equal to the ratio between the share of profits in income and the ratio of imports. In other words: if a country increases its exports, the relation between the improvement of its trade balance and the increase of imports that it induces, is same as the ratio of the profits to national income to the ratio of imports. Again, given a certain value for \(e\), the ratio between the increase in the export surplus and the increase of imports will be all the greater, the smaller the import ratio \(\gamma\) (Kalecki, 1977, ch. 2).

We now discuss the consequences upon profits of a wage rise. When wages increase (the case of a fall in the wages is symmetrical and therefore it is not necessary to examine it separately) the national sales increase in a magnitude equivalent to the increase of wage consumption, which is supplied with national production (\(\Delta C_{wn}\)), plus the increase of domestic intermediate goods sales (\(\Delta B_{In}\)). Instead, costs increase in an amount equivalent to the total increase of wages (supposing that the wage-earners do not save, such amount is equal to the increase in the national wage consumption \(\Delta C_{wn}\), plus the increase in the imported wage consumption \(\Delta C_{wm}\), plus the increase in the cost of total intermediate goods (national intermediate goods \(\Delta B_{In}\), plus imported intermediate goods \(\Delta B_{Im}\)).
\[ \Delta \text{Sales} = C_{wn} + \Delta B_{In} \]

\[ \Delta \text{Costs} = \Delta C_{wn} + \Delta C_{wm} + \Delta B_{In} + \Delta B_{Im} \]

From the previous argument it is deduced that when wages increase, the increase of sales is less than the increase of costs, and thus the total gross profit will be reduced.

To discuss with the help of our formal model the consequences of a wage fall on output and employment, we consider the following equations. Let us recall that \( P \) stands for profits, \( I \) for private investment, \( C_k \) for capitalist consumption, \( X \) for exports, and \( M \) for imports. \( \omega \) is the relative share of wages in the value added (or output), so that (under simplifying assumptions) \( 1-\omega \) is the share of profits in output (i.e. what we have denoted by the letter \( e \)). \( k \) is the “degree of monopoly”, or the ratio of aggregate proceeds to aggregate prime costs, (which is also equal to the ratio of average prices to average prime costs). \( j \) is the ratio of aggregate cost of materials to the wage bill. Subsequently, \( p \) is the price charged by a firm, \( u \) is the unit prime cost, \( p' \) is the weighted average price of the industry, and \( m \) and \( n \) are parameters.

EXPLICAR. We thus have:

\[ P = I + C_k + (X - M) \quad (1) \]

\[ \omega = \frac{1}{1 + (k - 1)(j + 1)} , \, k > 1 \quad (2) \]

\[ e \equiv 1 - \omega \quad (2') \]

\[ Y = \frac{P}{1 - \omega} = \frac{P}{e} = \frac{I + C_k + (X - M)}{e} \quad (3) \]

\[ p = mu + np' \quad (4) \]

\[ k = \frac{p}{u} = m + n \left( \frac{p'}{p} \right) \quad (4a) \]
Equation (1) is the well-known Kalecki equation for total profits in an open economy (where we abstract from workers’ savings and from the budget deficit for the sake of simplification)\textsuperscript{17}. Equation (2) shows that (for a given composition of output) the relative share of wages in the value added is determined by the degree of monopoly and by the ratio of the materials bill to the wage bill. Equation (2’) comes from the notion that, under simplifying conditions, national income is equal to profits plus wages. Equation (3) makes total output depend on total profits and the share of profits in output. This equation of the model encapsulates Kalecki’s theory of effective demand. Finally, equations (4) and (4a) depict the pricing policy of firms. Following Kalecki we assume that firms fix prices taking into consideration their prime cost and the weighted average price of all firms.

To discuss the effects of a fall in nominal wages on profits and on output we concentrate on equation (3). If prices go down, and the nominal exchange rate is constant, that leads to improved competitiveness. In the short run, when capitalists’ expenditure is given, the effect of improved competitiveness on profits, and hence on the numerator of equation (3), will depend on the elasticity of export and imports with respect to the real exchange rate. When the Marshall-Lerner is fulfilled, the numerator of (3) will rise after a wage fall.

We discuss now the impact of a wage fall on income distribution ($\epsilon = 1-\omega$). It can be easily seen that the relative share of wages in output is very likely to fall when nominal wages drop. In the first place, the ratio of the materials bill to

\textsuperscript{17} In Kalecki’s extended profit equation, saving out of wages reduce profits, and budget deficits increase profits. See next chapter.
the wage bill (j) will augment. Moreover, under imperfect competition the degree of monopoly (k) may rise.

In terms of equation (3), in his analysis, Kalecki argued that the numerator may fall if the Marshall-Lerner condition is not fulfilled, causing (X-M) and P to drop. But most importantly, the denominator will surely rise because \( \omega \) is likely to fall.