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Unequal Exchange

A Study of the Imperialism of Trade

with additional comments by Charles Bettelheim

Translated from the French by Brian Pearce

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A. E.

Introduction

If the free traders cannot understand how one nation can grow rich at the expense of another, we need not wonder, since these same gentlemen also refuse to understand how within one country one class can enrich itself at the expense of another. [Karl Marx, "Address on the Question of Free Trade, 1848," *The Poverty of Philosophy* (New York, 1963), p. 223.]

THE CAREER OF A "LAW"

When we look back over the history of economic doctrines during the last 150 years or so, we are struck by the brilliant race that has been run by the theory of comparative costs. In a branch of learning in which hardly anyone agrees with anyone else, either in space or in time; in which practically nothing is generally accepted and each generation of scholars changes academic truths into paradoxes and paradoxes into classical rules; in which everything is various and contradictory, up to and including the categories and concepts employed, so that even discussion itself becomes impossible for lack of a common language—David Ricardo's famous proposition emerges from the fray as a truth that is unshakable, if not in its applicability and scope, then at least in its foundations.

The sternest of detractors, the Austrians, the marginalists, have called everything in question in Ricardo's work and demolished it—with the exception of the chapter on foreign trade.[1]

To get Ricardo and Walras, John Stuart Mill and Pareto, Cairnes and Jevons, Marshall and Viner, all to agree in this way is an achievement that is quite out of the ordinary.

What is remarkable is not so much the survival of the proposition so far as its internal cohesion is concerned. As a rule any purely logical flaw in a theory is discovered during the first few months, if not the first few days, following its publication. Once this probation period is past, it is useless to

attack the theory in this way. Any refutation must thenceforth relate to the validity of the theory's assumptions. Since the latter are very often merely implicit or are badly stated, discussion of them may be kept up indefinitely. It is therefore not surprising that the theory of comparative costs could not be and has not been refuted within the framework of its explicit assumptions.

The few attempts that have been made in this direction, especially by Continental economists, have failed, and rightly so. These refutations have been inspired by a mistaken interpretation of the data or even of the very terms of the theory. Thus, Maurice Block wrote:

> In this theory the costs of production of a commodity in two different localities are placed in the two scales of a balance, and the difference between the two costs is compared with the amount of expenditure that would be involved in transporting the commodity from one locality to the other. The highest form of the game consists in comparing two different products, such as linen in England and wine in Spain, and engaging in sterile hair-splitting on the matter. Continental economists have done well to leave "the theory of international value" on the other side of the Channel.[2]

Here we have a classical example of the error in this type of refutation. The theory of comparative costs does not weigh, one against the other, the costs of production of a commodity in two different places, but the *differences* between the costs of production of two commodities in each of the two countries concerned.

Vilfredo Pareto made the same mistake in interpretation in his "Course," but in his "Manual" he acknowledged that Ricardo's comparison did not relate to the same commodity in two countries but to two commodities in the same country, and this led him to recognize the merits of the theory, even though he disputed its implications regarding optima on the world scale.

Bertrand Nogaro, who devoted his doctoral thesis to the subject, likewise imagined that he had refuted the theory of comparative costs by showing the weaknesses of the quantity theory of money.[3] His arguments in this connection are not without some value, though they are far from being original, the essence of them having been formulated as long ago as the 1840's in England during the discussions about the Bank Act between the Currency School and the Banking School. But it did not occur to him that the theory of comparative costs could be true without the quantity theory, with a different regulator—for instance, price movements caused not by

the ebbs and flows of money but by those of incomes. Here is another example of a mistaken interpretation. The classical economists had identified the amount of income with the amount of money on the assumption, overlooked by Nogaro, that the only incomes are money incomes.[4]

When he discusses the theory of comparative costs itself, he often misses the point, as, for instance, when he says that in internal trade costs set a limit to prices, whereas in foreign trade they have no such influence. James Angell is justified in saying that Nogaro does not seem to have understood the theory he is opposing.

Though conducted at a higher level, Maurice Byé's analysis is not, it seems to me, free from this same sort of misunderstanding. For it is by stating that the idea of barter is inseparable from the theory of comparative costs that he arrives—rather too easily—at similar negative conclusions regarding the validity of this theory in a money economy.[5]

Finally, it is also by ascribing to the theory of comparative costs assumptions and conclusions that are alien to it that Bertil Ohlin calls its validity into question. However, the Heckscher-Ohlin factor proportion theory has rightly been seen not as a substitute for but as complementary to the theory of comparative costs. Its novelty is open to dispute, moreover, since such 100 percent supporters of the theory of comparative costs as Cairnes, Taussig, and Marshall, and even a preclassical economist like David Hume, had already, long before Ohlin, sketched the main outlines of the latter's doctrine.[6]

It is thus not the invulnerability of the theory in the context of its own assumptions that is surprising. What is remarkable is that the realism of these assumptions, and especially that of the fundamental and explicit assumption, namely, the immobility of the factors, has never until now been seriously challenged.

For after all the subordinate assumptions—constant costs, equality in potential of production and consumption in the two countries concerned, wages everywhere equal to the subsistence minimum, identical techniques, identity in respect of money and incomes, identity in balance of payments and trade balance, full employment of the factors—have been questioned and rejected, that is, after Senior, Cairnes, Bastable, Angell, Nicholson, Mangoldt, Fawcett, Edgeworth, Graham, Taussig and Viner have done their work, the fact remains that the value of commodities is not formed on the international market in the same way as on the national market if, and only if, the factors are not so mobile and competitive in the former

as in the latter, that is, if Ricardo's fundamental assumption is maintained.

The essence of the matter remains unchanged, namely, that it is no longer the amounts of the two factors, capital and labor, expended in production that determine the exchange values of the commodities, but the reciprocal demands of the exchanging parties that determine prices, and thereby the rewarding of the factors.

AGREEMENT ON THE EXCEPTION

Insofar as the assumption of the immobility of the factors was not affected, a complete reversal of function took place: it was no longer the conditions of production that determined exchange, but exchange that determined production. This reversal, this "disavowal" of labor value, is what, to some extent, accounts for the unanimity mentioned above.

The opponents of labor value, both the marginalists and the supporters of equilibrium prices of interdependence, seemed to have found what they wanted here. Thus, F. Y. Edgeworth was able to say that if the labor theory of value were abandoned in favor of W. S. Jevons's theory, the need to make an exception of international trade would vanish since for marginalism the coincidence between costs and value was only a special case, occurring when the factors were in competition.

In a subject in which doctrines are usually defined on the basis of each writer's position with regard to the *value* of commodities, all the opponents of the labor theory of value naturally saw in the inapplicability of that law to the field of international trade a sort of admission of insolvency signed by the founder himself, and one that brought them great benefit.

The classical economists recognized, implicitly in Ricardo's writings and explicitly in those of John Stuart Mill, that in order to understand how international value is formed it is necessary to go back to "a *prior* law, that of supply and demand." All the postclassical innovators, from Walras, Menger and Jevons to the modern marginalists, and including the British neoclassical school of general equilibrium of interdependence, have themselves only gone back to this law belonging to the archaic age of political economy, deepening it and reformulating it in highly sophisticated and original ways.

Nevertheless, there is an aspect of the matter that seems to have escaped Edgeworth's notice: what divides the economists is not the coincidence

between costs and value but the question whether it is costs that determine value or value that determines costs.

For there to be no coincidence at all it is not enough for the factors to be noncompetitive; the commodities themselves must be noncompetitive, or, in other words, they must be nonreproducible.

Apart from this case (works of art, collectors' pieces, etc.), which the classical writers did not overlook, though they considered that it was outside the domain of the law of value, everyone agrees, Walras included, that the prices of commodities coincide with their costs, whether the factors are in competition or not. The disagreement begins where the Walras school turns the causality of the classical doctrine upside down by letting costs be determined by prices instead of prices being determined by costs.[7]

Under the theory of comparative costs values continue to coincide with costs, but as the factors are no longer competitive as between countries, costs no longer coincide with the *quantities* of the factors expended in production, because since no equalization process takes place, the rewarding of the factors is no longer the same. It follows that the general conclusion of the labor theory of value, namely, that commodities are exchanged in terms of the *quantities* of the factors incorporated in them, does not apply in international trade.

There is another point to be made, too. Under Ricardo's theory of foreign trade, costs are not such a passive element as in Walras's general theory of value. Already in the oversimplified examples given by Ricardo and Mill of two countries of the same size and two articles of the same consumption, the relationships between the costs, if not the costs themselves, determine two limits, upper and lower, which prices can in no case cross, whatever the reciprocal demands may be.[8]

And, as we shall see later, as soon as we add a third article, or we vary the sizes of the two countries, prices become completely predetermined by the *relations* between costs, and the state of demand has no bearing on the matter, except in an intermediate fashion, that is, through fixing quantities in the case of branches with disproportionate costs.[9]

Apart from these two points, the working of Mill's reciprocal demands, subsequently elaborated and given diagrammatic form by Edgeworth and Marshall, is perfectly adapted to the marginalist and neoclassical theories of the equilibrium price of general interdependence, along with all the other exceptions allowed for by the labor theory of value, which relate

either to nonreproducible commodities or to some monopoly or other such as that of land. This circumstance explains, partly at least, why the little chapter on comparative costs has survived so splendidly all the revisions that Ricardo's whole work has undergone since 1817 down to our own time.

PROTECTIONISM AND FREE TRADE

However, the bearing of Ricardo's proposition is not restricted to this kick that it seems to administer to the accursed doctrine of labor value. That is only one of its two aspects: the formation of international value. The second concerns the advantages that the world as a whole, and each country separately, can derive from an international division of labor brought about by free trade. Ricardo, indeed, was interested only in this second aspect, it was Mill who concerned himself with the other one.

In his well-known example, in which Portugal can produce a unit of wine in 80 hours and a unit of cloth in 90, while England produces the former in 120 hours and the latter in 100, what interests Ricardo is that, after adopting their respective specializations, Portugal and England together produce the wine and the cloth in 360 hours instead of 390.

	Before Specialization			After Specialization		
	Wine	Cloth	Total	Wine	Cloth	Total
Portugal	80	90	170	160	—	160
England	120	100	220	—	200	200
			390			360

In what proportion these two countries are going to share this gain of 30 hours Ricardo does not tell us. In the course of his argument, which is, moreover, extremely concise, he supposes that a unit of Portuguese wine is exchanged on an equal basis for a unit of English cloth, which amounts to saying that Portugal gains 10 hours by the opening of trade with England, while England gains 20 hours, transport costs being taken as nil. It is not necessary, however, that this should be so. What is necessary and what follows directly from the statement of the proposition is that the exchange can take place only within these limits: 1 of wine = 8/9 of cloth, and 1 of wine = 12/10 of cloth. This being so, neither of the two countries

can ever lose by free trade between them. If a unit of wine is equivalent to 8/9 of cloth, England gets all the profit from the exchange but Portugal retains its status quo ante. If a unit of wine is equivalent to 12/10 of cloth, it is Portugal that gets all the advantage, but England loses nothing in comparison with its previous state of isolation. At all the rates of exchange that lie in between, the profit is shared.

Is this not a wonderful game, in which each partner has every chance of winning without the slightest risk of losing?

It is clear that this specialization constitutes only a relative optimum. The absolute optimum would be, not for Portugal to specialize in wine and England in cloth, but for the English to move to Portugal with their capital in order to produce both wine and cloth. In this case the saving of labor would be still greater since 340 hours would be enough for the entire production, instead of 360 in the case of specialization and 390 in that of isolation.[10]

But such an absolute condition would be neither possible nor desirable. The world is already structured in nations, whose frontiers constitute thresholds of discontinuity for the ebb and flow of the factors of production. Of all kinds of freight, said Adam Smith, man is the hardest to transport. If we add to that the assumption that capital is immobile, we are forced to content ourselves with the makeshift optimum provided by free trade, which is not at all a bad one, anyway.

It seems that it is this optimistic estimate of the benefits of international trade, even more, perhaps, than its implications regarding the theory of value, that made the theory of comparative costs so attractive to the economists of the nineteenth century and the beginning of the twentieth. For the career enjoyed by the idea of free trade has been at least as amazing as that of the theory of comparative costs.

Year after year and decade after decade, the governments of every country in the world have practiced without interruption a policy of protection. This has gone on for centuries. (Saint Louis, as far back as the thirteenth century, forbade the export of wool in order to weaken the textile industry in countries neighboring France.) The only break was the brief parenthesis of free trade that began for England in 1846 and ended completely in 1932, the first twists having been given to it at the Ottawa Conference in 1894, on the one hand, and, on the other by the various measures for regulating foreign trade that were taken during World War I.

England, however, is the only country where this free-trade parenthesis

lasted even that long. The United States had already turned away from free trade with the ultraprotectionist Morrill tariff in 1861.[11] In the other large countries in which the "gospel" of 1846 was accepted—with many hesitations and reservations, moreover—the free-trade arrangement was only ephemeral. France repudiated it in 1871, Italy in 1877, Austria and Argentina in 1878, Germany and Canada in 1879, Australia in 1902, Chile in 1916.

Apart then from England (where, owing to exceptional circumstances connected particularly with the crushing superiority and de facto monopoly enjoyed by its industry all through the nineteenth century, free trade lasted for a half-century in its pure form and another quarter-century in a much modified form), in the other countries, taken as a whole, this interruption to the age-old practice of protectionism did not last, generally speaking, more than about 30 years.[12]

Leaving aside this brief and insignificant interlude, the normal practice of the world, since the early Middle Ages and even since the Greco-Roman period, to go no further back, has been and still remains protectionism.[13]

And yet, year after year, decade after decade, imperturbably and tirelessly, the postmercantilist economists, from François Quesnay and Adam Smith onward, went on demonstrating the errors of protectionism and the advantages of free trade. The "irrefutable" proposition of comparative costs eventually convinced the most hesitant that there are two worlds, the rational world of political economy and the crazy world of economic policy.

This complete divorce between thought and praxis is a very unusual phenomenon. The mercantilists were integrated in their real worlds, their cities, and sometimes even dictated the laws of these cities. They were the men who *knew*, in the same sense as the veterinary surgeon or the blacksmith knows. Even if their arguments did not satisfy the intellect, their recipes were directly usable and it was possible to measure their results. From Quesnay onward economists have worked on models constructed according to a noble logic and carried on as though the real world did not exist. They have reasoned as much as the mind could possibly wish, but they can no longer claim to *know*, in the sense that the veterinary or the electronics expert knows. From this time onward the laity have no longer been obliged to stay quiet and listen in the way they do with those who *know*. Political economy has ceased to be a respectable science.

Nevertheless, when about 1860 the vogue of protectionism revived strongly, especially in the United States, and when during the 1870's, the whole of Continental Europe followed this movement, it gave a shock to the economists, who thought they had done away with the mercantilist "illusion" by means of the law of comparative costs, despite the concession made by Friedrich List to "infant industry." A section of the economists remained loyal to their principles (Loria, Bastable) and chose to believe that it was merely the reappearance of an illusion. Others such as Pareto, Sidgwick, Edgeworth, Nicholson, Marshall, Walker, and Carver sought without success to find the flaw in the law.

In attacking the assumption of constant costs these economists maintained that a country might suffer a loss through going over from protectionism to free trade, even if the possible friction involved in readjusting its production were left out of account. This could happen when the country concerned had to specialize in a branch of production in which costs were increasing. Loria, Bastable, and Taussig opposed this view, objecting that in such a case trade would become impossible, since the increase in some costs would cancel out the difference between comparative costs.

Edgeworth replied that it is by no means necessary to get so far as that point for a country to be harmed by specialization. Before that point is reached, there are other points at which the difference between comparative costs still prevails and continues to dictate specialization, but where specialization nevertheless means an absolute disadvantage for the country concerned.

The discussion proceeded with an exchange of examples in numerical terms, and Frank D. Graham took the matter up later on, showing that there are certain combinations of increasing and diminishing costs under which the situation of the countries as a group, and that of each one taken separately, is less good when there is trade than when there is none, whereas all the intermediate situations would induce each of the partners, so far as comparative costs are concerned, to engage in trade and specialization.

But that was all. The controversy broke off and its subject matter survived in the collective memory of the economists as "Graham's paradox"—"paradox" being the label under which economic science classifies, with interest, amusement, and distant politeness, all those things that are too solid to be purely and simply rejected but are too baffling to be adopted.

Jacob Viner's position is typical in this connection. After acting as devil's advocate and loyally providing a numerical example in support of Graham's proposition that is more coherent and convincing than all those given by Graham himself, he exclaims: But come now, are we to admit that everything we have been teaching hitherto and everything we have written in the textbooks is wrong, and that the law of comparative costs is a mistake? (God preserve us from such a disaster!) Graham's proposition is right, but its field of application is practically nonexistent.

This is because it presupposes a branch with diminishing costs. Now, diminishing costs can only be the effect of internal or external economies. In the case of internal economies, Graham's proposition does not fit because the alteration in costs takes place at the level of the enterprise, and the latter, foreseeing it, will not allow itself to be drawn into reducing production beyond the point where the change in its own costs cancels the comparative advantage. There remains the case of external economies, which constitutes the only grain of truth in the proposition, because in this case the alteration in costs takes place at the level of the branch of production, and the individual entrepreneur who abandons this branch is not interested in the increased cost burden that his departure imposes on those who remain in it. However, Viner declares, without explaining why this should be so, that the case of external economies is so unusual in reality that the practical interest of Graham's proposition is negligible.[14]

Whatever the value of Graham's proposition, which incidentally sums up and completes all the similar propositions of the writers previously referred to, and even if Viner goes too far in striving to minimize its effects, it is true that Graham considers only a minor aspect of the problem. To come to grips with protectionism it would have been necessary to go further than he does. States do not restrict imports and encourage exports in order to engage in a gamble on disproportionate costs, but for two different reasons: on the one hand, to protect national production, and, on the other, to maintain an active trade balance.

On the first point some concessions might be envisaged: friction caused by readjustment, protection for "fostering" purposes, the occasional need to take reprisals, etc. On the second, however, no discussion was possible. To admit that a lasting surplus of exports over imports, that is, in fact, a gift by the nation in question to other nations, could be beneficial to the national economy was to admit, in the last analysis, that the system under

which they lived was utterly absurd, and the economists of free enterprise could not take that step.

The mercantilists had not had to reckon with this danger, since in their day the competitive system was not challenged. They took things as they were, and, without being able to explain the phenomenon, they nevertheless observed that an active trade balance had a stimulating effect on a country's internal economy and raised the level of employment.

It was this last point that specially interested them, and not the illusion about the desirability of amassing gold for which their detractors unjustly reproached them. How could they have been victims of such an illusion when it was they who first perfected the quantity theory, according to which it is pointless to accumulate money, since the increase in its quantity is accompanied by a strictly proportionate fall in its value?

The great majority of the mercantilists adopted the quantity theory, which one of them, Jean Bodin, was the first to formulate. Their successors saw a contradiction in this attitude of theirs; but the contradiction lies not in the conceptions held by the mercantilists but in the ideas formed by their successors regarding these conceptions. For the mercantilists, or at least for the most representative of them, the influx of precious metals was not at all a good thing in itself; it could even be a loss; but a loss that was more than made up for by the gain arising from the increased employment and production that this influx brought in its train.[15]

What did it matter to Portugal that she gained, or failed to gain, ten hours of labor through specialization if this specialization was to lead to a situation in which not only these ten hours but some of the others, previously employed, would be left without employment? And this not because of some temporary friction in the transfer of factors but through the general and prolonged depression that a passive (or even an exactly poised) trade balance might bring about?

This is what the mercantilists perceived, obsessed as they were by the frightful underemployment of the age they lived in—far worse than all that the world of the nineteenth and twentieth centuries has known, even in periods of crisis—and it is *their* precepts that the nations have applied and go on applying, despite a century and a half of ceaseless preaching of the doctrine of free trade.

In the absence, however, of a rational explanation of the mechanism by which the fluctuations in the internal level of employment were linked with those of the external balance of payments, a general theory of

protectionism still remained to be worked out, and without such a theory the most obvious observations remained unusable from the time when, with Quesnay, political economy became a science.

Friedrich List did not work out a general theory of protectionism. His instance, a very special one, of "fostering" protection of an infant industry, in the course of an exposition that from every other point of view was in accordance with the doctrine of comparative costs, did not in the least encroach upon the positions of the free traders. The most uncompromising of the latter would willingly subscribe to this passage in his book:

> Solely in nations of the latter kind, namely, those which possess all the necessary mental and material conditions and means for establishing a manufacturing power of their own . . . but which are retarded in their progress by the competition of a foreign manufacturing power which is already farther advanced than their own—only in such nations are commercial restrictions justifiable for the purpose of establishing and protecting their own manufacturing power; and even in them it is justifiable only until that manufacturing power is strong enough no longer to have any reason to fear foreign competition, and thenceforth only so far as may be necessary for protecting the inland manufacturing power in its very roots.[16]

What difference is there between these statements and the following passage from John Stuart Mill?

> The only case in which, on mere principles of political economy, protecting duties can be defensible, is when they are imposed temporarily (especially in a young and rising nation) in hopes of naturalizing a foreign industry, in itself perfectly suitable to the circumstances of the country.[17]

If we leave aside the difference in style, more literary and diluted in the case of List, more scientific and dense in the case of Mill, all that remains when we compare these two passages is their complete identity of content.

However, what was at issue was not the question whether an industry that was valid in itself, according to the calculation of comparative costs, should or should not be protected while it passed through the difficult period of infancy, but the question whether an industry that was *not* valid according to the "pure principles" of political economy ought, even so, to be established and protected on a permanent basis by means of tariff barriers.

List's shamefaced "protectionism" did not alter by one jot the "*non possumus*," categorical and unshakable, with which economic science

answered the second question—any more than did all the charming "paradoxes" that from time to time gave expression to little *crises de conscience* felt by certain economists who were otherwise very orthodox, such as the one at the end of last century that led to the investigation of disproportionate costs.

As soon as these ripples had been smoothed away, the economists went back to that state of supreme indifference and disillusionment, the keynote of which had been sounded, once and for all, by Adam Smith: "To expect, indeed, that the freedom of trade should ever be entirely restored in Great Britain, is as absurd as to expect that an Oceana or Utopia should ever be established in it."[18] In other words, the economists resolved to believe that the world is not only mad but incurably so, so that the only sensible thing to do is to abandon it to its sad fate.

This extraordinary attitude, this systematic refusal to tackle the causes of the irreconcilable contrast between praxis and pure principles, resulted less from monstrous arrogance than from unconscious fear: fear of having to put one's finger on the basic inner contradiction of the regime of private enterprise that they had undertaken to defend, that contradiction which consists in gaining by losing and losing by gaining. Rather than have to admit that the system itself was at fault, they found it more comfortable to claim that its ministers were congenitally doomed to everlasting error.

Michaïl Manoilesco alone tried to undertake the defense of long-term protectionism. Owing to its weaknesses, however, his work found little response as a general theory of protectionism, the first to be attempted.[19] It nevertheless remains as an uncompromising apologia for protectionism. And it is no small paradox that in a world as relativistic as ours, in which nothing is too extraordinary to find an advocate at some time or other, a phenomenon so widespread as protectionism has found one only in the person of an economist of secondary importance, 110 years after Ricardo and 150 years after Adam Smith.

In order to explain protectionism it was necessary to challenge not merely the assumption of full employment, as Keynes did (without, however, going very far into the matter), and not merely the assumption of the identity between purchasing power and willingness to purchase, which Marx and Keynes challenged, but also that much more fundamental assumption of equivalence between the total amount of incomes and the value of production, which Keynes did not seek to question any more than did the other economists.[20]

Nevertheless, after World War II the advance of the Third World to the forefront of the world's preoccupations has brought about a new *crise de conscience* in political economy, similar to that which occurred toward the end of the last century. Then it was necessary to explain the unexpected revival of protectionism among industrialized nations; now it is necessary to explain the difference in levels of development, and even the widening of this gap, between rich and poor nations, despite the many centuries of exchange and free trade.

This second wave of revisionism in relation to the free-trade doctrine is based on two points. The first is the level of employment. Official political economy having been since Keynes more or less liberated from the fetish of full employment, this aspect could be tackled without inhibitions.

It then emerged that the choice before the Portuguese worker is not always between producing cloth or producing wine, in which case there would clearly be no doubt about it, but sometimes between producing cloth or nothing, the advantage then being wholly in favor of industrialization, whatever the comparative disadvantages of producing cloth. It was then found that by industrializing, despite all the alleged comparative disadvantages, a country that is being developed can in certain circumstances make use of a labor force the "social cost" of which is nil, or, to employ more literary terms, it can "export its unemployment."

The second point to which this modern revisionism relates is the terms of trade. It is the interest shown by economists in very recent times in the mechanisms whereby income is distributed internationally, given fresh life by new awareness of the differences in standard of living in different parts of the world, that has brought this point into the foreground of interest.[21]

THE TERMS OF TRADE

On the basis of Ricardo's proposition variation in the terms of trade can occur only within the limits of comparative costs. This being so, all that a state can possibly risk by launching into trade is that it may enrich itself to a lesser extent than its partners enrich themselves—but never that it may become poorer than it was before.

Within these limits economists have not failed to point out several factors of deviation in the terms of trade in favor of or to the detriment of one or the other of the countries participating in exchange. Chief among these factors are customs duties and the balance of payments.

The possibility that customs duties may affect the foreign partner in trade through a movement of the terms of trade has been recognized in principle, though to different degrees, by a large number of writers. From the clear-cut position of Charles Gide, recognizing a 100 percent effect, to the much more qualified position of Bertil Ohlin, with, in between, the positions taken up by F. W. Taussig and A. Marshall, economic science as a whole accepts at least the *possibility* of such an effect, under certain conditions, especially connected with the elasticity of the demand for the product that is subject to the tariff.[22]

A condensed version of the argument is provided by Tibor de Scitovsky's formulation: a well-calculated protective tariff will certainly benefit the nation if the reciprocal foreign demand has an elasticity equal to or less than unity; it will probably benefit the nation if this elasticity is higher than unity; and this probability will diminish in proportion as the elasticity of demand increases.

Ricardo had already given China tea as an example of a product with a low elasticity of demand, where a tax on exports would be borne entirely by the foreign consumer, and C. F. Bastable pointed to the United States tariff of 1890 on tinplate, Sumatra tobacco, and the agricultural produce of Canada.[23]

John Stuart Mill went still further. Taxes on imports may be partly or wholly paid by the foreigner, but taxes on exports may in some cases—if the elasticity of the partner's demand is low and if the branch under consideration has very high and increasing costs—bring to the country that imposes them a benefit that exceeds the amount of the tax. Edgeworth emphasized this distinction and even offered a mathematical proof of it.

In Chapter 5 I shall examine the impact of customs duties on the terms of trade in relation to different combinations of elasticity of demand and disproportionality of costs.

Taxes are not the only factor that can affect the terms of trade. The state of the balance of payments is another. Thus, in the case of an export surplus arising from a payment by a debtor country, Mill says that the terms of trade will be unfavorable to this country.

Nearly all the classical writers were concerned with the consequences of extracommercial payments, such as those they called "remittances to absentees," which constituted a twofold burden for the country, first by their actual amount and second by the depreciation of the national

currency, with the subsequent deterioration in the terms of trade that any deficit in the balance of payments could cause.[24]

The great discussion in the 1920's on the possible consequences of the payment of war reparations by Germany revived this controversy. Almost all the economists agreed that if such payments were made by Germany this would inevitably cause a deterioration in that country's terms of trade. It was about the extent of this deterioration—necessary so that the subsequent increase in exports should ensure the surplus required to cover the unilateral transfer of funds—that the economists were divided. The more pessimistic of them, like Keynes, concluded that it was materially impossible for reparations to be paid, since any payment made without an equivalent must start a cumulative process, the deterioration in the terms of trade leading to an increase in the amount of exports needed to reconstitute the funds transferred, and every increase in the supply of German goods leading to a still bigger fall in prices.

Others, like Ohlin, observed that demand is affected not only by prices but also by incomes, that increased purchasing power in the countries receiving reparations would contribute to strengthening the price level and counterbalancing the effects of the increased supply of German goods.[25]

These autonomous movements of capital could even cause the terms of trade to deviate beyond the limits of comparative costs. In this sense they were the only disturbing element in the system. Nothing in the world could compel Portugal to sell her wine at less than 8/9 of cloth, except one thing: if this wine were to be exported not in order to be exchanged for cloth but in order to pay some tribute—if, in other words, this wine, instead of being exchanged for other goods, had to be exchanged for securities, whether these were Portuguese claims on England or British claims on Portugal. These securities being expressed, not in terms of wine or cloth, but in gold, their equivalent in wine could increase freely, with the only limit the possible cost of producing gold, should this be undertaken inside Portugal.[26]

Apart from this case, the terms of trade were always situated within the bounds of a narrow zone of indeterminacy, and when Mill, Marshall, or J. R. Hicks speak of the terms of trade, it is always within these limits that they conceive them to lie.

From this point of view, if unequal exchange did take place, the inequality could relate only to the sharing of the advantages of international

trade. Not only quantitatively but also qualitatively, what was involved was unequal exchange of a different kind from that which I am going to discuss in this book, since in no case could it mean more than a failure to gain, never an actual loss.

Only after the last war was a new dimension given to this category of unequal exchange. Following the publication in 1949 of the United Nations study of the relative prices of the exports and imports of the developed and underdeveloped countries, some economists—if not academic ones, at any rate established and well-known figures—began to talk about the deterioration during a whole century of the terms of trade of a certain category of products. This put in question all the accepted ideas. It was no longer a matter of an accidental disadvantage that merely reduced the advantages of the international division of labor, but of a structural disadvantage that outweighed these advantages.

The series published by the United Nations showed a deterioration of the order of 40 percent in the terms of trade enjoyed by the countries producing primary products between the end of the nineteenth century and the eve of World War II.[27] They confirmed the studies by Schloete, Silverman, Imlah, and the Board of Trade, covering a shorter period, 1880–1913, in which a deterioration of about 20 percent was already apparent.

All these studies especially concerned the foreign trade of Great Britain, it being accepted that this trade was the most significant as regards exchange of manufactured products for primary products, and that this country's terms of trade expressed not merely the main trend of the terms enjoyed by all the industrialized countries in general, but also, by inversion, the general trend of the terms that fell to the lot of the backward countries.

Orthodox free traders like M. Ellsworth, G. Haberler, J. Viner, and F. V. Meyer have challenged in vain even the reliability of the statistical data on which these observations were based, while others of more independent outlook, such as C. Kindleberger, G. M. Meier, or even E. Gannage, have expressed an agnostic attitude to what has been revealed. The fact remains that economic science is now passing through a *crise de conscience* similar to that which occurred at the end of the nineteenth century.

While that was caused by the revival of protectionism in the industrialized countries, this is the result of the demands being put forward by a

new world, what is called the Third World. Risen suddenly from the periphery of the nations, from those faraway lands that political economy used to call exotic, so as not to have to pay attention to them, this Third World has, by becoming aware of itself, set new problems and brought about the appearance of a specific branch of economics, development economics, which represents, in a way, the "negative" of established economic science.

What is good for a developed country is bad for a country undergoing development, and vice versa. The rich countries used to complain about foreign dumping, the poor countries complain today about the high prices asked by their suppliers. The rich countries used to worry about finding employment for plentiful factors of production, if necessary exporting them, if they could not export their products. For the poor countries today the problem is to make up for their shortage of these factors, if necessary importing them, if they cannot create them by internal accumulation. It used to be acknowledged that a particular branch of production should be established somewhere only if there was a market for its products already in existence; bizarre doctrines like that of "balanced growth" teach us nowadays that when there is balanced growth the simultaneous establishment of a variety of branches of production creates its own markets.

In a certain sense this is a return to classical political economy, that of Ricardo and of J. B. Say, so far as that part of it is concerned which is contrary to the views of Thomas Malthus and Sismonde de Sismondi. Going back to mercantilism and Bernard Mandeville, Keynes taught that squandering by individuals and by states brought about intensified activity, and so enrichment. It seems today that under conditions of underdevelopment it is saving that makes takeoff possible.

However, if Adam Smith and J. B. Say thus seem to have been rehabilitated. this is, it should be said, only in a certain sense, since in order to do without the market balanced growth implies a kind of direction of the economy by the state such as the classical economists never tired of denouncing as harmful.[28]

However that may be, in the context of the division of our planet into North and South (something that is in process of replacing the East-West division), in which Disraeli's "two nations" are supplanted by two mankinds, and the international consciousness of the proletarians of all nations by that, no less international, of the "proletarian nations"; in

which the belief prevails that poverty and wealth are no longer independent of each other and merely juxtaposed, but are structural and interconnected situations, so that one maintains the other; in which the classical centrifugal forces of diffusion have yielded place to the centripetal forces of suction and attraction toward the "poles of growth"; in which the postulate of a stable equilibrium, with a rebalancing mechanism that canceled out deviations by means of their own secondary effects, has been replaced by a postulate of cumulative imbalance and of a "vicious circle"—the terms of trade, which were dealt with by the classical economists merely in the margin of their discussion of comparative costs, and were then forgotten in the confusion of neomercantilism, in which the quantity of goods sold mattered more than the price obtained for them, are now again taking up space in economic writings, endowed with an entirely new dimension.[29]

It is above all since the Korean War that the increase in the pace at which the prices of certain primary products have been falling has made this problem unprecedentedly acute and dramatic.

Speaking of external aid, the *Observer* of January 20, 1963, concluded: "Even more significant is the fact that in the last ten years, developing countries have lost far more in the fall of prices of raw materials . . . than they have received in aid from all the contributing countries."

The United Nations report on international aid to the underdeveloped countries points out in its introduction that "by its steady growth" official aid compensated, in the period between 1953-1955 and 1957-1959, for "*more than half*" of the loss suffered by the underdeveloped countries in their trade dealings during the same period. "This is irony with a vengeance!" writes Idris Cox, who quotes this passage in *International Affairs* (Moscow), February 1963.[30]

According to an estimate made by André Piatier, the decline in the prices of raw materials, occurring simultaneously with a rise in the prices of industrial products, has reduced the importing capacity of the underdeveloped countries by an amount equal to six times the total of all the loans received by these countries in the same period from the International Bank for Reconstruction and Development.

If we ignore those economists, ever fewer in number, who evince doubts as to the very reality of a long-term deterioration in terms of trade, or who reject it purely and simply by treating it as a statistical delusion, the others, we find, endeavor as best they can to reconcile it with the doctrine of comparative costs, or, more frequently, put forward specific explanations

without troubling about how well these explanations may or may not fit any general theory.

To be sure, to take an extreme case, an infinite worsening of the terms of trade of a certain category of countries would not contradict the theory of comparative costs, provided that, given immobility of the factors, the cost of producing the imported commodity in the country itself was to be considered as itself infinite.

If, say, for one reason or other, it was out of the question to produce cloth in Portugal, the value of wine could fluctuate freely between 12/10 and 8/∞ of cloth. Once the barriers of cost relationships are lifted there is no limit to the influence that reciprocal demand can have. However, the mere absence of limits to fluctuation, while it makes the phenomenon of a steady decline in certain prices possible, does not make it necessary or even likely, given that, in the last resort, it is still harder for England to produce wine, coffee or bananas than for Portugal or the backward countries generally to produce cloth or machinery.

The limits to fluctuation will at that moment be: wine = ∞/10 cloth and wine = 8/∞ cloth. The price of wine can fall infinitely, but so can the price of cloth. The question thus remains open as to why it is the price of wine that falls, and not that of cloth.

It would seem to be necessary to suppose that certain products are subject by their very nature to particularly unfavorable conditions as regards the elasticity of demand for them, elasticity of price, and elasticity of income. Most of the economists who have admitted the fact without wishing to abandon the established theories have directed their efforts to trying to discover what these conditions are.

Gunnar Myrdal and Ragnar Nurkse were the first to draw attention (or the first to do this in a systematic way) to a price elasticity inferior to unity in the demand for primary products. They were followed with greater or lesser variations by H. W. Singer, Raul Prebisch, W. A. Lewis, etc.

However, while a weak price elasticity of demand is disastrous when there is a decline, it is beneficial to an equal extent when there is a rise. A demand that is inelastic in relation to prices means in everyday terms that it is possible to go on selling the same quantity, or thereabouts, whatever the price may be. To study this elasticity, therefore, however useful it may be in finding an explanation for stagnancy of sales despite the fall in prices, does not help in any way in trying to account for the actual fall itself. So long as one leaves out of account the elasticity of supply, that is,

costs (and anyone is obliged to do this who considers the factors as non-competitive), the argument proceeds in a circle.

Some have summoned to the rescue the weak income elasticity of demand for primary products, as defined in Engel's old law—forgetting that the bulk of the agricultural products of the Third World are luxury products, in relation to which the income elasticity of demand is especially high.

To a lesser extent, substitute products are mentioned and also those economies in raw material that have been made possible by advances in the processing industry. However, as S. B. Linder remarks very appositely: "It is insufficient to argue that there has been a declining rate of increase in demand for goods from the 'outlying' countries. As long as there has been any increase at all in absolute terms, the present pattern of trade should transmit even more gains than the nineteenth-century pattern. Only absolute falls in demand could have worsened the situation."[31]

Perhaps Linder goes too far, not taking account of the increase in the population of the countries that produce primary products, but it is undoubtedly beside the point to base oneself on the movement of demand in relation to the increase in income and production in the purchasing countries. This relationship has no influence on prices and is of no interest to the producers. Only the relationship of demand to their own production can be of interest to them. And so we come back to the same point: as long as the assumption of the immobility of the factors excludes from our analysis the aspect of supply and costs, there is no way of escaping from the enclosing circle.

This is not all, however. When Nurkse and his school explain the deterioration in the terms of trade of the producers of primary products by a decline in demand in the twentieth century as compared with the nineteenth, they are compelled to admit the presence of an endless series of exceptions. The price of timber has risen despite the substitute products now available and the relative fall in demand; that of coal has not fallen, or only very little; the consumption of petroleum has leapt upward to a striking extent, but its price has fallen no less strikingly; the terms of trade —at least in factoral terms—of agricultural countries such as Australia and New Zealand have not worsened, but quite the contrary; textile products, though manufactured, have fallen in price; and so on.

Come, now, A. K. Cairncross objects: "If we leave [India and the Argentine] out for one reason and Africa for another and the petroleum

producers for a third we are bound to ask ourselves what significance can be attached to the rump. Are we talking about Indonesia or Australia, Guatemala or Venezuela, Ethiopia or the Belgian Congo? . . . [Moreover] it is just not true that 'in the years before 1914 exports of primary produce were expanding more rapidly than exports of manufactured goods.' "[32]

It can also be pointed out that statistical inquiries into the elasticities of demand, begun only recently, are still in the tentative stage and are being sharply challenged. A number of writers steadfastly refuse to accord them any confidence, considering that these statistical studies are vitiated by the inadequacy of the data and the defects in the calculations.[33]

A more essential objection comes to mind, though. Explaining the terms of trade by the fluctuations of demand would have some value if it were done a priori, that is, if it were integrated in a *general* theory of foreign trade, so that it could be said that the same causes will always produce the same effects, and that in the event of this not happening one can look for the factors that have prevented the law from applying.

Now it is disturbing to notice that all economists from the dawn of their science down to modern times, whenever they have sought to deal with the matter theoretically, that is, a priori, starting from the same causes, which they were well aware of, have arrived at forecasts that were absolutely contrary to what has happened—unreservedly pessimistic as regards the prices of manufactured goods and unhesitatingly optimistic as regards the prices of primary products.

The classical economists were probably the most categorical in making this universal forecast of a steady rise in the prices of primary products. They made it the basis of their law of perpetual increase in rents and of the tendency of the rate of profit to fall as a result of the increase in the cost of living and of wages.

Thus, John Stuart Mill declared: "The exchange values of manufactured articles, compared with the products of agriculture and of mines, have, as population and industry advance, a certain and decided tendency to fall."[34] Malthus subscribed to this view in Section VII of the second chapter and Section VI of the third chapter of his *Principles*. Ricardo says the same thing: "From manufactured commodities always falling and raw produce always rising, with the progress of society, such a disproportion in their relative value is at length created, that in rich countries a labourer, by the sacrifice of a very small quantity only of his food, is able to provide liberally for all his other wants."[35] Robert Torrens repeats the

same idea in almost the same words: "the value of raw produce is, in the progress of society, perpetually increasing with respect to manufactured goods; or, to express the same thing in a different form, the value of manufactured goods is perpetually diminishing with respect to raw produce."[36]

Though using considerably more qualified expressions, and not indulging much in the game of historical forecasting, Marx seems to have shared in essentials the pessimism of Ricardo's school regarding the evolution of the prices of manufactured goods.[37] Marshall foresaw a day when the backward countries with their primary products would possess, in the field of international bargaining, "an unassailable monopoly,"[38] and Bukharin in 1917 found that one of the essential factors in imperialism was the general and universal rise in the cost of primary products, which draws the industrial countries into a fierce struggle to get control of their sources.[39] At about the same time Keynes came to the same conclusion.[40]

Projections in numerical terms were not lacking. Colin Clark in 1942 forecast for 1960 an improvement in the terms of trade for primary products of 90 percent, compared with the level of 1925-1934. In the case of sugar, for instance, taking as basis the 1925-1934 price of 2·94 cents a pound for a world production of 27·4 million tons, and forecasting a production of 61·3 million tons for 1960, he estimated that the price at the latter date would be 4·62 cents. If we allow for the difference in the value of the dollar between 1925-1934 and 1960, we see that Clark's forecast has been cruelly refuted, even though the expected increase in production has been approximately achieved.[41]

Michel Moret reformulates Colin Clark's argument and forecasts a steady improvement in the terms of trade for primary products, down to 1970 at least.[42] Henry G. Aubrey, too, taking up the projections contained in the report of the Paley Commission, in order to forecast the future dollar holdings of the various countries of the world, says that a unit of the primary products as a group can be expected to buy, on an average, about 60 percent more American goods in 1975 than in the base period 1937-1940 and about 37 percent more than in 1948.[43]

In face of such unanimity on the part of several generations of economists, brought up in the cult of comparative costs, how can one avoid thinking that the efforts being made today to explain a posteriori the opposite tendency shown by reality, without breaking out of the framework of this doctrine, are merely so many rationalizations constructed for

the needs of the cause by writers who are in confusion before a phenomenon that they had not foreseen and that is inconvenient for them?

Everything happens as if it was not the elasticities of demand that were determining the decline of certain prices, but the decline in certain prices that was causing the economists to reveal, from instance to instance, the elasticities adequate to each.

The classical postulate of the immobility of the factors, and the subsequent deviation from the objective determination of exchange value by the relative quantities of the factors consumed in production, seem to deprive us of the possibility of understanding certain major economic phenomena. The comparative study of elasticities of demand, which in the last analysis is merely a study of the specific nature of the products concerned, a comparison of their use values, fails to provide us with a key to the explanation of century-long tendencies in the terms of trade.

All other considerations apart, there is a very simple reason for this failure, namely, that there is no such tendency characteristic of certain products or certain categories of products. The "worsening of the terms of trade for primary products" is an optical illusion. It results from a mistaken identification of the exports of the rich countries with the export of manufactured goods and of the exports of the poor countries with the export of primary products.

The copper of Zambia or the Congo and the gold of South Africa are no more primary than coal, which was only yesterday one of the chief exports of Great Britain; sugar is about as much "manufactured" as soap or margarine and certainly more "manufactured" than Scotch whisky or the great wines of France; before they are exported, coffee, cocoa, and cotton (especially cotton) have to undergo a machine processing no less considerable, if not more so, than in the case of Swedish or Canadian timber; petroleum necessitates installations just as expensive as steel; bananas and spices are no more primary than meat or dairy products. And yet the prices of the former decline while those of the latter rise, and the only common characteristic in each case is that they are, respectively, the products of poor countries and the products of rich countries.

Textiles were formerly among the pillars of the wealth of the industrialized countries, and Britain's warhorse; since they have become the specialty of poor countries, their prices hardly suffice to provide a starvation wage for the workers who produce them and an average profit for the capital invested in their production, even where the technique

employed is the most up-to-date. Must we suppose that by an amazing coincidence at the same moment when the change of location took place there occurred a reversal in the elasticities of demand?

Are there really certain products that are under a curse, so to speak; or is there, for certain reasons that the dogma of immobility of factors prevents us from seeing, a certain category of countries that, whatever they undertake and whatever the produce, always exchange a larger amount of their national labor for a smaller amount of foreign labor? This is the most fundamental of the questions I shall have to answer in this study.

IMMOBILITY OF FACTORS

The only equalization process that interested the classical economists was that affecting profits, wages being always and everywhere the same, because irreducible. Accordingly, the necessary and sufficient condition of comparative costs was the immobility of capital, and not, as is widely supposed, the simultaneous immobility of both capital and labor.

"If capital," says Ricardo, "freely flowed towards those countries where it could be most profitably employed, there could be no difference in the rate of profit, and no other difference in the real or labor price of commodities, than the additional quantity of labor required to convey them to the various markets where they were to be sold." And elsewhere in the same chapter, on foreign trade, he says, "The difference in this respect, between a single country and many, is easily accounted for, by considering the difficulty with which capital moves from one country to another, to seek a more profitable employment, and the activity with which it invariably passes from one province to another in the same country." And again: "The same rule which regulates the relative value of commodities in one country does not regulate the relative value of the commodities exchanged between two or more countries. . . . In one and the same country, profits are, generally speaking, always on the same level. . . . It is not so between different countries."[44]

Marx modified Ricardo's conception of wages by bringing into the conception of the value of labor power an historical and social element. Thenceforth the "cost of living" ceased to be an invariable datum, and in the absence of mobility of the labor factor wages can vary both in space and in time.

After this modification, however, as before, the behavior of labor

remains a matter of indifference for the application of the law of comparative costs, the sole condition, both necessary and sufficient, for this proposition being the immobility of capital.

In this context we must distinguish between the simple labor theory of value, corresponding to the conditions of precapitalist commodity production, and its developed form, corresponding to capitalist conditions of production. Allowing for the difference between Ricardo and Marx, we find the former set out in the third chapter of Ricardo's *Principles* and the first volume of Marx's *Capital*, and the latter in the fourth chapter of Ricardo and the third volume of *Capital*.

Under the simple theory of value it would be the mobility (internal competition) of the labor factor that would constitute the necessary and sufficient condition of the law of comparative costs. In contrast to this, under the developed form of the theory, to which Marx gave the name of the theory of prices of production, it is the mobility of capital that is its sole condition. This is because of the residual nature of profit, both for Ricardo and for Marx.

If capital is mobile and if the rate of profit is equalized throughout the world, then under Ricardo's system there is no difference between international value and national value, whether labor is mobile or immobile, since the cost of this factor is self-equalizing without any international competition.

As costs of transport are left out of account, and the argument assumes complete freedom of trade, the prices of all commodities, and so those of consumer goods, are the same in all countries. Hence the physiological cost of reproducing labor is equal everywhere and wages identify themselves with this cost through the working of the internal demographic regulator alone.

In this case it is absolute costs and not comparative costs that determine specialization. A given country will be able to survive only insofar as there exists a branch in which it possesses an absolute advantage over all the others, or, if transport be taken into account, a branch in which its cost is equal to or less than the best international cost plus transport costs. The population will be regulated by the absorption capacity of this branch, excess population being either eliminated by starvation if it remains immobile, or got rid of by emigration if it is mobile.

Things are not like this under Marx's system. The historical and social factor renders possible, provided labor remains immobile, a variation in rates of wages between one country and another.

It is possible, then, to distinguish four different cases:

1. *Both factors mobile:* rates of profit and rates of wages are equalized. Then this case does not differ in Marx's system from the corresponding case in Ricardo's. Absolute costs determine the form of specialization, and the numbers of the population adjust themselves through emigration and immigration.

2. *Both factors immobile:* comparative costs determine the form of specialization, just as in Ricardo's system. But whereas in the latter it is the variation in the rate of profit that absorbs the difference between absolute costs, in Marx's system it is the variation in both profits and wages that shares it between them; to the extent, of course, that both are higher than the *minimum vital*—profit being higher than the level at which any investment is discouraged, and wages higher than the physiological minimum.

3. *The capital factor immobile but the labor factor mobile.* The comparative costs law is fully applicable, and there is no difference between the two systems.

4. *The capital factor mobile, but the labor factor immobile.* In this case the two systems necessarily diverge. In Ricardo's there is then no difference between national value and international value. Demand no longer plays any part—any immediate part, that is; it still plays an intermediate part in the case of disproportionate costs by determining quantities—and the exchange value of the commodity is determined by its cost, in the sense of the amount of the factors that are expended in producing it.

In Marx's system the situation is different. Here, too, demand plays no immediate part in this case; but the "prices of production," which are Marx's counterpart to the modified value of Ricardo's fourth chapter, cannot apply, at any rate without some modification.

Both Ricardo's modified value and Marx's prices of production result from two equalization processes, the equalization of profits and the equalization of wages. Whereas, however, for Ricardo the latter takes place from below and through the working of a kind of biological law, the same for every country and therefore independent of international competition between the workers (which becomes pointless, since wages are incapable either of exceeding the physiological minimum or of being reduced below that level), in Marx's system the social and historical factor can, in the absence of such competition, bring about considerable differences in wage levels and make impossible the equalization of wages on a world scale. In

this case the differences between wages, not being able to affect profits—these being equalized by the assumed mobility of capital—will affect prices, and the latter can no longer be, as in Ricardo's system, the same in both settings, the national and the international.

It is this fourth case that seems to me to fit present-day reality the best, and for this reason it will furnish the basic condition of the following thesis. Mobility of the capital factor—immobility of the labor factor, with rejection of Ricardo's assumption about the physiological cost of labor power. Sufficient mobility of capital to ensure that in essentials international equalization of profits takes place, so the proposition regarding prices of production remains valid; sufficient immobility of labor to ensure that local differences in wages, due to the socio-historical element, cannot be eliminated, so that a modification of the proposition regarding prices of production is made necessary.

In short, I have undertaken to attempt the task that Ohlin reproached the supporters of the labor theory of value for neglecting: the task of integrating international value in the general theory of value.[45]

Notes

1. I leave aside the controversy about the true paternity of this theory. It was John Stuart Mill who first pointed out that Colonel Robert Torrens, by reissuing his *The Economist Refuted*, established at least a joint title as originator of the doctrine and an exclusive title as far as priority of publication is concerned.

It is true that in his *Essay on the External Corn Trade* (London, 1815), pp. 264–265, Torrens provided in the following passage a fairly adequate formulation of the doctrine:

"If England should have acquired such a degree of skill in manufactures that, with any given portion of her capital, she could prepare a quantity of cloth for which the Polish cultivator would give a greater quantity of corn than she could, with the same portion of capital, raise from her own soil, then tracts of her territory, though they should be equal, nay, even though they should be superior, to the lands of Poland, will be neglected; and a part of her supply of corn will be imported from that country. For, though the capital employed in cultivating at home might bring an excess of produce over the capital employed in cultivating abroad, yet, under the supposition, the capital which should be employed in manufacturing, would obtain a still greater excess of produce; and this greater excess of produce would determine the direction of our industry."

2. Maurice Block, *Les progrès de la science economique*, 2nd ed. (Paris, 1897), 2: 171.

3. Cf. Bertrand Nogaro, *Le rôle de la monnaie dans le commerce international* (doctoral thesis, 1904, Paris Law Faculty).

4. The proposition about international trade being kept in equilibrium through the ebb and flow of incomes is to be found in embryonic form already in William Thornton and several other British writers. Since Albert Aftalion gave it definitive form, however, a number of French economists have taken account of it in their analyses. See, e.g., Jean Weiller, *Problèmes d'économie internationale* (Paris, 1946-1950), 1: 112, and Maurice Byé, *Relations économiques internationales* (Paris, 1959), p. 293.

I cannot, however, agree with Jean Weiller's statement that Keynes's analysis has refuted Aftalion's proposition, owing to the subsequent changes in income through the working of the multiplier and the different applications of this income resulting from the direction of propensity to consume toward foreign or toward locally produced commodities. Keynes talks about the increase in income as such, whereas Aftalion is talking about the surplus of income over national production, and these are not the same thing. An increase in income may or may not bring about an increase of activity, whether this be multiplied or not; it may, depending on the choice made by the consumers, bring about partly *this* increase in activity and partly an increase in imports. A surplus of income over production arising from the external balance is either reabsorbed by imports to an equivalent amount, or not at all. If this surplus brings about at the same time an increase in activity, that does not in the least alter the unevenness, since this surplus of production merely adds two equal amounts to the two parties in uneven relationship (still looking at the matter from the classical and Keynesian standpoint that income equals production). This surplus of income causes prices to rise and consequently causes an increase in imports. In short, the mistake here seems to me to lie in the contrasting of income with prices as regulator. It is always through prices that the balance is restored in the end; but, according to Aftalion, prices will react not to variations in the quantity of money but to variations in incomes.

All this does not mean that any increase in incomes will automatically restore the balance. As Weiller emphasizes, we need to distinguish between "income for spending" and "saved income". But what is meant by "saved income"? If we mean income invested (on the social scale), following the assumption that saving equals investment, accepted by Keynes as well as by Aftalion and Weiller, then incomes are always "spent," whether they be "saved" or "consumed," and Weiller's objection falls to the ground. Whether income be spent on capital goods or consumer goods, its excess over national production cannot ultimately be reabsorbed except through imports. It is only when "saved income" is understood in the sense of "hoarded income," neither invested nor consumed, that the regulator breaks down, the surplus income is not reabsorbed by means of

imports, the country in question retains its active balance in relation to the rest of the world, and the rest of the world its passive balance in relation to the country in question. But in a case like this we have to give up the equation "savings equals investment," something that Weiller is not prepared to do any more than are Aftalion and Keynes.

5. Byé, *Relations économiques internationales*, pp. 31 ff.

6. Cf. J. E. Cairnes, *Some Leading Principles of Political Economy* (London, 1874), pp. 138–139; F. W. Taussig, *Some Aspects of the Tariff Question* (Cambridge, 1915), pp. 57–59, 199–201; A. Marshall, *Industry and Trade* (London, 1919), pp. 55–162; Frank D. Graham, "Some Aspects of Protection Further Considered," *Quarterly Journal of Economics* (February, 1923), pp. 204–213; Hume, to J. Oswald, November 1, 1750, in *The Letters of David Hume*, ed. J. Y. T. Greig (Oxford, 1932), vol. 1.

7. "From the moment the principle of the theory of exchange found a place in the science [of economics], it was inevitable that the principle of the theory of pruduction would soon follow, which it most effectively did. In the second edition of his *Theory of Political Economy* Jevons became aware of a point he had missed in the first edition, namely, that if the *Final Degree of Utility* determines the prices of products, it must also determine the prices of productive services, i.e., the rent, wages, and interest, *because the selling prices of products and the costs of the services employed in producing them tend toward equality under a regime of free competition.* In May 1879 Jevons wrote ten remarkable pages at the close of the preface to his second edition (pp. xlviii–lvii), in which he clearly stated that the formula of the English school, in any case the school of Ricardo and Mill, must be reversed, *for the prices of productive services are determined by the prices of their products and not the other way round*" (Léon Walras, *Elements of Pure Economics* [London, 1954], pp. 44–45. Emphasis mine, A. E.).

8. This is what Nogaro did not understand when he claimed that costs have no influence on foreign trade; cf. above, p. xxxvi.

9. The classical writers were not unaware of this indirect influence of demand but did not consider it necessary to dwell upon the point, since this influence did not in any way invalidate the thesis that commodities are exchanged in accordance with the amounts of labor embodied in them. These amounts of labor are naturally not primary data. They depend on a host of factors, and therefore nothing was altered if, among these factors, there was present also the quantity produced, as in the case of disproportionate costs.

Marx's terminology clarifies the position of the classical economists still better. In the category "socially necessary labor" are included not only the existing conditions of production but also a certain model of consumption that fixes the relative amounts of commodities produced; and this may also modify the amount of labor that is necessary in a case such as that of disproportionate costs.

It is important not to mix up this case, which the classical economists did not dream of denying, with the direct determination of the "prices of productive services" by the prices of commodities, as alleged by Walras, Pareto, and their followers.

10. John Stuart Mill remarked that the capital swallowed up in making Holland habitable would have produced more if it had been transferred, along with the Dutch themselves, to America or elsewhere. As Eli Heckscher has well observed, if there were absolute mobility of *all* the factors, all international trade would, strictly speaking, become impossible.

11. Forty-seven percent ad valorem on nearly all imported goods. Moreover, the United States had never really adhered to a free-trade policy. The 1846 tariff was "liberal" only in comparison with the superprotectionist one of 1842—under which, be it said in passing, American manufactures prospered—and it still left most of the country's industries with a fairly good margin of protection.

12. The battle against protectionism and for free trade was waged in England only in connection with the campaign against the Corn Laws and in the setting of the struggle of the capitalist class against the landowners. Apart from this special historical circumstance the British capitalist class was never, at bottom, any more convinced than the landlords were of the benefits of free trade.

13. Aristotle recommended autarky. Speaking of the optimum extent of a state's territory, he said: "As regards quality of land, everyone would choose the most self-sufficient, that is to say the most universally productive; to have everything to hand and nothing lacking is the height of self-sufficiency" (*Politics*, 7, ch. 5, Penguin Classics edition, p. 266).

Furthermore, as Adam Smith did not fail to observe, none of the great peoples of ancient times, in Egypt, India, or China, ever encouraged foreign trade.

14. Cf. Jacob Viner, *Studies in the Theory of International Trade* (New York, 1937), pp. 452–481.

15. Charles Davenant did not shrink from describing gold and silver as mere measuring devices for trade, while the real source of a country's trade and that country's actual wealth lay in its production. Sully, Laffemas, Montchrétien, Child, and Forbonnais agreed. What obsessed them was the historical fact of unemployment. The end in itself was, for them, not the influx of money but the trade surplus that caused it. If we melt down our plate and coin the metal into money, says Thomas Mun, we shall have plenty of money, but we shall be none the richer for that. Only the money that comes to us from a trade surplus is profitable. This phrase of his should alone suffice to put an end to the great misunderstanding about mercantilism.

16. Friedrich List, *The National System of Political Economy* (London, 1885), p. 178.

17. John Stuart Mill, *Principles of Political Economy* (London, 1848), 2: 487.

18. Adam Smith, *The Wealth of Nations* (Edinburgh, 1814), 4, chap. 2.

19. Michaïl Manoilesco, *The Theory of Protection and International Trade* (London, 1931). The very title of the book—"the theory of protection"—is, to my knowledge, unique in economic writing and seems to have been chosen in order to throw down a challenge.

20. I have found no repudiation of this equivalence except in Sismondi, and he is not very clear on the point. Marx accepted it, and even diagrammatized it in his chapters on the reproduction of capital, but he implicitly rejected it nearly everywhere that he spoke about overproduction or overaccumulation of capital. Marx's work having remained unfinished, and Lenin, in his polemic with the Narodniks, having laid the emphasis rather upon capitalism's potentialities for growth, Marxists have mainly neglected this point.

It cannot fall within the scope of this study to refute this equivalence since my subject is not foreign trade in general but a particular feature of foreign trade, namely, unequal exchange. It needs to be made the subject of a special work, devoted to examining, first, the internal working of the competitive economy and, second, the interactions between the level of internal activity and the external trade balance.

21. "It is . . . very much up to doubt whether today a freer trade would necessarily lead to less of international inequality or whether in general trade between developed and (densely populated) under-developed countries has ever had that effect" (Gunnar Myrdal, *Development and Underdevelopment* [Cairo, 1956] p. 10).

"It is now clear that an undeveloped society simply cannot develop if it is subjected to such a policy [i.e., a policy of *laisser faire*]. . . . The undeveloped country will remain at a peasant level, with a few large-scale enterprises in the extractive industries, working for export. Under *laisser faire* and free trade between countries of unequal stages of development there is an overriding tendency for the gap between a developed and an undeveloped country to grow wider *indefinitely*" (John Strachey, *End of Empire* [London, 1961], p. 56).

According to liberal economics, the more the industrial regions develop, the more they will become saturated with capital and the lower will be the level of profits in these regions. Opportunities for investment in the underdeveloped countries will then increase, and capital will flow thither, so evening up the level of development. As Gerald Meier observes, however, "this conclusion . . . depends . . . on the qualification of *ceteris paribus* (particularly no change in the terms of trade)" (In A. N. Agarwala and S. P. Singh, eds., *Economics of Underdevelopment* [India, 1958], p. 65).

Many more quotations could be given. Free trade has never been questioned so deeply and at such an "official" level as today. Besides the writers quoted above, Kindleberger, Nurkse, Singer, Prebisch, Lewis, Rosenstein-Rodan, Gendarme, Linder, Cairncross, Perroux, Weiller, to mention only a few, have under-

mined the foundations of the free-trade doctrine as never before—with a wide variety of shades of emphasis, from the barely perceptible skepticism of Weiller and Kindleberger, for example, to the open hostility of Singer and Prebisch. Nothing shows more clearly the distance we have traveled than the insistence with which the United Nations Economic and Social Council's Report for 1955 speaks of the need for diversifying production generally and in particular for carrying through industrialization in the underdeveloped countries, regardless of comparative advantages. It can be said that it is liberals like Gottfried Haberler, Jacob Viner, and Jacques Rueff who now seem the eccentric and isolated thinkers. Nevertheless, academic science goes on teaching the doctrine of comparative costs as though nothing had happened.

22. "Customs duties are the best kinds of taxes, because they are paid by foreign countries" (Charles Gide, *Principles of Political Economy* [Boston, 1924], p. 325). Cf. also Bertil Ohlin, *Inter-Regional and International Trade* (Cambridge, Mass., 1933), p. 490; Taussig, *Some Aspects of the Tariff Question*, p. 14, and *International Trade* (New York, 1927), p. 146; A. Marshall, *Memorandum on the Fiscal Policy of International Trade* (London, 1908).

23. David Ricardo, *Principles of Political Economy and Taxation*, 3rd ed. (London, 1821), ch. 16; C. F. Bastable, *The Theory of International Trade* (London, 1887), p. 160.

24. "The result is that a country which makes regular payments to foreign countries, besides losing what it pays, loses also something more. . . . The paying country will give a higher price for all that it buys from the receiving country, while the latter, besides receiving the tribute, obtains the exportable produce of the tributary country at a lower price" (Mill, *Principles of Political Economy*, 2: 167).

25. Bertil Ohlin, "Transfer Difficulties, Real and Imagined," *Economic Journal*, vol. 39 (June 1929). Cf. also Albert Aftalion, *L'équilibre dans les relations économiques internationales* (Paris, 1937), pp. 237–238. Keynes had not taken into account the increase in demand resulting from the influx of income into the countries receiving reparations.

This was William Thornton's old idea—that equivalence between private expenditure and private income tends, in the last analysis, to ensure equivalence between exports and imports—taken up afresh by Cairnes, Bastable, and Nicholson and carried further by Aftalion.

This conception is based, it should be mentioned in passing, on the identification of an increase in purchasing power with an increase in actual purchases. As soon as this old postulate of the classical economists is challenged, and actual hoarding is considered possible—not just Keynes's "saving"—then all the balancing mechanisms, both currency movements and income movements, are jammed.

26. In other words, when Portugal was asked for too much wine as the price of being supplied with the cloth she needed in order to clothe her people, she could resort to making her cloth for herself, but when she was asked for too much wine as the price of being supplied with the gold she needed in order to carry out some unilateral transfer, pay war indemnities, or invest abroad, Portugal had to submit, since the privilege of producing gold is reserved by nature to certain countries exclusively.

27. Taking 1938 as 100, the terms of trade of primary products against manufactured goods in world trade were 137 in 1913 and 147 in 1876-1880, while the United Kingdom's terms of trade were 137, in 1913 and 163 in 1876-1880 (inverse quotient: import prices/export prices). United Nations, *Relative Prices of Exports and Imports of Underdeveloped Countries* (New York, 1949).

28. This case did not, however, escape the brilliant perspicacity of F. Quesnay, the father of political economy: "Manufacturers and craftsmen," he wrote, "gather in a country only in proportion to the *present* income of the nation." And the founder of the free-trade school added, as though regretfully: "This is the only case . . . in which the government may usefully concern itself with the progress of industry in a fertile country" (Article "Grains" in the *Encyclopédie*, November 1757, *Maximes de gouvernement économique*, sect. 5).

29. In fact the major preoccupation of the economic policy of the capitalist countries has always been in the past, not to sell dearer but on the contrary to undersell their competitors. These countries struggled to give each other a permanently active trade balance, so as to enhance activity within the country. On the assumption of full employment made by the classical writers, and with the reality of full employment experienced in recent years, this policy is absurd. This is why the category of "terms of trade," which made its appearance with the classical economists (leaving aside a few unsystematic and incoherent allusions made by the mercantilists, and a few more solidly based ones by the physiocrats) and then disappeared completely, has reappeared quite recently. Once there is no further risk of an internal depression, one no longer strives to sell as much as possible but rather to sell as dear as possible.

For the underdeveloped countries the problem is the opposite of this. Not having to concern themselves about a crisis of overproduction, and the character of their underemployment being the opposite of that in the advanced countries, they do not have to pay out subsidies in order to prime the pump of their internal activity, and the terms of trade constitute a whole problem for them.

30. We wonder, indeed, which is the more impressive of these two things: the generosity of the aid that manages to compensate for more than half of the trading loss, or the commercial catastrophe that amounts to nearly twice the value of the aid.

31. S. B. Linder, *An Essay on Trade and Transformation* (New York, 1961), p. 58.

32. A. K. Cairncross, *Factors in Economic Development* (London, 1963), pp. 193–194.

33. Cf. Jacob Viner, *International Trade and Economic Development* (Oxford, 1953), p. 27; G. Haberler, "Some Factors Affecting the Future of International Trade and International Economic Policy", in *Selected Readings in the Theory of International Trade* (Philadelphia, 1949), p. 552; M. Moret, *L'échange international* (Paris, 1957), p. 162.

34. Mill, *Principles of Political Economy* (London, 1909), 2, p. 254.

35. Ricardo, *Principles*, chap. 5, pp. 52–55.

36. Robert Torrens, *Essay on the Production of Wealth* (London, 1821), p. 145.

37. Cf. *Manuscrits*, p. 33; Marx, *Theories of Surplus Value* (Moscow, 1968), pt. 2, pp. 133–136; Marx, *Histoire des doctrines économiques* (*Theories of Surplus Value*), ed. Costes, 7: 189.

38. A. Marshall, *Money, Credit and Commerce* (London, 1923), pp. 53, 201, 202.

39. Nikolai Bukharin, *Imperialism and World Economy* (London, 1930).

40. J. M. Keynes, "Return of the Estimated Value of Foreign Trade of the United Kingdom at Prices of 1900," *Economic Journal*, no. 22 (1912).

41. Colin Clark, *The Economics of 1960* (London, 1942), pp. 52–54.

42. Moret, *L'échange international*, p. 120.

43. Henry G. Aubrey, *United States Imports and World Trade* (Oxford, 1957), pp. 11–26, 27.

44. Ricardo, *Principles*, pp. 142–143, 141–142, 139.

45. "The fact that the classical economists preferred to go back on their steps and, in dealing with international trade, preferred to reason as though the simple labor value theory required no modification, certainly seems to confirm the opinion that no real modification was made. Another fact points in the same direction, namely the fact that later writers have never attempted to build up a theory of international trade on the *modified* classical value doctrine instead of on the original one" (Ohlin, *Inter-Regional and International Trade*, pp. 573–574).

It should be observed that the classical economists had no need to use the "modified" form of their law, since they recognized that this law was not applicable to international trade in any form at all. Furthermore, the very fact that they assume that equalization of profit does not occur between nations, and that they consider this circumstance as a condition sufficient to prevent their law from operating, proves, on the contrary, that they are indeed arguing within the framework of the "modified" form of their law, since it is only in this form that the equalization of profits plays a part and "modifies" the law.

What Ohlin has not grasped is that if the classical economists employ in their

exposition of the doctrine of comparative costs the expression "hours (or days) of labor," that has nothing to do with the simple form of the law of labor value, since they themselves admit that this law does not apply here. They employ the expression merely in order to provide a reduction scale. When Ricardo says that in Portugal 80 hours are needed to produce a unit of wine and 90 hours to produce a unit of cloth, whereas in England the respective figures are 120 and 100, all these figures—80, 90, 120, 100—are indeterminate aggregates of factors (skilled labor, simple labor, past labor, etc.), the makeup of which is not necessarily the same in the two countries, but which provides a sort of common denominator inside each country, which we can call "sacrifice" (Cairnes's term) or "bales" (Marshall's term), but which in any case means nothing more than that, in Portugal, for reasons quite unconnected with international trade, a unit of wine is equivalent to 8/9 of cloth, whereas in England a unit of wine is equivalent to 12/10 of cloth.

Having said this, one must acknowledge that Ohlin's point that nobody has tried to work out a theory of international trade on the basis of what he calls the modified labor-value theory (which is identical with the theory of "prices of production"), is, in a sense, quite a fair one.

To carry out this task, however, it was necessary to challenge the assumption about the immobility of the capital factor. This is what I have done in this work, and I shall seek to justify my decision in the pages that follow. If I succeed, I shall have shown that not only is international trade not, as is thought, the Achilles heel of the labor theory of value but that it is, on the contrary, on the basis of this theory's premises that we can understand certain features of international trade that have hitherto remained unexplained, despite the plentiful body of writing that has accumulated about them.

Chapter I
Equilibrium Prices in Internal Exchanges

I. FACTORS OF PRODUCTION AND EXCHANGE VALUE

Apart from any normative dispute there may be regarding the category called "factor of production," we recognize as such, under the conditions of the production relations of commodity economy, whether capitalist or precapitalist, every established claim to a primary share in society's economic product.[1]

These claims, which have been called primary incomes, are indeed essentially different from secondary incomes in that they are directly connected with the realization of the product, which is effected through he exchange of different commodities, so that (whatever may be the leterminant and whatever the determined) there is precise correspondence etween the relative size of these incomes and the rate of exchange, or xchange value, of the commodities concerned. Secondary incomes are ot linked with the exchange values of commodities, except accidentally nd indirectly, and to the extent only that they are functions of primary icomes which depend on these values.

In this sense a direct tax is a secondary income, and consequently it is ot a factor, because it neither has any influence on the exchange value of mmodities nor is influenced by this, except in a few special cases and in intermediate way, through changes in the primary income to which is tax is applied.

An indirect tax, however, is always, in accordance with the definition ven above, a primary income and a factor because, all other things being ual, there is undeniably a direct relationship between its level and the change value of the commodity to which it is applied. Here there is no m at all for argument about the direction in which this relationship is rted. It is obviously not the exchange value that determines the tax, t vice versa, since a legislative decision arbitrarily lays down in advance,

independently of and apart from the market, the rate at which this tax is to be levied.

If a legislative decision were to fix in the same way all the other claims, such as wages and profits, there would be no room either for argument about the determinative power of these factors. If, however, we assume a pure competitive economy, the reward of labor and the profit on capital are fixed not by any voluntary act but by the market. Hence the division among the economists, as regards the formation of value, into two camps: those who treat these factors as dependent variables, and those who treat them as independent variables of the system.

If now, instead of taking the exchange value of each commodity on the same footing along with all the rest, we take this exchange value in relation to a particular commodity, which serves as a universal equivalent, or if we lay down a scale for the reduction of all exchange values to some conventional unit, then we arrive at the idea of price.

Thus, in the series of exchange values: $A = 2B = 5C = 10D =$ 10 grams of gold, the prices may be, either:

A = 10 grams of gold
B = 5 grams of gold
C = 2 grams of gold
D = 1 gram of gold

or, if 1 gram of gold = 10:

A = 100
B = 50
C = 20
D = 10

The second series being made up of simple coefficients to which any denomination may be added—franc, pound, dollar, etc.

In order, therefore, to avoid any question-begging, we can talk not of factors of production but of factors of price, provided, of course, we accept that it is the quantities of and rewards for these factors that determine prices, and not the other way round.

It is then appropriate to advocate one or other of these two determinations and to justify the choice made.

II. SIMPLE COMMODITY ECONOMY: ONE FACTOR ONLY

1. Exchange Value and Reward of the Factor

If there were no other claimants in society apart from a certain number of independent workers, owning their tools as their own inalienable property and freely exchanging their products among themselves, it would be hard to conceive of any theory of value other than the classical labor theory. To ask in these circumstances at what rate a commodity should be exchanged for another would quite simply mean asking the rate at which the labor of one producer should be rewarded, as compared with another.

By treating value as a real substance, economists have somewhat lost sight of the fact that, behind the commodities being exchanged, there are men who are expecting to receive their share of the social product.[2] There are, after all, only two ways of deciding this share—either directly, through an imposed division of labor, or else indirectly, through exchange of the workers' products and a division of labor based on each person's free choice.[3]

In the first case there is no commodity production and the very concept of value is deprived of significance and becomes pointless.[4] In the second, behind the comparison between commodities lies hidden a comparison between the different labors needed to produce them.

If man ever troubled to compare things so unlike each other as a canoe and a cow, it was solely in order to be able to pay as correctly as possible for the labor of those who had produced each of them, when these producers had become independent of each other. Where that is not the situation, then, even today, those in Black Africa who are still integrated in the tribal way of life look upon any such comparison as a white men's fad that either astonishes them or makes them smile.[5]

2. Homogeneity of the Factor

Since the different labors that men perform can be compared only by reducing them to a common unit, it would be necessary and sufficient to reduce the particular forms of labor to a single quality to have the relation between them, and consequently the exchange value of the commodities produced by them, become reducible as well to a simple ratio between periods of abstract and homogeneous labor time. Hence, in a society

of this sort, with simple commodity production, equilibrium will be maintained only if commodities are exchanged in proportion to the length of time needed to produce them, multiplied by a coefficient expressing, in accordance with the *subjective* evaluation made by the interested parties, the relative advantages and disadvantages of each occupation.

I have stressed the word "subjective" because this is where we meet the first objection that is raised by those who decry the labor theory of value, namely, that even in the case of simple commodity production, since labor is not homogeneous, there is not just *one* factor but as many factors as there are kinds of labor, for which, moreover, no objective reduction scale exists.[6]

Adam Smith, Ricardo, and Marx all had to have recourse to the scale of wages established on the market over a long period in order to be able to reduce, *ex post*, concrete labor to abstract labor. This dependence on the market, which was admitted by writers who declared that it is the conditions of production that determine exchange, and not exchange that determines the conditions of production, has been seen as an inconsistency on their part.

However, the impossibility *in practice* of establishing, *ex ante*, a scale for reducing complex forms of labor to simple labor, and the reference to the market made by Smith and Ricardo, and later by Marx, do not mean that the market *determines* this reduction, only that it provides confirmation of it. "Experience shows that this reduction is constantly being made," says Marx in the first chapter of *Capital*.[7] And he adds in Chapter 7: "From another aspect, when it is a question of producing value, the higher form of labor must always be reduced to average social labor—one day of complex labor, for example, to two days of simple labor. If respectable economists have protested against this *arbitrary assertion* . . . what they allege to be a trick of analysis is quite simply a procedure which is *practiced* every day in all parts of the world."[8] And in Chapter 1 of his *Critique of Political Economy* he adds further: "This reduction appears to be an abstraction; but it is an abstraction which takes place daily in the social process of production."[9]

What matters, in fact, is not whether one has an *objective* reduction scale, independent of men's will and, so to speak, metaphysical, but the simple fact that under the particular conditions of any moment the workers themselves succeed in agreeing on the respective qualities of their labors.

Reducing complex to simple labor is not an effect of the market; it results from production carried on with the market in view. It is obvious that without the market there would be neither abstract labor nor value, but that does not mean that these are determined by the market.

If one says that under these conditions the equilibrium price of a hat, which it takes ten hours of labor to produce, is two chairs, the production of which requires 20 hours, this amounts to saying that, in the opinion of the interested parties, and taking account of the period of apprenticeship needed, the special difficulties of each craft, etc., the labor power of a hatter is worth twice as much as an equal quantity of the labor power of a joiner, so that at this price neither of the two workers has any cause to change his occupation.

These coefficients (1, 2) are obviously established outside the sphere of exchange since they are determined exclusively by the conditions of labor peculiar to each craft. Once established, they determine and correct the market. Indeed, at the rate of one hat $>$ two chairs the joiner would be better off making his hats for himself instead of buying them with chairs, and at one hat $<$ two chairs the hatter would be better off making his chairs for himself instead of getting them in exchange for hats. Equilibrium is achieved at the rate of one hat $=$ two chairs.

3. *The Bearing of Equilibrium*

Clearly, the relevance of this argument depends on how we define equilibrium. When perusing the enormous literature devoted to the dispute about value, the reader often gets the impression that a serious misunderstanding has occurred where this idea is concerned.

What the classical economists call the equilibrium price—the cost of production according to Quesnay, the necessary price according to other physiocrats, Turgot's fundamental price, the natural price or cost price of Smith and Ricardo, MacCulloch's real value, Sismondi's intrinsic price, Marx's price of production—is not the price at which at a certain moment demand is equal to supply. Such a sterile triviality was regarded by the classical writers as belonging to the prehistory of political economy, not worthy of their attention. The equilibrium price of a product is that at which the branch producing this product is in equilibrium: the price, in other words, at which movements of the factors toward or away from this branch cease completely.

The result is that it is not possible for any particular price to be in equilibrium unless all other prices are in equilibrium as well. Equilibrium is thus an ideal situation, and under the conditions we are supposing, where only a single factor exists, and this factor is homogeneous, *it is the point where payment for a unit of this factor is equal in every instance where it is applied.*

The marginalists' position on this point is an ambiguous one, and very frequently we observe them gliding from the macroeconomic to the microeconomic standpoint. When Walras and Pareto say that the point of equilibrium is reached when all profits fall to zero, they do not diverge essentially from the classical position, according to which at the moment of equilibrium all the rates of profit become equal; allowing, that is, for the fiction, so dear to Continental economists, of the entrepreneur without capital, whose profit, according to Pareto, can only be a profit of alienation at the expense of another entrepreneur, the true profit on capital and the payment for the entrepreneur's services being included in his costs in the form of interest and wages. The fiction mentioned is even to be welcomed in this particular instance, since it brings out the difference between the current price, at which some entrepreneurs gain and others lose, so that transfers from one branch to another are encouraged, and the equilibrium price, at which no entrepreneur either gains or loses anything at all over and above the payment for his services, and at which transfers come to a standstill.[10]

A moment arrives, however, amid the flood of marginalist propositions, when it is no longer clear whether what is being talked about is the fluctuations in prices or the prices themselves, their contingency or their nature, their movement or the level at which this movement occurs. Eventually it becomes clear that for many marginalists value and abstract price, as the axes around which concrete price varies, simply do not exist, and everything boils down to the sum total of actual prices, determined by the law of supply and demand.

In the extreme form of marginalism it is not even supply and demand that determine prices, this role being reserved to demand alone, if the view is taken that the true elasticity of supply is not one of quantities already produced but one of costs of production and reproduction.[11]

This is where the British neoclassicists differ from Jevons and the Austrian school. Walras's work already foreshadowed this transcendence

of the old dispute about whether prices are determined by demand or by costs of production:

Equilibrium in production, which implies equilibrium in exchange, can now be easily defined. First, it is a state in which the effective demand and offer of productive services are equal and there is a stationary current price in the market for these services. Secondly, it is a state in which the effective demand and supply of products are also equal and there is a stationary current price in the products market. Finally, it is a state in which the selling prices of products equal the costs of the productive services that enter into them.[12]

Pareto and Cassel joined Walras in considering that the relative amount of costs (and consequently of prices) does not depend only upon the market, but that it is also determined by the conditions of production. Marshall, however, was the economist who gave this view its most clear-cut form, when he declared that the question whether it is demand or cost that determines value is as empty of meaning as the question whether it is the upper or the lower blade of a pair of scissors that cuts a piece of paper. He went even further, declaring that the shorter the period under consideration, the greater is the influence of demand, and the longer this period is, the greater the influence of cost, thus recognizing that in the long run it is the cost of production that is the sole determinant.

In contrast it was by restricting himself to the amounts "physically given" that Jevons was able to declare that "labour once spent has no influence on the future value of any article"[13]—though nobody ever said that it was the labor *already* spent that determines value, this being done by the *necessary labor*, something that in itself implies the idea of reproduction.

Well, then, if it is not a question of a mere accident or of the end of the world, what *does* determine the amounts "physically given?" Jevons thought he could get out of the difficulty by means of the following proposition: "Cost of production determines supply. Supply determines final degree of utility. Final degree of utility determines value." But in that case, Marshall replies, it would be possible to eliminate the middle term without much trouble and say that cost of production determines value.

It is E. von Böhm-Bawerk and Carl Menger, however, who are the spokesmen for the subjectivist theory properly so called: they are concerned only to analyze how sellers and buyers argue over a *given* quantity of commodities. By leaving out any possibility of reproduction they build

a model that is appropriate only to the stock exchange, where a certain number of shares do indeed pass from hand to hand without any reproduction or multiplication being possible, or else to the conditions prevailing in the world on the eve of the Last Judgment, when mankind, their end having been announced, will doubtless stop producing and will consume their accumulated stocks of goods by exchanging them.

4. *Internal Competition or Mobility of the Factor*

If we adopt the macroeconomic meaning of the term, then as soon as this equilibrium price is upset by the everyday reality of the market, the factors start moving in the direction needed in order that the real price may still tend to conform to the abstract price. It is thus by disturbing the equilibrium of the economy that supply and demand are able to affect the distribution of the factors, and it is to this extent that market prices are active prices. What follows from this is that it is the mobility or competition of the factors, or the possibility for every worker freely to choose his occupation (still within the conditions laid down at the beginning of this chapter, in particular the existence of one factor only), that constantly restores the equilibrium of the economy and constitutes in the last analysis the essential condition for the functioning of the law of labor value.[14] Moreover, market prices establish equilibrium in the commodities market and not in the factors market, and in order to ensure this momentary equilibrium they must, on the contrary, diverge, sometimes to a substantial extent, from "equilibrium prices."

It would be useless to object, as several critics of the classical theory have done, that this competition does not in fact exist, because the *existing* hatters cannot transform themselves, at will and at any moment, into joiners, or vice versa: the classical writers always said that the competition of the factors is to be understood as a long-term affair, and the equilibrium price as only a tendency, an axis around which effective prices revolve, and from which they can deviate considerably and in either direction, depending on the law of supply and demand. This law, however, is itself meaningless unless account is taken of the basis of equilibrium, in relation to which we measure the deviations of disequilibrium that it determines. Supply and demand may at a given moment fix the price of iron at two francs the kilo and that of gold at 4,000. What decides, though, that iron is too dear at two francs, whereas gold is too

cheap at 4,000, is their respective cost of production. The law of value is not a law of magnitudes but a law of motion.

The *existing* hatters cannot, of course, change into joiners overnight. On the other hand, however, nobody is born a hatter or a joiner, and at any moment a host of other people are on the point of choosing the trade they will follow. If the price of the products of a certain branch is too high in relation to the reward that these people regard as fair, given the particular and comparative difficulties of this occupation, then they will flock into this branch and by contributing their additional production will *ipso facto* bring the effective price down to the level of the equilibrium price.

Clearly, the limits within which the classical law of value is applicable are identical with the limits of the competition or mobility of the factors. As soon as these limits are exceeded, the law is no longer operative, and it is the "prior" law of supply and demand that becomes applicable. The classical writers were aware of the fact and continually acknowledged it.

While it is broadly possible for anyone to become a hatter or a joiner, not everyone can at will become a great painter or an inventor, nor can everyone repeat at will the lucky strike of the collector who comes one day upon a very rare stamp, or that of the prospector who finds a remarkable nugget of gold or a many-carat diamond. In such cases the ancient law of supply and demand, with all the refinements that the nineteenth-century economists gave it—marginal utility, indifference curves, elasticities of demand, etc.—becomes applicable.

. Nonreproducible Commodities

The classical writers often said that nonreproducible commodities, such as works of art, collectors' pieces, etc., were outside the scope of their law.[15] The opponents of the classical school have tried to create a *universal* theory, applicable to everything, whether reproducible or not, material or nonmaterial, commodity or income, productive service or service *tout court*, applicable equally to a real society in which reproduction follows consumption and to an island of shipwrecked people where only luggage and windfalls are exchanged: they have ended by creating a theory that explains nothing and leads nowhere. Only tautologies are truly universal.[16] So as to be able to include Robinson Crusoe in the law of value they have emptied the latter of all its substance.

Nevertheless, the "case" of marginalism is not so "universal" as it

seems since there is at least one value that it cannot take account of. And this is something important—the value of gold. Pareto had the intellectual honesty to admit this.

If the rate of exchange between two commodities, he observed, is determined by the relation between their respective ophelimities,* then in the event that a general increase takes place in the prices of all commodities, as expressed in gold, the increase in the quantity of gold must be such as not merely to cover the increased circulation of money but also to cover the increase in the consumption of gold itself, an increase that is needed in order to diminish its *elementary* ophelimity in relation to other commodities, on which alone its value depends.

However, Pareto admits, this conclusion is perhaps too dogmatic. It would be hard to attack it if the consumption of the money commodity itself were nearly as great as the total amount of all other consumption. But will it still stand up if, as in our societies, the money commodity is gold, consumption of which is very slight in comparison with other kinds of consumption? It is hard to see how all prices are to be regulated in an exact and strict way by the consumption of gold in watchcases, jewelry, etc.[17]

"We conclude," he declares further on, "that, in the case of gold money, identical equilibrium positions are possible, within certain limits, with different prices. Within these limits they would seem, therefore, not to be completely and exclusively determined by the formulae of pure economics."[18]

In their day the classical writers had declared that their theory did not apply to things that are not reproducible at will. They did this just as honestly as Pareto but much more categorically, without his caution ("they would *seem*, therefore, not to be *completely and exclusively* determined . . ."). If it is a question of "universality," therefore, I do not see why Pareto's theory, which leaves out of account such an important value as the money commodity, should be preferable to another theory, which leaves out of account Robinson Crusoe's island.

Besides, the classical writers explained the reasons why their theory did not apply to the case of nonreproducible commodities. Being aware of their own assumptions, or at least of the most essential of these, they took account, by the same chain of cause and effect, both of the rule and of the

* "Ophelimity" is a term invented by Pareto to take the place of the more familiar "utility," as used by the marginal utility theorists.—*Trans.*

exception. Pareto, however, baldly records the exception without considering himself obliged to explain it.

Yet the "breakdown" of "pure economics" in the case of gold is no mystery, nor even a paradox. The subjective theories of value inevitably have to come to a standstill where ophelimity itself becomes an increasing function of the cost of production. All prestige consumption comes under this heading. A large number of things are not expensive because their ophelimity is large; their ophelimity is large because they are expensive. The flowers we present have to be not only beautiful, they *have* to be expensive as well. Otherwise, in certain circumstances they will not fulfill their role, and their use value suffers thereby.

Moreover, all the theories of general equilibrium of interdependence break down where the elasticity of demand is equal or inferior to unity.

Gold is subject to both conditions—to the former in part, because, after all, gold has certain intrinsic qualities and its consumption is not a mere matter of prestige, and to the latter entirely, because, according to the quantity theory, the elasticity of the demand for monetary gold is strictly equal to unity.[19]

If a supranational authority were to impose a tax on the extraction of gold from all the world's mines, the prices of all commodities, expressed in gold, would fall in proportion to the amount of this tax, though the physical quantity of gold would not change and the ophelimities alleged to depend on this would change only to an absolutely negligible extent.[20]

6. *Disproportionate Costs*

If, however, we leave aside this extension that the postclassical economists tried to make in order to take account of the value of nonreproducible commodities, within the assumption and the limits of internal competition (mobility) of the labor factor and within the setting of a simple precapitalist commodity economy where there is only one category of claimants, namely, workers owning their own tools, inalienable in principle and of insignificant value—then it can be said that there is no possible way of refuting the law of labor value.

For I do not regard as a refutation, in the true sense of the word, the argument about disproportionate costs, as I have already stated in my introduction. When we say that value depends on the labor necessary for the production of a commodity, we accept implicitly that several factors

may in turn determine the amount of this "necessary labor." By saying "socially necessary labor" we even give explicit recognition to the existence of these factors. As Henri Denis writes, "value . . . is the amount of labor socially necessary for production with a given state of technique and of industrial structure, but also *with a given state of the market*."[21]

It is clear that to each level of production potential there corresponds a different distribution of demand among the various commodities. The consumption of clothing does not increase in the same proportion as the consumption of food. If, then, costs are not proportionate, to each level there also corresponds a different series of exchange values of the products. Whoever thought of denying this? How does this observation discredit a theory that teaches that costs determine exchange value?

According to Garnier, demand determines only the quantity of things that are produced, and their value is determined by labor. Proudhon wrote that it is for the buyer to indicate the amount to be produced but for the manufacturer to fix the value of the things produced, through the amount of labor. Marshall himself agreed with this view of the question when he declared that utility determines the quantity to be supplied, the quantity to be supplied determines the cost of production, and the cost of production determines value.

If this is so, then demand is neither a determinant, as Jevons and Walras believed, nor a codeterminant, as Marshall, with a certain inconsistency, sometimes seemed to believe. It is, so to speak, a determinant of the determinant. It is one datum along with several others: climate, natural resources, state of technique, etc. On the basis of all these data taken together, a certain amount of labor is at any moment necessary in order to produce a given commodity. Whatever these data may be, and whatever the laws that govern them, at any moment the equilibrium price of one commodity in terms of another is equal, under the conditions we have supposed, to the relationship between the two amounts of labor socially necessary to produce them.[22]

III. CAPITALIST ECONOMY: SEVERAL FACTORS

1. Mobility of the Second Factor: Equalization of Profits

Up to now we have assumed the existence of one factor only, competitive and homogeneous. Under such conditions it is a matter of complete in-

difference whether exchange value is measured by the amount of the factor or by its reward. The factor's internal competition (mobility) implying, as it does, equalization of its rewards, it is obvious that both methods produce exactly the same results. Once all the specific forms of labor have been converted into simple and universal labor, the relationship between the amounts of labor expended in the production of two different commodities is equal to the relationship between the rewards of their respective producers. This is why in such a case the labor theory of value and the cost-of-production theory amount to the same thing, and I have made no distinction between them in the preceding section.

At the same time, given the assumption of a single factor or of a single category of claims to a share in the social product, the direction in which determination takes place is beyond dispute. It follows directly from the definition of this factor. If the latter is homogeneous and competitive, its reward must, indeed, tend to be equal in every sector of production. And it cannot be equal *unless* commodities are exchanged in proportion to the amount of this factor that is socially necessary for their production.

Things change radically when we pass from simple commodity production to capitalist production, under which the tool and the producer are separated and a second category of claimants appears, that of the owners of capital.

According to my definition, and leaving rent and taxes aside for the moment, we now have two factors, labor and capital.[23] If the first becomes homogeneous only through the reduction of complex labor to simple labor and concrete labor to abstract labor, the second is directly and completely homogeneous since by its very nature it is always abstract.[24]

Capital as such is, in the absence of external obstacles, perfectly homogeneous and competitive. Inside a given nation, such obstacles are, in principle, nonexistent, and economists usually agree on this point, even if they disagree about recognizing the same mobility on the international plane.[25]

As with the labor factor, this mobility implies that the reward for a unit of capital is equal whatever its application may be. This means that the equilibrium rate of profit, which constitutes the axis around which the real rate of profit varies, must be the same in all branches. Every difference, whether above or below the real rate of profit, brings about movements of capital in search of higher profits, and these movements tend to restore equilibrium.[26]

2. *Unequal Proportionality of the Two Factors*

If in every branch the intervention of this claim by capital were proportionate to the amount of labor expended for each kind of production, then the fact that this claim is rewarded at a uniform rate would have no influence on the exchange values of commodities as established in accordance with the respective amounts of labor embodied in them.[27]

This observation is independent of the nature of this claim and that of its reward. Whether profit is part of the value created by the worker or whether it is something added to this by the circulation of commodities; whether it represents a surplus value created by the worker over and above the value of his labor power or whether it is deducted from the actual value of labor power; whether it is the just reward of a productive service or whether it is a tribute paid by those who work to those who hold an exclusive claim upon the means and conditions of labor—these do not affect in any way the fact stated above that, if the proportionality of the two factors is equal, then the reward of capital, wherever this payment may come from, has no effect whatsoever upon the exchange value of the products.

Let us suppose that one unit of A contains ten hours of labor and one unit of B contains 20 hours. Under the conditions of precapitalist commodity economy they exchange at the rate of 2A for 1B. They will continue to exchange at the same rate after the coming of capitalist relations if, and only if, profit per unit of capital being the same in all branches, the amount of capital devoted to each of the branches is proportionate to the amount of labor.

Thus in my example if the general rate of profit is 10 percent, and capital participates at the rate of five units per hour of work, then in branch A it will be necessary to reckon with a profit equivalent to five hours of labor, and in branch B with a profit equivalent to ten hours. Whether this profit be deducted from the reward due to the worker or whether it be added to this, the ratio 2A equals 1B clearly does not alter.

But the proportionality of the two factors is not equal in all branches. Tools are not of equal importance in every form of production. Hence it is clear that if the products were to be exchanged on the basis of one hour of labor for one hour of labor, the two claimants could no longer be paid at a uniform rate valid for all branches.

In my example, if in branch A capital participates at the rate of ten units

per hour of labor, and in branch B at the rate of five units per hour of labor, and 2A are exchanged for 1B, then the same value of 20 hours will have to be shared in each of the branches, but in branch A it will have to be shared between workers who have worked for 20 hours and capitalists who have contributed 200 units of capital, while in branch B the same value will have to be shared between the same amount of labor, on the one hand, and 100 units of capital, on the other. It will then be necessary either for the hour of labor, the unit of capital, or both to be rewarded at a different rate in A and in B, which goes against our assumption of the perfect mobility of the two factors. Thus, in the conditions we have assumed exchange can no longer take place on the basis of 2A equals 1B. With the coming of capitalist relations the labor theory of value in its primitive form found itself at a dead end, and a change in the original form of value became necessary.

. *Costs of Production*

At this point calculation of exchange value on the basis of the respective amounts of the factors and calculation on the basis of the respective rewards of the factors, that is, the costs of production, diverge and separate from each other. In fact the first type of calculation becomes impossible, and no exchange value can be found apart from the rewarding of the factors, *since the only common denominator between the two factors that makes the sum of their amounts commensurable is the rate at which they are rewarded.*

As, on the other hand, we have assumed the existence of two factors only, or only two established claims to the social product, it is clear that, the social product being given, the rate at which one of these claims is rewarded must vary inversely with the rate at which the other is rewarded. This is why if we assume an equal proportionality of the two factors in all branches of production, the variation between these two rates would be irrelevant to the exchange value of the products, and we should be able to confine our attention, without any disadvantage, to the amount of whichever one of the two we chose, and so to the amount of labor alone. But as this assumption is absolutely unrealistic and has to be rejected out of hand, in order to take account of the fact that the quantities of the factors are combined in different proportions in different branches of production, we are compelled to weight them in terms of the respective rates at which the factors are rewarded.

Moreover, with the coming of capitalist production relations, labor power itself becomes a commodity, for the payment for which in advance a certain quantity of capital has to be employed. From this it follows that the reward of the labor factor does not come upon the scene merely as a primary constituent element of value but also as a part of the total capital invested, on the basis of which the reward of the capital factor has to be calculated. It thus has to be added to the multiplicand of profit. Accordingly, exchange value proves to be the sum of the workers' wages, plus the profit on the means of labor, plus the profit on wages. Or, in Marxist terms, variable capital plus the profit on the two capitals, constant and variable.[28]

I am here leaving aside a value that is transferred just as it is into the value of the product, independently of the existence of one or more factors of production and of the rate of reward of these factors or the variations in this rate: the value of the products that are consumed in the course of production and the value of the wear and tear of equipment. This is, so to speak, an exogenous element that also existed under precapitalist commodity economy and that has no influence on the formation of exchange value in accordance with either of the two principles set forth. We must be on the alert straightaway against a possible confusion. The rewarding of the second factor, that is, profit, is not connected with the wear and tear of capital but with the *use* of capital.

4. The Transformation of Value as Seen by the Classical Economists

The idea of a modification of exchange value through the intervention of a second factor was frankly tackled by the classical economists and fully integrated into their theory.

In Adam Smith's pragmatic approach this idea is somewhat confused and formulated in an intellectually unsatisfying way, in Chapter 6 of Book I of *The Wealth of Nations*.

Smith says that the value which the workers add to the material they work up is divided into two parts, the first going to pay their own wages, while the second provides their employer's profit on the *entire* stock (both consumed and unconsumed) of material and on the wages that he has advanced.

Smith goes on to observe that the entrepreneur would have no interest in using more capital per worker if his profit were not proportionate to his

capital. And he furthermore concludes that the natural price of a commodity is precisely what is needed in order to provide payment at their natural rates of ground rent, wages, and profit on capital.

He fails to explain, however, the nature and significance of the divergence between exchange value according to quantity of labor, in the case where there is only one factor, and exchange value according to the rewards of the factors, in the case where there is more than one of these. This leficiency was inevitable with a writer who, even in the case of the simple orm of labor value, continually confuses the quantity of labor necessary o produce a commodity with the quantity of labor against which this ommodity can be exchanged.

Actually, Smith was not able to point, as he should have done, to the ransition from exchange value based on quantity of labor to exchange alue based on costs of production because in its first form his labor theory f value *already* wavered between the two determinants. This wavering, ioreover, was not unconnected with the intolerable contradiction that ›pears when he states that natural price is made up of ground rent, ages, and profit, whereas in other parts of his work he declares cate-›rically that wages and profit are the cause of this price, while rent is only e consequence of it, or that natural ground rent is the amount by which ice exceeds costs of production together with the customary profit.

cardo, with his abstract way of reasoning, is naturally more coherent ın Smith. The transition from the simple to the developed form of :hange value takes place between Section 3 and Sections 4 and 5 of the ;t chapter of his *Principles*.

He approaches this modification of exchange value from the angle of ctuations in wages, noting that, in contrast to what everybody had ›posed up to then, an all-around rise in wages does not bring about an around rise in prices, but a fall in prices in the branches where the ital-labor ratio is higher than the social average and a rise in the nches where this ratio is lower than the average. Intoxicated by this :overy, he dwells especially on its most sensational aspect. He goes on ›ngth, and with much detail, about what he himself calls this "novelty" neglects the other aspects of the problem, particularly its link with the alization of profits.

In the whole, however, Ricardo's approach is sound. After having ren to show that the increase or decrease of wages has no effect on

values, its only effect being to cause profits to vary in the opposite direction, he then explains that an increase in wages causes an increase in the "relative value" of those products into the production of which relatively little capital enters (the branches with a low organic composition, as Marxist terminology describes them, or those with weak capital intensity, to use the modern expression) and causes a decrease in the "relative value" of products with a high organic composition. A decrease in wages would have exactly the opposite effect.

This apparent contradiction is explained by the difference in the assumptions made. In his Section 3 Ricardo assumes that "in the early stages of society, the bows and arrows of the hunter were of equal value, and of equal durability with the canoe and the implements of the fisherman, both being the produce of the same quantity of labour. Under such circumstances the value of the deer . . . would be exactly equal to the value of the fish . . . however high or low general wages or profits might be."

In his Section 4, however, he makes the opposite assumption:

> In the former section we have supposed the implements and weapons necessary to kill the deer and salmon to be equally durable and to be the result of the same quantity of labour. . . . But in every state of society the tools, implements, buildings and machinery employed in different trades may be of various degrees of durability and may require different portions of labour to produce them. The proportions, too, in which the capital that is to support labour and the capital that is invested in tools, machinery and buildings may be variously combined. This difference in the degree of durability of fixed capital, and this variety in the proportions in which the two sorts of capital may be combined, introduce another cause, besides the greater or less quantity of labour necessary to produce commodities, for the variations in their relative value—this cause is the rise or fall in the value of labour [read:wages]. . . . The degree of alteration in the relative value of goods, on account of a rise or fall of labour would depend on the proportion which the fixed capital bore to the whole capital employed.

And in Section 5 he writes: "Every rise of wages, therefore, or, which is the same thing, every fall of profits, would lower the relative value of those commodities which were produced with a capital of a durable nature, and would proportionally elevate those which were produced with capital more perishable. A fall of wages would have precisely the contrary effect."

The last-quoted passage explains why Ricardo speaks, throughout all these parts of his work, only about wages, saying nothing about profits. As soon as the equalization of profits is assumed, variations in the general rate

of profit can only *follow* (taking the opposite direction) those of wages, since profit is, from the classical standpoint, only a residue, or what remains of production after the physiological subsistence minimum has been ensured to the workers.

At the same time (1821) as the third edition of Ricardo's *Principles* appeared, the first edition of James Mill's *Elements of Political Economy* was published, containing this statement:

> Of these two species of labour [immediate and hoarded] two things are to be observed: First, that they are not always paid according to the same rate; that is, the payment of the one does not rise when that of the other rises or fall when that of the other falls; and, secondly, that they do not always contribute to the production of all commodities in equal proportions. If there were any two species of labour, the wages of which did not rise and fall in the same proportion, and which contributed to the production of all commodities, this circumstance, of their not contributing in equal degrees, would create a difference in exchangeable values, as often as any fluctuation took place in the rate of wages.
>
> If all commodities were produced by a portion of skilled and a portion of unskilled labour, but the ratio which these portions bore to one another were different in the case of different commodities; and if, as often as the wages of skilled labour rose, the wages of unskilled labour rose twice as much, it is very obvious that, upon a rise in wages, those commodities to the production of which a greater proportion of unskilled labour was applied would rise in value as compared with those to which a less proportion was applied.

It is curious that James Mill here brings in another factor of divergence that no other classical writer seems to have noticed: the differential fluctuations not of the respective rewards of the two factors, but of the rewards of the same factor (labor) during the course of time. In this he was wrong, for fluctuations in wages for immediate labor do affect the value of accumulated labor, since it is not the cost of production of fixed (constant) capital that matters but its cost of reproduction.

Later, however, Mill steadies himself, by bringing in the rate of profit, and his conclusion is a sound one:

> When wages rise, and profits fall, it is evident that all commodities made with a less proportion of labour to capital, will fall in value, as compared with those which are made with a greater. . . . Those commodities which . . . admit a greater proportion of labour than capital in their formation rise in price: those which . . . have a greater portion of capital than labour, fall: and upon the aggregate of commodities, or all taken together, there is neither fall nor rise.[29]

Ultimately, James Mill goes further than Ricardo. He introduces in the passage just quoted the idea that the rises and falls compensate each other, which implies that the total of all the equilibrium prices, as determined by the addition of a second factor, is strictly equal to the total of all values, as they would be reckoned in quantities of labor if this second factor were not present. This idea is not to be found—not at any rate so directly and clearly formulated—in any of the other classical writers. Here James Mill links up, over the heads of Ricardo and John Stuart Mill, with Marx's formula of prices of production.

This equivalence between the sum of values and the sum of equilibrium prices constitutes, indeed, the strongest argument against those who see the classical economists' theory of equilibrium prices, or Marx's theory of prices of production, as repudiating the original labor theory of value.

5. *The Transformation of Value According to Marx*

Price of production = equilibrium price: The step that Ricardo took between the third and the fourth sections of the first chapter of the *Principles* was taken by Marx between the first and the third volumes of *Capital.* In Volume 1, especially in the first three chapters and part of Chapter 6, so far as value is concerned, and in Chapters 7 to 12 and 16 to 18, so far as surplus value is concerned, Marx leaves out of account the difference between the organic compositions of capitals in different branches.[30] Consequently, this first part of his theory can cover only three cases:

1. The case of simple (noncapitalist) commodity production, in which every producer owns his own means of production and these are inalienable

2. The case of capitalist production at a low level of development, at which items of equipment ("capital goods") are nonexistent or negligible, or at which the difference between occupations is negligible, so that what the entrepreneur actually advances is merely wages, or wages plus equipment that is practically proportionate to wages

3. Within developed capitalist production, the special case of a branch whose organic composition is equal to the social average.

In these three cases, not only is the total of market prices equal at any moment to the total of values, but the price of the article varies around its value, so that in the long run its average price tends to coincide with its value. Here it is clear that the rate of wages has no influence on prices,

since it has none on values. Value being the sum of two variables inversely related to each other, paid labor and unpaid labor, it naturally remains constant whatever the ratio of these two magnitudes.[31]

In Volume 3 of *Capital* Marx introduces for the first time the difference between organic compositions as a real fact of the capitalist system. The basis of the problem is discussed in Chapters 8 and 9. Chapter 8 is entitled: "Different Compositions of Capitals in Different Branches of Production and Resulting Differences in Rates of Profit." Chapter 9 is entitled: "Formation of a General Rate of Profit (Average Rate of Profit) and Transformation of the Values of Commodities into Prices of Production." The juxtaposition of these two titles sums up the entire transformation of simple labor value into equilibrium price. Marx's thinking proceeds like this: if market prices coincided with values, viz. with the amount of living labor, the rates of profit in the different branches would be unequal, given the inequality of the capitals invested per unit of living labor and of their turnover rate. This inequality would prevent capitalism from functioning, since the capitalist who increased the organic composition of his enterprise so as to economize on living labor would obtain less profit than before and would thus be penalized to the advantage of those who had not mechanized their enterprises. In order that capitalist production may develop, profits must be proportional not to the number of workers employed but to the total capital invested by each capitalist. And Marx puts the finishing touch to his theory of value by giving, in Chapter 9, his famous formula of "prices of production":[32]

Branches	c Constant capital	v Variable capital	m Surplus value	V Value $c+v+m$	T Rate of profit $\frac{\Sigma m}{\Sigma c+\Sigma v}$	p Profit $T(c+v)$	L Price of production $c+v+p$
I	80	20	20	120		20	120
II	90	10	10	110	20%	20	120
III	70	30	30	130		20	120
	240	60	60	360		60	360

ı this group of three branches the value added is 120 ($\Sigma v + \Sigma m$), of hich wages absorb one-half and profits the other. Thus, the rate of

surplus value is 100 percent, and it is, as it should be, the same in all the branches. But the total capital invested ($\Sigma c + \Sigma v$) being 300, and the total amount of surplus value being 60, the general rate of profit can only be 20 percent. This profit, added to the cost of production ($c + v$) of each branch, gives us the prices of production, which differ from the value of each article, if this value is the sum of the labor, living and past, expended in producing the article.[33]

It is undeniable that, according to the definition of equilibrium that I adopted in the second section of this chapter, Marx's prices of production are equilibrium prices, since it is only at these prices that the two factors are rewarded at an equal rate in all the branches, and that transfers cease. Any deviation from these prices caused by the market would entail movements of factors from one branch to another, and if we take account of the fact that current prices do not affect wages, which are paid before goods are sold and independently of the results of such sale, that is, if we consider the equalization of wages as already given, and that it is profit that varies with short-term fluctuations in prices, then we must conclude that any deviation in effective prices, above or below prices of production, will bring about a movement of capital toward the favored branches, which will in turn tend to increase production in these branches and so bring the market price back to the price of production. *Prices of production are equilibrium prices because they are the only mechanism capable of ensuring the equalization of profits.*

6. *Cause and Effect*

While it is easy to show that at the moment of equilibrium the prices of commodities and the respective rates of reward of the two factors correspond, we must admit that there does not, at first glance, seem to be any purely rational proof as to which of the two is the determinant and which the determined.

Where only one factor was present, this proof followed from the premises. To show that equalization of the rewards of the single factor was necessary in order to achieve equilibrium was enough to show, by the same reasoning, that it is the conditions of production and not the market that determine equilibrium prices, since, equalization being given, only one point of equilibrium was possible. Immediately after a second factor comes into play, however, the direction in which determination takes

place is no longer so clear. For prices of production or equilibrium prices no longer depend exclusively on the mere fact of the equalization of wages and profits. They depend to an equal degree upon the level of both. With wages and profits respectively equal in all branches, an infinite number of equilibrium prices is theoretically possible, corresponding to an infinite number of combinations between rates of wages and rates of profit. To each increase or decrease in the general rate of wages, and so to each increase or decrease in the general rate of profit, there will correspond a different group of equilibrium prices (prices of production).

If, indeed, we apply an increase of 50 percent in the general rate of wages to Marx's diagram, the prices of production will be changed as follows:

Branches	c Constant capital	v Variable capital	m Surplus value	V Value $c+v+m$	T Rate of profit $\frac{\Sigma m}{\Sigma c+\Sigma v}$	p Profit $T(c+v)$	L Price of production $c+v+p$
I	80	30	10	120		10	120
II	90	15	5	110	$9\frac{1}{11}\%$	$9\frac{6}{11}$	$114\frac{6}{11}$
III	70	45	15	130		$10\frac{5}{11}$	$125\frac{5}{11}$
	240	90	30	360		30	360

As was to be expected, the values have not changed, but all the prices of production (equilibrium prices), except in branch I, which has the average organic composition, have changed. How then can we say whether it is the alteration in wages that has determined the alteration in equilibrium prices or whether it is the latter, due to supply and demand, that has determined the alteration in wages?[34]

In the framework of the classical pre-Marxian assumptions, a choice in favor of the former alternative is clearly obligatory. There was then, it was supposed, a real basic wage, predetermined and unchangeable. It was a certain basket of goods that corresponded to the physiological subsistence-minimum of the worker and his family. No market movement could have any long-term effect on what this basket held. Any reduction would cause a section of the workers to die of starvation, and the subsequent shortage of labor would then cause wages to rise. The basket could not be made

any smaller. Any increase above the *minimum vital* would cause the workers to become more prolific, and this, by increasing the supply of labor, would bring wages back to their starting level. A biological law independent of the market and of men's economic relations determined the level of real wages. Since this wage level was predetermined, so likewise was the level of profit, and, the organic compositions being given, all the equilibrium prices were determined.

As for the nominal wage, this could certainly vary, but only if the conditions of production of the means of subsistence were to be changed. If, through less fertile soils being brought under cultivation, the same basket of foodstuffs could henceforth be produced only by six hours of labor instead of a previous four, the total working day being ten hours long, then profit would obviously be reduced from 60 to 40 percent of the total, which would entail a change in all the equilibrium prices upward or downward, depending on the ratio between the organic composition in each branch and the social average. But it was also just as obvious that it was not the market that had caused this change, but the conditions of production.

Things are no longer the same as soon as, with Marx, we recognize that wages are not exclusively determined by biological factors, but also by sociological and historical ones. With this expansion of the limits of wages we open up the theoretical possibility that wages, and thereby profits, may be determined by market forces. From that point onward it seems that we cannot make that choice of the direction of determination which we need to make if we are to go forward in this analysis, otherwise than on the basis of empirical considerations.

In a superpure economy of free competition, in which wages and profits could fluctuate freely between 0 and 100 percent, there would seem to be nothing, theoretically at least, against accepting that prices determine costs of production and not the other way around. However, this model has never existed, nor could it exist. This being so, the following considerations argue in favor of the opposite direction of determination:

1. Though surpassed by the socio-historical minimum, the physiological minimum wage nevertheless does still exist, and so there is an absolute lower limit that the market is powerless to shift.

2. The very notion of the physiological minimum is an elastic one. A need that has been created by technical progress and the power of demonstration becomes a biological need if it has been satisfied over a very long

period of time. Sudden deprivation of the corresponding articles or service, if it hits one class of society alone and is not the result of a general state of emergency (war, blockade, etc.), causes moral suffering of such intensity that the biological mechanisms start working just as they would if it were a matter of lack of food or of adequate protection from cold. Moreover, a stage is reached at which certain needs created by civilization become so habitual and urgent that a worker will rather cut down on his food or his clothing than do without the corresponding article or service. When that stage is reached, a wage that is too low to enable both groups of needs to be satisfied becomes equivalent to a wage that is lower than the physiological minimum, and so becomes impossible. A similar case is provided by forms of consumption that are by nature inflexible, such as, for instance, housing. It is not possible to change one's dwelling with every change in wages, even if one's present accommodation is above the physiological minimum and if the food that can be bought with one's present wage, after paying rent for this dwelling, is below that minimum.

Hence, wages can vary enormously in space but very little in time. The experience of history shows this.

3. Upward fluctuations are also limited because labor power is not a commodity like others. It is a commodity that is, so to speak, instantly perishable. The worker cannot save it up so as to take advantage of a favorable market conjuncture. Every hour that passes is an hour lost.[35]

4. There are considerable moral constraints upon the labor market. In spite of everything capitalism retains certain vestiges of personal relationships inherited from the feudal regime. One does not change one's employee as one changes the shop where one buys things. People are proud of buying their raw materials cheaper than others can, but *not* of paying their workers less than their competitors pay. The first exploit is ascribed to the excellent organization of the firm and the ability of those who manage it; it enhances their prestige. The second, however, is ascribed to financial weakness and has an adverse effect on the firm's credit.

In the other direction the extraeconomic constraints are not so strong, but they do exist.

5. The trade-union struggle of the working class and the reactions of the employers' organizations prevent the free play of the market in this field.

What results from this is that the margin of elasticity of the general rate of wages, left to the possible influence of the market, is not very great *in time*. Now the previous diagram, in which the figures were not at all

unrealistic, shows us that to very slight fluctuations in equilibrium prices (of the order of 4 percent in branches II and III), there corresponds a very large variation (50 percent) in the general rate of wages. If equilibrium prices were determined by the market, such fluctuations could occur every day. It would be ridiculous to suppose that wages should then follow with variations of 50 percent upward and downward.

There are other reasons of an even more fundamental sort, however, for rejecting the idea of determination on the basis of the prices of commodities. Were this determination to be admitted, it would be enough for the equilibrium prices of two articles, however unimportant these might be, to undergo change, for all wages in all other branches of production, and thereby the general rate of profit, to undergo corresponding changes, equal throughout all branches. It would be sufficient for consumers' taste to move away from cabbage toward carrots for all wages and all profits, and also all the equilibrium prices of all commodities, to change! There is no mechanism that can achieve such an effect. To recognize its existence would be as absurd as to agree that it is possible to change the wavelength of a radio transmitting station by turning the knobs of one's receiving set.

It is a priori conceivable that wages are linked with the general development of production or with the economic conjuncture and the level of employment, and so by some consequent link with the general level of prices. It is quite inconceivable that they should be linked with relative prices. In view of the present disparity in wages between the poor and the rich parts of the world, this would lead us, for example, to assume that the indifference curves of all the poor consumers in the world are so constructed as in every instance to favor products with a high capital intensity and disfavor the others. Given that, as a result of the uneven development of technique, products are continually passing from one category to the other, the respective tastes of poor and rich consumers would have to be continually changing in corresponding fashion, which is the height of absurdity.

This is why those who believe that this is the solution to the problem of determination are compelled, in the last analysis, to assume that there are as many factors as branches of production. In that case, of course, if the relative prices of cabbages and carrots change, only the payments made to the producers of cabbages and carrots will change, which is intellectually acceptable. They are therefore obliged to reject any equalization process, whether of wages or of profits.

If these equalizations are accepted, however, then one necessarily has to recognize that the payments made for the factors are the determinant, and the equilibrium prices are what is determined, since equilibrium is defined by the moment at which these equilizations are realized.

I have said above that pure reason seemed to be inadequate as justification for my choice, so that empirical arguments had to be resorted to. Nevertheless, here we have something that is almost a purely rational proof, or a conclusion that follows inevitably from our own definitions and assumptions.

Under conditions where there are two homogeneous and competitive factors, prices cannot be the cause and the rewards of the factors the effect, for the very simple reason, at least, that only certain combinations of prices are compatible with the two equalizations. If we divide the branches of production into two groups, those whose organic composition is higher than average and those whose organic composition is lower than average, then, regardless of the tastes and needs of consumers, the prices of articles belonging to the same group can *in no case* vary in opposite directions, and the prices of articles belonging to different groups can *in no case* vary in the same direction, or they will not be equilibrium prices. It is to be observed, besides, that within each group the rate of variation of prices is an increasing function of the divergence between the respective organic compositions and the average organic composition. Whatever the sign or the measure of a variation in the prices, an article will vary the more, in either direction, in proportion as its organic composition is further away from the average.

There is thus a law existing previous to the market that links the articles together in groups, and these groups are defined without any reference to the needs of the consumers. There is, moreover, no reason why variations in needs should follow the same law.

But there is another supposition that might rescue the marginalist thesis. Throughout my argument I have supposed that the organic compositions were already given. What, though, if they were actually conditioned by the prices? What if there exists an infinite number of quantitative combinations of factors—as, for example, Léon Walras and Bertil Ohlin supposed—all equally possible and dependent on prices? It would then be possible, at each variation of the equilibrium price, to choose a combination satisfying the condition of equivalence between cost of production and selling price (the latter being established independently and

being thereby the determinant) without any need to make changes in all wages and all profits.[36]

Arguing like this means willfully forgetting the whole process and all the motivations in the choice of techniques, as this occurs under a regime of free competition. When an entrepreneur chooses his technique he is not concerned with equalizing cost of production and selling price, but with minimizing the former. Whatever the selling price may be, however high or however low, and whatever may be the size or the direction of its variations, the enterprise will seek the optimum combination of factors, and this optimization does not depend on the prices of the productions but on the prices of the factors.[37]

There may be grounds, perhaps, on the basis of this consideration, for modifying the classical proposition and saying that a change in the general rate of wages would not only have the effect of changing the prices of products in each of the two groups, but also, depending on circumstances, of changing the organic composition of the branches belonging to them, sometimes causing a branch to pass from one group to the other. Afterward, however, as before, wages and profits are no more directly dependent on prices than indirectly, through the mediation of the organic compositions.

We can thus conclude that, despite the reservation laid down at the start of this discussion, even in a model of perfect competition, it is not relative prices that determine the rewards of the factors, but the relative rewards of the factors that determine prices, if we assume that the two factors present are homogeneous and competitive.

The correspondences shown in Marx's diagram of prices of production are not reversible. Wages and profits are indeed the independent variables in the system, and prices the dependent variables.[38]

Notes

1. These words are not being used here in their strict meaning. As regards their strict meaning we know the position taken by the classical writers whom Marx followed, which was well summed up in this phrase of John Stuart Mill's: "what is really applied [to production] is labour; capital being an indispensable condition" (*Principles of Political Economy* [London, 1867], p. 40). We know, too, the different and varying positions of the various schools of economic thought. This dispute, which is bound up, more or less, with attitudes of support for the demands of particular social groups which are the bearers of these "factors", lies well outside the range of the present study. It forms an integral part of any

treatise of political economy because the latter has to account for the very existence of the exchange value of commodities. The subject I am dealing with starts from the existence of this exchange value as a de facto situation.

2. Value, says Proudhon, indicates an essentially social relationship. "The basic condition for the existence of a law of value," says Paul Sweezy, "is a society of private producers who satisfy their needs by mutual exchange" (*The Theory of Capitalist Development* [New York, 1956], p. 53). The condition laid down by Sweezy, "a society of *private* producers," may be too restrictive if we are to understand by it the existence of *private ownership* of the means of production. It is a less rigorous formulation than the one given by Marx in Chapter 1 of *Capital* [London, 1970], 1: 72–73): "As a general rule, articles of utility become commodities only because they are products of the labor of private individuals or groups of individuals who carry on their work independently of each other." Private ownership of the means of production is not, in fact, a necessary condition for use values (objects of utility) to be transformed into commodities. Private management of these means, in other words, the independence of the producers, is enough. This is not mere theoretical quibbling but an essential distinction since there are situations in which there is no private ownership of the means of production and yet production is *commodity* production.

These situations occur first and especially in precapitalist commodity economy, in which it is often the case that, given a basis of communal ownership of the principal means of production, exchange is nonetheless an exchange of commodities. These situations have subsequently reappeared in the socialist countries of today. Insofar as work carried on with nationalized means of production is not strictly predetermined by the plan, products continue to assume in these countries the form of commodities, despite the absence of private ownership of the means of production. All this is ultimately a question of definition, since the objection could be advanced that what matters is not the legal form but the content of property right, and, insofar as independent and autonomous management of communally owned or nationalized means of production is allowed, it is not possible to talk of the absence or the abolition of private ownership, even though some other attributes of this right have been eliminated.

This is why, so as to avoid any "byzantinism," I have confined myself to stating that the exchange of commodities represents, in the last analysis, an exchange of factors, that is, an exchange of claims to a primary share in the economic product of society.

3. "Then, again, within the city, how will they exchange their productions? . . .

"Clearly, they will buy and sell.

"Then they will need a market-place, and a money-token for purposes of exchange" (Plato, *The Republic*, Jowett's trans. [London, 1888], bk. 2, pp. 51–52).

"The main role of value is to serve as the regulator of distribution" (Johann Karl Rodbertus, *Das Kapital* [Berlin, 1884], p. 125).

4. "No producer," says Marx, "whether industrial or agricultural, when considered by himself alone, produces value or commodities. His product becomes a value and a commodity only in the context of definite social interrelations" (*Capital* [Moscow, 1966], 3: 638–639). And, in another place: "Every product of labor is, in all states of society, a use value; but it is only at a definite historical epoch in a society's development that such a product becomes a commodity, viz., at the epoch when the labor spent on the production of a useful article becomes expressed as one of the objective qualities of that article, *i.e.*, as its value" (*Capital*, 1: 61).

5. This does not mean that men got together one day to agree on the matter, or that the intellect, in the course of its independent evolution, one day invented commodity production so as to solve the problem of how to reward the producers.

It is not a question of a conscious and willed action but of an evolution of objective conditions—among which man himself is certainly to be included—which imposed themselves upon men. In fact, the problem of distributing the product in a society made up of independent producers arose at the same time as the solution to this problem, namely, commodity exchange and the law of value. Nevertheless, whether this is desired or not, and whether or not it is conscious, comparison between a cow and a canoe would be quite meaningless unless behind this comparison were hidden a comparison between the labor contributed by the cowherd and that contributed by the carpenter. (Except in a case where production has ceased and what is involved is the last cows and canoes to have survived, as on an island where men have been cast ashore from a shipwreck. In such a case, however, we cannot talk of *society* since its essential element is missing, namely, production and reproduction.)

6. "I hold it to be impossible," says Jevons, "to compare a priori the productive powers of a navvy, a carpenter, an iron-puddler, a schoolmaster and a barrister" (*Theory of Political Economy*, 2nd ed. [London, 1879], pp. 179–180).

7. Marx, *Capital*, 1: 44.

8. Marx, *Capital* (Paris, Editions Sociales), 1: 198. Not in English translation.

9. Marx, *Critique of Political Economy* (Chicago, 1904), p. 24.

10. "If competition is total, equilibrium can occur only where cost of production is equal to selling price. If it is higher, indeed, the producer loses and has to give up the struggle; if it is lower, the producer gains, and others will come in to share in this profit" (V. Pareto, *Manuale di economia politica* [Milan, 1906], ch. 3, para. 205).

11. Robert Mosse, an aggressive marginalist, who is so sure of possessing the absolute truth that he does not shrink from reducing the propositions of mar-

ginalism to their simplest expression (which gives us the benefit of being able to see them in their true nakedness), declares: "For a physically given supply, the equilibrium price is that at which everything can be sold" ("Le collectivisme autoritaire et nationaliste en matières d'échanges internationaux," *Revue d'histoire économique et sociale* [1950], p. 57).

12. Léon Walras, *Elements of Pure Economics* (London, 1954), p. 224.

13. Jevons, *Theory of Political Economy*, pp. 178–179.

14. "If this freedom does not exist, then the value of things tends to correspond to their degree of utility, since in such a situation a man whose means are restricted . . . strives to satisfy first and foremost his most urgent needs" (G. Garnier, *Histoire de la monnaie depuis les temps de la plus haute antiquité* [Paris, 1819], 1: 34).

15. "It is, therefore, strictly correct to say that the value of things *which can be increased in quantity at pleasure* does not depend (except accidentally, and during the time necessary for production to adjust itself), upon demand and supply; on the contrary, demand and supply depend upon it" (Mill, *Principles of Political Economy*, p. 276: my emphasis, A. E.).

16. Maurice Dobb writes, with justification: "If one analyses the propositions about demand which [the subjective theory] employs as central determinants, one may well ask whether anything more is being stated than that things sell at certain prices because consumers buy them at those prices" (*An Essay on Economic Theory and Socialism* [London, 1961], p. 113).

17. Cf. Pareto, *Manuale*, ch. 6, paras. 76–77.

18. Ibid., para. 79.

19. It was when dealing with this theory that Pareto discovered this case where his teaching did not apply.

20. Elasticity of demand higher than unity was an unconscious assumption made by the marginalists. Only recently have they begun to become aware of this, through observing that in certain instances demand may behave in a "perverse" way.

21. Henri Denis, *Valeur et capitalisme* (Paris, 1957), p. 61.

22. It must be observed that it is only in the case of increasing costs that the theories of equilibrium price realized through interaction of the determinants have some relevance, even though, as we have just seen, this does not in any way refute the labor-value thesis. In the case of diminishing costs the mechanism goes out of order exactly as it does in the case of an elasticity of demand less than unity. How, indeed, can it be said that demand determines, or codetermines, value when a higher demand causes lower costs, and, through the equality of costs and value at the moment of equilibrium, this corresponds to a lower equilibrium price?

Not only elasticity of demand, which sometimes behaves in a perverse way,

but also elasticity of supply, is disagreeable to the marginalists. "What breaks down the *laissez-faire* argument," says Colin Clark, "is that economic fact which has also been one of the principal sources of the world's enrichment—namely the existence of Increasing Returns" (*The Conditions of Economic Progress*, 3rd ed. [London, 1960], p. x).

23. Cf. Section I of this chapter. A factor is an established claim to a primary share in the product.

24. Many economists, including Keynes, have awkwardly confused capital with the items of equipment (capital goods) that provide a basis for it. Capital is a claim, or, to be more precise, a production relation that is expressed as a claim, and as such it is independent of the concrete form it may assume at any particular moment of its productive functioning. Under the ambiguous term "price of capital" economists have sometimes confused the variations in profit, or the income attached to this claim, with the variations in price that capital goods undergo as commodities.

It is obvious that with this distortion capital is neither homogeneous nor competitive, for there is no reason why at one and the same moment the equilibrium price of certain items of equipment should not fall while that of others rises if the respective conditions under which they are produced have changed. If, however, what is meant by "price of the capital factor" is profit, then it is by definition out of the question for the *equilibrium* rate of profit to differ as between two capitals.

Yet this distinction, which is often overlooked by economists, is always present in the minds of businessmen and in the texts of all the world's fiscal legislation. Profit is regarded as an income and is taxed as such; the possible gain arising from revaluation of an item of fixed capital is not regarded as an income and is taxed differently, or not at all, depending on the particular country. The British, who call the former "income" or "profit", call the latter "capital gain." The former is subject to equalization, but not the latter.

" 'Capital' is not simply another name for means of production; it is means of production reduced to a qualitatively homogeneous and quantitatively measurable fund of value. . . . Capital has only one dimension, the dimension of magnitude" (Sweezy, *The Theory of Capitalist Development*, p. 338).

25. Walter Bagehot makes mobility of the factors the essential element in the definition of a nation, which, according to him, is merely a group of producers among whom labor and capital circulate freely.

26. The tendency of the rate of profit to become equalized was noticed not only by the classical writers, like Adam Smith and Ricardo, but also by such mercantilists as Child, North and Davenant. Awareness of it is found also among some of the physiocrats, such as Turgot and Mercier de la Rivière.

John Stuart Mill added an interesting qualification to the idea of the equaliza-

tion of the rate of profit: "the various employments of capital are on such a footing as to hold out, not equal profits but equal expectations of profit . . ." (*Principles of Political Economy*, p. 249).

27. By "intervention proportionate to the amount of labor" can be meant either that the quantity of capital applied in each branch is proportionate to the quantity of labor per unit of the product, or that the profit on this capital is not calculated on the basis of its quantity but on that of the quantity of labor that it sets to work. In other words, using Marxist terminology, one may mean that the organic composition is the same in all branches and that equalization of profits takes place, or that the organic composition is different but profits are calculated on the variable capital only and not on the totality of the capital invested. In neither case does adding the second factor modify in any way the exchange values of the commodities, as these are established through the ratio between the quantities of labor necessary to produce them.

28. This is probably what leads Andras Brody to say that: "in the higher forms of commodity production, under capitalism, not equal amounts of *labour*, but equal amounts of *capital* are exchanged on the market" ("Three Types of Price Systems," *Economics of Planning*, 5, no. 3 [1965]: 62).

The resemblance is too striking for one not to guess at direct inspiration by the following passage in Torrens: "after the society has been divided into a class of labourers and a class of capitalists, the results obtained by the employment of equal capitals will be of equal value in exchange" (*Essay on the Production of Wealth* [London, 1821], p. 30).

Torrens's formulation means something whereas Brody's is somewhat literary and is meaningless, but this does not prevent the former from being wrong nevertheless. Let us assume two branches, A and B. In order to produce a unit of product in the former, 1,000 francs are needed for wages and raw materials and 1,000 francs for equipment, with a depreciation rate of 200. If the rate of profit is 10 percent, this unit of product has a value of 1,400 francs. In order to produce a unit of product in the second branch, 1,500 francs are needed for wages and raw materials and 500 francs for equipment, with a depreciation rate of 100. The value produced is 1,800. And yet *equal* capitals of 2,000 francs have been employed in each branch. Underlying this error is confusion between circulating constant capital and fixed constant capital. The views of Brody and Torrens would be correct if the turnover rate of fixed capital were equal to unity, in other words, if all the fixed capital were consumed in order to obtain a unit of the product under consideration. In that case the value produced would be 2,200 francs in both branches.

29. James Mill, *Elements of Political Economy* (London, 1821), pp. 75–76, 80–82.

30. Marx means by "organic composition" the ratio between that part of a

capital which goes to pay wages (variable capital) and the total amount of capital invested in a given production: $\frac{v}{c+v}$

31. This proposition is still valid even if we reject the ideas of paid and unpaid labor. Whatever the sociological or philosophical justification of profit, the fact is that, in a certain number of hours of labor, a certain number of workers produce sufficient goods to cover their own consumption and leave a surplus for their employers. The quantity of goods produced being given, the rate of this surplus (what Marx calls surplus value) is inversely proportional to the rate of wages. And as the rate of wages is assumed to be the same in all branches, so must the rate of surplus value be. Thus, under the conditions assumed, that is, before the introduction of differences in organic composition, a general alteration in wages can only bring about an equally general alteration in surplus value, but in the opposite direction. Values would not vary, and if prices were regulated by values they would not vary either. (Intermediate consumption is still left out of account here. Cf. above, p. 16.)

32. I have inserted the letters and formulas so as to facilitate reading the passages corresponding to this diagram.

33. The prices of production would not have differed from the values if the constant capital were nonexistent or negligible:

Branches	c Constant capital	v Variable capital	m Surplus value	V Value $c+v+m$	T Rate of profit $\frac{\Sigma m}{\Sigma c+\Sigma v}$	p Profit $T(c+v)$	L Price of production $c+v+p$
I	—	20	20	40		20	40
II	—	10	10	20	100%	10	20
III	—	30	30	60		30	60
		60	60	120		60	120

It would also not have differed from the values if its ratio to the variable capital were the same in all the branches, or if the differential in this ratio were negligible:

Branches	c Constant capital	v Variable capital	m Surplus value	V Value $c+v+m$	T Rate of profit $\frac{\Sigma m}{\Sigma c+\Sigma v}$	p Profit $T(c+v)$	L Price of production $c+v+p$
I	40	20	20	80		20	80
II	20	10	10	40	$33\frac{1}{3}\%$	10	40
III	60	30	30	120		30	120
	120	60	60	240		60	240

These two possibilities cover case 2 mentioned on page 20 above (capitalist production at a low level of development).

On the other hand, in no case does the price of production of branch I differ from the value, since this branch possesses an average organic composition (case 3 on page 20).

It should be pointed out in conclusion that, in order to simplify his formula, Marx assumes a turnover rate of constant capital equal to unity. Thus, the whole of the constant capital is regarded as being consumed during the cycle of production, and the capital invested ($c + v$) as equal to the cost of production. This is not necessary, however. In Chapter 2 I shall construct diagrams of prices of production without making this assumption.

34. Marx provided no diagram like that given above which could have shown the effect of changes in wages on prices of production, though he accepted unreservedly the classical proposition. Cf., for example, *Poverty of Philosophy* (New York, 1963), pp. 166–167, and *Histoire des doctrines économiques* (*Theories of Surplus Value*), Costes ed., 7: 225.

35. "However," says J. B. Say, "the master's need is less urgent. There are few employers who are not in a position to live for several months, and even several years, without giving work to a single worker, whereas there are few workers who can spend several weeks unemployed without being reduced to the last extremity."

"Wages," says Eugène Buret, "are not in the nature of a bargain, because the worker is not, in relation to the man who employs him, in the position of a free seller. It can be said that the capitalist is always free to employ labor, while the worker is obliged to sell it. The value of labor is completely destroyed if it be not sold from moment to moment. Labor, unlike true commodities, cannot be accumulated, or even saved" (*De la misère des classes laborieuses en Angleterre et en France* [Paris, 1840], p. 49).

36. I take, of course, the term "cost of production" in Pareto's sense, that is, with profit on capital included.

37. It must also be observed that the assumption that there is an *infinite* number of combinations of factors already goes pretty far. The marginalists like to regard combinations of factors as the effect of continuous quantitative variations, rather like chemical combinations, in which each addition of an infinitesimal amount of an element suffices to give a qualitatively different composition.

On this basis they study the efficiency of the marginal worker and the marginal machine, rather as one might study the effect of the marginal drop of milk or the marginal drop of coffee in a cup of white coffee. I very much doubt whether nature is as continuous as this, but I know that the economy is certainly *dis*continuous. In the factories of today the efficiency of an additional worker is not "lower than the average," it is quite simply zero, and the same applies to the efficiency of an "additional unit of capital." *In order to alter the organic composition it is necessary to change the technique.* And there are hardly more than two or three techniques available at any moment, and capable of being adopted, in each branch.

38. Once again I put aside from this discussion the argument about disproportionate costs, as being pointless. I have given my reasons in the Introduction and in Section II: 6 of this chapter. The addition of a second factor does not affect the issue in any way.

Chapter 2
Equilibrium Prices in External Exchanges

I. THE SPECIFICITY OF INTERNATIONAL VALUE

1. Equalization of Rewards of Factors

By keeping to the assumption that only two factors, capital and labor, are present, that is, by continuing to leave rent and taxes out of account, we provoke the question whether the process whereby equilibrium prices are formed within the framework of a given nation, as we have examined this in the previous chapter, still remains the same when we go beyond this framework.[1] To find the answer we must obviously try to ascertain whether certain conditions are altered when the transition is made from exchange within a given nation to exchange between nations. If we assume a perfect system of free trade, and if we leave transport out of account (as we did when discussing exchange within a nation), there is nothing discoverable in the geographical situation of the exchanging parties that could alter the way exchange is determined, apart from the influence that the political fact of the division of the world into states may have upon the mobility of the factors.[2]

If the two factors were as mobile outside the nation as they are inside it, the specificity of international value would vanish, and the proposition about prices of production that I have set forth in Chapter 1 would be adequate to account for any and every exchange, wherever it occurred.

Economists have in the main rejected this assumption, which is contradicted by the most commonplace experience. The exceptions are very few and also far from clear. It is doubtful, for instance, whether Henry Sidgwick really believed in the absolute mobility of the two factors. Despite his statement that it is not the immobility of the factors that differentiates international value, but transport, and that the fundamental laws governing the formation of value are identical within and outside the frontiers of the nation, one can deduce only indirectly his belief in an equal degree

of mobility rather than an equal degree of immobility in the two cases.[3]

The same doubt, or something very like it, remains after one has read the arguments of Maurice Byé. According to this writer, there no longer exists, since the progress made during the nineteenth century, any such immobility of the factors as would justify making a radical difference between internal and external exchange. Yet he writes in the course of his analysis:

> Relative immobility of the factors . . . exists also, though, of course, to a lesser degree, in the relations between regions. . . . For a very long time it was a longer and harder task to transport men and goods from the South of France to the North, and from the East of the country to the West, than it is now to transport men and goods from one country to another, even when the countries are separated by seas.

Further on he writes:

> We raised earlier the question whether the theory of international value set forth at the beginning of the nineteenth century was not deprived of its foundations, or at least of one of these, during the course of that century. It would be possible to reverse the terms of the question and ask whether, before the technical progress that made it possible to unite, to a very large extent, the different parts of each national economy, there was not good reason to regard the theory of international values as applying to trade between regions that were somewhat remote from each other within one and the same nation.[4]

In the end Maurice Byé neglects to tell us whether he sees the factors as being almost equally mobile internally as externally, or whether he sees them as being almost equally immobile on these two planes. Here too, we are able only indirectly to deduce a writer's tendency to favor the former assumption.

It may be that for Byé, as perhaps also for Sidgwick and others, the two assumptions are seen as identical and the distinction I am making is nothing but an idle quibble, a certain degree of mobility being equivalent to a certain degree of immobility. The question, however, is not one of knowing what the degree of mobility or immobility is, but of knowing whether or not equalization of the rewards of factors occurs. In this context believing that the differentiation of international value is useless because equalization takes place both internally and externally or believing that this differentiation is useless because no equalization takes place

anywhere at all are certainly not one and the same thing. Between the two lies the entire difference that stretches between the objective and subjective conceptions of value.

So far as I know, there is no one who formally takes up a position in favor of a universal equalization of wages and profits on the world scale. There are two main groups of economists, those who do not believe that such equalization takes place within the nation and who recognize a fortiori and with satisfaction the absence of such equalization externally, and those who, on the contrary, believe that such equalization does take place within the boundaries of the nation, but reject its occurrence outside those boundaries. The first group do not as a rule acknowledge the need for a special theory of international value, their theory of value being sufficiently "general" to embrace external as well as internal exchanges. If they recognize comparative costs, they do so because they consider that this special case put forward by their opponents confirms, in a way, their own general theory.[5] The second group construct two distinct theories: one for national value and the other for international value. In the first theory it is costs that determine prices, but in the second it is prices that determine costs, prices being in their turn determined, as John Stuart Mill says, according to a law that is prior to the law of labor value, namely, that of supply and demand. In a certain sense international value then constitutes an exception, along with all the other exceptions that occur within the national framework itself, precisely where mobility of the factors is unable to operate—works of art, collectors' pieces, etc.[6]

According to James Angell, it was Wheatley who first, in 1803, drew attention to the internal mobility and international immobility of the factors, particularly labor, but it needs a certain amount of imagination to discover such a view in a mere phrase of Wheatley's stating that wages tend to equalize except where there are obstacles to movement by the labor force.

Adam Smith not only did not think of this, but in the opinion of some writers believed rather in the international mobility of capital. Thus, J. Shield Nicholson in his *A Project of Empire* refers to this alleged position of Smith's as one of his "lost ideas": "In what is called the pure theory of foreign trade it is assumed that between different 'economic nations' there is no mobility of capital. . . . Adam Smith, on the other hand, held the view confirmed by experience . . . that foreign trade can only be carried on by sending a certain amount of capital out of the country."[7] John H.

Williams takes up this same idea in his article, quoted above, "The Theory of International Trade Reconsidered."

It is not at all clear that Adam Smith's idea, to which these writers refer, actually relates to the export of capital rather than to its transfer into the export trade. Now, mobility of capital as between branches of production installed in different countries is not at all the same thing as that mobility of capital which ensures the financing of external trade itself. Whatever the truth of this matter may be, what is certain is that Smith nowhere formulated the slightest hint of any differentiation of international value due to immobility of the factors outside the boundaries of the nation.

2. *Comparative Costs*

Ricardo was undoubtedly the first to put forward in a systematic way the need for a special theory of international value, based on immobility of the factors, and it was he who formulated the well-known theory of comparative costs. I have already discussed this law in my Introduction. As I mentioned, Ricardo was above all interested in the international division of labor and in the advantage that the world as a whole can secure from free trade. As regards the formation of exchange value in external trade, he seems to have thought that, since it depends on an element so imponderable as demand, this is of no interest to pure theory. After indicating the upper and lower limits, determined by cost ratios, he leaves this zone of indeterminacy to the exploits of his epigones, who proceeded for a century thereafter to describe their learned curves across it. Ricardo stops where determination by the objective conditions of production comes to an end, and the limits of this determination are enough for him to show that, whatever the effective price may be, the international division of labor will prove advantageous both to the exchanging parties as a whole and to each one separately. The proportion in which the exchanging parties will share this advantage does not concern him. For Ricardo this distribution is as undetermined as price itself, both of them being dependent on a subjective factor, and so on something that is beyond the reach of scientific investigation.

As regards mobility of the factors, Ricardo is interested only in its effect, namely, the equalization of their rewards. This is why he speaks only of the equalization of profits, the only equalization that can be affected by immobility of the factors, particularly that of capital, since the equalization

of wages is always ensured from below, through the working of the demographic regulator, whether or not there is mobility of the labor force. The nonequalization of profits is for Ricardo a necessary and sufficient condition for the working of the law of comparative costs, and this is an important point that does not appear to have been remarked upon until now. Nowhere in his Chapter 7 devoted to international trade does Ricardo speak of wages. The only thing that interests him is immobility of capital, the impossibility of having a universal rate of profit on the world scale.

The assumption of immobility of capital was adopted later on by all who concerned themselves with comparative costs: John Stuart Mill, Cairnes, Bastable, Edgeworth, Marshall. As the nineteenth century advanced, however, experience increasingly contradicted this abstraction. If one's gauge of the mobility of the factors was the actual level of wages and rates of profit in the different countries at each moment, it was still possible in Ricardo's time to talk of a general immobility of the factors on the international plane. On the one hand the differences in wage levels were much less than they are today, while on the other the differences in rates of profit were much greater. About the middle of the century, John Stuart Mill had to acknowledge that the theory was showing signs of losing its validity. And from that time onward, down to the end of the century, export of capital progressed by leaps and bounds.

Faced with this historical difficulty, Cairnes took the bull by the horns. The assumption of complete mobility of capital and of labor within the nation and of their complete immobility outside it is false in both its parts, he acknowledged. Labor is not entirely mobile inside the nation, and capital is becoming more and more mobile outside it. It is becoming "less national and more cosmopolitan." Nevertheless, he concluded, theory can be satisfied with relative immobility if the latter is sufficient to restrict the competition of the factors.[8]

This is the argument that was to be typically used thenceforth by all the supporters of comparative costs, in order to face up to the contradiction between reality and the classical assumptions. Bastable quotes Cairnes approvingly:

> It is by no means necessary to the truth of the doctrine, as it has been laid down, for example, by Ricardo and Mill, that there should be an absolute impossibility of moving labour and capital from country to country. What the doctrine requires is not this, but such a degree of difficulty in effecting their transference as shall interfere substantially and generally—that is to say, over the

whole range of the commodities exchanged—with the action of industrial competition.[9]

Marshall likewise makes the assumption of *relative* immobility of the factors as between different countries, and this enables him to adopt and carry further the theory of comparative costs, without having to deny so obvious a phenomenon as the export of capital.

Jean Weiller declares his support for the same view. Referring to the migratory movements during the nineteenth century, both of labor and of capital, he writes: "Thus, it was no longer possible to speak of *absolute immobility* of the factors of production. The essential feature of the theory has survived, however: these migrations do not prevent a very big gap in conditions of production and standards of living between one country and another. And it is the existence of this gap that matters."[10]

3. How Marxists Treat the Assumption of Absence of International Competition between Capitals

Marxist economists have in general taken up an attitude of benevolent neutrality toward Ricardo's theory of comparative costs. Marx, we know, did not have time to work out the theory of international trade that he planned to include at the end of his book, but a sort of vague tacit approval that transpires from certain (very few) passages relating to this question seems to have sufficed for some economists in the socialist countries to have indicated recently their respect for Ricardo's theory. Hence the paradox that the school of economists who have given so much attention to the phenomenon of the migration of capital in search of higher profits, and who have shown so much interest in the phenomenon of economic imperialism, accept that international value is formed as though the capital factor were completely immobile and no tendency to equalization of the rate of profit could exist on the world plane.

Thus, Joseph Mervart could write: "The main difference between the domestic and the international exchange is in the greater difficulty of capital movements from one country to another compared with its movements between different branches of industry in one country. This makes the leveling out of extra profits much more difficult."[11]

In general, Marxist works on external trade, from the theoretical standpoint at least, are scarce and slight. Paul Sweezy comes out unreservedly for the immobility of the factors, but does this in such a way as completely

to miss the point: "When we speak of the tendency of rates of surplus value to an equality under capitalist production, we imply free mobility of labor which . . . is lacking in international economic relations."

In the first place nobody has ever talked about equalization of rates of surplus value on the world scale, but of equalization of rates of profit. And further, mobility of labor is, on the one hand, not the relevant condition and, on the other, superfluous to the argument. As I have already shown, for the law of the formation of prices of production to be replaced by that of comparative costs, it is necessary and sufficient for capital alone to be immobile.

When Sweezy challenges Otto Bauer on a point that I shall discuss in Chapter 4, he writes: "The situation changes, of course" (that is, Bauer's thesis becomes well-founded), "as soon as we drop the assumption excluding capital exports."[12]

And what is it that prevents us then from dropping the assumption excluding capital exports? Sweezy does not tell us. Apparently he does not feel obliged to justify his choice of an assumption that is consecrated by a century of teaching in the most respectable schools and that was accepted incidentally by Marx, writing in the nineteenth century, in a little phrase not relating to foreign trade and without any special significance being intended by it, where he speaks of possible difficulties to be encountered in the transfer of capital, which would cause "the various spheres of production" to be "related to one another, within certain limits, as foreign countries. . . ."[13]

4. Equalization of Profits as an Empirical and Statistical Category

As soon as the matter under discussion ceases to be international value and international trade, economists usually see clearly, and all empirical and quantitative analyses (without exception, so far as I am aware) agree in bringing out a tendency to international equalization of profits, or at any rate to such slight differences that it is not possible to talk of non-competition of the capital factor.

R. P. Dutt compares the respective rates of profit in Britain and in the British colonies.[14] He finds, for the year 1951, differences in gross profit ranging from 34 to 47 percent.[15] If, says John Strachey, he had taken 1950 instead of 1951, he would have found, instead, the figures 25 and 29 percent.[16]

Andrew Shonfield, using a more general mode of calculation, finds for 1955 an average net profit on all overseas investments by British companies of a little under ten percent, while in the same year internal investments brought in about eight percent.

S. H. Frankel, who has studied in detail investments of foreign capital in backward countries, and especially in Africa, also seems to give credence to "allegations" according to which, taken as a whole, overseas investment does not give a bigger return than could be obtained by the same capitals inside the home country.[17] According to R. A. Lehnfeldt's figures, the average return in 1898-1910 on colonial securities was only 0·2 percent higher, and the return on foreign securities other than colonial ones hardly 1 percent higher, than that on national securities of the same type.[18] This observation made in 1914 corroborated one made at the same time by C. K. Hobson, who found that the obstacles to foreign investment had diminished to such an extent that the return, at current prices, on the best class of foreign securities held by British investors was only a little higher than that on the best national investments.

If we consider that, given absence of competition of the capital factor, the biggest differences in rates of profit ought nowadays to be found between the great industrialized countries and the developing countries, with the rates in the latter group of countries normally a good deal higher than those in the former group, we have in the recent and current phenomenon of the migration of capital "in the wrong direction," that is, from the backward countries to the advanced ones, an additional argument against the assumption that equalization of profits does not occur. As a Cuban study (a collective and anonymous work) observes:

> the best proof that the rate of profit in the underdeveloped countries is not particularly high is provided by the investment in the developed countries of a large part of the capital held by the national bourgeoisies of the backward countries. It must be supposed, under these conditions, that the rates of dividend of the big foreign corporations are not much lower than those of the national companies. We can then agree that imperfect mobility of capital internationally is not incompatible with rates of profit which are more or less equal in the developed countries and the backward ones.

This last point is worth attention. As I said earlier, what matters is not whether mobility is perfect or imperfect in itself, but whether it is sufficient to bring about equalization of profits. If we observe *ex post* that there is

actually a tendency for rates of profit to equalize, then discussion about the degree of mobility becomes pointless.

This mobility of capital "in the wrong direction" has been noted by several economists. Thus, Arthur Lewis expresses surprise that very often, even if there is a surplus of labor power within a country, available at subsistence-level wages, opportunities for investment abroad may be found more profitable. "Many capitalists residing in surplus labour countries invest their capital in England or the United States."[19]

The United Nations study of *Instability in the Export Markets of the Underdeveloped Countries* in 1952-1953 notes that, in a large number of insufficiently developed countries, the net contributions of capital between 1946 and 1950 were negative. The *rapporteur* attributes this to payments assignable to the service of the public debt. However, the statistical series published in this study show that, for several of these countries, payments of interest on the national debt came, for the period under consideration, to less than the net outflow of capital, which proves that there was actual export of capital from the underdeveloped countries for the purpose of investment in the developed ones:

Long-term capital (*in millions*)	1946	1947	1948	1949	1950
Argentine—pesos	−1,102	− 511	−2,052	+ 31	
Egypt—£E	− 8	− 25	− 13	− 4	− 4
India—rupees	− 338	−2,294	−2,361	−123	− 49
Service of the debt:					
Argentine	− 451	− 276	− 35	− 37	
Egypt	− 9	− 5	− 3	− 9	− 11
India	+ 13	+ 54	− 178	− 179	− 228

Furthermore, according to a report drawn up by the International Monetary Fund in March 1964 for the World Trade Conference, the developing countries, especially those in Latin America and in the franc area, were suffering from a persistent drain of private capital. These departures of capital were estimated in the two regions mentioned for the period between 1952 and 1961 at nearly $800 million.

While in the case of the franc area political insecurity played a certain part in a phenomenon that sometimes resembled a flight of capital, as

regards Latin America it cannot be denied that what was happening was the making of a choice between opportunities for and returns from investment at home and abroad. And for this region alone, between 1952 and 1961, the amount of private capital publicly registered as having been sent abroad was $576 million. By adding the capital transferred clandestinely, the International Monetary Fund estimates that the actual export of capital in this period came to nearly $3 billion.

As long as this "perverse" movement had not yet been recorded, it was possible to delude oneself about the classical assumption of nonequalization by supposing that despite the presence of a very much higher rate of profit in the backward countries, the capital of the well-off countries was not mobile enough to restore the balance. Now, however, when it has been proved that capital is even fluid enough to migrate in certain circumstances in the opposite direction, namely, from poor countries to rich ones, and to do this in relatively substantial amounts, the thesis about the absence of competition becomes untenable.

5. *Absence of Competition of the Labor Factor on the International Plane*

Unlike what has happened with the rate of profit, there is not the slightest hint of a tendency toward equalization of the rate of wages internationally. In spite of the long periods—broadly extending from 1850 to 1914—during which workers were free to move about the world, wages today differ, as between rich and poor countries, considerably more than they did during the nineteenth century.

In 1874 Cairnes, quoting the inquiry made by Wells, and seeking to show that there is no equalization of wages, whereas there is at least a relative equalization of profits, and thus engaging in an argument that necessarily inclined him toward accentuating rather than attenuating the differences between national wage levels, emphasized that wages in the United States were 25 to 50 percent higher than in Britain, 48 to 70 percent higher than in Belgium, and about 100 percent higher than in France. Were the comparison to be made with certain Eastern countries, such as India and China, he added, the difference would probably be fourfold or fivefold.

There is no need to go as far as the Far East today to find divergences of the last-mentioned order. Already, as between the United States and certain European countries, such as Spain, Portugal, or Greece, wage

ratios of one to four or one to five would no longer surprise anyone, and in the years 1950–1955 the average industrial wages per hour in the United States and in the five most highly industrialized countries in Europe, according to an ILO study were as follows:[20]

	$
United States	1·70
Great Britain	0·454
Belgium	0·378
France	0·335
German Federal Republic	0·331
Italy	0·265

If we take a date between Cairnes's time and the period covered by the ILO figures, say 1900, a statistical series published by Fritz Sternberg in *Le conflit du siècle*, embracing a wide range of industrial branches, shows that wages in the United States were between two and three times those in Germany, which is about half way between the figure noted by Cairnes in 1874 and the ILO figures of 1955.

This shows that not only is there no equalization, but that the tendency is toward ever greater differentiation.

Despite a rise of 50 to 100 percent in European wages during the second half of the nineteenth century, the gap between the United States and Europe has increased instead of contracting, and, through this rise and those that have occurred during the twentieth century, European and American wages, while drawing further apart from each other, have at the same time become unprecedentedly higher than those in the underdeveloped countries. Were one to go today so far as Cairnes went, and compare wages in the United States with those in certain countries in Asia, in Africa, in the Middle East, or in Latin America, divergences of 20-fold to 40-fold would be found. Throughout Black Africa the wage of an unskilled urban worker varies between three and six cents an hour (that of a rural worker coming to nearly half as much as this), whereas in the United States the corresponding figure is between one and one-half and two dollars. This is, of course, an extreme case, but we should not be far from the truth if we estimated the average wage in the most highly developed capitalist countries at a figure about 20 times the average wage in the developing countries taken as a whole.

In all the countries of Black Africa, for example, when gross estimates are being drawn up for preliminary plans, the share of labor in the cost of

construction work is put at 25 percent—12·5 percent for native labor and 12·5 percent for European labor. The average participation of European labor on the building sites amounts to one white foreman to 50 or 60 black workmen. In the factories and mines we find approximately the same proportion, while on the plantations it becomes still more unbalanced. It can be reckoned, broadly speaking, that one European foreman costs about as much as 100 African workers.

Even if we allow for the difference between the "African" wage of the white foreman and his usual wage in Europe, the fact remains that his reward is several dozen times as much as that received by the black worker. The differences we then observe among the various underdeveloped areas themselves, for instance, among Black Africa, North Africa, the Middle East, or Latin America, are so slight in comparison with the gulf that separates the average for all these areas together from all the industrialized countries together that it has no appreciable effect on the orders of magnitude concerned.

On the other hand, this difference is considerably increased if we add to the take-home wage the social benefits that are so important for the worker in the industrialized countries but are practically nonexistent for the worker in the backward countries. It would be greater still, moreover, if we were to take account not only of the deferred payments and direct social benefits financed by special funds but also of the indirect benefits that are financed out of the state budget, and this not only under the heading of social services but under others as well, that is, the whole of what some call "the social dividend."

It is possible to estimate the intensity of labor—output of labor given the same equipment—of the average worker in the underdeveloped areas at 50 to 60 percent of that of the average worker in the industrialized areas. (There are no overall statistics on this subject, but all the calculations made by large-scale enterprises and by United Nations experts converge toward this estimate.)

Consequently, if we examine not what the worker earns but what an hour of his labor costs society, we can be sure that we are on this side of reality if we conclude that, allowing for direct and indirect social benefits, the average wage in the developed countries is about 30 times the average in the backward countries, or, allowing for the difference in intensity of labor, about 15 times that figure.

Such differences were unknown at the beginning of the nineteenth

century and down to the third quarter of that century. What predominated in those days, all over the world, was the subsistence wage. If there were differences, these reflected the difference in subsistence level in different countries, depending on the level of civilization. Today there are two distinct categories of wages—subsistence wages and the rest. Broadly speaking, we can date the beginning of this differentiation from the beginning of large-scale trade-union struggle in the industrialized countries, that is, roughly, from the 1860's.

Adam Smith, to be sure, said that English wages in his day were already higher than the physiological minimum. In support of his statement he put forward four considerations: (1) wages in summer were higher than wages in winter, despite the need for heating in the latter season; (2) fluctuations in wages were not strictly parallel to fluctuations in the prices of foodstuffs; (3) wages varied from place to place more than prices did; and (4) variations in wages not only did not correspond in time and space to variations in the prices of foodstuffs, but were often inverse to these.[21] But this was clearly an exceptional case and also involved very slight differences. If the socio-historical element was already beginning, in Adam Smith's time, to fill out the *minimum vital* of the English worker, it was still far from outweighing the physiological element, and this was even truer in Continental Europe than in England.[22]

On this point we have substantial evidence going as far back as the middle of the nineteenth century. The specific weight of bread in a working-class family budget is alone sufficient to show that the physiological minimum was what virtually determined wage levels. In 1832 the Baron de Morogues estimated, for a family of five, that out of a total expenditure on food of 570·15 francs per year, and total expenditure for all purposes of 860 francs, the amount needed for bread was 296·40 francs. That, however, applied to what the author called "the comfortably off workman." For "the workman in straitened circumstances" the calculation was different. In the towns this workman, even if he added to his own wages those of his wife and children, could not dispose of more than 760 francs a year altogether, whereas the same amount as mentioned above, 296·40 francs, had to be devoted to buying bread. And in the countryside the unskilled workman, even if his entire family worked, could not command a total income exceeding 620 francs, which they consumed thus:

Homemade bread at 19 onces per person, i.e., for five persons for 365 days, 1,084 kilogrammes, estimated at 28 centimes per kg. only "because this bread contains other flour besides pure wheaten flour"	303.52 francs
Dairy produce, vegetables, meat, seasoning, including salt at 25 centimes per day for five persons	91·25
Fermented drinks, at 10 centimes per day	36·50
Total for food	431·27
Housing, fuel, light, direct taxes	70·00
Clothing	100·00
Utensils, tobacco, etc.	18·73
Total annual expenditure	620·00 francs

From the very detailed estimates made by the writers who around 1830–1840 studied the standard of living of the workers in France, such as Buret, Villermé, and Cherbuliez, it emerges that food accounted for 65 to 70 percent of the budget of a working-class family, and bread for 55 to 70 percent of all food and 30 to 50 percent of all expenditure.[23]

When expenditure on bread absorbs half the income of a working-class family, and when, after paying for his food—of which bread already makes up 70 percent—his housing, and his clothes, the worker has no more than 3 percent of his income available for other expenditure, only part of which can be regarded as unnecessary, since these last 18·73 francs per year (according to the calculation above) have to cover domestic utensils, it is hard to speak of a wage that is anything but a subsistence wage.

From the beginnings of political economy until late in the nineteenth century, and for some European countries, such as Greece, right down to the eve of World War II, in all writings about wages and in the workers' own demands, wages were always linked with the price of bread or of wheat. Most authors, when they wanted to convey a clear idea of what real wages were in different countries at different times, converted the nominal wage into kilos of wheat or bread.

L. R. Villermé tells us, for example, that "the daily wage of the laborer would be equivalent to the value of five or six kilos of wheat." Thomas Brassey, in order to prove that real wages improved during the century between 1770 and 1878, shows first of all that the nominal wage almost doubled, rising from 7s. 3d. to 14s. a week. Then he gives the prices of bread, meat, butter, and the figure for rent between these two dates. The

three last figures have trebled, thus clearly exceeding the increase in wages, rising respectively from 3¼d. to 9d. from 6d. to 1s. 8d., and from 8d. to 2s. Only bread has remained unchanged at 1½d. a pound. This last circumstance enables Brassey to conclude: "Wages having risen, while the price of bread has remained stationary, the condition of the labourer has materially improved."[24] This shows that for the writer of these words items such as meat, butter, and rent were negligible quantities when compared with bread.

We know with what emphasis British writers refer to the increase in the price of corn after the Napoleonic wars and the serious decline in the British workers' standard of living that then occurred, despite the considerable increase in the nominal wage.[25]

That wages did not practically diverge from the physiological minimum before the middle of the nineteenth century is also shown by the fact, which several researchers have revealed, that the worker's real income has been remarkably stable all through the centuries. Jevons showed that real wages in classical Greece (328 B.C.) were not very different from those of unskilled workers in the nineteenth century. And Colin Clark, who quotes this evidence, himself finds that the average income of the working class in Justinian's time was even higher than that in the Greece of the 1940's or in many other countries of southeastern Europe, and equal to that in Great Britain in the 1850's or in Germany and France in the 1870's.[26]

So far as I know, it was Davenant who first set forth the law by which wages tend to coincide with the cost of subsistence.[27] But it was Torrens who provided the most rigorous formulation of this law: "The reward of labour has a constant tendency to settle down to that quantity of subsistence which, from climate and custom, is necessary to enable the labourer to bring up such a family as will keep the supply of labour even with the demand."[28]

Storch, with his usual pedantry, reduced the classical law to an equation: "The necessary wage amounts to the most indispensable maintenance . . . at least double the worker's personal subsistence . . . the wife's work sufficing only for her own expenditure . . . and the subsistence of four children (so that two survive) being approximately equal to that of one grown man."[29]

Quesnay, noting that the daily wage was naturally regulated by the price of wheat, estimated it as equivalent to one-twentieth of a *sétier*, and Malthus, writing later, gave much the same estimate when he pointed out

that for nearly 500 years the reward for a day's work in England had varied closely around the price of a peck of wheat.[30]

Finally, E. Daire, when in 1847 he published Vauban's *La Dîme royale*, wrote in a note to page 87: "180 work-days at 12 *sous* the day bring the annual reward of a weaver to 108 *livres*, which represents 162 francs of our money. But if we measure these 108 *livres* by the amount of wheat they could purchase at that time, we find they are equivalent in today's money to 194 francs 64 centimes."[31]

It was only during the second half of the nineteenth century that in the industrialized countries the socio-historical factor really began to operate and the change to occur. Through force of habit people went on talking casually in terms of the price of bread, but wages had already taken off from the swamp of subsistence.[32] At the same time thresholds of discontinuity arose between countries and groups of countries. Even among the industrialized countries differences in wage levels became more marked toward the end of the nineteenth century and the beginning of the twentieth.

What is remarkable is that this differentiation coincides with a period in which there was, in general, free movement of human beings about the world, and, in particular, when the great emigration to the United States took place. This shows that, in contrast to what happens with capital, more than merely marginal mobility of workers is needed if there is to be equalization of wages.

II. THE MODIFICATION OF PRICE OF PRODUCTION IN INTERNATIONAL EXCHANGES: UNEQUAL EXCHANGE

1. *A Primary Form of Nonequivalence: Equal Rates of Surplus Value with Unequal Organic Compositions*

The foregoing tends to show how realistic is the assumption that I intend eventually to adopt for the international framework, that is, noncompetition of the labor factor making possible different rates of surplus value, along with competition between capitals leading to a tendency to equalization of rates of profit.

Let us for a moment, however, leave this assumption aside and return to the national setting. By dividing the sum of the value-added produced within a system by the sum of the units of new (or living) labor devoted to production—this labor having first been reduced to simple, homogeneous, and average labor—we obtain the product per unit of simple labor. We

then call "surplus value" what remains of this product after wages have been paid. The rate of surplus value is then the ratio between the amount of surplus value and the amount of wages, and the rate of profit is the ratio between the amount of surplus value and the total amount of capital invested.

By these definitions the total of surplus value is equal, taking society as a whole, to the total of profit—what the classical writers called the net income of society: but if we assume that equalization of profit takes place, the surplus value produced in each production unit is not equal to the profit that this unit makes. The reason is that, in order to bring about this equalization, transfers of surplus value are made from one group of enterprises to another, namely from those with an organic composition lower than average to those with an organic composition higher than average.

If we take again Marx's numerical example:

System A

Branches	c Constant capital	v Variable capital	m Surplus value	V Value $c+v+m$	T Rate of profit $\frac{\Sigma m}{\Sigma c+\Sigma v}$	p Profit $T(c+v)$	L Price of production $c+v+p$
I	80	20	20	120		20	120
II	90	10	10	110	20%	20	120
III	70	30	30	130		20	120
	240	60	60	360		60	360

we note that a transfer of surplus value takes place from branch III to branch II; since the former, with surplus value produced to the amount of 30, realizes only a profit of 20, whereas the latter, with surplus value amounting only to 10, realizes the same profit of 20.

Let us suppose, however, that our system comes into contact with another one, also made up of three branches, and with the same rate of surplus value (same general rate of wages), but with different organic compositions (see Table over).

Within this second system the same transfers of surplus value take place as in the first, that is, 10 units from Branch III to Branch II. If, however, each system could maintain its specific rate of profit—20 percent for system

System B

Branches	c Constant capital	v Variable capital	m Surplus value	V Value $c+v+m$	T Rate of profit $\frac{\Sigma v}{\Sigma c+\Sigma v}$	p Profit $T(c+v)$	L Price of production $c+v+p$
I	40	20	20	80		20	80
II	50	10	10	70	$33\frac{1}{3}\%$	20	80
III	30	30	30	90		20	80
	120	60	60	240		60	240

A and $33\frac{1}{3}$ percent for system B—and if all the three articles produced participated in exchange in the proportions supposed, then despite the transformation of values into prices of production in both systems, prices would contain on the average and as a whole the same amount of value-added—40, on the average, and 120 for production as a whole—which implies that if exchange could be effected on that basis, one hour of living labor in one system would be exchanged, on the average, for one hour of living labor in the other.

The three articles of system B, taken together, are exchanged, to be sure, at the rate of 360 for 240, against the three articles of system A, taken together, but when this happens, B exchanges 120 units of its national living labor for 120 units of A's labor, the difference between 360 and 240 arising from the fact that the three articles of system A, taken together, contain 240 units of past labor, in the form of raw materials, wear and tear of equipment, etc., as compared with 120 in system B.

Let us now suppose that free circulation of capital is introduced between these two systems, and, as a result, equalization of profits takes place. (See Table opposite for equalization in the two systems taken together.)

In this case the commodities produced in system B are no longer exchanged for those produced in A at the rate of 120 for 80, but at 125 for 75. Since in the average B article there are 40 hours of past labor, considered as being already valorized within the framework of these two systems, and therefore incapable of either increasing or decreasing, and 40 hours of living labor, it is the latter that will suffer the effect of the deterioration in the terms of exchange.[33] Whereas before equalization one hour of B's

A and B Together

Branches	c Constant capital	v Variable capital	m Surplus value	V Value $c+v+m$	T Rate of profit $\frac{\Sigma m}{\Sigma c+\Sigma v}$	p Profit $T(c+v)$	L Price of production $c+v+p$
IA	80	20	20	120		25	125
IIA	90	10	10	110		25	125
IIIA	70	30	30	130		25	125
IB	40	20	20	80	25%	15	75
IIB	50	10	10	70		15	75
IIIB	30	30	30	90		15	75
	360	120	120	600		120	600

living labor was exchanged on the average for one hour of A's living labor, it is now exchanged on the average for 21/27 hours of this labor.

We should have arrived at the same result if, instead of putting in the profits-equalization pool the three branches I have imagined for each of the two countries taken separately, I had used their totals in the diagram:

Country	c Constant capital	v Variable capital	m Surplus value	V Value $c+v+m$	T Rate of profit $\frac{\Sigma m}{\Sigma c+\Sigma v}$	p Profit $T(c+v)$	L Price of production $c+v+p$
A	240	60	60	360	25%	75	375
B	120	60	60	240		45	225
	360	120	120	600		120	600

The two countries, instead of exchanging their imagined composite articles at the rate of 360B = 240A, in accordance with their values, exchange them at the rate of 375B = 225A. As we have assumed that the nominal values of the past labors of A and B, respectively 240 and 120, already express prices of production and consequently exchange at par, the difference can affect only the added values, which, instead of exchanging at 120B = 120A, exchange at 135B = 105A, which gives the same

result as before, that is, one hour of B's living labor is equivalent to 21/27 of A's.

The worsening in the terms of exchange will become clearer if we abandon Marx's simplifying assumption of a turnover rate of constant capital equal to unity. Actually, it is assumed in the diagrams given above that the whole of the constant capital is consumed during a single cycle of production, which is not only unrealistic but also fails to achieve its purpose as a simplification; instead, this assumption makes the diagrams less readable and even liable to ambiguity, since it prevents us from distinguishing between intermediate consumption, which is a neutral factor, and the total amount of capital invested in production, which is an active factor.

Another disadvantage of Marx's simplification is that it gives rise to the false presumption that organic composition varies more or less directly with variations in intermediate consumption, whereas nothing is further from the truth.

Apart from depreciation, which increases with the capital intensity (organic composition) of a branch, while forming part of the cost of production, the variations in the other elements not only do not proceed parallel with the organic composition but, generally speaking, proceed inversely to it. The branches with a high organic composition usually have a relatively low raw-material coefficient, and vice versa. This is true, in general, both for heavy and for light industry. To take extreme cases, a mine has an intermediate consumption (constant capital consumed) that is practically nil, but a very high organic composition (total capital invested), whereas an enterprise where food products are processed has a very high raw-material coefficient and a very low organic composition.[34]

The distinction made between constant capital invested and constant capital consumed during the production cycle offers the further advantage, from the methodological standpoint, of enabling us to neutralize the effect of the latter, by assuming it to be equal in all the branches, so as the better to bring out the effects of the former upon prices (see Table, p. 57).

In this example we see clearly that country B obtains for 170 hours of national labor (living and past) only the equivalent of 155 hours of international labor, while country A obtains 185 for the same amount of national labor. Though the two products have cost the same amount of past labor and new labor, namely, 170 units each, they do not exchange at par, but in the proportion 155A = 185B.

See text page opposite

Country	C Constant capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma c+\Sigma v}$	p Profit $T(c+v)$	L Price of production $R+p$
A	240	50	60	60	170	110	25%	75	185
B	120	50	60	60	170	110		45	155
	360	100	120	120	340	220		120	340

Another simplification is also found, which may be closer to economic reality, especially the reality of modern capitalism. This consists in identifying the constant capital invested with the total amount of capital. Actually, Marx's diagram is based not only on the assumption of a turnover rate of constant capital equal to unity, which is unrealistic, this rate being very much lower,[35] but also on the assumption of a turnover rate of variable capital (wages) also equal to unity, which is unrealistic in the other direction, since this rate is in general much higher.

A modern industry does not in fact have to consider as capital necessary for its operation anything more than the value of its installations plus the value of a certain stock of raw materials, the turnover rate of the amount needed to pay wages being so fast that the capital tied up for this purpose becomes a negligible quantity in relation to the rest. This part of the industry's capital is covered, moreover, by simple cash facilities accorded by the banks.

However, there are some exceptions to this rule. In shipyards, aircraft construction, the production of large-scale equipment, and even civil engineering work, to mention only a few examples, the turnover rate of variable capital is very slow, almost the same as that of intermediate products. Besides, the banks' financing of variable capital in the industries where the turnover rate of the latter is rapid is not undertaken free of charge. It entails an interest payment at a rate that, even if lower than the rate of profit, is nevertheless not insignificant.

For all these reasons, while it is wrong to simply add constant and variable capital together, since there is no reason to suppose that their turnover rate is equal, it would be just as wrong to overlook variable capital and regard constant capital as constituting the whole of the capital invested.

This is why in the numerical examples that follow I have decided to include an additional column on the left, the figure in which is to represent the whole of the capital invested (K), that is, the sum of constant capital, both fixed and circulating, and variable capital, weighted by their respective turnover rates, whatever these may be in each particular case.

If I then insert a hypothetical K in my numerical example, we shall have the result shown opposite.

Just as in the previous example, the distinction between past labor and new labor, constant capital consumed and variable capital, here ceases to be significant, and the supplementary assumption of preliminary trans-

See text page opposite

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	60	60	170	110	$33\frac{1}{3}\%$	80	190
B	120	50	60	60	170	110		40	150
	360	100	120	120	340	220		120	340

formation of the values of the inputs into prices of production, which I made previously (note 33) and which I may have seemed to be making so as to suit the purposes of my argument, is no longer needed. If we take all the *entries* together—past labor and new labor consumed in production—country A obtains, for 170 units of its national labor, 190 units of international labor, while country B obtains 150 of these units for the same amount of its national labor. Or, what comes to the same thing, the products of A and B that embody the same amount of labor, past and new, do not exchange at par but in the proportion 190B = 150A.

In this form the above diagram could be interpreted as, and does in fact correspond to, what some Marxists consider a primary type, or the true type, of nonequivalent exchange. This nonequivalence would then be expressed thus: $170/170 > 150/190$. In Chapter 4 I shall discuss this opinion and give the reasons why I do not regard this type of exchange as unequal. It is true, nevertheless, that already in this type of exchange a transfer of surplus value (of 20 units) takes place from country B to country A.

2. *Nonequivalence in the Strict Sense. Unequal Rates of Surplus Value*

The diagram in the previous section is subject to the assumptions of mobility of capital and an equal rate of wages as between countries A and B, the latter resulting either from mobility of labor or from a bioeconomic law, common to the two countries, which, even without such mobility, causes wages to equalize themselves at the physiological level.

If the first assumption—competition of capitals and equalization of profits—can be retained as realistic enough under the conditions of the modern world, the second, that of equality of wages, whether it be the effect of one or the other of the causes set out above, is absolutely unrealistic and frivolous. In the world of today the notion of the subsistence minimum is sufficiently elastic for no tendency to automatic equalization downward to be possible, and national frontiers are sufficiently tight for equalization through international competition among the workers to be quite out of the question. I do not think, either, that a theoretical proof of the disparity of wages in different parts of the world is called for, since this is an indisputable fact confirmed by observation and experience.

If we assume that wages in A are ten times as high as in B but that, allowing for an intensity of labor in A double that in B, the cost of labor

power in A is five times what it is in B, which gives a very moderate parameter, my diagram will be changed as shown on page 62.[36]

Instead of A = B, according to values, or 150A = 190B, according to the previous diagram, we now have 110A = 230B. The inequality of exchange in passing from one of these conditions to the other is expressed thus:

$$\frac{1}{1} > \frac{150}{190} > \frac{110}{230}$$

Just as in the two previous examples, the distinction between past labor and living labor is pointless here, since both enter into the production of A and B in equal amounts (170).

Here, however, it is possible to go further. The capitals invested can themselves be equalized, yet the transfer of value from one country to another will take place nonetheless (see page 63).

Here, each of the products embodying 170 hours of labor is exchanged at the rate of 210B = 130A, though nothing is different in the two producing countries except wages. It thus becomes clear that inequality of wages as such, all other things being equal, is alone the cause of the inequality of exchange. Consequently, my decision to ignore Bortkiewicz's objection, regarding the previous transformation of the values of the inputs (of past labor) into prices of production, was justified so far as my argument was concerned. Whatever the effect of this transformation, it will change nothing in the ratio between the two products, since all the inputs of past labor, in respect both of equipment and of intermediate consumption, are equal in both countries.

However, in order to define exactly the influence of wages in relation to that of organic compositions, we must go back to the previous inequality formula:

$$\frac{1}{1} > \frac{150}{190} > \frac{110}{230}$$

We can then say that it is the second part of this formula, i.e.,

$$\frac{150}{190} > \frac{110}{230}$$

that corresponds to my definition of unequal exchange.

Regardless of any alteration in prices resulting from imperfect competition

See text page 61

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $c+v+p$
A	240	50	100	20	170	150	$33\frac{1}{3}\%$	80	230
B	120	50	20	100	170	70		40	110
	360	100	120	120	340	220		120	340

See text page 61

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $c+v+p$
A	240	50	100	20	170	150	25%	60	210
B	240	50	20	100	170	70		60	130
	480	100	120	120	340	220		120	340

on the commodity market, unequal exchange is the proportion between equilibrium prices that is established through the equalization of profits between regions in which the rate of surplus value is "institutionally" different—the term "institutionally" meaning that these rates are, for whatever reason, safeguarded from competitive equalization on the factors market and are independent of relative prices.

I shall give the reasons for this limitation in Chapter 4. Before proceeding further in this analysis, however, I must explain my view on the direction in which determination is effected.

3. *Wages, the Independent Variable of the System*

I am aware that my definition is a question-begging one. It treats wages as the independent variable of the system, whereas the correspondences shown by my diagram do not prove that it is necessarily wages that determine relative prices, and not the other way round.

The equalization of profits assumed in the diagram can have two possible consequences: either the difference in prices, being unable to react upon profits, reacts upon wages, or else the difference in wages, being unable to react upon profits, reacts upon prices. Nothing in the diagram gives us reason to rule out either of these possibilities. It will therefore be outside the diagram and its theoretical analysis that we must look for the grounds on which we base our choice of the second determination rather than the first. These grounds can only be intuitive and empirical.

Most of the reasons I have invoked in Chapter 1 in favor of making the same choice within the national setting remain valid for international exchanges. But there is a difference between the two cases. Having recognized that in the national setting equalization of wages takes place, I have *ipso facto* ruled out any variation in relative wages. All that then remained of the case for wages being admitted to be a variable dependent on prices was a variation in their general and absolute level. It then became apparent that it was absurd to suppose that a relative increase in the price of a commodity such as artichokes might bring about an increase in the general level of wages, and even more so—if it so happened that the artichokes branch was one with an organic composition of capital higher than average—a decrease in this same level, and thereby a rise or fall in wages in a branch of production so remote from horticulture as, say, metallurgy. (For it had been established that a rise in certain relative prices correspon-

ded not to a rise but to a fall in the general wage level, and to accept, after that, the determination of wages by prices seemed doubly absurd.)

The case is altered when we turn to the international setting. Since here I recognize noncompetition of the labor factor, and, consequently, elasticity of wages as between one country and another, I thereby leave open the theoretical possibility that wages may vary in a particular country in proportion to the variations in the prices of the products or product that it exports. At first glance this possibility does not seem absurd. In addition, in this case a rise or fall in prices always corresponds to a parallel rise or fall in wages, and never to the contrary phenomenon, which eliminates the other absurdity in the idea that wages are determined by prices, which is perceptible at once within the national setting.

A closer look, however, reveals that determination of wages by prices is equally ruled out in the international setting. It is not, indeed, a matter of saying that the wages of cocoa producers must follow the price of cocoa, which would be acceptable at the level of intuition, but that *all* wages in Ghana must follow the price of cocoa, since I admit that inside each country the equalization of wages continues to operate. And this must not happen only indirectly, that is, through the impact that an increase in the price of this product might have on the national income, the standard of life, and social development in Ghana, something that everyone will readily admit, but directly and proportionately. Quite apart from the case of a country like Ghana, where the export of cocoa has a considerable specific weight in the country's economy, if we accept this principle we are obliged to agree that there is nothing to stop the general wage level in the United States from one day falling below that of India if, for instance, the elasticities of international demand for American automobiles and Indian cotton goods, respectively, should be reversed to the detriment of the United States, and if this situation lasts long enough to take effect!

All our experience, intuition, knowledge, statistical fact, and common sense itself fight against such a conjecture. The income of the Indian textile industry, at a moment of exceptionally favorable conjuncture and a sharp rise in prices, could perhaps be imagined adequate to provide the Indian textile workers with wages higher than American wages; but how can one imagine that it could ever make possible a rise in the *general* level of wages in India, not to the American level but even to one noticeably above the present Indian level?

Actually, what would happen in the event of such a sharp increase in

demand and prices would be, *in the short run*, a sharp increase in the profits of textile firms in India. Also, perhaps (still in the short run), if certain political and social conditions were present, the textile workers would get a share of the cake. But these very effects would work to bring about their own cancellation. Capital and labor would rush into textiles, and *in the long run*—that is, in the period needed for new mills to be set up (assuming that the existing ones have not sufficient reserve potential) and for workers from other branches to move in and complete their training—supply would become equal to the new demand at a price that would be just enough to pay Indian wages and the international rate of profit. The only qualification to this would arise in a case of increasing costs or a case of monopoly of a natural factor. In these two cases, which usually go together, a rent would be established to the advantage of certain firms or of the owners of the noncompetitive factor, and this would absorb the excess price over and above the local wage level and the international profit rate, these two figures remaining unchanged. Experience shows that such cases of rent are very infrequent in reality and practically nonexistent on a long-term basis.

Wages are differentiated by geographical areas and independently of ups and downs in commodity prices. They are rigid and remarkably stable in time. During the last twenty years the price of coffee, copper, and sugar has fluctuated in a range of one to three and sometimes even more than that. No corresponding change or anything like it has been recorded in the wages paid in the countries producing these goods. All through these evolutions and even revolutions in prices, the worker in Guinea, Uganda, Brazil, or Katanga has gone on receiving his subsistence wage, which can be estimated, without much margin of error, at five cents an hour, whereas his American or European counterpart has in the same period been earning 20, 30, or 40 times as much, depending on the particular country and not at all on the movement of prices. During this same period the capitalist in Guinea, Uganda, Brazil, or Katanga had, of course, his ups and downs; yet, taking one year with another, he ended up with something not too far from the average international rate of profit.

4. Weaknesses and Contradictions in the Contrary Thesis

It is no accident that in this field the greatest confusion prevails among economists. This confusion is worse, it must be said, among the followers

of Ricardo, the neoclassicists, and even the Marxists, than among the pure liberals. To Walras the problem presents no difficulty. From the moment when he introduces "n" categories and "n" prices of services in his equations, he is safeguarded from any contradiction. The singleness of the market prices of services affects only the service specific to each branch of production. Competition between occupations being ruled out, there is, in theory nothing to prevent Senegalese producers of groundnuts, if their product's price goes up, from earning three dollars an hour, while Senegal as a whole goes on being a poor country in which all the other workers receive only five cents. Jevons too could say, with just as much consistency, that "wages are clearly the effect, not the cause, of the value of the produce."[37]

Cairnes, Nicholson, and Taussig, however, cannot say this. Since they are obliged to cling to the classical doctrine of the homogeneity of the labor factor and its competition within national limits, together with general noncompetition of the factors on the international plane, they have to distinguish between internal exchanges where it is the quantities and rewards of the factors that determine prices, and the external exchanges where it is prices that determine the rewards of the factors. They are therefore either evasive and ambiguous, like Cairnes and Nicholson, or they follow the argument to its logical conclusion and acknowledge straight out, as Taussig does, that international prices determine wages not only in the exporting branches but also in those working for the internal market, without making any reservation regarding the relative importance of the two groups of branches. Here is a significant passage: "What causes high money wages? The answer is not hard to find. Those countries have high money wages whose labor is efficient in producing exported commodities, and whose exported commodities command a good price in the world's markets. The general range of money incomes depends fundamentally on the conditions of international trade, and on those conditions only. The range of domestic prices then follows. . . ."[38]

The exaggeration in this statement, to put it mildly, leaps to the eye. According to this, it would be enough for a country, however poor and underdeveloped, to possess one little export commodity that commands a good price on the world market, for its general level of wages to be as high as in any other country.

Taussig does not, of course, mean real wages. He supposes that it is only money wages that will rise, while real wages remain low as a result of

the general increase in all internal prices that makes it possible for the economy to pay the high money wages inaugurated by the export sector. It is just here, however, that the contradictions begin and the problem becomes inextricable. For under conditions of free trade, perfect competition, and convertibility of currency, and with transport costs left out of account, as in Taussig's system, what is there to prevent consumers from getting their supplies from abroad instead of paying the higher prices for local products? If they do this, the prices of local products will fall and this must bring about one of two consequences: either real wages will rise, which is absurd, since there is no resource from which they can be met, apart from the tiny export sector; or—more probably—money wages throughout the economy, and therefore prices in the export sector itself, will fall, which goes against the assertion that it is external demand that determines prices and not the rewards of the factors inside the country.

Besides, the experience of a whole century shows us that money wages are high in the countries where real wages are equally high, even if there is not strict proportionality between the two, and the former run ahead of the latter. To accept Taussig's thesis would lead us to agree that, under certain conditions of the world market, countries that are poor and that have low real wages would have a general price level and a general rate of money wages higher than those prevailing in countries that are rich and have high real wages.[39] To my knowledge there has never been such a case since the world market came into being.

Ohlin challenges Taussig's theory, but in order to do this he resorts to eclecticism: wages in the exporting branches do not precede causally the prices on the internal market—there is interdependence between wages and prices. The general conditions of supply and demand in all industries (that is, the entire price system) determine all prices and all wages. Further, the productivity of labor in the exporting branch depends on the capital intensity of this branch, and only the marginal productivity of labor can be considered. But this productivity is itself a variable in the price system, and furthermore it is not known statistically, etc., etc.

Arguing eclectically leads, nine times out of ten, to arguing in a circle. One begins by taking productivity as the determining factor. Then one remembers that in one's system the productivity of labor—whether marginal or average—does not mean the physical output per unit of labor, but its economic yield, that is to say, something that depends on wages and prices. It cannot therefore determine the one without the other being

given. And there one is, caught in a blind alley from which escape is sought through the fog of "interdependence" and statistical agnosticism.

Taussig's thesis was not original. As far back as 1830, Senior had declared that the general level of money wages in a country was determined by the wages that labor could command in the exporting branches, and that the comparative wage levels in the exporting branches of the various countries were determined by the comparative prices of the exported products of these countries on the world market.[40]

This doctrine was followed up by P. J. Stirling and later developed by H. von Mangoldt. Consciously or unconsciously, it has been accepted by the majority of orthodox economists in the Western countries. As for the Marxist economists, a certain inhibition seems to hold them back from venturing into a territory that Marx did not have time to explore, namely, foreign trade. They stick to the ABC's of Marxian and classical political economy, which rules out any influence by the general wage level upon values, forgetting that it is not a question of values but of prices of production, and that even inside the given nation Marx and the classical economists agreed that fluctuations in wages have an effect on equilibrium prices.[41]

What is remarkable is that when it is not a matter of terms of trade, but of the opposite, competition between countries, when the threat of internal depression impels states to sell as much as possible rather than as dear as possible, then those who are responsible for the economic policies of rich countries and even the practical economists, if not the "pure" ones, do not hesitate to talk about "social dumping" on the part of the low-wage countries and even to take protectionist measures against them. The protectionist policy of the United States is to a large extent inspired by this principle. All the tariff barriers erected before World War II in the industrialized countries of the West, and the bans imposed on Japanese goods (which, though modified, have still not entirely disappeared), were justified by this same consideration.[42]

When it is a question of importing coffee or bananas, which the rich countries do not themselves produce, and the low prices of which can consequently be only to the advantage of the purchasing countries, then any notion of artificially increasing prices is repudiated in the name of the sound principles of economic rationalism, and no allusion to the low wages of the producers is allowed, since, in accordance with these same sound principles, these wages are not the cause of prices but their effect. When,

however, by chance the poor countries decide to export products such as Indian cotton goods or Japanese transistors, which are already included in the production of a traditional branch of industry in the rich countries, then all these principles are cheerfully forgotten, and it is discovered that it is only proper that the rich country should make up by means of artificial tariff barriers for the equally artificial difference in wages; thus brusquely and brazenly admitting that wages are not the effect of prices but their cause.

"Besides," says Guy de Lacharrière, who until then had not questioned one tittle of the orthodox teaching about the authenticity of market prices and had placed nonequivalent exchange in the category of Marxist heresies, which, as everyone knows, are so disreputable that scholars may reject them without taking the trouble to study and refute them, "these low costs of production [of products that compete with those produced in the rich countries] are not due, or are not mainly due, to a higher degree of rationalization of production, but to the low wages paid to the workers, the employment of female and child labor, the absence or insignificance of social benefits, in short, to social dumping. It is therefore easy, when the interests of the producers in the rich countries are harmed, to appeal to the indignant reaction that these practices easily arouse. At best it is a case of the linking of a practically Western level of productivity with a wage level that is still exotic."[43]

This last phrase is a godsend and I am grateful to its author for giving us it. Yes, indeed, this *is* the point: the conjunction of Western productivity with "exotic" wages. As I said so far back as 1962, "it is the capacity of the underdeveloped sections of mankind to wield the tools of our epoch while they are still a long way from possessing the needs of our epoch that in the last analysis gives rise to the superprofit of unequal exchange."[44]

But if this conjunction causes the prices of Indian cotton goods and Japanese ships to be abnormally low, why are the prices of bananas and coffee not also abnormally low, since wages in these branches are just as exotic and productivity is undoubtedly higher than in the West?[45]

"Unfair competition by means of low wages," "pauperized labor," "social dumping," etc., are expressions of which present-day writing on economic matters is full, while pure economics goes on imperturbably teaching that wages depend on prices, and not the other way round.[46]

In the days when wages varied from one country to another only as 1 to 2, or even 1 to 3 or 1 to 4, it was perhaps legitimate to suppose that

fluctuations on the commodity market could be the underlying cause of these variations. When, however, wages vary at the rate of 1 to 20 or 1 to 30, and vary only in space, while possessing extreme rigidity in time (in which only a slow and linear trend is to be observed, with hardly any variation), we are indeed compelled to recognize that they probably vary in accordance with laws peculiar to themselves and that, consequently, they really are the independent variable of the system.

III. PARITY OF PROFITS WITH DISPARITY OF RATES OF PROFIT

1. General Observations

Equalization does not mean that the rate of profit is the same everywhere. Ricardo pointed out that what happens is "a strong tendency to equalize the rate of profit of all [employers of stock], or to fix them in such proportions as may in the estimation of the parties, compensate for any advantage which one may have or may appear to have over the other."[47]

An external and supplementary element such as a risk premium added, for example, to profit on capital invested in developing countries does not hinder equalization. If the risk premium in Brazil is + 1/2, compared with the United States, and the general rate of profit in the latter country is 10 percent, then parity occurs when the rate of profit in Brazil reaches 15 percent. At 16 percent capital should move from the United States to Brazil, and at 14 percent from Brazil to the United States.

Sismondi noted this process of equalization at different levels, but Turgot had earlier provided the most vivid description of it: "The different uses to which capital may be put thus bring in very unequal returns; but this inequality does not prevent them from having a reciprocal influence upon each other, and a sort of balance being established between them, as between two liquids of unequal weight and communicating with each other through the base of an upturned siphon, the two branches of which they occupy; *they would not be at the same level, but one would not be able to rise higher without the other one also rising, in the opposite branch of the siphon.*"[48]

It is this kind of equalization on the basis of unequal rates of profit that emerges, for example, from the concise figures given by H. Feis to show the rates of yield on the Paris Stock Exchange between 1878 and 1911:[49]

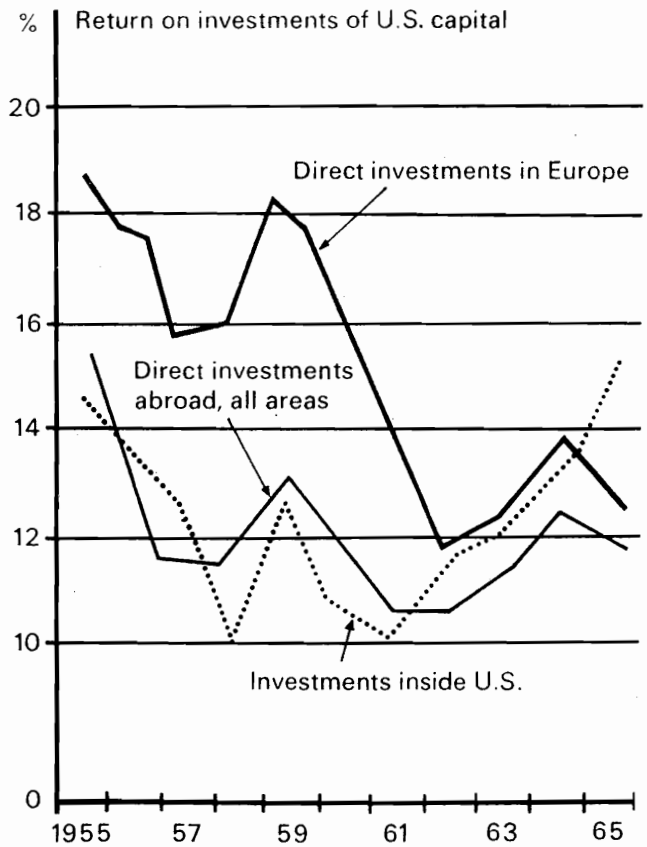
Average Percentage of Yield

Year	French securities	Foreign securities
1878	4·12	5·50
1903	3·13	4·20
1911	3·40	4·62

As can be seen, the differential in favor of foreign securities remained remarkably stable over this period of one-third of a century: 100/298 in 1878, 100/292 in 1903, 100/278 in 1911.

The same parity is shown in Figure 1, which represents the evolution of returns on American investments inside and outside the United States.

Figure 1



Source: *Survey of Current Business,* September, 1966.

The graphs for direct investments abroad in all areas, on the one hand, and for investments inside the United States, on the other, reveal a remarkable parallelism and a negligible degree of divergence between 1955 and the beginning of 1965. The graph for direct investments in Europe diverges noticeably from the other two during the first period, but rejoins them in 1961 and follows them thereafter. The peaks and troughs of the three graphs coincide in time.

2. The Formula for Transforming Value into Price of Production is not Altered

Let us look again at our numerical example (see page 74).

Let us now suppose that B, an undeveloped country where wages are low, has, however, a rate of profit that is double that of A. This will not prevent us from calculating the international prices of production. In such a case, in order to find A's rate of profit, we have to relate the total surplus value (120) to the sum of the capital invested in A and twice the capital invested in B ($240 + [2 \times 120] = 480$). Thus, A's rate of profit will be 25 percent and B's 50 percent (see page 75).

The procedure here is similar to that which is followed when there is a difference in intensity of labor. Just as two hours of less intense labor are equivalent to one hour of more intense labor, so one unit of capital counts as two in the formula for the formation of prices of production, if this capital is invested in a country where the rate of profit is to be double the average rate.

Thus, instead of having:

$$\text{A's profit} = \frac{120 \times 240}{240 + 120} = 80, \text{ or } 33\tfrac{1}{3}\%$$

$$\text{B's profit} = \frac{120 \times 120}{240 + 120} = 40, \text{ or } 33\tfrac{1}{3}\%$$

we shall have:

$$\text{A's profit} = \frac{120 \times 240}{240 + (2 \times 120)} = 60, \text{ or } 25\%$$

$$\text{B's profit} = \frac{120 \times (2 \times 120)}{240 + (2 \times 120)} = 60, \text{ or } 50\%$$

See text page 73

With Wages Equal

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	60	60	170	110	$33\frac{1}{3}\%$	80	190
B	120	50	60	60	170	110		40	150
	360	100	120	120	340	220		120	340

With Wages Unequal

A	240	50	100	20	170	150	$33\frac{1}{3}\%$	80	230
B	120	50	20	100	170	70		40	110
	360	100	120	120	340	220		120	340

See text page 73

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit*	p Profit TK	L Price of production $R+p$
A	240	50	100	20	170	150	25%	60	210
B	120	50	20	100	170	70	50%	60	130
	360	100	120	120	340	220		120	340

$$* \; Ta = \frac{\Sigma m}{Ka+2Kb}, \quad Tb = \frac{2\Sigma m}{Ka+2Kb}$$

Consequently, any differences in rates of profit there may be between countries where capital is plentiful and underdeveloped countries does not in the least prevent a world price of production from being formed, so long as these differences have been predetermined by external factors and are not due to the internal factors that determine variations in the general rate of profit. A certain risk premium, or the expatriation premium that capital may require if it is to be invested in faraway places, is often an external factor of this sort. The quantitative effect of such a premium on the terms of trade is negligible. Insofar as it exists, it cannot absorb more than a tiny fraction of the inequality of exchange. Independently of its quantitative effect, however, the superprofit that capital may require in underdeveloped areas modifies only the parameters of the model but not at all the law by which it functions.[50]

3. *Can the Difference in Rates of Profit Make Up for the Inverse Difference in Wages?*

The general formula for the profit (p) of a branch (i) is:

$$p_i = \frac{(\Sigma m)Ki}{\Sigma K}$$

m being the surplus value and K the capital invested in the branch. The formula for the price of production (L) in the same branch (i) is

$$\mathrm{L}_i = c_i + v_i + p_i \tag{1}$$

or

$$L_i = c_i + v_i + \frac{(\Sigma m)K_i}{\Sigma K}$$

c being the constant capital consumed and v the wages paid out in the branch.

If we have only two branches, A and B, and if we assume that the rate of wages is higher in A by a coefficient r, and the rate of profit higher in B by a coefficient q, then:

$$v_a > v_b \tag{2}$$

$$\frac{v_a}{v_b} = r \tag{3}$$

$$p_a = \frac{(m_a + m_b)K_a}{K_a + qK_b}$$

$$p_b = \frac{(m_a + m_b)qK_b}{K_a + qK_b}$$

If, in order to exclude the influence of organic composition, we assume that the capitals invested are equal, we shall have:

$$p_a = \frac{(m_a + m_b)K}{K + qK}$$

$$p_b = \frac{(m_a + m_b)qK}{K + qK}$$

from which we get

$$\frac{p_b}{p_a} = q \tag{4}$$

and, as q is assumed to be higher than unity,

$$p_b > p_a.$$

On the other hand:

$$p_a + p_b = \frac{(m_a + m_b)K}{K + qK} + \frac{(m_a + m_b)qK}{K + qK} = \frac{(K + qK)(m_a + m_b)}{K + qK}$$

and so:

$$p_a + p_b = m_a + m_b. \tag{5}$$

The sum of profits is equal to the sum of surplus value, which is the basis of Marx's formula for the transformation of value into price of production.

Prices of production will be:

$$L_a = c_a + v_a + p$$
$$L_b = c_b + v_b + qp.$$

If, in order to measure the respective influence of wages and profits, we assume that the constant capital consumed is equal in the two branches, then, in order that the difference in profits may make up for the inverse difference in wages, it is necessary—organic composition having already been assumed to be equal—that the prices of production for A and B shall be equal. Thus, we must have:

$$c_a + v_a + p = c_b + v_b + qp.$$

Since $c_a = c_b$, we can write:

$$v_a + p = v_b + qp$$

or

$$v_a - v_b = qp - p. \tag{6}$$

It would also be possible to write:

$$v_a - qp = v_b - p = n.$$

Consequently, if

$$v_a + v_b > qp + p$$

then

$$n > o,$$

whereas, if

$$v_a + v_b < qp + p$$

then

$$n < o.$$

In all cases, $v_a - n = qp$, and $v_b - n = p$.

Consequently, it would be possible to write

$$\frac{v_a - n}{v_b - n} = \frac{qp}{p}. \tag{7}$$

We know, however, that if to a fraction in which the numerator is greater than the denominator—as in our case in (2) above—we add an equal sum to both numerator and denominator, then the value of the fraction is reduced, while if we subtract an equal sum, the value of the fraction is increased. Consequently, if n is positive, that is, if

$$v_a + v_b > qp + p$$

then

$$\frac{v_a}{v_b} < \frac{v_a - n}{v_b - n}$$

and, replacing the second member in accordance with (7) above

$$\frac{v_a}{v_b} < \frac{qp}{p}$$

or

$$\frac{v_a}{v_b} < q$$

or, in accordance with (3) above,

$$r < q.$$

If n is negative, that is, if $v_a + v_b < qp + p$, then

$$\frac{v_a}{v_b} > \frac{v_a - n}{v_b - n}$$

and, replacing the second member in accordance with (7) above

$$\frac{v_a}{v_b} > \frac{qp}{p}$$

or

$$\frac{v_a}{v_b} > q$$

or

$$r > q.$$

Finally, if $v_a + v_b = qp + p$, that is, if $n = o$, then

$$\frac{v_a}{v_b} = \frac{v_a - n}{v_b - n}$$

and, substituting in accordance with (7)

$$\frac{v_a}{v_b} = \frac{qp}{p}$$

or

$$r = q.$$

As, however, $qp + p = m_a + m_b$, in accordance with (4) and (5) above, by substituting on both sides we get:

If $\Sigma v = \Sigma m$, then $r = q$.
If $\Sigma v > \Sigma m$, then $r < q$.
If $\Sigma v < \Sigma m$, then $r > q$.

It can therefore be said that, all other things being equal, it is necessary, in order that the surplus profit may make up, in the terms of trade of the underdeveloped countries, for their deficiency in wages, that their rate of profit be the general rate multiplied by a coefficient higher than unity and inversely proportional to the average rate of surplus value $\Sigma m/\Sigma v$. If the average rate of surplus value is higher than one, the ratio between rates of profit can be lower than the ratio between rates of wages; if the average rate of surplus value is lower than one, the ratio between rates of profit must be higher than the ratio between rates of wages.

Since in practice the average rate of surplus value is not higher than one, it would be necessary, if compensation is to occur, for the rate of profit in the low-wage country to bear *at least* the same proportion to the rate of profit in the high-wage country as the high rate of wages bears to the low one.

When we think of the differences between rates of wages that exist in the world of today, we see at once that it is illusory to rely on compensation through a positive difference in the rate of profit in the underdeveloped countries, even supposing that such a difference exists.

In my example given in the previous paragraph, in which the wages in A are assumed to be five times as high as in B, for the prices of production to remain what they are, with wages and profits equal, it would have been necessary, given equality in organic composition, for the rate of profit in B to be five times the rate of profit in A, or as shown opposite.

And these are only very moderate parameters. Wages in A are only five times as high as in B. If they were, say, ten times as high, as often happens in reality, then it would be necessary, in order that compensation might be effected, for the rate of profit in B to reach even more unrealistic heights.

IV. SOME POSITIONS ON THE FRINGE OF UNEQUAL EXCHANGE

1. Singer-Prebisch Thesis

There are very few instances of economists taking up positions that contradict the official theory that wages are a dependent variable of prices. It is doubtful whether the well-known Singer-Prebisch thesis can be regarded as contradicting this theory.

Briefly, the thesis in question notes that the fruits of technical progress can be distributed either to the producers or to the consumers. In the developed countries the technical progress of the manufacturing branches leads to an increase in incomes; among the producers of foodstuffs and raw materials it leads to a fall in prices.

Depending, therefore, on whether primary or secondary products are involved, an increase in productivity is reflected in a fall in prices or in a rise in wages and profits. If it is the nature of the product that dictates this difference, that means that the independent variable of the system remains the state of demand, since, as use values, the products differ from the economic standpoint only in the kind of demand they arouse. The fact that primary products are put on one side of the barrier and manufacture on the other merely supports the impression that the Singer-Prebisch thesis is in the last analysis only a sophisticated reformulation of the fashionable doctrine that, for reasons left undefined, the former category of goods encounters always and everywhere a less satisfactory demand than

See text page opposite

With Wages and Rates of Profit Equal

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	60	60	170	110	25%	60	170
B	240	50	60	60	170	110		60	170
	480	100	120	120	340	220		120	340

With Wages and Rates of Profit Unequal

A	240	50	100	20	170	150	$8\frac{1}{3}$%	20	170
B	240	50	20	100	170	70	$41\frac{2}{3}$%	100	170
	480	100	120	120	340	220		120	340

the latter. This is what Guy de Lacharrière calls "the fundamental inferiority of the trade in basic produce as compared with the trade in manufactures."[51]

The low income elasticity of primary products (Engel's law), says Singer in effect, reinforced by the higher incomes of the industrialized nations and the reduction in the use of raw material per unit of product, brings about considerable price falls, which are not merely cyclical but also structural. "This perhaps is the legitimate germ of truth in the charge that foreign investment of the traditional type formed part of a system of 'economic imperialism' and of 'exploitation.' "[52]

True, among the factors determining the contrasted effects of technical progress in advanced countries and underdeveloped ones respectively, Singer mentions the differential pressure of wages, arising from difference in the efficiency with which the factors are organized. As Kindleberger points out, however, this argument is supererogatory. "If it can be conclusively established that the elasticities facing the underdeveloped countries are lower than those facing the developed, there is no lack of forces to explain why the terms of trade work as they do. . . ."[53] Indeed, it is hard to see what a more dynamic posture of the factors could do in face of a defective structure of external demand, if it is really demand that determines prices.[54]

It is also hard to see why the application of this "law" should be restricted merely to the case of technical advance and increased productivity. For many decades, perhaps for centuries, the technique of producing whisky has not progressed by a single step.[55] Nor has that of the great wines of France. And yet these products are sold at a price that is high enough to pay the workers who produce them in accordance with the North-West-European wage level and the capitalists who own them according to the universally applicable rate of profit. This is not so with textiles, despite the ultramodern plant to be found in Egypt, India, or Hong Kong. Something that represents the highest degree of paradox, according to the Singer–Prebisch thesis, but which is quite normal according to mine, is the fact that the European countries with an old-established tradition in this branch are now—that is, since it has been taken over by the underdeveloped countries—turning toward the semi-craft production of artistic and luxury goods, in which they can continue to obtain prices sufficiently remunerative to pay a labor force that insists on wages 20 or 30 times as high as those the Egyptian or Indian workers get,

in spite of the fact that the latter are equipped with the latest in automatic looms.[56]

Singer himself reveals the weakness of his thesis when he has occasion to speak of the special deterioration in terms of trade suffered by Britain in the first years after the war: "It is surely a remarkable fact that in a world hungry for capital goods, and with her two most important direct industrial competitors eliminated, England should have experienced adverse terms of trade in the years 1945 to 1948."[57]

Singer can find only one explanation for this "paradox"—"Britain's inability to take advantage of the post-war situation." What sort of inability? What sudden paralysis had gripped the factors—the best organized in the world—in a country that had enjoyed centuries of economic domination in which it was able to work out at leisure the most subtle methods of commercial exploitation? By what aberration had this country thus been led to make a present to the foreigner of part of the "commodity value" of its exported capital goods in such an exceptional economic situation?

Singer offers no reply to these questions; in other words, he fails to explain his "paradox." And yet it is enough to reverse the relationship of cause and effect, to admit that wages are not the effect but the cause of prices, whereas profits are determined by the general average rate of profit, for the paradox to vanish and everything to become clear.

Britain in 1945 had to choose between the terms of trade and expansion, these two being incompatible in a competitive economy, and she chose the path of expansion. A policy of austerity was introduced, the pound was overvalued on the internal market, and both indirectly, through the real difference in the rate of exchange, and directly, through measures taken in the name of this policy, prices and nominal wages were frozen inside Britain. Britain's customers profited (relatively) by this freeze. Thus, at a moment when the world had the greatest need for capital goods and Britain was the only country in a position to supply them since her traditional competitors, especially Germany, were out of the running, among all industrial commodities only capital goods fell in price. As these capital goods made up the greater part of British exports in this period, the country's terms of trade worsened at the same time as those of other industrial countries remained unaltered, or even, as in the case of France, slightly improved, despite the increased price of raw materials and agricultural produce.

Raul Prebisch, though he elaborates with greater precision the thesis he shares with Singer, does not add much to the essence of the matter:

If prices had been reduced in proportion to increasing productivity, the reduction should have been less in the case of primary products than in that of manufactures. . . . The benefits of technical progress would thus have been distributed alike throughout the world, in accordance with the implicit premise of the schema of the international division of labor. . . .

Had the rise in income in the industrial centers and the periphery been proportionate to the increase in their respective productivity, the price relation between primary and manufactured products would have been the same *as if prices had fallen in strict proportion to productivity.* Given the higher productivity of industry, the price relation would have moved in favor of the primary products.

Since . . . the ratio actually moved against primary products in the period between the 1870's and the 1930's it is evident that in the center the income of entrepreneurs and of productive factors increased relatively more than productivity. In other words, while the centers kept the whole benefit of the technical development of their industries, the peripheral countries transferred to them a share of the fruits of their own technical progress.

The reason for this difference is that

during the upswing, part of the profits are absorbed by an increase in wages, occasioned by competition between entrepreneurs and by the pressure of trade unions. When profits have to be reduced during the downswing, the part that had been absorbed by wage increases loses its fluidity, at the center, by reason of the well-known resistance to a lowering of wages. The pressure then moves toward the periphery, with greater force than would be the case if, by reason of the limitations of competition, wages and profits in the center were not rigid. . . The characteristic lack of organization among the workers employed in primary production prevents them from obtaining wage increases comparable to those of the industrial countries and from maintaining the increases to the same extent.[58]

Cause and effect thus alternate, according to Prebisch. What makes prices go up during the upswing is the market. The increase in wages and profits follows in accordance with the orthodox schema. But what stops them from falling during the downswing is the rigidity of wages and profits. Yet this is true only of the center. In the periphery wages and profits follow prices all the time, as they "should."

Even with this limitation the thesis gives a serious twist to the prevailing doctrine according to which the factors passively submit to objective prices and, in the absence of an effective monopoly, nothing can be done

against the omnipotence of demand on the world market. In this form, however, it is still only a working hypothesis, and no theoretical proof is attempted by its authors.

Furthermore, Prebisch ends by treating income elasticity of demand and nonuniformity of technical progress as ultimate factors in prices. In the last analysis Prebisch finds that what distinguishes primary products from manufactured products is income elasticity, which is merely aggravated if there is technological disparity.

With such a conclusion as this, the twist I mentioned above proves to be merely an inconsistency in argument. Kindleberger has not failed to point this out:

> There can be no monopoly elements in factor markets in separate countries, which impinge on terms of trade, apart from the existence of monopoly elements in goods markets. If foreign demand and supply in international trade are elastic, national price-wage policy can have no effect on the terms of trade. A difference between the price and wage policies of two countries will affect their balances of payments, and through them possibly their exchange rates, but the terms of trade will be unchanged. . . . If foreign demand and supply are inelastic, differences in price and wage policy can bring about a change in the terms of trade. . . . But it is questionable whether it is the monopoly elements at the factor level, rather than those in goods markets, which are effectively responsible for the changes.[59]

It must be agreed that as long as the premises of the prevailing theory are not challenged, Kindleberger will be in the right as against Prebisch.

According to Prebisch, the benefits of a uniform increase in the productivity of all the branches of a nation's economy are reflected in an increase in wages and are therefore kept within the country. Contrariwise, since wages are governed by marginal productivity, a big disparity in productivity causes the sectors where progress takes place to transfer the fruits of their differential productivity abroad, through the fall in the prices of their products.

What role has income elasticity of demand to play, then, in this system of causes and effects that seems quite complete and self-sufficient? Income elasticity of demand enables the center to devote itself, for preference, to industry, which enjoys technological homogeneity, whereas the periphery is obliged, if it wants to find employment for its excess labor power, to engage in both industry and agriculture, thus falling into technological disparity.

There was a time when economists felt obliged to justify their positions if these contradicted the established doctrines in any way. Today they are content to set forth their views and leave it at that. According to the classical writers and to the universal consciousness of mankind (what is called common sense), wages depend not on the productivity of the branch in which the worker works but on that of the branches that supply the goods he consumes. Thus, at every stage they are linked more or less closely with the price of one or more representative articles belonging to this body of consumer goods. Yesterday it was bread, today it is beefsteak, tomorrow perhaps it will be the automobile or the television set. This conception leaves out of account, of course, the effect of trade-union action, and it may be that the workers in an export industry, if they are well organized, can exploit a good economic situation to obtain an improvement in their wages, even though neither the price of bread, nor that of beefsteak, nor that of housing has changed, or even if these prices have fallen. To allege, however, that necessarily, through the mere working of the law of uniformity of technical progress, this improvement will be the greater by the extent to which productivity has risen in agriculture, stockbreeding, or building, and thus by the extent to which the prices of the goods consumed by the workers will have fallen, is too original not to require full explanation.

If it was the degree of uniformity in technical progress that mattered, and not the level of technique, then monoculture would constitute the ideal condition for high wages. In that case Venezuela, which devotes such a large proportion of its productive effort to the extraction of oil (in which, moreover, the technical progress achieved has been considerable), ought to have a wage level higher than that of the United States, where the greatest diversification is to be found and so (allowing especially for the specific weight of services) the greatest disparities in technique.

At the end of the eighteenth century and the beginning of the nineteenth century, Britain found herself in precisely this situation of uneven technological development. Export industry was advancing by leaps and bounds, while agriculture, though very good in absolute terms, was relatively stagnant. The effect of this disparity was the opposite of that indicated by Prebisch's proposition. Wages rose, and they even rose so much as to provoke the liveliest reaction on the part of the industrialists, who demanded and eventually secured the abolition of the Corn Laws, so that imports of foodstuffs might lower the prices of the workers'

subsistence and thereby the pressure to raise wages might come to an end.

How does Prebisch get out of all these contradictions? By taking wages sometimes as cause and sometimes as effect. He assumes that it is the productivity in *each* branch taken separately that determines wages in the first place, and this apparently leads him—though he does not explain himself clearly on this point—to think that, in the event of a disparity in technique, the wages in the primary sector tend to fall. This prevents the prices in this sector from rising, despite its low productivity, and consequently enables the advanced industrial sector to freeze its own wages in spite of its high productivity. This wage freeze brings about in its turn a fall in prices in this exporting sector and a transfer of value abroad.

Here we have a perfect instance of reasoning in a circle. Prebisch is looking for a cause for a certain evolution of world prices. He thinks he has found this in a certain evolution of wages, which is in turn conditioned by a certain evolution of productivity. Now, productivity can in no case affect wages except *through prices*. I am a worker employed in making transistors. Owing to a technical improvement that has been introduced I now complete two sets a day instead of one, whereas a fellow worker of mine who makes shoes is still producing only one pair of them a day. For this development to have any significance that will allow me to see it as a favorable conjuncture and put forward demands, the rate of exchange of transistors against shoes must be such as to ensure that the firm that employs me is making bigger profits than before. In the absence of that circumstance there is no mechanism whereby the effect of a change in the productivity of a given branch can be transmitted to the wages in that same branch.[60] But this assumes that prices are established prior to wages. whereas we have set out to show that prices are determined by wages.

2. *Arthur Lewis*

Among non-Marxist economists there is only one, to my knowledge, who has broken explicitly with the traditional conception: Arthur Lewis. You claim, he says in effect, that wages in the export sector follow the fluctuations in world prices. But how can these wages rise, in the event of increased productivity and high demand, if the country possesses a practically unlimited reserve of surplus labor power in its self-subsistent sector?

As soon as the industrial wage reaches a level that enables the factory worker to get more goods than the peasant can produce by his own labor in his village setting, the peasant will leave the land and become a factory worker. Under these conditions the wages paid in the export sector, whatever the technological level of this sector and the state of world demand, must necessarily be governed by the amount of produce that a man can extract from the soil under the conditions of low productivity that are characteristic of subsistence agriculture.

> Assume that [two countries, A and B] produce food but do not trade in it, country A also produces steel, and country B also produces rubber. If B can release unlimited supplies of labour from subsistence food production, wages in B will equal average (not marginal) product in food. . . . In A also the wage cannot fall below productivity in the food industry. We may simplify by assuming . . . that labour is the sole factor of production and that one day's labour
>
> in A produces 3 food or 3 steel
> in B produces 1 food or 1 rubber
>
> Earnings in A will then be three times earnings in B (the difference in food productivity). And the rate of exchange will be 1 food = 1 steel = 1 rubber. Suppose now that productivity increases in B's rubber industry only, so that one day's labour produces 3 rubber. This is excellent for the workers in A, since 1 steel will now buy 3 rubber. But it will do the workers in B no good whatsoever (except in so far as they purchase rubber), since their wage will continue to be 1 food.[61]

In this argument Lewis is following out a very old idea. We find it outlined by Malthus when he compares the fertility of the soil and the wage level in America and Europe respectively.[62] We find it again in the writings of Chevalier and Brassey, also in connection with America: "Wages can never long remain at a low level in the United States, while the working man can transport himself and his family from the irksome employment of the factory to the free life of the Western plains."[63] "So long as the Americans possess this vast domain of the West, a common fund from which every man can draw by himself, in return for his labor, a fine inheritance, there will be no cause to fear any depreciation of labor power . . . "[64] It is Silvio Gesell, though, who has provided the scientific formulation of this idea: "The income from labor on free soil determines the wages of those who work on the land and thereby the general wage level."[65]

What is newly contributed by Lewis is the idea of using this law to solve the problem of the continual and structural worsening of the terms of trade of the underdeveloped countries:

> We have here the key to the question why tropical produce is so cheap. Take for example the case of sugar. This is an industry in which productivity is extremely high by any biological standard. It is also an industry in which output per acre has about trebled over the course of the last 75 years, a rate of growth of productivity which is unparalleled by any other major industry in the world—certainly not the wheat industry. Nevertheless workers in the sugar industry continue to walk barefooted and live in shacks, while workers in wheat enjoy the highest living standards in the world. The reason is that wages in the sugar industry are related to the fact that the subsistence sectors of tropical economies are able to release however many workers the sugar industry may want, at wages which are low, because tropical food production per head is low. However vastly productive the sugar industry may become, the benefit accrues chiefly to industrial purchasers in the form of lower prices for sugar. (The capitalists who invest in sugar do not come into the argument because their earnings are determined not by productivity in sugar but *by the general rate of profit on capital. . . .*)[66]

It is this last phrase that is the most revolutionary. Lewis does not seem to realize it, though, since he puts it in parenthesis. This is a pity, for it would be by taking this step—recognizing the equalization of profits on the international plane—that Lewis's thesis would become a coherent one. If, indeed, wages are stuck at a very low level, for reasons peculiar to themselves, *somebody* has to get the benefit of the difference. This somebody can only be either the capitalist or the consumer. If it is the capitalist, there may perhaps be exploitation or bad distribution within the nation, but there is no unequal exchange on the international plane. If it is the (foreign) consumer, we have the plundering of some nations by others.

If the capitalist cannot benefit by it (at least not in the long run), owing to the competition of capital and the equalization of profits, only the consumer is left, and for him to benefit it is necessary that prices fall.

Given this reservation, there is nothing to be said against Lewis's thesis, except that it is too restrictive to serve as a general theory. It is limited to the case where a low-yield self-subsistence sector is present. This factor, though very often an attendant circumstance, is not the only one that brings about differentiation in wages between countries.

It is perhaps this confinement of Lewis's thesis to the case of dualistic economies that has prevented it from causing much of a stir. I have already

mentioned P. Moussa, some passages of whose work *Les nations prolétaires* are inspired by it. Gunnar Myrdal, too, refers to it explicitly: "As long as there is no scarcity of labour—at a price that exceeds only by a conventional margin the subsistence level—rises in labour productivity would tend to be transferred to the importing industrial countries, while any similar productivity rises in the developed ones would be entirely preserved for increases in the remunerations of their factors of production."[67]

Linder also sometimes slides imperceptibly in the direction of Lewis's thesis, as when he says that, even if the export sector develops as a result of the reduction or elimination of the sector that competes with imports, since it works with "an unlimited supply of labor," the equilibrium income per head will remain unchanged in both sectors.[68]

This is practically everything that has appeared in response to Lewis's proposition. Another limitation it suffers from is the condition he lays down of an increase in productivity in the export sector. This is the same limitation as in the Singer–Prebisch proposition of which I have already written at length.

3. *Marxism and Unequal Exchange*

Generally speaking and as a whole, Marxist economists have not proved able to solve the apparent contradiction between a prolonged worsening in the terms of trade and the law of labor value, which, within the framework of its basic assumptions, allows of only accidental inequalities.

Labor value was already modified by Marx with his proposition on prices of production, but, as we know, he did not have time to go further, as perhaps he might have done, and work out another modification, by the transformation of national prices of production into international prices of production. This perhaps accounts for the failure of Marxist economists to deal with the question.

Nevertheless, there are several fragmentary allusions in *Capital* to the influence that a possible differentiation in wages between countries could have upon international prices: "In the case of a partial, or local, rise of wages—that is, a rise only in some branches of production—a local rise in the prices of the products of these branches may follow."[69]

The first element in this proposition being: "in the case of a partial, or local, rise of wages," it would not affect the sense of the passage if we were to modify the second and third elements as follows: "that is, a rise only in

some branches of production, *or certain regions or countries*—a local rise in the prices of the products of these branches, *or of these regions or countries*, may follow."

"However, if the rise in wages is local, if it only takes place in particular spheres of production as a result of special circumstances, then a corresponding nominal [?] rise in the prices of these commodities may occur. This rise . . . is then . . . a means of equalizing the particular rates of profit into the general rate."[70] "The favored country recovers more labor in exchange for less labor. . . ."[71] ". . . when the rates of profit of two different countries are compared . . . the same rate of profit is, in effect, based largely on different rates of surplus value."[72]

The last-quoted passage is perhaps the most significant in relation to the line that would have been taken in the projected book on foreign trade that Marx did not have time to write. In his price-of-production formulas Marx had always up to then assumed a generally equal rate of surplus value. Here, speaking of two different countries, for the first time he introduces the assumption of *different* rates of surplus value. Different rates of surplus value combined with "the same rate of profit" means different wages together with equalization of profits, which leads directly to the conclusion that follows from the diagrams set out above, namely, that the difference in wages, being unable to react upon profits, reacts instead upon prices.[73]

Finally, in Volume 1 of *Capital* Marx formally acknowledges that the value of labor power varies not only in time but also between different countries, yet: "in a given country, at a given period, the average quantity of the means of subsistence necessary for the worker is also given."[74]

Nevertheless, apart from a very few writers who have raised the question of difference in organic composition of capitals as the sole structural source of nonequivalence, and who will be discussed in Chapter 4, Marxist economists have in general either remained on the margin of the idea of nonequivalence, as already provided by Ricardo's law of comparative costs, or else confined themselves to studying the "accidents," in particular the fluctuations in prices and the effects of monopoly, some even going so far as formally to deny that a unilateral transfer of value from one country to another can ever occur through the mere working of economic laws.

Many Marxist economists, especially among those in socialist countries, when they talk of nonequivalent exchange, have particularly in mind an

unequal sharing of the advantages resulting from Ricardo's comparative costs. To illustrate this conception, let us taken any example of comparative costs—say, Graham's example, which has the merit of simplicity: country A produces in 10 hours 40 wheat or 40 watches, and country B produces in 10 hours 40 wheat or 30 watches. The equitable rate of exchange according to this conception would be something like 40 wheat = 35 watches. More than 35 watches for 40 wheat could constitute unequal exchange to the detriment of A, while less than 35 watches for 40 wheat would constitute unequal exchange to the detriment of B. (The limits are 40 watches > 40 wheat > 30 watches.) It is clear that at the rate of exchange of 39 watches for 40 wheat, country A still gains *something* by specializing in watches, and at the rate of 31 watches for 40 wheat, country B still gains *something* by specializing in wheat, even though the exchange may be regarded as being unfavorable to A or to B. From this standpoint unequal exchange does not represent a real loss but merely a failure to gain.

Among the initiators of this rehabilitation of Ricardo in the economic teaching of the socialist countries we may cite M. Rakowski in Poland in 1950 and, above all, Günther Kohlmey in the German Democratic Republic in 1954.

In his course of lectures at the Academy of Economic Sciences in East Berlin on *The Theory of International Value*, Kohlmey, by calling Ricardo's comparative advantages "relative" advantages, and the effects of their sharing "absolute" advantages and disadvantages, takes note that the international division of labor involves relative advantages for all the countries that participate in it, but absolute disadvantages and absolute advantages, respectively, for the weak countries and the advanced ones.

Viliam Černiansky is more explicit: "A saving of labor results for both parties even from an exchange taking place under unequal terms of trade when certain countries always pay less in terms of their own labor for the labor of others."[75] In another place he writes: "Nonequivalent exchange nevertheless enables all the parties to the exchange to effect a saving of labor."[76]

The similarity in the terms is too great for us not to see in these passages direct inspiration by the following passage in Marx: "And even if we consider Ricardo's theory . . . three days of one country's labor may be exchanged for a single day of another country's. . . . In this case the rich country exploits the poor one, *even if the latter gains through the exchange*. . . ."[77]

The way Marx puts it—"even if we consider Ricardo's theory"—shows that in his mind there was, so far as unequal exchange was concerned, something more than can be got from Ricardo's theory. What, in fact, that *something more* was, he did not have the time to tell us; and so, rather than venture outside Ricardo's comparative costs, which would involve grave intellectual risks, Marxists confined themselves to reformulating under the cover of Marx's authority what he had observed *already* regarding unequal exchange in Ricardo's theory, which is only a minor aspect of the question, showing itself *even* in Ricardo's theory.

Over and above this Ricardian inequality and the differentiation in organic composition that will be dealt with in Chapter 4, the Marxists in general do not accept any other *structural* nonequivalence in world prices; this is remarkable enough when one thinks of all those people who take nonequivalent exchange for a Marxist invention.

It is natural, though, that a supporter of the subjective theories of value should feel completely at ease in the presence of the terms of trade. The phenomenon I call unequal exchange ought not to embarrass someone who has never required that exchange be equal to anything at all. If equivalence is an *ex post* phenomenon of the market, there is no such thing as equivalence or nonequivalence in themselves.

It is not the same for a Marxist, who believes in the existence of an abstract equilibrium price and for whom the formation of value is a process of production and not a market process. If he acknowledges the existence of a century-long movement of prices that transcends the economic cycles, he ought to find a law for it and then reconcile this law with the labor theory of value, something that is no easy task. If, however, he thrusts unequal exchange away into the outer darkness of those "fluctuations" for which theory does not have to account, he may devote himself without danger to all the statistical and empirical analyses anyone could wish of the pernicious effect that the anarchy of capitalist world trade may have on the economic development of the backward countries.

The non-Marxist economists can then easily find the remedy for the "fluctuations" in a Joseph-like policy of compensation funds, in which the fat kine naturally make up for the lean ones.

As for the actions of the monopolies, of which the Marxist authors talk so much, this question is as remote from our subject as any other form of direct plunder of the underdeveloped countries by the rich and strong ones.

Besides, some Marxist writers find that the monopolies cannot figure as a factor in nonequivalence since they are rife on both sides of the barrier. "It may be," says Kohlmey in his lecture course, "that young states are disadvantaged by capitalist world prices. But it is also conceivable, and it does actually happen, that the state enterprises in these countries which have taken over from the expropriated foreign monopolies have also inherited their superprices for exported goods. Let us recall once more in this connection the fact that, as a rule, in the capitalist world markets, the prices of raw materials and fuel are monopoly prices no less than the prices of manufactured products."

"Even the monopoly price," writes J. Mervart, a Czechoslovakian economist, "does not last longer than the duration of a cycle (five years): in the long run the world price is governed by the value of the commodity, and so constitutes the fairest price, and the only thing to be done is to secure oneself against the disturbances that may be caused by fluctuations in it."[78]

Other Marxists categorically reject any idea of plundering through nonequivalent prices. Paul Baran considers that the terms of exchange can have only a negligible influence, since, he says, in any case when there is a rise in the price of a product exported by a country of the Third World, it is not the national economy but the big companies that profit by it, to increase the dividends they distribute elsewhere.[79]

In face of such an astonishing statement made by an economist who has undertaken to analyze all forms of exploitation one cannot but think that Baran was trying to get rid of an awkward subject as quickly as possible. Where does he find evidence that the difference in prices is equal to the increase in dividends? That a certain number of export companies are regular enclaves in the economic life of the underdeveloped countries is indeed a fact; but between that fact and bringing down merely to "dividends" the whole of the price differential in the foreign trade of the underdeveloped countries there is a definite gap which ought not to be crossed so lightheartedly. In *Problèmes de planification*, no. 2, I took as an example the Union Minière du Katanga, one of the most colonialist companies in existence. From the figures I quoted, it emerged that the rise in the price of copper in 1956 represented an income bonus of £25 million for the Congo. Yet the dividends of that company for 1956 were only £900,000 more than in 1955 and £7 million more than in 1957.

The same negative position is taken up by Paul Sweezy, when he

declares that the trade between two countries may well affect the distribution of the value produced within one or both of the countries concerned but cannot transfer any value from one country to the other.[80] As I have already had occasion to say, Sweezy's position is governed by his unshakable fidelity to the postulate that there is no competition between capitals on the international plane.

Finally, and outside the ranks of those who have located unequal exchange in the difference between values and prices of production, and who will be discussed in Chapter 4, I know of only one Marxist who has taken up a position recognizing an alteration in world prices to the detriment of the poor countries, as a result of the low wages prevailing in these countries. This is Henri Denis.[81] He agrees in essentials with my own thesis, but he treats labor as the only factor and examines prices without making any link with the equalization of profits and without any reference to Marx's price of production. This circumstance considerably restricts the bearing of his interesting work.

Notes

1. Let me recall that a factor, as I have defined it, is merely an established claim to a share in the primary distribution of society's economic product. I am not here concerned with the moral value of this claim. (Cf. Section I of Chapter I.)

2. The reader will doubtless have noticed that I use the terms "mobility" and "competition of the factors" interchangeably. It was Cairnes who introduced the notion of "noncompeting groups," which describes very well the fact that mobility or immobility are of interest to us only insofar as they either bring about or obstruct the equalization of rewards.

3. Henry Sidgwick, *Principles of Political Economy* (London, 1883). It seems, though, that Sidgwick does favor general mobility of the factors, since he says that (apart from distance and transport costs) it is cost of production that must determine the value of exported commodities, exactly as with that of commodities which are consumed locally. In fact, the cost of production can determine the value only if there is competition of the factors.

4. Maurice Byé, *Relations économiques internationales* (Paris, 1959), pp. 28–29.

5. T. E. C. Leslie gives a good summary of this position when he declares that he rejects the distinction between internal and external trade, based on the mobility of the factors; "not that the doctrine of the equality of profits . . . is now applicable to both, but that it is applicable to neither" ("The Known and the Unknown in the Economic World," *Fortnightly Review*, 24 [1879]: 942).

We find the same view expressed by John H. Williams: "Indeed, it is not Ricardo's *immobility* premise that stands most in need of defence, but rather his *mobility* premise, the assumed free movement of factors within countries. . . . Perhaps no reminder is necessary that this assumption, no less than the other, is essential for the validity of the comparative cost principle. Bagehot . . . . concluded that value theories based on this hypothesis could not apply to any country in the world prior to the English classical period itself. . . . Indeed, up to the middle of the eighteenth century, at least, the only 'large commerce' had been international; nor is it mere coincidence that productive factors appear then to have moved more freely between countries than within them" ("The Theory of International Trade Reconsidered," *Economic Journal*, vol. 39 [June 1929]).

6. Cairnes had already declared that the law governing international exchanges and international values was the same as that governing exchanges between non-competing groups.

"Instead of its being true that costs control prices, *prices* very largely control *costs*, so far as concerns the internationally traded group of commodities" (James W. Angell, *Theory of International Prices* [Cambridge, Mass., 1926], p. 371).

7. J. Shield Nicolson, *A Project of Empire* (London, 1909), p. xiii.

8. J. E. Cairnes, *Some Leading Principles of Political Economy* (London, 1874), p. 362.

9. Ibid., p. 363, quoted in C. F. Bastable, *The Theory of International Trade* (London, 1887), pp. 9–10. Ohlin observes, very properly: "As is well known, the orthodox theory is based upon the assumption that international mobility of capital and labor is practically non-existent. One is, therefore, not a little surprised to find a chapter in Bastable dealing with the international movements of capital, without a single word being said to explain how far these movements affect the fundamental argument of the foregoing chapters" (*Inter-Regional and International Trade* [Cambridge, Mass., 1933], p. 589). And yet Ohlin himself had stated on page 10 of the same work: "We make the assumption that the factors of production are interregionally immobile but intraregionally freely mobile."

10. Jean Weiller, *Problèmes d'économie internationale* (Paris, 1946–1950), p. 69. Weiller's formulation leaves something uncertain floating in the air. What are we to understand by "a gap in the conditions of production"? If this merely refers to the rate of profit, then Weiller is right to say that "it is the existence of this gap that matters," for what might, indeed, save "the essential feature of the theory" would be the observation that, despite the absence of *absolute immobility*, rates of profit continue to differ considerably from one country to another. If this is what he means by "a gap," Weiller does not undertake to prove it to us; but at least he does refer to it. One cannot say as much for the others. And it is

remarkable that those who wish to save at all costs "the essential feature of the theory" of comparative costs, despite the historical fact of the migration of capital, usually retreat to the line of a certain relative immobility, which it is obviously impossible to measure and which thereby freely permits any statement to be made; whereas it would have sufficed to study directly the commensurable effect of this relative immobility, namely, the rate of profit in different countries, to provide solid support for their assertions.

11. Joseph Mervart, "The Significance of the Operation of the Law of Value on the World Socialist Market," *Czechoslovak Economic Papers* (1959), p. 104.

12. Paul M. Sweezy, *The Theory of Capitalist Development* (New York, 1956), pp. 289, 291.

13. *Capital* (Moscow, 1966), 3: 178. In the passage in question Marx speaks, indeed, of the transfer not of capital but of "means of production." However, he is considering this transfer as a condition for the transformation of value into price of production. Clearly, the ease or difficulty of transferring means of production can neither bring this transformation about nor hinder it *unless* these means of production are transferred from one branch of production to another not in the form of material objects but as "capital" in search of bigger profits. Günther Kohlmey observes: "In Marx's time, when capitalist world economy had not yet been completely formed, obstacles to the movements of capital were greater than in the age of imperialism, with its worldwide trade and export of capital" (*Karl Marx Theorie von den internationalen Werten* [East Berlin, 1961], p. 69).

This observation does not prevent Kohlmey from concluding his course of lectures on international value with the statement that, equalization of profits being excluded as between countries, there is no price of production on the world market. Moreover, Kohlmey's statement might be modified a little. It is not exactly in the age of imperialism that mobility of the factors is at its greatest. It is in the nineteenth century, and above all in the period immediately preceding that of imperialism, that we find the greatest amount of freedom and the greatest actual movement of labor and of capital between countries.

14. If there were no equalization, the biggest differences should normally be found to lie between profits in metropolitan and in colonial countries.

15. R. Palme Dutt, *Crisis of Britain and the British Empire* (London, 1953).

16. John Strachey, *End of Empire* (London, 1961). Strachey is right: the year 1951 is not representative. It was the year of the Korean War boom, with a flareup in the prices of primary products and an inflation of the profits of colonial enterprises.

17. S. H. Frankel, *Capital Investment in Africa* (Oxford, 1938), p. 423.

18. Quoted by H. Feis, *Europe the World's Banker, 1870–1914* (New Haven, 1930), p. 4.

19. W. Arthur Lewis, "Economic Development with Unlimited Supplies of Labour," *Manchester School*, May 1954; reprinted in A. N. Agarwala and S. P. Singh, eds. *Economics of Underdevelopment* (India, 1958), p. 440.

20. *International Labour Review, Statistical Supplement* (Geneva, June 1957), pp. 131–136.

21. Adam Smith, *The Wealth of Nations* (Edinburgh, 1914), bk. 1, ch. 8.

22. And yet J. B. Say observed that the workers' subsistence minimum is psychological rather than physiological, "depending on the way of life in the country where they live." Similarly, Sismondi said that, in addition to their necessary wage, the workers nearly always receive something extra. Nevertheless, in other passages Sismondi treated subsistence as the basis of wages. Thus in *Nouveaux principes d'économie politique* (Paris, 1819), he says that a public fund intended to provide regular help to the poor soon becomes a source from which supplements are made to wages, the wages paid by the employers being reduced by the same amount. The wages of fathers are reduced when their small children are put to work, and if the weekly rest day were to be abolished, the wages paid for the other six days would be cut.

23. Eugène Buret, *De la misère des classes laborieuses en Angleterre et en France* (Paris, 1840); L. R. Villermé, *Tableau de l'état physique et moral des ouvriers* (Paris, 1840); A. E. Cherbuliez, *Richesse ou pauvreté. Exposition succincte des causes et des effets de la distribution actuelle des richesses sociales* (Geneva, 1840, Paris, 1841).

24. Thomas Brassey, *Foreign Work and English Wages Considered with Reference to the Depression of Trade* (London, 1879), p. 116.

25. E.g., Arthur L. Bowley, *Wages in the United Kingdom in the Nineteenth Century* (London, 1900), p. 31.

26. Colin Clark, *The Conditions of Economic Progress*, 3rd ed. (London, 1960), pp. 622 ff. Even if we allow for a certain tendency on Clark's part to exaggeration and "originality," it nevertheless remains true that the fact that one can even think of comparing wages at dates separated by 1,500 years proves that some law that is more stable than price fluctuations must have been determining the rate of remuneration of the labor factor.

27. Charles Davenant, *An Essay on the Probable Method of making a People Gainers in the Balance of Trade* (London, 1699), p. 122.

28. Robert Torrens, *Essay on the Production of Wealth* (London, 1821), pp. 324–325.

29. H. Friedrich von Storch, *Cours d'économie politique* (St. Petersburg, 1815), pp. 351–352.

30. 1 *sétier* = 12 *boisseaux* = 156 *litres*. 1 peck = 9 *litres*.

31. The objection may be put forward that bread is not a necessary constituent element in an irreducible subsistence wage. At that level wages are still

elastic, since at the same time the workers in extremely poor countries such as Ireland and Flanders managed to survive and reproduce themselves on potatoes, which at that period, for an equivalent amount in terms of elementary nutritive power, cost much less than bread. It will, however, be agreed that, as between bread and potatoes, it is not the framework of subsistence that is broken through, but merely the actual notion of what constitutes subsistence that varies. I have already expressed this reservation, on page 49, thus: "If there were differences, they reflected the difference in subsistence level . . . depending on the level of civilization."

32. With the usual time-lag between the objective world and men's awareness of it, the bread standard was eventually replaced by the beefsteak standard.

33. I am here also leaving Bortkiewicz's objection out of account. An underlying simplification in the Marxist proposition regarding transformation of values into prices of production excludes from this transformation the "inputs," that is, capital both constant and variable. Ladislas von Bortkiewicz, an obscure academic but a shrewd mathematician, thinking that this was a mistake on Marx's part, published an article in *Jahrbücher für Nationalökonomie und Statistik*, vol. 34, no. 3 (1907): 319–335, entitled "Zur Berichtigung der grundlegenden theoretischen Konstruktion von Marx im dritten Band des Kapitals," in which he solves the problem of simultaneous transformation of the value of the product and of that of the elements of its cost into prices of production. There is no point in going into the details of this discussion here. Bortkiewicz's solution, which does not lack appositeness, proceeds from the same starting point to results that are quantitatively different from those given in Marx's simplified solution. However, the fundamental fact of transfer of surplus value from the branches with a low organic composition to the others is not affected. It seems to me that, so far at least as the subject of this study is concerned, namely, unequal exchange in international trade, Bortkiewicz's formula would considerably complicate the proof without altering the conclusions. I have therefore confined myself to Marx's simplification and treated the values of the "inputs" of products of past labor as having *already* been transformed into prices of production: in other words, I have taken it that the figures corresponding to them in the initial diagram express not values but international prices.

34. It may be because they have worked on Marx's formulas, constructed on the basis of the simplifying assumption of equivalence between constant capital invested (total capital less amount of wages) and constant capital consumed (depreciation plus intermediate consumption), that the economists of the socialist countries have managed to believe that prices formed in accordance with the system called "own costs"; that is, the cost of production, plus a general rate of profit calculated on the basis of this cost, constitute a system of prices that intermediate between value prices and prices of production. In reality, this

system does not bring us nearer to prices of production, that is, to the system in which the rate of profit is calculated on the basis of the capital invested: it takes us further away, since it makes more expensive the products of certain branches as compared with those of others, although the latter have an organic composition higher than that of the former. Cf. A. Emmanuel, "La division internationale du travail et le marché socialiste," *Problèmes de planification*, no. 7, app., p. 5.

Here, of course, it is a question of different branches. Inside the same branch, on the contrary, a certain parallelism usually governs the variations in constant capital, both fixed and circulating, in relation to variable capital, since the purpose and the result of increasing organic composition are to transform a larger quantity of intermediate products per unit of labor.

35. At least, as far as its major part is concerned, that is, fixed constant capital.

36. Intensity of labor means output of a unit of labor with the same equipment. It is important not to confuse this idea with productivity, which increases with the increase in the equipment available. More intense labor produces more use values and more value; more productive labor produces more use values but the same value. "But still, even then, the intensity of labor would be different in different countries, and would modify the international application of the law of value. The more intense working day of one nation would be represented by a greater sum of money than would the less intense day of another nation" (Marx, *Capital* [London, 1970], 1: 525).

37. W. S. Jevons, *Theory of Political Economy*, 2nd ed. (London, 1879), preface.

38. F. W. Taussig, "Wages and Prices in Relation to International Trade," *Quarterly Journal of Economics* (August, 1906).

39. A poor country that had real wages only one-tenth the amount of those in a rich country would in that case have to have a general price level more than ten times as high as the latter in order to have money wages that were higher.

40. Nassau Senior, *Three Lectures on the Cost of Obtaining Money* (London, 1830), pp. 11–30.

41. In the last of the diagrams given above, values remained unaltered despite the change in wages, but prices of production varied.

42. At the general meeting of the Union des Industries Textiles held in Paris on December 20, 1962, two ministers in the French government, MM. Jeanneney and Maurice Bakanowski stated categorically that there could be no question of opening the country's frontiers to the textile products of low-wage countries.

43. Guy de Lacharrière, *Commerce extérieur et sous-développement* (Paris, 1964), p. 131.

44. Lecture at the Sorbonne, 6 Section, Ecole Pratique des Hautes Etudes, December 18, 1962, published in *Problèmes de planification*, no. 2.

45. Has anyone ever thought what it would cost to grow bananas or coffee in Flanders or the Rhineland?

46. Even Ohlin agrees that there is a grain of truth in the argument about "underpaid" labor, but, he says, the harm that free trade can cause to one factor of production is necessarily less than the advantage brought to the others, and this creates the possibility of undertaking measures of redistribution.

There are other economists, however, who find that, allowing for productivity, industrial wages in the underdeveloped countries are in real terms higher than in the developed ones. E. Gannage, *Economie du développement* (Paris, 1962), p. 309. One wonders how, then, these products can compete, fairly or otherwise, with the developed countries. The confusion that reigns in this subject is as extreme as it could possibly be.

47. David Ricardo, *Principles of Political Economy and Taxation*, 3rd ed. (London, 1821), p. 81.

48. (My emphasis, A. E.) A. R. J. Turgot, *Reflections on the Formation and Distribution of Wealth* (London, 1794).

49. Feis, *Europe the World's Banker*, p. 45.

50. This view is not shared by some Marxists, who assert that if there is no rigorously uniform international rate of profit, there can be no international price of production. Cf., for example, Kohlmey, *Karl Marx Theorie von internationalen Werten.*

51. It was Nurkse who first formulated this doctrine in six points: (1) industrial production in the advanced economies is shifting away from light industry toward heavy industry, in which the relative consumption of raw materials is low; (2) the share of services in the total output is rising in these advanced economies; (3) the income elasticity of demand for many agricultural commodities tends to be low; (4) the advanced countries especially have resorted to agricultural protectionism; (5) modern technique has achieved substantial economies in the use of natural materials; and (6) synthetic substitutes are displacing and competing with natural products. Cf. Ragnar Nurkse, *Patterns of Trade and Development* (Oxford, 1962).

52. H. W. Singer, "The Distribution of Gains between Investing and Borrowing Countries," *American Economic Review*, 40 (1950): 479–480.

53. Charles Kindleberger, *The Terms of Trade* (London, 1956), p. 247.

54. Singer talks sometimes of wages, sometimes of factors in general. The absence of any distinction between wages and profit, which excuses him from taking up a position on the mobility of capital and the equalization or non-equalization of profits, is particularly irritating. If it is lack of organization that prevents the workers from profiting by a favorable conjuncture and keeping

within the country, in the form of an increase in wages, the gains due to increased productivity, what is it that prevents the employers from keeping these gains in the form of superprofits? If the answer is "the equalization of profits," this ought to be stated, since it is something that contradicts accepted ideas and changes the elements of the problem. The same can be said of all who have more or less faithfully followed the Singer-Prebisch thesis by choosing between production and market and stressing the side that interested them most. Thus, for instance, P. Moussa: "The desire for high wages on the part of the worker in the industrialized countries has doubtless caused a certain deterioration in the terms of trade for the underdeveloped countries. The wage earners have striven to annex the surplus value due to technical progress and have largely succeeded in doing this . . . so that, if the benefits of technical progress are kept within the industrial countries, this is to a large extent because these benefits are caught on the wing by the working classes of these countries. . . . The mutually opposed parties . . . in the terms of trade are the wage earners of the West and the peasants of the underdeveloped countries" (*Les nations prolétaires* [Paris, 1959], p. 18).

The allusion to "the peasants of the underdeveloped countries" is borrowed from A. Lewis's thesis, which will be discussed later. What is meant is an unlimited labor force that is provided by the subsistence sector and that, by its competition, prevents the workers in the exporting sector in the backward country from enjoying the fruits of technical progress.

55. Apparently the makers of whisky in Scotland are resistant to innovation to an extent that borders on superstition. They even refuse to modernize items of equipment as neutral as hoisting gear and trucks, out of fear lest any innovation whatsoever should affect the taste of their whisky, which depends, they say, upon imponderables.

56. Among "African prints"—fabrics printed with large multicolored designs on a brightly colored background—which derive their name from the large-scale consumption of them in Black Africa, there is a superior and more expensive variety called wax prints. A layer of wax consolidates the colors and heightens their brilliance. This type of print was a speciality of Great Britain and Holland. At a certain stage India and Japan embarked on the manufacture of these prints, using the most up-to-date machinery and offering unbeatable prices. Britain and Holland then changed their approach. They began making wax block prints, the only difference being that these are printed by hand, using large blocks as stamps that the workers bring down in rotation upon the fabric. They can be distinguished from the others only by the irregularities in the design, from which the mechanically printed ones are free. This difference is enough, however, for the aristocracy of African women to pay for wax block prints a price so much higher than the price of ordinary wax prints that the makers can pay their workers at the British or Dutch rate of wages.

If the Third World becomes industrialized, we may well see one day the locomotives or machine tools of the Congo or Indonesia being exchanged for the tulips of Holland, the lace of Bruges, or the gowns of Paris, at a rate that will enable Europe to pay its rate of wages and the Third World to pay its much lower rate. And let it not be said that a certain high-quality craftsmanship constitutes precisely one of those "fundamental superiorities" of the foreign trade of the developed countries that have recently been discovered by economic science, for Persian carpets are to no less a degree the product (perhaps the most exquisite product) of an inimitable craftsmanship—a product, moreover, which clearly seems to enjoy a very high income elasticity—and yet the price that is paid for these carpets on the world market does not enable their producers to rise above the most elementary subsistence level.

57. Singer, "Distribution of Gains," p. 482.

58. R. Prebisch, *The Economic Development of Latin America and Its Principal Problems* (New York, 1950), pp. 8, 10, 13. My emphasis, A. E.

59. Kindleberger, *The Terms of Trade*, p. 247.

60. There is, however, a mechanism for transmitting the productivity of the branches that produce goods consumed by the workers to the wages in all branches, because the increase in this productivity reduces the value of labor power. This effect, though, explained by the classical writers and by Marx and confirmed by experience, leads to results that are opposite to those described in Prebisch's thesis.

61. Lewis, "Economic Development with Unlimited Supplies of Labour," p. 442.

62. Cf. T. R. Malthus, *Principles of Political Economy*, 2nd ed. (London, 1836), ch. 4, sect. 1, p. 219.

63. Brassey, *Foreign Work and English Wages*, p. 147.

64. Michel Chevalier, *Society, Manners, and Politics in the United States* (Ithaca, 1969), Letter XIII.

65. Silvio Gesell, *The Natural Economic Order* (London, 1958), p. 72. What soil is free? Clearly this can only mean that soil which it has not been worth anybody's while to appropriate, since what can be produced from it does not exceed the worker's wages. Here we have another example of circular argument. Free soil determines wages, which determine what soil is free. . . .

66. My emphasis, A. E.

67. Gunnar Myrdal, *An International Economy* (London, 1956), pp. 232–233.

68. S. B. Linder, *An Essay on Trade and Transformation* (New York, 1961), pp. 41–42.

69. Karl Marx, *Capital* (Moscow, 1967), 2: 345.

70. Ibid., 3: 868.

71. Ibid., 3: 238.

72. Ibid., 3: 68.

73. In *Capital*, 3: 150–151, Marx gives an example with different rates of surplus value: "a European country" with 84c+16v+16s = 116, and "an Asian country" with 16c+84v+21s = 121. Curiously enough, it is the Asian country that has the lower rate of surplus value—25 percent, as against 100 percent in the European country. Here, however, Marx's purpose is somewhat different, intending to show that even in cases where the rate of surplus value is not the same, the difference in organic composition of the capitals would have brought about, if the mechanism of the equalization of profits did not exist, differences in the rate of profit that can even vary inversely with the difference in surplus value.

74. Marx, *Capital*, 1: 171. (Translation corrected on the basis of the German and French versions—Trans.)

75. Viliam Černiansky, "Problems of the Economic Efficiency of Foreign Trade," *Czechoslovakia Economic Papers* (1959), p. 113.

76. Černiansky, "Fragen der volkswirtschaftlichen Rentabilität des Aussenhandels," *Wirtschaftswissenschaft* (May-June 1957), p. 490.

77. Karl Marx, *Histoire des doctrines économiques* (*Theories of Surplus Value*), ed. Costes, 7: 93. My emphasis, A. E.

78. Joseph Mervart, "Problèmes théoriques de la formation des prix dans le commerce entre pays socialistes," *Etudes économiques*, no. 139 (1962).

79. Paul A. Baran, *The Political Economy of Growth* (New York, 1957), p. 232.

80. Sweezy, *The Theory of Capitalist Development*, p. 290.

81. Henri Denis, "L'évolution séculaire des termes de l'échange entre l'Europe industrielle et les régions sous-développées," *Cahiers de l'I.S.E.A.*, no. 17. As this article appeared in January 1963, and therefore had been written some time earlier, and my own lecture at the Sorbonne (Ecole Pratique des Hautes Etudes) was delivered on December 18, 1962, it can be said that these two theses were formulated at the same time. Professor Denis and I had had no communication before this date, and it was his article, on the one hand, and the publication of no. 2 of *Problèmes de planification*, on the other, that gave us occasion to meet.

Chapter 3
Wages

I. WAGES AND THE LAW OF VALUE

1. *The Classical Position*

By examining in the previous two chapters the formation of equilibrium prices—first on the national and then on the international plane—I have shown that, in the correspondence that exists between wages and relative prices, it is not wages that vary in dependence upon prices, but prices that vary in dependence upon wages. But if wages are an independent variable of the system, what are the primary facts that determine them? What place do they occupy, not merely with regard to the relative prices of a certain place and a certain time, but also with regard to the totality of the economic factors of a closed system and in the evolution of this system? Hitherto I have dealt with this question in a fragmentary way, as called for by the various phases of my argument. It is now time to deal more systematically with this problem.

When he treated wages as the price of labor, Adam Smith confused the amount of labor contained in a commodity with that which this commodity can buy. Ricardo took him up sharply on this point. The confusion would be of no importance, he said, in effect, if the two magnitudes were the same—but they are not. And not only are they not equal but their variations are independent of each other. Suppose, says Ricardo, that for some reason (harvest failure, soil exhaustion, etc.), foodstuffs double in value. Can it be said that they will be exchanged for twice as much labor, that is, will real wages be reduced by half, although they are supposed to be irreducible? "Food and necessaries in this case will have risen 100 percent as estimated by the *quantity* of labor necessary to their production, while they will scarcely have increased in value, if measured by the quantity of labor for which they will *exchange*."[1]

If, however, wages are the price of labor, if labor is a commodity like any other, and if, as Ricardo claims, the amount of labor contained in a

commodity is not equal to the amount that this commodity will buy, then the principle of equivalent exchange is violated, and profit becomes merely the effect of this violation, that is, nothing but cheating.[2] Adam Smith, by identifying the amount of labor contained in a commodity with that which this commodity can buy, preserved the principle of equivalence but conjured profit out of the picture. Ricardo correctly showed that the amount of labor that a commodity can buy is greater than the amount needed to produce it and drew the conclusion that it is precisely this difference that constitutes profit—but by this very reasoning he destroyed the rule about equivalence without providing any explanation of this exception.

This was the foundation upon which Robert Owen and Saint-Simon's followers built their social criticism—a utopian kind of criticism insofar as it aimed at abolishing profit without altering the mode of production—which made things easy for their detractors, who were able to refute not only the Utopians but also Ricardo himself by showing the aberrations to which the labor theory of value could lead.

These detractors did not take long to find the flaw in Ricardo's argument. If the value of labor is the natural wage, that is a certain quantity of commodities, and the value of any commodity is the amount of labor needed to produce it, then it must follow that labor is the measure of its own value, and so determinant and determined are one and the same.

2. *The Marxian Position*

Only Marx broke through this circular argument. The prices of all commodities tend, said Marx, to coincide with their values,[3] and wages are no exception to this rule. But the commodity that wages purchase is not the worker's labor but his labor power. Labor, the common denominator and measure of the value of all commodities, is not itself a commodity and therefore has no value. What under capitalist production relations becomes a commodity, what is bought and sold, is, in a sense, the man himself, his strength, the accumulated energy that enables him to work for a certain number of hours, his labor power.

In order to be kept up, this strength needs a certain supply of substances, some of which are freely given by nature while others are produced by human labor. It is therefore worth the amount of labor necessary to produce these substances. There is no circular argument. Labor does not measure its own value but that of labor power.

This is not a mere trick of analysis, for the two quantities involved are not equal. The labor time a man can put in is usually longer than the time needed to produce the substances he has to absorb in order to contribute this labor time. The difference constitutes the source of profit.

Thus, the capitalist does not, in normal circumstances, purchase labor power at less than its value, and profit is not mere theft. Nevertheless, by purchasing labor power at its right value, he makes a profit. For this commodity is the only one among all commodities that, by being consumed, produces a value greater than its own cost of production. It produces *surplus value*. The worker functions somewhat like an electric battery that is charged and discharged. Unlike an ordinary battery, however, which provides less current when it is discharged than has been put into it, the worker supplies, in the course of exhausting his labor power, more labor than it was necessary to expend in order to make him fit to work. However, just as when you have your battery recharged you pay the garage owner not for the current you will obtain from this battery but for the current he uses up in recharging it, so likewise when you hire a worker you do not pay him for the labor you are going to get out of him but for what has been expended in order to produce his strength: to regenerate, so to speak, his muscles, tissues, and nerves. Just as with other commodities, the value of labor power is independent of its use value. But the two things, value and use value, not being comparable, no other commodity can produce profit. Labor power being the only commodity the use value of which consists in producing value, its cost of production and the effect of its consumption become comparable, and the difference between them constitutes profit.

It would be pointless to ask why this is so. If it were not so, if a man needed, in order to live, as many commodities as he could produce when he worked, he could not be exploited, and there would be no profit, no wage labor, no capitalist relations—and, indeed, no accumulation or economic progress. The mere fact that one of these things does exist is sufficient proof that this *is* so.

3. *Peculiarities of Labor Power as a Commodity*

There is a trap here, however, which one has to beware of. Despite all these analogies, labor power is not really a commodity like others. All other commodities need, in order to be produced, either labor alone or

labor *plus* raw materials. Labor power is the only commodity the production of which necessitates *only* raw materials, and when we speak of its value in terms of labor, it is the labor embodied in these raw materials that is meant. The result is that whereas the value of all other commodities depends on the productivity of their respective branches of production, that of labor power depends on the productivity of certain other branches, namely, those that supply it with its raw materials, and has nothing to do with the productivity of the branch in which it is itself consumed. The value of no other commodity can be linked structurally with a definite quantity of other commodities. It cannot be said a priori that an automobile is equivalent to a certain quantity of steel, and still less that it is equivalent to a certain quantity of textile goods or meat. Since labor is involved, as well as materials, in producing it, the equivalence varies with the variations in the respective productivities. Alone among all commodities, labor power is intimately and closely bound up with a certain quantity of use values, a certain basket of goods. This is due to the fact that labor power needs, in order to be produced, *only* use values, and not any direct labor.

In a world that, by eliminating use values, generally speaking, from its methods of reckoning, has made everything conventional and abstract; where an entrepreneur is considered less well off today with a stock of 1,000 T.V. sets than he was yesterday with a stock of 500, simply because productivity in this branch has more than doubled and the price has fallen to less than half, or even because a tax of equal amount has been abolished; where a few thousand stock-exchange operators, by passing bits of paper about among themselves, raise the value of IBM shares from $300 to $600 in a few months, though the firm in question is far from having doubled its capital during this period; and where, as a result of this activity on the stock exchange, hundreds of thousands of shareholders, without doing anything, without even exchanging their shares, are convinced and can even convince their bankers, their creditors, and their notaries that they have gained millions of dollars without anybody else losing a penny—in this world one thing alone retains its links with reality and is thus able to transmit the changes in reality and provide the ballast of a concrete element to this delusory system. This one thing is wages.[4]

II. WAGES AND WHAT DETERMINES THEM

1. The Physiological Wage or the Historical Wage

Labor power is only indirectly equivalent to a certain quantity of labor. It is directly and a priori equivalent to a certain quantity of goods. This equivalence is unchangeable insofar as it is independent of the differential development of technique and of the value or price of production of these goods themselves. For a change to take place, the man himself has to change. His standard of living has to change. And this is a very slow process, as slow as the evolution of the social and cultural milieu that conditions a man's needs.

The classical writers, despite a few fragmentary and sporadic allusions to the historical factor, took into account, as a rule, only the biological aspect of the worker's needs. From this standpoint, the value of labor power (and, therefore, wages) was a primary fact, on the basis of which the entire mechanism of production, distribution, and prices was determined.[5]

Marx, however, brought in explicitly the historical factor: ". . . the actual extent of what are called [the worker's] necessary wants, as also the ways of satisfying them, are the product of historical development, and therefore depend chiefly on the degree of civilization attained in the country concerned. The origins of the wage-earning class in each country, the historical conditions under which it was formed, continue for a long time to exercise a very great influence on its habits and demands on life, that is to say, its needs. In contradistinction therefore to other commodities, there enters into the determination of the value of labor power an historical and moral element. *Nevertheless, in a given country, at a given period, the average quantity of means of subsistence necessary for the worker is also given.*"[6]

From the moment when "an historical and moral element" is introduced into the value of labor power, the coordinates of the economic model are no longer without any influence on wages since they form the basis of the moral and historical element itself. At first glance it is therefore possible to say that with Marx wages cease to be the primary fact that they were for the classical writers, and it is hard to see how they can thenceforth continue to be an independent variable of the system. The level of wages determines profit, but the latter, by accumulating, causes technique to progress and productivity to increase, which gradually creates the historical and social conditions for a transformation of man, a heightening of his

needs, which results in an increase in the value of his labor power, and so of his wages.

Yet this is not the "interdependence" of the neoclassical school. Wages continue to determine relative prices, and relative prices have no effect on equilibrium wages, since "in a given country, at a given period, the average quantity of means of subsistence necessary for the worker is also given."

This is why the argument used by some Marxists, who link wages with productivity, is contrary to Marx's own thinking. The argument runs like this. In the world as a whole, the "necessary time" is x.[7] The more productivity increases, the bigger is the basket of goods produced by x. Consequently, real wages, insofar as they coincide with "necessary time," are a growing and proportionate function of productivity.

Nothing could be further from the truth. The value of labor power is not determined in the first place by a certain number of hours but by a certain basket of goods. Increased productivity does not directly increase this basket of goods; it reduces the time needed to produce them. Indirectly, in an intermediate way, the basket gets bigger in the long run even so. Trade-union struggles and the "demonstration effect" contribute to this. The immediate effect, however, of increased productivity is an increase in surplus value, not an increase in wages. Only when the quantitative changes in productivity have accumulated sufficiently to change into quality, in other words when this increase has become large enough and has lasted long enough to change the way of life of society, and thereby to change man himself in his biological elements, so to speak, does the value of labor power change. There is a dialectical interaction.

2. *Market Wages and Equilibrium Wages. The Mechanisms of Determination*

Marx's position, which forms the basis of my thesis, differs essentially from that of the classical writers, but both are diametrically opposed to the marginalist view, according to which it is the prices of commodities that determine the prices of the factors, and to the neoclassical view, according to which the two are interdependent.

For the classical economists the matter was quite clear: in the short run the law of supply and demand determined the price of labor, like that of any other commodity. This was the market wage. In the long run this wage tended to coincide with the equilibrium wage, which was equal to the

value of "labor," that is, the value of the commodities needed by the worker in order to survive and reproduce himself. Whereas, however, for all other commodities equilibration occurred through transfers of economic factors from one branch to another, and the moment of equilibrium came when these transfers ceased, in the case of the commodity called labor, equilibration occurred through demographic changes, and the moment of equilibrium came when the working-class population stopped varying in size, since it had at its disposal neither more nor less than it needed in order to subsist and reproduce at the same level, which was also that at which the supply of labor was equal to the demand for it. While, therefore, the economic parameters had an effect on the market wage, the equilibrium wage was fixed, being based on a purely biological factor, and between this wage and the economic factors there could neither be dependence or interdependence in the immediate present, nor any interaction or connection in the course of time. As has already been said in Chapter 2, a long past in which there had been unvarying fixity of wages at the physiological subsistence level provided the classical thesis with its historical justification. Right down to the eighteenth century, indeed, if we leave aside short-term fluctuations, and the demographic imbalance that followed the Black Death in the fourteenth century, real wages had hardly varied either in space or in time, at least in the countries that the scientific investigation of the age could cover.

In space it could vary, according to this model, only as a result of climatic differences that caused the worker's subsistence minimum to vary from one country to another in accordance with the rigors of his natural environment. In time it could vary only as a result of a biological mutation that shifted the threshold of man's expectation of life, or of a change in world climatic conditions. The equilibrium wage was thus the effect of a natural law, and the economic parameters had no effect on its level, either directly or indirectly, through an "historical and moral element," itself determined by the evolution of these parameters through time.

Direct determination was ruled out by the fact that, as has already been said, the employer does not pay for the output of labor power but for what it costs, just as the purchaser of any other commodity pays not for the enjoyment he is going to get from it but for its cost, in the sense of the intrinsic price, value, or equilibrium price of its production.

Indirect action by the economic factors was also ruled out since, even if it be accepted that certain psychological or historical needs may set

working the same demographic mechanisms as are activated by physiological needs in the strict sense, or what comes to the same thing, that these psychological needs become in time physiological ones, man being a product of both nature and society, the very creation of these new needs presupposes that the working class has been consuming the relevant goods and services over a certain period. There would therefore have to be, to start with, a superwage (a market wage above the minimum), which, through being paid over a long period—long enough to change men's subsistence minimum—became transformed into an equilibrium wage. However, under conditions of perfect competition and exclusion of any trade-union or political action and any monopoly, whether on the workers' side or on that of the employers, no such superwage, as a market wage, could be sufficiently widespread and last sufficiently long to raise the subsistence minimum, and thereby the equilibrium wage to its level, instead of itself falling back, in the approved fashion, to the level of the subsistence minimum.

Under conditions of perfect competition it is impossible to imagine any economic fact determining such a long-standing superwage. Since a superwage cannot be brought about except by a temporary failure of equilibrium between supply and demand, what appears straightaway as the economic factor *par excellence* that can make wages take off from the subsistence level is technical progress and increased productivity. Yet not only cannot these factors have this effect, their actual effect is usually the opposite, since they reduce the demand for labor instead of increasing it. If a *localized* advance in technique—on the basis of an uneven development of capitalism—can ensure a differential productivity to certain enterprises during a fairly long period, their increased profitability resulting from this circumstance merely makes it *possible* for them to increase wages. If free competition among the workers is not disturbed by trade-union or political intervention, this possibility cannot, however, become reality, since, according to the law of value and the logic of the contract of employment, the superprofits being made belong to the employers, and wages are not subject to alteration. Once the employer has paid for the value of the labor power of the moment, he is under no further obligation, and the results of his exploitation of this labor power are nobody's business but his. This is the significance of the distinction that classes wages with fixed incomes and profits with variable incomes.

Given the laws of commodity economy, it is indeed hard to see what

could in the long run upset the working of supply and demand, so as to permit a market superwage, by accumulating habits and traditions, to result in the establishment of a new way of life, an increase in the value of labor power, such as alone might consolidate this superwage by transforming it into the equilibrium wage.

Going back into history, we find only once the phenomenon of a long-lasting disturbance like this in the entire working of a closed system. This was the period following the Black Death of 1349. It appears that a severe shortage of labor power then occurred, which caused the wages of the free workers to rise to unprecedented levels. This upset lasted in England until the end of the fifteenth century, having been aggravated by the Wars of the Roses and by the fact that during this period peasants who had fled from the feudal estates constituted practically the only source of labor power for a flourishing trade and nascent manufactures.

The state was therefore obliged to take draconic measures to check the rise in wages. In 1351 "the King, by the advice of the prelates, nobles and others . . . enacted the *Statute of labourers*, which ordained that all men and women under sixty years of age, whether of free or servile condition, having no occupation or property, should serve any person by whom they should be required, and should receive only the wages which were usual before the year 1346, or in the five or six preceding years, on pain of imprisonment, the employers being also punishable for giving greater wages."[8] In 1388 "the parliament enacted, that no servant should remove from one hundred to another, unless travelling upon his master's business, and not even in pilgrimage, for the good of his soul. . . . Boys and girls, who were employed in husbandry till they were twelve years of age, were to be confined to it for life."[9]

But these measures were judged to be insufficient, and the English government decided to attack the evil at its root. In 1363 a law was passed by which "domestic servants, whether of gentlemen or of tradesmen or artificers were . . . declared to be entitled to only one meal a day of flesh or fish, and were to content themselves at other meals with 'milk, butter, cheese, and other such victuals.' "[10]

This prescription shows us both the amazingly high standard of living of the English workers in the fourteenth century and also the fact that the English lawmakers of that time, by striking directly at the way of life of the wage earner, proved that they understood better than certain economists of the nineteenth and twentieth centuries the mechanisms that

determine wages and appreciated quite well the danger that a superwage due to special circumstances might become transformed in the long run into an equilibrium wage.

However, Thornton goes on, wages kept rising in spite of the struggle to stop this and enabled the working class to indulge in a degree of luxury that scandalized Parliament, which decided to put it down by means of sumptuary laws. A statute of 1463 ordained that agricultural laborers had no right to dress in materials the value of which exceeded two shillings a yard, or to wear hose that cost more than fourteen pence the pair, or wear girdles garnished with silver.[11]

At last, at the end of the fifteenth century, the situation was reversed, and the sumptuary laws were succeeded by the poor laws; which proves that an accidental superwage, even if it has lasted a long time, can hardly become an equilibrium wage, in the sense of a change in men's vital needs, unless it is "safeguarded" by institutional factors.

Thus, in the classical model real wages were unchangeable in the long run, while money wages depended on the ratio between two productivities, that of the branch producing subsistence goods and that of the mines producing gold and silver. This was the ultraclassical model, so to speak, corresponding, for instance, to the extreme formulation by Jacques Necker that I have quoted earlier. In the course of their arguments, and at a lower level of abstraction, writers like Adam Smith, Sismondi, J. B. Say, and others recognized, as has been pointed out in Chapter 2, that the worker's needs were less rigid than a mere ration of goods ensuring his survival and animal reproduction. Ricardo himself recognized that variations were possible in the *general* wage level, since it was in connection with these variations that he studied the transformation of labor value into equilibrium price in the fourth section of his *Principles*. This contradiction is explained by the fact that, historically, the stagnation of wages in the swamp of subsistence that had lasted for thousands of years, referred to in Chapter 2, had already for some time been outgrown, but owing to the time lag between objective reality and ideological superstructure, these writers were only just beginning to be aware of the fact.

Marx worked out his theory when the mutation was almost accomplished. Already among the European countries that formed the traditional subject matter of political economy, England was noticeably in advance of the rest, while wages in the United States had been observed for some time to be considerably higher than those in England, and the "exotic"

countries were arousing the curiosity of science to an everincreasing extent. It was clear by that time that in England and the United States an "ethical" wage level had replaced the physiological one, and that this wage level, which obviously exceeded the strict subsistence minimum, was not the effect of a temporary disturbance but appeared as a *normal* wage level, which was accepted as such by all parties, and on the basis of which the economy went on functioning quite smoothly.

As there had been no change in the natural features of human life and no change in man himself apart from what resulted from his economic and social evolution, it had to be deduced that wages had ceased to be the primary fact assumed by the classical economists. This does not, of course, mean that wages had ceased to be the independent variable of the system. But it was henceforth still the independent variable only as regards the dependence of prices upon wages, and no longer the independent variable in the total socioeconomic function throughout all time.

3. *Equilibrium Wages and Value of Labor Power*

From this time onward things become more complicated, and many questions arise. Is the equilibrium price of labor power equal, always and everywhere, to the value of labor power, or does this price in some countries regularly exceed this value, and do wages actually include part of the surplus value? In other words, do the higher wages that prevail in certain countries represent higher values of labor power, or do they constitute permanent superwages?

Marx keeps strictly to the law of value, with labor power no exception to this law. In equilibrium it is bought and sold at its value. If then its equilibrium price differs among countries, this must be because its value is itself different. This value is equal to "the average quantity of means of subsistence necessary for the worker," and, says Marx, "in a given country, at a given period," this amount "is also given." Consequently, the introduction of the "historical and moral element" into the conception of the means of subsistence does not repudiate the biological basis of wages, but enlarges it by adding a new dimension. It could not be otherwise, since for Marxism man is a social being, which implies that his biological condition cannot be conceived of in isolation from his social condition.

In Marx's day the differences in wages between the various countries of the "known" world were still very limited, and within these limits an

elasticity adequate to the subsistence minimum was still easily conceivable. Today is this elasticity sufficient to cover the range of wage levels that extends between the wage level of the Congo and that of the United States? In other words, is the equilibrium of American wages at present a demographic equilibrium in the same sense as that of Congolese wages? Is the American wage of today irreducible in the sense that any reduction would cause the working-class population to decline and an imbalance to occur between supply and demand such as to restore the present wage level?

Frankly, I do not feel very certain how to answer this question. I regard it, however, as a subject that lies to one side of my own argument. For if the American wage is a permanent superwage, this must mean that supply and demand on the labor market of the United States are equalized by factors other than the mere working of the law of value, and these factors can only be political or trade-union factors. Whatever the origin of this superwage may have been, the fact that it is an extraeconomic factor that ensures its perpetuation is enough to prove the essential element in my argument, namely, that the differentiation of wages is by nature an institutional matter.

I therefore prefer to examine and carry further the opposite thesis, that of Marx, despite the fact that it has probably been overtaken by history. For if the equilibrium wage still represents the value of labor power, and if this value is an increasing function of economic development, we may then doubt the pertinence of my use of the qualification "institutional," if not of my treatment of wages as an independent variable.

4. The Moral Element in the Value of Labor Power

The problem is more complicated than it appeared at first sight. In the majority of the capitalist states of today, it is evidently out of the question for the law of value to operate without any limit, so far as labor power is concerned, since there is a minimum wage for all occupations, guaranteed by law. Can it operate, however, within this limit? One is inclined to say it cannot, since trade-union pressure and direct or indirect intervention by the state are now factors present in every capitalist society.

Yet this reply would go too far. It is certainly not these factors that can determine, e.g., the present superior wage rate in the United States as compared with Great Britain, since they operate in the latter country with

at least the same (if not greater) intensity in favor of an increase in wages as in the United States. We must therefore admit that these factors operate on the basis of a certain predetermined point of equilibrium, and that if this is left out of account and they are treated as being equal everywhere, there will nevertheless remain such substantial differences in level as cannot ultimately be explained otherwise than by differences in the *local* values of labor power.

But how are these differences to be understood? Can this be done on a strictly physiological plane, even if we add an historical and psychological dimension to this conception? Can we say, in other words, that prolonged familiarity with a certain standard of living has altered the American worker's needs to such a degree that he is henceforth incapable of living and reproducing unless he consumes three or four times as much as is sufficient to enable a British worker to live comfortably and reproduce himself as he likes?

I do not think it is as simple as that. There are, of course, huge individual differences in this field. People have been known who, on ceasing to be able to drink their morning coffee in bed, have died of this deprivation; but others have also been known who have quite suddenly given up the most elementary comforts and readapted themselves without difficulty to their new way of life. I do not think, though, that, by and large, the sum of the *vital* physiological needs of the American worker is larger than that of the British worker's needs, to the extent that the former's present wage exceeds the latter's.

We must, however, keep in mind the fact that beyond a certain level of difference we have to change not the amounts consumed but the very form of consumption. There are thresholds of discontinuity in the economy of eating, clothing oneself, and taking shelter. If one wants to go farther in this direction or that, it is necessary to change completely the type of food, clothes, and housing. One has, for example, to go from the individual small house to the block of apartments or from the block of apartments to the shack. Now, production is geared to a certain model of consumption, and to change this arrangement would mean a thorough upheaval in the economy. I do not suppose that the American worker would lie down and die, or cease to beget children, if he were obliged one day to live in public housing or even a shack. The trouble is that in the United States there is neither enough public housing nor enough shacks to shelter everybody. The American workers are thus doomed either to live in elegant and

comfortable small houses or else to sleep under bridges. The cost of housing is for them, and as a whole, practically irreducible.[12]

Again, as already pointed out in Chapter 1, some forms of consumption are by their nature more or less rigid. The majority of durable goods belongs to this category. One cannot change houses, even were the entire range of type of housing available in unlimited quantity, nor even change one's furniture (which is often being bought on the installment plan), every time one's wages are raised or lowered. The only method left in such a case for adjusting expenditure to income is to save money by cutting down on food, a branch of consumption that is immediately reducible, but the elasticity of which has very narrow limits beyond which physical health is affected. This is how it can happen that an American may sometimes be undernourished—as the medical examination of young army recruits shows—although his income is substantially higher than that of a properly nourished European.

This entire analysis is still confined, however, to the field of material needs. Yet in addition to these needs there are men's "demands on life," and besides the *historical* evolution of the worker's subsistence minimum, we have to take account of the *moral* element in the price of labor power, and it is not accidental that Marx uses both of these words in the phrase I have quoted above.

Though we have, in the foregoing discussion, sought to neutralize the trade-union factor by assuming it to be equal in effect on both sides of the Atlantic, we must not lose sight of the fact that this factor only seems equal when it operates on the basis of the established wage rates, which differ widely between, approximately, three dollars an hour in the United States and one dollar an hour in Britain. If the occasion were to present itself today, somewhere in the United States, to defend or improve a wage of one dollar an hour (for white workers), the negotiating power of the workers concerned would be greatly strengthened in this instance, even if the employers involved were in business difficulties, whereas if the best-organized trade union in Britain were to undertake today to demand the equivalent of three dollars an hour for the same category of workers in that country, its chances of success would be very slim, even if the firms concerned were quite prosperous enough to pay this wage.

The profitability of the firms concerned, that is, the *immediate* economic factor, enters into the matter only as an external circumstance, favorable in some cases and unfavorable in others, but in no way decisive. Let us

suppose that the airline companies in France are enjoying exceptionally high profits: a strike of jet pilots with a view to raising their salary from 10,000 to 11,000 francs a month would be none the less unpopular with the public, and that would have a serious bearing on its effectiveness, even though the employers were in a position to pay the increase demanded. An opposite example is provided by what happened when, a few years ago, the French miners won their point against a government that had, in resisting them, gone so far as to put the mines under martial law; they won because the entire people of France supported them, though everybody knew that the coal industry was losing money.

The effectiveness of the trade-union factor itself, and the outcome of collective or individual negotiation in general between wage earners and their employers, depends to a large extent upon the relation between what the workers are demanding and *what society regards, in a certain place and at a certain moment, as the standard of wages.* It depends on a certain *level of attainment*, which is itself the result of past struggles and evolutions.

As already mentioned in Chapter 1, there are moral constraints and a certain personal element in relations between employer and employee (probably inherited from the feudal order), which cause the contract of employment to be something other than a mere resultant of supply and demand, even if we leave the trade-union and political factors out of account. For a given country at a given moment, and even for each race or ethnic group of workers in one and the same country, there exists, regardless of any trade-union or legislative intervention, a lower limit of wages below which the average employer would not dream of going, even at the risk of bankruptcy if he did not, and an upper limit above which this same employer would not dream of going, so that he would rather shut up shop, even though, owing to exceptional market circumstances, he risked missing thereby considerable opportunities for profit. For his part, the average French wage earner would not accept an abnormally low wage even though he ran the risk of unemployment without the prospect of benefit payments, and he would meet with the approval and support of his family and his friends for his refusal; whereas an Algerian working in France who saw fit to refuse this same wage would find himself treated as either a shirker or a madman and would be denied any material or moral aid. Regardless of market conditions, there are wage levels that are impossible, because unthinkable, in a particular country, at a particular period, for a particular racial or ethnic group of wage earners.[13]

The value of labor power is, so far as its determination is concerned, a magnitude that is, in the immediate sense, *ethical:* it is *economic* only in an indirect way, through the mediation of the moral and historical element, which is itself determined, in the last analysis, by economic causes.

5. *The Trade-Union Factor as the Driving Force in the Raising of Wages*

I have said already, when examining the position taken by the classical economists, that the vicissitudes of the commodity market can have no direct effect on the labor market, since the results of the sale of the product concern not the worker but the entrepreneur. If the sale of the product does produce a local disturbance in the relation between supply and demand on the labor market, this concerns the effective wage, or market wage, not the equilibrium wage, which itself is based on the value of labor power. Since the latter is, according to the classical writers, unchangeable, no problem arises within the context of their teaching. At the next market readjustment everything would come back to normal, with commodity prices restored to the level of equilibrium prices, and wages to the level of the value of labor power. If, however, we accept, along with Marx, that the value of labor power can evolve, then we accept, *ipso facto*, the possibility that a market wage in force over a long period may become an equilibrium wage, and so that economic factors may influence the equilibrium wage, if not directly then at least indirectly, through a change in "the average quantity of means of subsistence necessary for the worker," and independently of any political or trade-union factor.

Even if that were true, I do not think that my definition would be undermined in essentials, since, for this result to be achieved, men's needs would have to be changed, and that justifies us in saying that *in the first instance* wages are determined by an extraeconomic factor, namely, men's psychophysiological constitution as it exists and functions at any given moment.

However, I do not think that it is true. Change in man's nature, in man's subsistence minimum, is such a long process that no market disturbance can give rise to it and bring it to a conclusion unless its effects are at least *consolidated* by the success and continuity of some collective action by the workers, pressing for their demands. At all events we do not find any example in history of anything like this being accomplished in the absence of that factor. And yet favorable circumstances have not been lacking.

From the middle of the eighteenth century to the second third of the nineteenth, Britain triumphantly carried through its industrial revolution. The productivity of labor advanced by dizzy leaps and bounds during that period, especially in the textile industry, which was the main export branch. Its precocious industrialization in an "underdeveloped" world guaranteed to Britain possession of an effective monopoly of foreign trade. Yet real wages changed very little between 1750 and 1834, when the old Poor Law was abolished, and the working day was considerably increased between the same date and the Ten Hours Act of 1847. The placing of a mechanical loom at the worker's disposal, a very important technological advance, instead of resulting in an increase in the wages of weavers working in the mills, caused a headlong decline in the wages of the handweavers, who were plunged into unprecedented poverty. Marx refers in several places to this decline in real wages in the period mentioned. According to the figures he quotes in the *Theories of Surplus Value*, the weekly wage rose between 1742-1752 and 1800-1808 from 6 to 11 shillings, but the price of a quarter of wheat rose in the same period from 30s. to 86s. 8d., so that the purchasing power of the same wages fell from 102 pints of wheat to 60.[14] Even if these figures need to be handled with caution, the impression that clearly emerges from our reading of the estimates made by contemporary writers is that even if real wages in Britain did not actually decline in this period, they nevertheless did not increase to any significant extent.

It was above all the end of the eighteenth century and the beginning of the nineteenth that was the most difficult period for the British working class, with a marked setback in its standard of living. The poor rate, which stood at about £1,700,000 in 1776 had risen to £4 million by 1801 and to £8 million by 1833. One-third of the population of Britain was obliged to seek public assistance, J. B. Say recorded. However, it seems that the first wave of mechanization in and after the 1750's had caused wages to rise, so that around 1830 they again stood approximately at the level of 1750. This confirms what was said above, namely, that even should exceptional circumstances bring about, under a regime of free competition, a sudden increase in the demand for labor, this imbalance does not last long. In the absence of institutional factors (either political or trade-union), equilibrium is soon restored at the old level.

In contrast to this, in the second half of the nineteenth century and at the beginning of the twentieth, through the operation of political and trade-union factors, although technological progress was slowing down in

Britain, and British world supremacy beginning to fade, wages rose rapidly and to a marked degree.

The example of Japan, which was industrialized and had attained, on the eve of World War II, technological levels very much higher than the Britain of the 1840's, without wages taking off to any noticeable extent from their physiological subsistence level, and where wages began to evolve only after the war, precisely as a result of institutional changes in Japanese political life, forbids us, moreover, to assume that technological progress does perhaps remain the determining factor, merely requiring a certain absolute level of productivity of labor in order to achieve its effect.

6. *Wages Zones within a Nation*

The very fact, however, that in countries where several communities live side by side, with ways of life and needs that are very different from each other, as in South Africa, and in more or less all the former colonies, even if there is no legislative discrimination, a rate of wages appropriate to each of these communities is established, and free competition between employers does not bring about a unified labor market—this fact finally destroys the argument about interdependence between the prices of productive services and those of commodities and proves that the value of labor power and its price are conditioned in the first instance by an extra-economic factor, even though in the final instance they are based, like everything else, upon the economic foundations of society.

Here we have, at first sight, a contradiction between the existence of selective wage rates within a country and the historical fact of the inevitable spread of progress through all classes and social strata. However, this contradiction is only apparent, for there is less interpenetration between racial or even ethnic groupings with standards of living that are different to start with than there is between classes and social strata. The former colonies of Black Africa before World War II, provide us with a model of compartmentalization. Segregation was more thorough than that prevailing today in South Africa. Not only was there in all the urban centers a European town and an African one, clearly distinct and often a long way apart, with the blacks forbidden to enter the European town after certain hours (and also very often a similar restriction on Europeans' hours of entry into the African town), not only were all public establishments—cafés, restaurants, cinemas—segregated, but also for every purpose there

was a shop for Europeans and a shop for blacks. Apart from a few articles of common use, such as gasoline, matches, shoe polish, there was, so to speak, nothing in a shop for Europeans that could interest a black, and nothing in a shop for blacks that could interest a European. Under these conditions the diffusion of progress was impossible. The very extent of the difference between the two patterns of consumption created such a discontinuity of standard of life that any demonstration effect was ruled out in advance.

With some slight quantitative differences this situation exists today in South Africa, and with greater modifications it is found even in the United States—not only, and not so much, in relation to the blacks as to certain immigrant groups from the poorer parts of Europe, like the Balkans or southern Italy. These immigrants, living as they do in their closed communities, retain for an indefinite period their traditional pattern of consumption and their low level of needs. They usually receive wages calculated accordingly, and much lower than those of the Americans of Anglo-Saxon stock.

In a country like the United States, these immigrants feel the need for a automobile less than they would if they had remained in their country of origin. There, however poor the country might be, and despite the relative scarcity of cars, there would always have been some friend or some relative luckier than themselves, who would have owned a car and so aroused in them a feeling of envy or a tendency to imitation. In the country where cars are most plentiful, however, this does not happen to them, for the cars that pass them in the street are too anonymous, too unknown, too remote from them to provide them with either a stimulus or an example.

III. WAGES AND DEVELOPMENT

1. Increase in Wages as a Factor in Economic Development

As we see from the examples of Britain and Japan, which have been mentioned already, technological progress and industrialization, where they precede wage increases, do not seem to be the cause of these increases, or even the determining cause of the political and trade-union actions that bring them about, but merely a favorable condition. Are they, though, at least a necessary condition? Within the framework of each country taken separately, certainly not. There are many examples where technological

progress and industrialization *do not precede* the increase in wages, but follow it. This was the case in the United States in the eighteenth century. Wages there were considerably higher than in Britain, though neither technical progress nor industrialization had so far occurred.[15]

More recently, Australia, New Zealand, Canada, and, to a certain extent, Denmark and Holland have confirmed the possibility of high wages prevailing in advance of technical progress and industrialization. Development then appears not as the cause but as the effect of high wages. And while in cases where favorable economic conditions have preceded high wages, it is not possible, as has already been pointed out, to see any *direct* connection of cause and effect between the two phenomena, in the opposite type of case the level of wages acts *directly*—that is, by the mere operation of the law of value—upon the economic factors, *by determining the necessity for an intensification of the organic composition of capital and by encouraging investment through the expansion of the market.*

The high-wage countries eventually equip themselves and become industrialized, if necessary protecting their high-wage levels by means of tariffs, as the United States did. Whereas there are many instances where the economic possibility of a rise in wages has not led to this actually occurring, at least before the institutional factor came into play (Britain, Japan), or before the disappearance of a specific institutional factor resisting it (the wages of blacks in South Africa, and even, to some extent, the wages of blacks in the United States), there is not a single example where high wages have not led to economic development, in other words, where institutionally established wages have proved to be too high in relation to the actual or possible level of economic development and have had to be brought down on the basis of inadequate development.[16]

Out of Britain's five former colonies of settlement—the United States, Canada, Australia, New Zealand, and the Cape—the first four have become the richest countries in the world, with a national per capita income of $3,000 or $4,000 annually. The fifth, South Africa, has remained a semi-developed country, with a national income of about $500 per capita, about as poor as Greece or Argentina. Yet the natural resources of South Africa are not less considerable than those of North America and are certainly more so than those of Australia and New Zealand. All five were colonized by men of the same northern stock, tough and fearless. The climate of South Africa is no less healthy than those of the other four. Finally, all five were connected with the same source of capital, London, and belonged to

the same commonwealth of nations and the same mercantile and financial networks. One factor alone was different, namely, what happened to the indigenous population. Whereas in the other four colonies the total extermination of the natives was undertaken, in South Africa the colonists confined themselves to relegating them to the ghettos of apartheid. The result is that in the first four countries wages have reached very high levels, while in South Africa, despite the selective wages enjoyed by the white workers, the average wage level has remained relatively very low, hardly any higher than that in the underdeveloped countries, and below that of the Balkans, Portugal, and Spain.

Let us suppose that tomorrow the South African whites were to exterminate the Bantus instead of employing them at low wages, and replace them with white settlers receiving high wages. There would certainly occur, insofar as this operation was carried out more or less brusquely, upheavals, bankruptcies, frictions of conversion and adjustment, a transition period of great difficulty; but the ultimate result would be a leap forward by South Africa, which would soon catch up with the more developed countries. This is a frightful thought, I know, but it fits the reality of the capitalist system. To take the case of gold alone, despite the regulated market for this metal, the improvement in the terms of exchange would bring South Africa a considerable extra income. With white miners the cost of production in the great majority of the mines would greatly exceed the present selling price of 35 dollars an ounce. If the Federal Reserve Bank were stubbornly to refuse to raise this price, most of the South African mines would shut down. Only a very few especially rich ones would go on working.[17] Production, which is at present about 900 tons, or about 75 percent of world production, not including the U.S.S.R., and 60 percent, including sales by the U.S.S.R. (base year, 1962), would fall to a negligible figure, perhaps 50 or 100 tons.

If we consider that since 1965 the gold production of the capitalist world, together with sales by the U.S.S.R., has been insufficient to meet the needs of private hoarders and of industry; that the currency stock held by the United States has had to be drawn upon to make up the deficiency; and that this stock has already fallen to about 12,000 tons, we can easily see that such a decline in South African gold production would threaten to clear out the vaults of Fort Knox in a few years.[18]

Faced with such a threat, the United States would have to choose between increasing the price of gold and putting an embargo on it. If it

chose the latter course, it would save its own stock but would lose all control over the free market, which would then be thrown completely off balance. The private demand for industry and hoarding is at present around 1,500 tons, and world production, including U.S.S.R. sales, would, in the event of such a defection by South Africa as I have envisaged, amount to only 500 or 600 tons. Furthermore, there is no certainty that the U.S.S.R. would go on selling gold on the free market, if the United States were to proclaim an embargo. Logically, these sales would cease. On the other hand, the mere fact of the embargo would entail intensified speculation on a rise in price and an increase in propensity to hoard. Finally, the embargo would release the issuing authorities in the other countries from all their obligations to cooperate with the Federal Reserve Bank and from their present cautious policy, and a large share of their dollar holdings, which they would no longer be able to convert at the Federal Reserve Bank, would be used to buy gold on the free market. All these factors would increase private demand still further, and eventually it would be compelled to pay the price needed if South Africa was to bring its gold back into production, paying white men's wages to its white miners.[19]

2. *Dialectical Interaction between the Movement of Wages and Economic Development*

As soon as we accept that man's needs undergo historical evolution, it becomes clear that the institutional factors that determine the equilibrium wage in the first instance are not accidental factors intruding from outside human society. They are certainly different in nature from the Black Death of 1349 or a world climatic upheaval: they belong to a group of conditions that, in the final instance, are based upon the economic foundations of society. We have, in fact, to set the problem in the context of world economy as a whole, and not in that of a particular country or region. If wages in the United States in the eighteenth century, or in Australia in the nineteenth, were so high, that appears as an historical accident so far as the United States and Australia are concerned. But it was no accident for all the countries of the world taken together in the context of world economic evolution. The men who settled in the United States and Australia in those periods came from certain parts of Europe that were already advanced and had a standard of living higher than the others; when they emigrated they naturally demanded even higher incomes. This

was not the case with the Spaniards and Portuguese who settled in Central and South America, or even with the French who settled in Quebec. The consequence has been that Quebec has remained backward in comparison with the rest of Canada, and Latin America has remained underdeveloped as compared with the United States, although, except for a few regions, the conditions and natural resources were much the same throughout the New World.[20]

It could thus be said that though the different development of the United States has not determined the level of wages in that country, the uneven development of the world has certainly determined this wage level in the last analysis, since it has determined the different subsistence minimum and different "demands on life" of the men who peopled the United States.

I do not dream of denying this, and this is why I say that *in the final instance* the value of labor power, however ethical and institutional it may be, is based, like all other institutions, upon the economic foundations of society. But this is why I also say that it is not a question of interdependence in the neoclassical sense, but of dialectical interaction. What seems to me to distinguish the one from the other is that, in the former, which Marx encountered under another flag and which he used to describe as metaphysical, each thing is at once cause and effect while *remaining the same*, whereas in dialectical interaction the effect becomes the cause *in its turn*, while changing *essentially* and through the very fact of this change.

Thus, a market superwage is the effect of a certain economic combination. For it to become in its turn the cause of *another* economic combintion it must first change in its *essence*, even change into its opposite, namely, the equilibrium wage, or the value of labor power (that is, the thing by contrast with which it is itself defined). And, as I have already said, for this qualitative change to take place there must be first a certain accumulation of quantitative changes.

This, it seems to me, is the real dynamic of the process. Not a mere integration of the successive variations in the course of time of a function (whether linear or exponential), but the realization of the changes in this function itself as a result of time and of the accumulation of its effects. These reflexions may be seen as idle philosophical subtleties, and it may be that in persisting along this road one risks getting bogged down in disputes about words and meaningless controversy. The real problems, so far as this study is concerned, are different. It is above all the question whether,

here and now, and all other things being equal, it is economic conditions that directly determine national equilibrium wages, or whether it is the inequality between these wages that influences prices and economic development. I believe the second proposition to be the correct one, and I think I have shown this to be so.

Here and now, the equilibrium wage is something given, an independent variable. Whatever may have been the initial cause of the differentiation; the direct and exclusive action of market forces, resulting in a superwage that lasted long enough to become changed into an equilibrium wage, something that seems improbable; or trade-union and political intervention giving rise to an artificial superwage, or at least consolidating a conjunctural superwage—possibly conditioned, in the last analysis, by a certain phase of economic evolution—and ensuring the necessary duration for it to become changed in character, something that seems closer to historical fact; we call this "something given" institutional because it is based upon man himself, as a physical and social being, upon men's needs and "demands on life," as they have been shaped by a very long and slow process, in which the principal immediate agent is the accumulated body of traditions and habits.

Another question arises, however, that needs to be answered. Whether development determines wages or wages determine development, it follows from my analysis that the two must correspond.

Now, in order to show that economic development does not necessarily entail an increase in wages, I have myself referred to the example of Britain in the eighteenth century and at the beginning of the nineteenth and to that of Japan before World War II. In both cases effective economic development ran ahead of the level of wages for several decades. The stagnation of wages does not seem in these two instances to have hindered accumulation, technical progress, and industrialization. Here, then, we have a degree of economic development somewhat ahead of the one corresponding to the wage level.

And yet there is no contradiction. In both cases (the distinctiveness of which enabled me to show that *even* when, for one reason or another, economic development precedes an increase in wages, this increase takes place only *after* an institutional factor has intervened), the conditions assumed, namely, absence of monopoly and equalization of the rate of profit, were not satisfied.

In the case of Britain, to which I shall have to come back again later, the

monopoly of landownership, considerably reinforced, moreover, by state intervention in the form of the Corn Laws, prevented the excess surplus value arising from the increase in productivity from escaping overseas. This excess was intercepted on the wing and kept inside the country in the form of a superrent corresponding to the gap between nominal and real wages. In other words, real wages, as I have shown earlier, remained practically unchanged, but as a result of very high tariffs against imported corn, the prices of foodstuffs rose and forced nominal wages up, which prevented the increased productivity from going to benefit the foreign consumer, as it would have done given free competition and equalization of the rate of profit. The tax on imported corn had the same effect as a tax on the export of manufactured goods. In both cases it is a question of an intervention by the state that prevents the law of value from operating freely. As, on the other hand, under the special conditions of the bourgeois revolution in England, no real replacement of one class by another occurred, but instead a merging of the functions of the two classes, a large section of the old feudal class transforming itself into industrialists and financiers, this superrent was automatically directed into capitalist accumulation and had, from the standpoint of economic development, the same effect as that of a superprofit.

This last circumstance makes the British case resemble the Japanese, although in the latter case the excess surplus value was not "caught," in the form of rent, but directly, in the form of monopoly superprofit. In fact, the Japanese economy was, with the inauguration of the Meiji era, the first centralized economy, the first state capitalism, in the modern world.[21] This circumstance, this institutional factor, to some extent prevented the extra surplus value produced by increased productivity from being leaked abroad through the equalization of profits and, as with nineteenth-century Britain, this made possible accelerated accumulation and economic development despite the subsistence level of wages, and perhaps even owing to this wage level.

The Soviet Union and several other socialist states have also achieved exceptional growth rates while keeping wages down to a low level for a long period. This does not reveal a contradiction in the conclusions of my analysis, but rather the objective contradiction between a competitive economy and a planned one. As soon as competition and independent decision-making by individual entrepreneurs are abolished, all the functions go into reverse. Investment ceases to be an increasing function of

consumption, but, since production is predetermined by material possibilities, accumulation becomes a decreasing function of consumption. The state being the dictator of specializations and of prices, there is no need for high wages in order to appropriate an increased share of the world economic product. On the contrary, since this share is given by the real potential of production, the state is all the better able to increase accumulation if wages, and consumption generally, are kept down at very low levels.

3. *Cumulative Effect of Interaction*

Clearly, the process of interaction between economic development and the movement of wages is accompanied by a cumulative effect. Once a country has got ahead, through some historical accident, even if this be merely that a harsher climate has given men additional needs, this country starts to make other countries pay for its high wage level through unequal exchange. From that point onward, the impoverishment of one country becomes an increasing function of the enrichment of another, and vice versa. The superprofit from unequal exchange ensures a faster rate of growth. This brings with it technological and cultural development. In order to deal with increasingly complicated production tasks, the ruling class is obliged to raise the people's educational level. The conditions favoring trade-union organization are created. Besides, while the capitalist class as a whole is interested in restricting the workers' needs, each capitalist on his own, driven by the pressure of competition and striving to popularize his own goods, acts so as to increase these needs. The law of diminishing costs, which, *pace* the marginalists, is much more widespread than that of increasing costs, urges the capitalists toward mass production and production for the mass market.

Whatever he may do, the capitalist cannot compartmentalize society. Little by little, new forms of consumption spread everywhere and create fresh needs. The progressive enlargement of the market attracts foreign capital, and the influx of this capital speeds up development. This influx, moreover, consitutes in itself a factor tending to increase wages. The existence of already available outlets stimulates investment, and increased investment causes an increase in the organic composition of capital, which forms the source of a second transfer of value from the poorer foreign country to the richer country.[22]

Every increase in wages, resulting from the conjunction of all these factors, increases the inequality in external exchange and thereby enriches the wealthier country still further. This enrichment in its turn sets all these factors in motion, which leads to the creation of new needs among the workers, an increase in the value of labor power, and, finally, a fresh increase in wages. *Wealth begets wealth.*

At the same time the poor country continues to be grounded at the level of elementary physiological subsistence. By transferring, through non-equivalent exports, a large part of its surplus to the rich countries, it deprives itself of the means of accumulation and growth. The narrowness and stagnancy of its market discourage capital, which flees from it, so that, despite the low organic composition and the low wages, a substantial proportion of its labor force is unable to find employment.[23] Unemployment, open or concealed, exerts an additional downward pressure on wages and thwarts the trade-union struggle, which is already hindered by the low level of education. In proportion as wages increase in the other countries and the terms of exchange worsen, the value of labor power in the poor country decreases still further.

From the standpoint of capitalist profitability, which takes account only of the paid portion of labor, the low cost of labor power makes it unprofitable to carry out the relative increase in fixed capital that would result from the adoption of higher techniques and methods tending to economize human labor. Thus, the average organic composition of capital in the poor country is kept below the world average, and still further below the average in the industrialized countries, and this becomes an additional and independent mechanism for transferring value from the poor countries to the rich ones. *Poverty begets poverty.*

How is it possible to break out of this circle in the underdeveloped countries? Increased wages are a factor in development, and development makes possible increased wages. But is it conceivable that wages could be increased in order to start the process of development, when, except in the export branches, productivity is at its lowest level?

In the underdeveloped countries there are, in fact, three kinds of branches of production:

1. The export branches where comparative productivity (compared with that which the same branches would enjoy if they were established in the importing country) is exceptionally high. Here wages can easily be increased.[24]

2. The branches producing for internal consumption and not subject to foreign competition: services, building, transport, certain food products of current consumption, and so on. The importation of these products and services being physically impossible, an increase in wages is not limited in this case by any competition. Its only disagreeable effect would be to create a gap between the nominal wage and the real wage generally prevalent—a gap that exists already in all the high-wage countries.

3. The branches producing for internal consumption and subject to foreign competition. The difference in productivity is such that these branches would really not be able to survive this competition if wages in the underdeveloped countries were to be increased, under a free-trade system. However, in all the countries where the wage level has historically been in advance of economic development, this problem has been solved by repudiating free trade. It was the main purpose of protectionism in these countries, and especially in the United States, between independence and the end of the nineteenth century. Today the purpose of protectionism and of the regulation of agricultural prices in many of the developed European countries is to protect the high wages prevailing in the backward branches of the economy. When the United States broke away from the mother country, it was much less highly developed than she was—in fact, it was an underdeveloped country—but it had wages that were twice as high. It protected the branches that were subject to foreign competition by means of prohibitive tariffs. The conjunction of these tariffs with the market capacity determined by the high wages themselves led to an influx of capital that started off the process of development.

This obviously does not mean that it would be possible overnight to increase wages in the underdeveloped countries from five cents to three dollars an hour. But they could perhaps be raised from five cents to eight or ten cents. Subject to competition within the group, and to the extent that this increase was introduced in a fairly large number of countries exporting the same products, part of the increase would be recovered by the export branches from the foreign consumer, while another part would be only nominal, because it would correspond to the increase in local prices. This second part would be protected. But these very measures of protection, together with the expansion of the market resulting from the increase in wages, together with the fact that this increase would induce a certain amount of mechanization, would attract foreign capital in investments that would increase *productivity* in the branches whose production

would replace imports, and thus absorb the difference between the real and the nominal wage. At that moment, tariff protection becomes pointless; but it may be maintained nevertheless, since at the same moment a fresh wage increase becomes possible, from 8 to 12 or from 10 to 15 cents, and a fresh gap between real and nominal wages may be created and may need to be protected. And so on and so on. This is the capitalist path of development. Foreign capital is attracted by an expanding market, and the lack of national accumulation funds due to the increase in consumption is made up for by financing from international sources. Development follows the curve of consumption. First comes light industry, responding to the increase in unproductive consumption that results from increased income. Later comes heavy industry, responding to the productive consumption of light industry, when this has reached a certain level.

The socialist path is the opposite of this one. Wages are more or less stabilized and unproductive consumption reduced. By the methods that a monopoly of foreign trade makes available, the excess surplus value is prevented, so far as possible, from going abroad to the benefit of the foreign consumer. For the rest, traditional exports are reduced but, on the basis of a certain degree of diversification, traditional imports are reduced to an even greater extent. The foreign exchange thus saved is used to import capital goods. The surplus in the national accumulation fund makes up for the lack of foreign capital. Development is determined by the ratio between consumption and accumulation. At first it is heavy industry that gives material form to accumulation, and then, later, light industry, when it is considered that the time has arrived to increase incomes.[25]

4. *The Limits of the Equilibrium Wage*

Another question arises, relating to the limits of the equilibrium wage. The lower limit is obviously a man's strictly physiological subsistence minimum. The upper limit depends on the scale on which we visualize the problem.

On the world scale this limit depends on the global production potential and the lower limit of profit—that below which, under capitalist production relations, investment ceases: what could be called profit's *minimum vital.*

For each country taken separately, however, under the conditions we are assuming, with competition by capital and no competition by labor, it

is necessary to distinguish between an abstract limit and a real one. At the abstract limit, (1) in the rest of the world, outside the country in question, wages would everywhere have been reduced to the level of the strict physiological minimum; (2) throughout the world the general rate of profit would have fallen to the minimum determined by the propensity to invest; and (3) capitals would have flowed into the country in question, tending to equip the largest possible number of branches of production at the highest possible technological level. The sum of these capitals would tend to equalize and could not exceed the total world sum minus what would be needed to enable the workers in the rest of the world to work at the lowest technological level possible. (4) The entire excess of surplus value produced under these conditions in the rest of the world would be drained toward the country in question.

Very far short of this fanciful combination, the possibility of high wages being paid for by the rest of the world is restricted by the frictions and resistances of the real world, that is, by the resistance of the capitalists in the country in question, the trade-union struggle in the rest of the world, the viscosity of capital, the ratio between total possible exports and total national production, and the competition of the other countries that export the same products.

The last two factors are the most important and deserve closer attention:

1. My diagrams of unequal exchange show the effects of an increase in national wages in terms of improvement in the terms of trade and not in terms of national income. The two indices are not identical. The simple index of the terms of trade (I shall have occasion to come back to this point) is an index of unit prices and as such is independent of the quantities exchanged. Consequently, the incidence of its variations on the national income depends on the ratio between the volume of foreign trade and the volume of the national product. This is why it is in the interest of countries with high wages and advantageous terms of trade to intensify their specialization and expand their external exchanges, whereas it is in the interest of low-wage countries to diversify. My analysis merely goes to prove that it is the consumer who pays the difference between the wage levels. But the consumer may be foreign or local. It follows that, insofar as the production of high-wage countries is disposed of inside these countries, there is neither transfer of value from one country to another nor exploitation on the international scale.

The disturbances that an all-around increase in wages can cause in the

sector producing for internal consumption constitute, if not a limit, then at least an important brake upon this increase. Contrariwise, if we are arguing in terms of two groups of countries, one with high and one with low wages, and on the basis of given international specializations, we do not have to consider in this context the danger of a reduction in external exchanges as a result of actually increasing wages. If the model of international specialization does not change, then in the worst possible case only the volume of use values exported by the group of rich countries will diminish as a result of an increase in their prices following an increase in wages. The value of the exports will remain unchanged to make up for the value of the reciprocal exports from the poor countries. And in the case that occurs most often, this value will even increase, the countries suffering from unfavorable terms of exchange being obliged to make an additional export effort in order to be able to pay, despite the rise in prices, for the same quantities of imported commodities that they need. As for the possibility of an alteration in the world specialization model and a general shrinkage of international trade brought about by the actual increase in wages, I will discuss this in Section 5 of the present chapter. If now, instead of considering each of these groups as a group, we look at the position of each particular country, we come face to face with the internal competition of other countries belonging to the same group and exporting products of the same branch.

2. In general, and except transiently, that is, during the period when a branch is moving from one group to the other, when the difference in productivity can for a certain time make up for the difference in wage levels, the two groups, that of the developed countries and that of the underdeveloped ones, do not export the same products, and the problem of competition between the groups on the commodity market does not arise. What does arise is competition within a group.

This is the most powerful check on an unlimited increase in wages in the advanced countries, but it is also the most powerful check preventing a takeoff of wages in the poor countries. On the one hand, national segregation stands in the way of simultaneous variation of wages on the scale of the entire group; on the other, despite the equalization of wage rates on the national scale, wages in an export branch can be negotiated (whether on the free-employment market or through collective action by the wage earners and their employers) only in relation to the international competitive capacity of the branch in question.

What prevents British machine-tool manufacturers from raising their workers' wages is not the fear of seeing their Argentine clients start to produce their machine tools for themselves or cut down their consumption of them, in accordance with the high principles of the law of comparative costs, but the fear of seeing them turn for supplies to Germany or Sweden. Since the same fear, but the other way round, prevails at the same time in Germany and Sweden, an increase in wages is prevented from occurring throughout this group.

Contrariwise, any increase in wages, even one that goes beyond the limits of the competitiveness of individual costs, which results from circumstances favoring the trade-union struggle in a country belonging to the group tends to be contagious for the other countries in this group, since it widens the limits of their mutual competitiveness, so that the country where the wage increase first occurred ends by recovering the competitive position it had lost.

This is the only case in which productivity determines wages. When, in spite of their belonging to the same zone, there are differences in wages between countries that regularly export the same articles, these differences correspond, under conditions of perfect freedom of trade and competition, as well as of equalization of the rate of profit, to a proportionate difference in productivity.

Outside these limits, that is, where there is no possibility of passing on the cost to the foreign customer, a rise in money wages would result, in the case of a nonconvertible currency, in a rise in internal prices, with a depreciation of the national currency, and consequently there would be a rise in nominal wages without a rise in real wages; in the case of a convertible currency, the result would be that a certain number of branches of production would be brought to a standstill, capital would take flight, and unemployment would increase.

If we consider the present gaps between wage rates in different parts of the world (even in terms of real wages), we are compelled to acknowledge that in practice the forces that work against this phenomenon leave a very substantial margin for "independent" variations in wages.

I am not here talking about the short-term disturbances that occur *at the moment* of an increase of wages. These do not represent a "limit" but are merely readjustment tensions, lasting until the increase has had its effect.

At the same time, when we speak of convertibility of currency, we must distinguish between the different levels of abstraction at which we are

conducting our analysis. At a very high level of abstraction, if a currency is convertible, then there can be no difference between nominal wages and real wages. However, a series of factors, namely, transport costs and the technical need to produce most services and some material goods on the actual spot where they are to be consumed, not to mention customs duties, make currency convertibility illusory, to a certain extent, and allow a considerable disparity in the internal prices of the various countries, which gives rise to gaps between nominal wages and real wages even where there is convertibility. (It may well be said that my francs are no longer convertible into dollars at par once France has imposed a tariff on American goods.)

Moreover, this elasticity of real wages in relation to nominal wages, in spite of convertibility, makes possible the absorption of the temporary disturbances to equilibrium that occur before the repercussion process is completed and enables this process to be completed with the minimum of shock.

On the other hand, it is nominal wages and not real wages that have an effect externally (I shall have to come back to this point later on), and the gap between them expresses the extent to which part of a nation's production cannot be exchanged, at whatever price, but has to be consumed on the spot. To this extent the high-wage countries do not benefit from unequal exchange; and to the same extent the low-wage countries do not suffer from it.

5. *The Organic Composition of Labor and Development*

On the plane of national development: When, in my diagram of unequal exchange (in Chapter 2, page 62, above), the workers in country A receive 100 units for a quantity of labor counted as 120, and those of country B receive 20 units for the same quantity of labor, this quantity, whether it represents hours, days, or months, is assumed to represent simple, abstract, and universal labor. It is thus the result of a reduction process. If we assume that the unit of time is the production cycle, the 120 man-cycle units of labor do not necessarily represent 120 workers. The number of living workers represented by these 120 units of abstract labor does not figure in the diagram, and it depends, for each country, on the proportion of skilled labor and the degree of skill, in the branches of production in which the country in question specializes.

At a given world technological level, the various branches of production differ not only in the intensity of the organic composition of their capital but also in what might be called the organic composition of their labor, meaning the ratio between the number of living workers and the amount of social labor to which their specific labors can be reduced. With the same wage rates and the same number of personnel, the most modern building concern has a payroll amounting to much less than that of the most modern chemical works, because the latter's personnel includes a very much higher percentage of skilled and specialized workers.

Now while, as I have shown, a country's development depends on its wage level, we must nevertheless acknowledge that this development is not to be measured in absolute wealth but in wealth per capita. Even if unequal exchange arising from difference in wages did not exist, and even if we consider only the material income of the moment, it is not a matter of indifference for a country whether it is a community of laborers or a community of engineers.[26] This is because equalization of wages does not mean equal pay for equal labor time, but equal pay for an equal unit of time given an equal level of skill.

If Greece were to specialize 100 percent in the business of tourism (for which, it may be said in passing, the country possesses an unquestionable comparative advantage), and turned its entire population into head waiters, elevator operators and porters, it would not thereby become as highly developed or as rich as the industrial countries, even if its hotels were the most modern and the best equipped with the newest techniques in the world, and even if unequal exchange were abolished, that is, even if these head waiters, elevator operators, and porters were paid at the same rates as their Belgian, Swedish and Swiss colleagues. The reason is that, with the same general wage scale, an elevator operator is paid less than a skilled worker and a waiter less than an engineer.

The effects of the organic composition of labor may perhaps be clarified if we take an extreme case, say, a socialist world with a single wage scale and without any exploitation, direct or indirect.[27] All other things being equal, and with exchange taking place according to values or prices of production, the disparity between regions in income per capita would still be considerable. A rural area, where perhaps one agronomist was needed to a thousand laborers, would be much poorer than an area specializing in textiles, where the proportion would probably be one engineer to two hundred workers of medium skill, and this in turn would be much less

rich than another area specializing in electronics, where perhaps there would have to be one engineer to ten highly specialized workers.[28]

This is the factor that can give meaning to what is called the "dynamism" of certain branches, and consistency to planned decision-making as to what kinds of production a developing country should endeavor to establish—and not the behavior of products on the market and the elasticities of the corresponding demands. Such decision-making must be based on study of the organic compositions of capital and labor characteristic of each branch and must strive to foresee the curves of their future evolution. Not all branches have the same power to absorb, now and in the future, fixed capital and highly skilled labor, and even though one were to attain the world technological level and the wage scale of the developed countries, if the branches chosen were branches that, at that level, had an organic composition of capital and an organic composition of labor that were relatively low, the country would still not be as rich as others.[29]

This does not mean that every country is in a position to choose the branches with the highest capital intensity and the greatest proportion of highly skilled labor. Both depend upon the investment possibilities; direct investment in capital goods, in the case of the former, and indirect investment in education and training of people, in the case of the latter. The second kind of investment is both the one that takes longest to produce results *and* the one that most urgently needs to be undertaken. So far as the first kind of investment is concerned, choosing a branch that *can have* a high organic composition of capital does not mean that one necessarily has to start off with this high organic composition. If capital is scarce and labor plentiful and underemployed in the self-subsistent sector, it may be, in certain circumstances, more to one's interest to choose a technical combination in this same branch that is below the technological level of the moment, a combination entailing a relatively low organic composition: just as it may be, in other circumstances, to one's interest to choose the highest available technical combination, despite the shortage of capital and abundance of labor.[30]

But the choice of a technical combination *within* a branch, at a certain moment and under certain conditions, is one thing, while the choice of the branch itself, rich in possibilities of absorption of fixed capital, so as to safeguard the future, is quite another. Another thing, too, is the choice of a branch that permits and even entails the employment of a higher proportion of skilled workers. In this case it is much more difficult than in the

first one free to choose combinations that are below the organic composition of labor characteristic of the branch. One is then dependent on the technical combination chosen, which determines not only the capital intensity but the proportion of skilled labor as well.

On the regional plane: This variation in the organic composition of labor between one branch and another, in my opinion, explains, broadly at least, the differences in development between different regions within a country. If, indeed, the difference in wages were the sole cause of the difference in development, how would it then be possible to account for the considerable differences in regional development inside the frontiers of one and the same country?

Here it must be said that mobility is never perfect even within a single nation. There is a certain viscosity of the labor force just as there is a certain viscosity of capital. The distances are sometimes great. A working-class family living in the Bordeaux area cannot decide overnight to move to Paris in search of higher wages. A thousand ties keep a man bound to his province or to his town.

Nevertheless, it might be thought that small movements of workers crossing the lines of demarcation between wage-level areas would suffice to spread their effect little by little over the whole territory, since, if there is difference at the extremities, there must obviously somewhere be difference between two points that adjoin each other. But the interoccupational employment space is not homogeneous but structured. The workman who wants to change his employer may thus face the choice of either remaining in his trade but moving to a distant part of the country, or of remaining near his home but changing his trade. As the possibilities of apprenticeship and training are likewise structured in dependence on the regional location of the branches of production, this circumstance adds a further degree of viscosity to the labor factor. On the other hand, economic reality, as I have already had occasion to remark, is discontinuous, and this discontinuity is reflected here in the fact that a certain "minimum" of differentiation is needed before the competition of the factor can be released, through the shifting of labor power from one area to another.

All this makes possible a certain disparity of wages, and thereby a certain disparity in regional development. Is this sufficient, however, to account for the *present* level of disparity? If we consider that basic wages are to an increasing extent negotiated collectively and on a nationwide scale, and if we leave aside certain special cases where geographical local-

ization is linked with an ethnic or racial factor, as, for instance, in the southern United States, or in certain parts of France since the recent influx of Algerian, Spanish, and other foreign workers, or some other cases where semifeudal survivals completely distort the working of the law of value, as in southern Italy, we must answer this question in the negative. Regional differences in wages, especially real wages, where they exist, do not exceed an order of magnitude similar to that of the differences between countries usually regarded as being on the same level—e.g. France, Belgium, West Germany. They are not discoverable by simple observation. Yet regional disparities in levels of consumption are glaringly obvious.

If we agree that, under modern capitalism, in which the idle *rentiers* of former times have practically disappeared, the total amount of household consumption roughly corresponds to the total amount of wages, including the salaries paid or attributed to employers, or, at all events, that the lavish expenditure of a few individuals has little effect on the poverty or wealth of a region, differences such as those that exist today can only be explained if the per capita wage income differs considerably from one region to another.[31] However, the per capita wage income can vary only as a result of three factors: (1) rate of wages, (2) level of employment, and (3) quality of employment.

If differences in wage rates are insufficient to bring about such a glaring disparity in levels of consumption, and if under conditions of relative full employment, such as have prevailed in France in recent years, regional differences in unemployment can be taken as negligible, then all that is left is the third factor, namely, the regional distribution of the higher categories of employment, what I have called the organic composition of labor, as the only explanation of the phenomenon, or at any rate of its main features. The incidence of this factor on the amount of consumable income is, in a country like France, considerably higher than the mere geographical difference in wage rates, if we leave aside the ethnic or racial factor mentioned above. It must also be kept in mind that it is not only the proportion of higher categories of technical personnel that varies a great deal from region to region, but also that of administrative personnel, in both the private and public sectors. And it is not only economic development that suffers as a result of this but also, and more so, social development as well, since the average intellectual level of the area is directly affected. We think it can be said that the reason why Languedoc is less developed than the Paris region is not because the wages of laborers and the salaries of

technical and administrative staffs are lower in the former than in the latter (though this contributes to the result to a certain extent), but above all because in Languedoc there are more laborers and fewer technical and administrative employees than in the Paris region.[32]

IV. REAL AND NOMINAL WAGES

1. *Transport Costs*

What has been said so far may leave the impression that it is real wages that provide the foundation of my thesis. Whether the notion of subsistence be physiological or psychological, what determines the value of labor power, and thereby wages, is a certain amount of goods and services. Whether these goods and services are cheap or dear cannot, at first glance, affect either the worker's real wage or the surplus value extracted by the capitalist, which is merely the surplus of goods and services that the wage earner can produce over and above what he receives, or, consequently, the part of this surplus that a country finds itself obliged to transfer abroad without getting any equivalent, through the mechanism of unequal exchange.

If this were so, the effects of unequal exchange would be considerably mitigated. Though money wages may vary from one country to another in a ratio of 1 to 20 and even more, it is clear that in terms of actual goods and services purchased the disparity is less. The bulk of working-class consumption involves local products, the prices of which in the underdeveloped countries are lower than those of the corresponding products in the rich countries, after all these prices, expressed in different national currencies, have been reduced to a common denominator on the basis of the parities of these currencies accepted in international trade transactions.

This disparity between real and money wages does not figure in my diagrams because these have been constructed without taking account of transport costs, and on the assumption of absolute free trade. These hypotheses imply uniformity of price for each commodity and each service in all countries and all regions. Under these conditions there can be no difference in real and nominal wages between one country and another, or in other words, the ratio between nominal wages is the same as that between real wages. This is the only point at which these hypotheses, and especially the assumption of the absence of transport costs, become inconvenient and have to be abandoned.

Working-class provisions are usually weighty or perishable substances, and most services are not exportable, since the act of production and the act of consumption are inseparable. Finally, free trade is not absolute, and agricultural products are often accorded special tariff protection. For all these reasons the prices of this category of goods and services may vary considerably between one country and another.

2. *The Worker's Wages and the Worker's Cost*

This disparity causes a divergence between what a worker really earns and what this same worker costs his employer. Now, while the capitalist's profit is already given by the general rate of profit, what determines price is not what the worker really earns but what he costs in money terms.

Low prices of provisions correspond to a low value of labor power. If we assume that bread is the sole article of working-class consumption, ability to buy bread in country B at half the price it costs in country A has the same effect as if in country B there were a race of men who can provide the same amount of labor as in country A but with only half as much bread.

If we consider that in the underdeveloped countries the goods consumed by the workers in the capitalist sector are produced by an extensive noncapitalist agricultural sector, we note that unequal exchange hits not only the workers of the given country but also several other classes of its population—craftsmen, peasants, and so on—though not the capitalists. The prices of commodities exported from India are low not only because the Indian worker is content with a bowl of rice and rudimentary housing, but also because rice and local building materials are cheaper in India than elsewhere. If the prices of rice and building materials were to fall still further in India, the money wages of the textile workers would fall, and India would receive less from her external trade, although the real wages of her textile workers had not changed.

The opposite is also true. A developed country that protects its agriculture, and keeps the prices of its agricultural products artificially above the world level, gains in external trade, even if the real wages of its workers have not risen. This happened in Britain in the days of the Corn Laws, which caused Ricardo to say:

> . . . when any particular country excels in manufactures, so as to occasion an influx of money towards it, the value of money will be lower, and the prices of

corn and labour will be relatively higher in that country than in any other. This lower value of money will not be indicated by the exchange; bills may be negotiated at par, although the prices of corn and labour should be ten, twenty, or thirty per cent higher in one country than another. Under the circumstances supposed, such a difference of prices is the natural order of things; and the exchange can only be at par when a sufficient quantity of money is introduced into the country excelling in manufactures, so as to raise the price of its corn and labour.

And Malthus observes, when quoting this passage:

In reality, the quantity of money in each country is determined by the quantity wanted to maintain its general exchanges at par; and the greater are the advantages of any country in regard to its exportable commodities, the more money will it retain, and the higher will be the price of its corn and labor, when its exchanges are at par. *If England should lose her advantages in this respect, her corn and labour would fall to the level of the rest of Europe, in spite of any corn laws that could be imagined.*[33]

What was happening here? England had an industry that enjoyed a substantial advantage over the rest of the world. Normally, this advantage (in exchange) could not have been retained without an increase in some fixed income—say, wages or rents—for competition would have prevented the English manufacturers from enjoying their superprofit for very long. But this superprofit was cancelled out by the rise in the price of foodstuffs, and consequently of wages. The surplus of exports resulting from this advanced industry caused the rate of exchange to rise above par, which in turn caused an influx of gold and silver that raised the prices of foodstuffs. Money wages followed in the usual way. In the end the manufacturers received only the normal profit, the workers received only the natural real wage, and the whole of the superprofit from high prices that England drew from her overseas customers went into the pockets of the landlords. The question arises, of course: why did they not buy corn from abroad? Here the Corn Laws intervened, together with transport costs, which were extremely heavy for the goods consumed by the workers.

At a period when the British workers were not strong enough to seize the benefits of British trade for themselves, the landlords did. Later, the landlords were defeated and the Corn Laws repealed: but the workers' organizations being stronger in resisting a cut in nominal wages than in defending or improving real wages, the superior level of British money wages was consolidated. It was even raised higher, if account be taken of

the effect of the Ten Hours Act, passed soon after the repeal of the Corn Laws, thanks to the unexpected support given by the landlords' representatives in Parliament, burning to get their revenge on the industrialists.

V. DIFFERENTIAL WAGES AND THE INTERNATIONAL DIVISION OF LABOUR

1. How to Reconcile the Working-Class Monopoly that Underlies Unequal Exchange with the Free Localization of Branches of Industry

I want to avoid a misunderstanding that may arise from my argument. I am not saying that a particular branch in a particular country can increase wages at will and transfer the burden *ipso facto* to its customers. But the range of possible kinds of production is so extensive, and the number of specializations in the different variants and qualities of the same article so large, that a high-wage country can never find itself in a position where it *cannot* discover a specialization that, in the international division of labor at that moment, is free from competition on the part of the low-wage countries.

True, it is not as a high-wage country that a country can discover specializations that are advantageous from the standpoint of international competition, but neither is it *as* a highly industrialized country. Every country, whatever its wage level and whatever its degree of industrialization, can discover these specializations on the sole condition that it selects them from among the branches established in countries that have a wage level equal to or higher than its own, or from among those for which its natural advantages outweigh the difference in wage levels. This is what actually happens, and there is no lack of such branches. By the mere fact that a country imports something, it obliges its suppliers to neglect some other branch of production, since, in order to sell to this country, the suppliers automatically have to devote more factors to their exporting branch than this branch would require on the basis of the proportions laid down by the model of their own consumption.

2. Unequal Exchange or Autarky

This is why, on the other hand, it is not possible for low-wage countries to cancel this advantage enjoyed by the rich countries by themselves specializing in the branches favored by the unequal exchange of the moment. As

soon as such a branch is taken over by the low-wage countries, the rich ones drop it and turn to producing something else. This has already happened with textile production, taken over by the underdeveloped countries, and it will soon happen with shipbuilding, with which Japan is busying herself.

Textile production was for a long time the warhorse ridden by the first industrial country. Britain exchanged her cotton goods for Indian cotton and gained from this exchange the means of paying high wages to her workers. The day when India took up weaving—in which, by the way, she had formerly had much longer experience than Britain, until interrupted by the onset of colonial rule—Britain changed her approach. She began to exchange her cotton yarn for Indian cotton and Indian fabrics. Then India started to produce her own yarn. So now Britain exchanges her looms and spindles for Indian fabrics, still obtaining the wherewithal to pay her workers their high wages. If India were to begin tomorrow to make her own looms and spindles, Britain would change her branch of production yet again. She would send out machine tools for making these spindles and looms. After that would come special steels for making these machine tools, and so on. It is not even necessary for Britain to climb upstream in the production process every time. If need be she can go downstream. If India were to specialize one day in metallurgy and engineering, to the neglect of her textile production, Britain would find no difficulty in taking up the latter branch again. By exchanging fabrics and yarn for steel, looms, and spindles from India, Britain would achieve the same superprofit as she achieves today with the reverse pattern of trade. Whatever she makes and whatever she sells, she must realize the advantage that comes to her from unequal exchange and that corresponds to the difference between British and Indian wages. Unless we assume that one day India will produce everything she needs and no longer exchange anything at all with the developed countries, something that is practically unthinkable, the latter will always be able to find something to produce and exchange with India. So long as exchange takes place and so long as the wage levels are unequal, nothing can stop India from pouring out toward Britain or toward other developed countries part of the surplus value extracted from her own workers.[34]

The choice is thus between unequal exchange and autarky. In order to understand this dilemma properly, we must consider the problem on the scale of the two groups of countries, the high-wage group and the low-wage one, and not on that of any particular country taken separately. One

low-wage country may be able to benefit for a certain period by establishing on its soil one of the traditional branches of the high-wage countries, favored by unequal exchange. Other low-wage countries will soon copy its example, and this branch will not take long to become "degraded" (not to mention that the mere internal competition of the capitalists of the country in question will often suffice to bring about the same result).

But suppose that the countries of the second group try to escape from unequal exchange by producing inside their zone and supplying to each other the products that are burdened with the high wages of the advanced countries. What will they do then with their coffee, their rubber, their palm nuts? If they continue to export them to the developed countries, what will they do with the money they get for them? Unless they return these funds in order to buy something from the developed countries, their situation will be worse than that resulting from unequal exchange: their exports will have been, in effect, given away. But if they import something with the money, they will be subjected to unequal exchange.

Could we perhaps imagine a general agreement, a sort of common market of the underdeveloped countries, who would plan their production and exchange and arrange among themselves to produce just enough coffee, rubber, and palm nuts to meet their own needs, directing the surplus of their factors into producing articles that otherwise they would have to import, on the scale of their zone as a whole? Though one may doubt whether, even taking the group as a whole, the underdeveloped countries could be entirely independent of the others, it is undeniable that if the low-wage countries did succeed in concluding such an agreement, they would escape from unequal exchange—in the main, at least. Such a possibility, however, lies outside the conditions assumed in this study, which are those of competition between the producers both on the national and on the international planes. It is certain that what causes the excess surplus value produced within the country to be drained away abroad is the competition between the capitalists, which constantly tends to reduce their profits to the level of the general rate. Without this competition this excess would be kept within the country, if not in the form of superwages then at least in that of superprofits. A monopoly of foreign trade even on a national scale, and still more, of course, one organized on an international scale, such as that which the agreement imagined above would bring about, would obviously put an end to this servitude. Though autarky is not practicable, the underdeveloped countries that had attained such a degree

of integration would in any case have no need to resort to it. They would, instead, directly intercept and retain their own excess surplus value through a concerted price policy[35]

Despite this practical impossibility for the underdeveloped countries to live without external exchange, it follows from my analysis that the policy of diversification and autarky has more inherent logic than that which consists in choosing the branches that political economy has recently described as dynamic, for the sole reason that it has observed *ex post* that they lie on the right side of the barrier of unequal exchange—losing sight of the fact that they are only "dynamic" because they belong to the high-wage countries and would cease to be so the moment they crossed over to the underdeveloped countries, as happened with the textile industry.[36]

On another basis than mine, F. Perroux, G. Destanne de Bernis, Jean-Marie Martin, F. Rosenfeld, and others have analyzed, in a series of articles published in *Economie appliquée*, the *dynamic* of the "industrializing industries."[37] Considering it as self-evident that industrialization is an indispensable factor in raising the standard of living, these writers are able to justify their decision in favor of establishing first of all in the developing countries certain "industries situated at the highest stages of the production process" because of their training effects, and without referring to the impact of the terms of exchange. On this basis their arguments are to the point and it would be hard to dispute the conclusions they draw.

However, a free trader might reject the entire argument by challenging what looks like a question-begging assumption they make, namely, that industrialization is a good thing in itself. If freedom of trade is perfect and if all prices of all products are equally remunerative to their respective factors, it is hard to see why a country that specialized, in accordance with its comparative advantage, in the production of bananas should be less rich than one that specialized in machine tools. If machine tools are dynamic because they induce the mechanization of other branches of industry and agriculture, oil seeds, rubber, petroleum are no less indispensable to every industrial group, and there seems no clear reason why a developed country can without prejudice depend on foreigners for its supply of raw materials and yet not for iron and steel goods. G. Destanne de Bernis offers three reasons, all very weak. "The objection that these intermediate products might be imported," he writes, "will not hold, for three reasons we have already encountered: the fact that the under-

developed countries actually import only a very small quantity of them, their lack of available foreign exchange, the low value of these products in proportion to their weight, which prevents them from being objects of active international trade."[38]

The first of these reasons is incomprehensible, if it is not a mere tautology: the underdeveloped countries cannot import these products because they "actually import only a very small quantity of them." The second departs from the writer's premises: the availability of foreign exchange depends on the amount of value produced, and so on the level of development, on the proportion of this value that is exchanged, and on the terms of exchange. To invoke the first of these factors is to take for granted what has to be proved, namely, that development will proceed faster if the proposed path be followed. The second works against the argument, since the proportion exchanged diminishes with the diversification and the "introverted" development that is being advocated. All that is left is the terms of exchange, which do indeed constitute a valid reason in themselves that can determine, in the last analysis, decisions to set up certain industries regardless of or in contradiction to comparative costs, but of which the writer takes no account whatever in his argument. Finally, the third reason is based on an untruth. It is simply not true that iron and steel goods in general, and machines in particular, are "heavier" than the palm nuts, the minerals, or the petroleum that the developed countries import, not to speak of certain other agricultural products the transport and preparation for transport of which in some cases costs several times the price f.o.b. It is this high price f.o.b. that makes the importing of some products worthwhile and that of others not; in other words, it is the terms of trade that make industrialization desirable for the underdeveloped countries of today.

But it is clear that as soon as the need for industrialization and diversification is acknowledged, the analysis of the "poles of growth" and the "industrializing industries" provided by the writers I have quoted becomes extremely interesting.

It is true, however, that between extreme specialization and complete autarky there are a whole range of situations corresponding to the different degrees of diversification. If the underdeveloped countries, whether each one moved by its own interest or the whole lot together, acting in concert, were to succeed, not in ceasing completely to export coffee, rubber, and palm nuts and to import manufactured goods from the industrialized

countries, but just to reduce those exports and imports to a substantial extent by transferring part of their factors from the traditional export branches to certain branches whose production would replace imports, the result would constitute a twofold gain for these countries. In the first place, they would benefit from the mere fact of reducing the volume of their exchanges, since the loss arising from unequal exchange is, as I have already had occasion to say, the product of the terms of trade multiplied by the ratio of the volume of external exchange to the volume of the national product. Then, they would also gain through the reinforcement of their power to bargain over the prices of their traditional export products, resulting from the diminution in the quantities produced and exported. For we must not lose sight of the fact that the equilibrium of world trade dictates that the diversification of one of the two groups must be followed by an equal diversification of the other, without which this other group would have more commodities to offer than could be bought from it and would need more commodities than it could be supplied with. Thus whichever of the two groups took the initiative in diversification would hold right away an advantage over the other.

In addition, the concrete conditions are such that, geologically if not economically, diversification is easier for the underdeveloped countries than for the others. As already said, it is always easier for Portugal (read: for the underdeveloped countries) to produce cloth than for Britain (read: the developed countries) to produce wine (read: coffee, rubber, palm nuts).

Thus, under present-day conditions of huge disparity in wage levels between the "North" and the "South," diversification, whether undertaken in the framework of each underdeveloped country separately, if the size of the country permits this, or on the basis of regional agreements, is undoubtedly beneficial for the "South," and indeed it is to be observed that these countries are becoming more and more aware of this. However, we must not confuse diversification with choice of export branches or change of specialization in order to compete with the rich countries.

What must be kept in mind is that the rich countries pass on the cost of their high wages to the foreign consumer on the basis of an *existing* international division of labor and thereby enjoy the advantage of the status quo. These countries do not have to worry about finding specializations that make this repercussion possible. They already possess these specializations. They were acquired at the same time as the superiority of their

wage levels came about, in the course of a long-term evolution. If the other countries want to take over these branches, it is they who will have to worry about the difficulties of transplantation. Besides the obstacles listed above, it must also be said that in any case a new branch of production is not to be established anywhere by merely pressing a button. Decades of effort are needed, during which the high-wage countries that hitherto exploited this branch have time to adjust their aim. This is just what happened with textiles. Above all, though, during this "acclimatization" period of the new branch, the ratio between the costs of the old producers and the new is not one that can be deduced from merely calculating the effect of the difference in wages. While the new industry is going through the period of infantile disorders, the difference in productivity usually makes up, in whole or in large part, for the difference in wages, and sometimes more than makes up for this. This period is usually too long for the relatively short view taken by private capital, which under a competitive system is the exclusive agent of the introduction and establishment of the new branch. Only the state, within the context of the long-term prospects of an overall economic plan, can undertake the effort and sacrifice called for by this often lengthy period of adaptation and organization.

If what is involved is a branch of production aimed at replacing imports, matters can be facilitated for private capital by an adequate degree of tariff protection, but if an exporting branch has been chosen, private capital would find it very risky to face a long period of working without profit, or even at a loss, due to inexperience and external "diseconomies." Only export subsidies could provide the necessary incentive, but such subsidies presuppose a degree of interventionism going much further than mere tariff protection and coming close to the model of a planned economy—to which, as I have already observed, many things are possible that are out of the question so far as a free-enterprise economy is concerned.

What then becomes, in all this, of the international division of labor, seen by the best minds as the product of objective, inescapable factors, a sort of pre-established harmony? On this subject I think it is good to quote Marx's splendid apostrophe: "You believe perhaps, gentlemen, that the production of coffee and sugar is the natural destiny of the West Indies. Two centuries ago, nature, which does not trouble herself about commerce, had planted neither sugar-cane nor coffee trees there."[39]

Notes

1. David Ricardo, *Principles of Political Economy and Taxation*, 3rd ed. (London, 1821), p. 17. chap. 1, p. 9. (Ricardo's own emphasis).

2. Exchange of equivalents within the limits of the competition of the factors. Since this competition is absent in international exchanges, exchange is unequal, as I have shown in Chapter 2.

3. The existence of a second factor and the transformation of values into prices of production are here left out of account.

4. Isaac and Levy are two jewelers whose shops face each other in the same street. One day Isaac buys a necklace of high-quality pearls for only ten dollars. He goes and boasts about this to Levy. Levy is enthralled. "Sell me this necklace," he begs, "I was just promising one like it to Rebecca, my wife. She'll love it. Here's eleven dollars." Isaac lets himself be persuaded. At lunchtime he tells his wife, Sarah, about it. "At ten this morning," he says, "I bought a necklace for ten dollars, and at five past ten I sold it to Levy for eleven dollars. A dollar made in five minutes!"

"You idiot," says Sarah. "It's always the same with you. If Levy paid you eleven dollars for that necklace, it was because he realized it's worth much more. Hurry up and buy it back from him."

That afternoon, Isaac calls on Levy. "Levy," he says, "if you are a friend of mine, sell me back that necklace. Sarah's made one of her scenes about it. . . . Here is twelve dollars."

Levy agrees, and that evening he tells Rebecca about it. "This morning Isaac came over to sell me a necklace for eleven dollars and this afternoon he bought it back from me for twelve. I made a dollar without stirring from my counter."

"You idiot," says Rebecca. "It's always the same with you. If Isaac came in to see you again, to buy back that necklace for a dollar more than he sold it to you, it must have been because he'd found out meanwhile that it's worth much more. Go and get it back from him."

Next morning, Levy puts thirteen dollars down on Isaac's counter and recovers the necklace. The following day it is Isaac's turn, with fourteen dollars, and so it goes on.

A fortnight or so later, the necklace has reached the price of twenty-four dollars and is in Isaac's shop. Levy enters and puts down twenty-five dollars. "The necklace," he says.

"The necklace isn't here any more," Isaac answers. "Last evening, just before I closed, an American woman looked in, I offered it to her for thirty dollars, and she bought it."

Levy collapses into a chair. "You've sold our necklace? But, you idiot, thanks to that necklace we were quietly, easily making a dollar a day each! And you've sold it—our livelihood!"

When this story is told, people usually laugh. The idea that somebody can make money without producing anything new or taking anything from someone else strikes them as ridiculous. Yet when exactly the same thing happens on the stock exchange, the only difference being that, instead of one Isaac and one Levy who keep swapping a necklace between themselves, there are a thousand Smiths and a thousand Joneses who keep swapping shares, people take this quite seriously and are even ready to build upon it. What was subjective and imaginary in the case of two individuals has become objective and real in the case of a large number of individuals.

5. "And so we see this numerous class of mankind subjected to the same fate, from one end of the world to the other. In the temperate countries of Europe, the common people have bread, because they cannot live without this foodstuff, and in those where fruit and vegetables can partly supplement it they are obliged to be content therewith. In climates where substantial clothing is essential for survival, wages are proportionate to the need for food and clothing; in the South, however, if the natural warmth eliminates the need for such clothing, the common people are dressed in rags, without for that being better supplied with food. Everywhere it has been worked out exactly what is necessary in order to pay the common people only this price for their labor; and amidst all the wealth of the Indies the common people earn only four or five *sous* a day, since they need only rice, and the country supplies plenty of that. If a foodstuff could be discovered that, though less agreeable than bread, could support human life for forty-eight hours instead of twenty-four, the common people would soon be obliged to eat only every other day . . ." (Jacques Necker, *Sur la législation et le commerce des grains* [Lausanne, 1784], pt. 4, ch. 7).

6. *Capital* (London, 1970), 1: 171. [This translation has been corrected on the basis of the French and German editions of *Capital*, vol. 1—Trans.] Emphasis mine, A. E.

7. "Necessary time," in Marxist terminology, means the time that the worker has to work in order to produce value equal to the value of the products he needs to consume in order to live and reproduce himself.

8. David Macpherson, *Annals of Commerce, Manufactures, Fisheries and Navigation* . . . (London, 1805), p. 542.

9. Ibid., p. 600.

10. William Thornton, *Over-Population and Its Remedy* (London, 1846), p. 173.

11. Ibid., p. 174.

12. They are perhaps likewise doomed to possess their own automobile or else to walk, since public transport is probably not available in the United States on a sufficient scale to carry everybody if the workers' private cars were to disappear.

13. This is why all deductions from gross wages for social security, pensions, insurance, and even income tax, if they are universal, obligatory, and collected at source, end by falling on the employer. What matters in determining the "demands on life" made by wage earners and the moral judgment of society where wage levels are concerned is what the worker actually takes home, and the style of life he can provide for himself and his family with this sum of money. The trade unions understood this early on and have always striven to secure the most extensive social legislation possible, even if the benefits thus gained are accompanied by excessively high costs of administration of the institutions thus established and necessitate, as a result, disproportionately high contributions by both wage earners and employers. They realize that it is the net wage, the take-home pay, that ultimately and basically constitutes the matter to be negotiated between capital and labor. This circumstance provides additional evidence against the view that the prices of the factors are determined by the prices of commodities. If this were so, what is determined would not be the net wage, or even the gross wage, but the total cost of labor power; in which case it would be useless to demand deferred benefits, such as pensions, since it would be the worker himself who would pay for them, and even pay something extra, namely, the administrative costs of the relevant financial institutions.

14. Karl Marx, *Theories of Surplus Value* (Moscow, 1968), 2: 584.

15. Adam Smith wrote: "England is certainly, in the present times, a much richer country than any part of North America. The wages of labour, however, are much higher in North America than in any part of England. . . . The price of provisions is everywhere in North America much lower than in England" (*Wealth of Nations* [Edinburgh, 1814], bk. 1, ch. 8). Malthus estimated the wages of a workman in the United States at one dollar a day, the equivalent of four shillings, while in Britain a workman received two shillings (*An Essay on the Principle of Population* [London, 1872], bk. 3, ch. 7). Elsewhere, Malthus, by expressing American wages in terms of corn, found that they were double the amount paid over most of Europe (ibid., ch. 4, sect. 1). J. B. Say estimated the daily pay of a laborer in the United States at three times what it was in France (*A Treatise on Political Economy* [London, 1821], bk. 1, ch. 27).

16. I am not, of course, referring here to certain minor readjustments in wages based not on the ratio between productivity in one particular zone and the neighboring one but on that between countries in the same zone exporting the same products. I am speaking of different orders of magnitude corresponding to different degrees of development and such as would cause the country in question to pass from one zone to another.

A minor readjustment of this sort occurred, for instance, the last time that the pound sterling was devalued. As will be explained later in Section IV, what happens in a case like this is not that wages shrink within the limits of com-

parative costs (between countries with different specializations), but that the individual cost of production in a selling country comes into line with the general cost of production prevailing in the other countries that sell the same goods.

17. The average wage of the black workers in the gold mines in 1937 was 2s. 3d., plus 11d. to cover cost of food and quarters. The average wage of the remaining workers was 25s. The annual wage bill for 36,000 whites was £14,307,000, that of the 288,000 "others" came to £9,854,000. The "others" included Asians, whose wages were much higher than those of the blacks, though not so high as the whites earned; and South African legislation and statistics classify as Asians people who have come from such countries as Turkey, Cyprus, and Greece. Between 1937 and 1963 the nominal wages of the whites increased threefold; their real wages (allowing for the fall of about 50 percent in the purchasing power of money) increased by 50 percent. During the same period the *real* wages of the blacks did not change at all. According to figures given by the official *Bulletin of Statistics*, quoted by John Cope, *South Africa* (London, 1965), average wages in the mines were in 1962 as follows: whites £1,217 per year, coloreds and Asians £205, Africans £74. Thus the *nominal* wages of the blacks rose from 2s. a day under President Kruger in 1895 to 2s. 3d. in 1937 and about 5s. in 1962. Allowing for the actual devaluation of the currency between the last two dates, the real wages of the blacks hardly changed over these 25 years, so that Alex Hepple can write in *South Africa, a Political and Economic History* (London, 1966): "Their cash wages, calculated at constant 1959 prices, actually declined from £72 to £70 ($188 per year) between 1935 and 1960." The remark quoted by S. H. Frankel, in 1938, is still true: "'Nothing has changed so little in South Africa,' an eminent South African authoress has written, 'as the black man's rate of pay'" (*Capital Investment in Africa* [Oxford, 1938], p. 83).

18. This passage having been written in 1967, the figures quoted no longer correspond to reality. Today the gold held by the United States does not exceed 9,000 tons ($10 billion).

19. It goes without saying that the same results would be achieved if South Africa, instead of exterminating its blacks and replacing them with whites, were to be satisfied with raising their wages to the white level. Such an assumption being fanciful, however, I have assumed instead the straightforward extermination of the black population, as being, in present circumstances the less unrealistic of the two hypotheses. The embargo postulated in this passage has, moreover, actually been imposed since 15 August 1971: but because South Africa retains the low wage level for black workers in the mines, the quantity of gold produced and marketed by that country has not declined, and its price on the free market has so far diverged from the official parity by only 20 percent.

20. Besides the initial standard of living of the immigrants, other factors also

operated to keep the rate of wages at a low level and thereby to hold back the development of Latin America, namely:

i. The transplanting to the colonies of the clerico-feudal structures of the home country, as regards landownership and ground rent. These structures prevented agriculture from playing the role of an activity in which men could take refuge and thereby acting as a check upon the reduction of urban wages, which was the role it played in North America (and this without the surplus value exacted by the Spanish landlords being used for development, since that class, unlike its British counterpart, was oriented toward unproductive expenditure rather than accumulation).

ii. The partial survival of the native population, and interbreeding by the settlers both with them and with the blacks emancipated from slavery.

21. The only case of its kind among capitalist countries. Industrialization was launched by the state itself, with the cooperation of two great feudal clans, and then, when industry was sufficiently prosperous, it was reprivatized without, however, centralized management being abandoned.

22. Thus, the zones where the intensity of investment is high and wages increase are precisely the zones that were already developed and where high wages prevailed previously, and not, as a certain "liberal" conception would suggest, "low-wage zones" (see Charles Bettelheim, "Echange international et développement régional," *Problèmes de planification*, no. 2, p. 11).

23. "It must be remembered that the 'attraction' of the low-wage zones, as zones for the investment of capital from outside, is practically restricted to a few types of production only" (ibid., p. 9).

24. In many cases this "comparative productivity" is infinite, since the establishment of the branches in question in the developed importing countries is materially impossible for geological or climatic reasons.

25. This formulation must be seen as merely a simple theoretical schema of the two paths, without any normative position being taken up, and what is more, in the case of the capitalist path, without any consideration of the practical possibilities of its application. In fact, the efficacy of the capitalist path—which must not be confused with the policy of free trade—presupposes not only direct investment but actual *immigration* of capitals and of their decision-making centers, without any intention of repatriating either the principal or the profits; as has happened, for example, in the case of the United States. Otherwise, the country soon reaches the point at which payment of dividends on these capitals causes the departure of funds to exceed the arrival of fresh capital, and the sector financed by these capitals becomes a sort of enclave in the economy of the country in question. Also, there are thresholds of discontinuity in the expansion of the market as a factor promoting investment and attracting foreign capital. It would be foolish to suppose that a wage increase amounting to a few French-

African-Community francs per hour in a country so small as Gabon or the Central African Republic would suffice to start a movement there by international capital looking for somewhere to be invested. Complacently waiting for an influx of capital that in the end never came has often prevented the underdeveloped countries from rationalizing their economies by mobilizing their own resources.

26. List must have meant something like this when he said that the productive forces are more important than what is produced.

27. I mean by "socialist" a system in which private ownership of the means of production has been abolished and distribution takes place in accordance with the principle: to each in proportion to the quantity and quality of his labor.

28. I am, of course, speaking of the world of today, not of a world of the future in which unheard-of technological progress may have eliminated the differences between agriculture and industry and equalized upward the organic composition of labour in all branches of industry.

29. Not because of unequal exchange but because of unequal development. These are two different things. However, unequal exchange due to unequal wages, where they are present, can be aggravated by unequal organic composition of labor. This happens because inequality of wages bears heaviest upon the least skilled workers. The higher categories, being more mobile and competitive, are subject to a certain equalization process on the world scale. Though an American laborer earns 30 times as much as an Egyptian one, the difference between an engineer's salary in the United States and in Egypt is much less. As in the underdeveloped countries low wages generally go along with a low organic composition of labor, the weighted wage scale is markedly lower there than the average wage scale.

30. Charles Bettelheim goes deeply and thoroughly into this problem in his *Studies in the Theory of Planning* (Bombay, 1959). Here I can only refer to it, as it is only marginal to my subject. Cf. also G. Destanne de Bernis, "Industries industrialisantes," *Economie appliquée*, vol. 19 (1966); he favors unreservedly the establishment first and foremost of branches with high capital intensity, while distinguishing from this the problem of choosing a particular level of technique within the chosen branch.

31. Robert Lafont shows that in 31 of France's *départements* the *average* wage of men in the private and semipublic sectors was less than 6,500 francs per year in 1960, as against 11,678 francs in the Paris region. In 28 *départements* in March 1962 fewer than 55 private cars less than five years old were counted per 1,000 inhabitants, as against 109 in the Seine *département*, which includes Paris and its environs (*La révolution régionaliste* [Paris, 1967], p. 69).

32. Seventeen of France's *départements* have more than half of their working population engaged in agriculture. In these *départements* the total body of

persons belonging to the liberal professions and the higher levels of employment amounts to the tiny figure of 1·5 percent (ibid.).

33. My emphasis, A. E. T. R. Malthus, *Principles of Political Economy*, 2nd ed. (London, 1836), ch. 2, sect. 7, p. 130.

34. Nothing, of course, except one thing: abolition of the competitive system in India and the establishment of a state monopoly of foreign trade.

35. I leave out of the discussion the other obstacle to the establishment within the low-wage zone of the kinds of production that are at present burdened with the high wages of the developed countries, namely, the lack of capital. As I have already said, capital, even completely mobile capital, is not invested unless there is a pre-existent local market, and the high-wage regions naturally constitute a much larger market than the others. The only exceptions are certain mineral deposits and crops for which capital has to be invested on the very spot where the deposits lie or the crops can be raised. (Cf. quotations from C. Bettelheim, notes 22 and 23 above.) As far as these branches are concerned, capital has never been lacking for the underdeveloped countries, and the technological level reached has been of the highest. For the rest the general rule, as Linder has brought out so well, is that, contrary to a certain extreme conception of the international division of labor put forward by the classical economists, countries specialize first and foremost in products they consume themselves, and export begins only at a second stage in order to dispose of a surplus. If Scotland produces and exports her whisky, this is because she consumes quite a lot of it herself, and if the United States is a traditional exporter of automobiles (not to speak of Coca-Cola), this is because she is the biggest consumer of them in the whole world. Europe has been able to engage in a systematic way in the export of cars only since her domestic consumption of them has been adequate to foster large-scale production of cars in Europe. Except in the case of products that are localized by nature, no new branch is ever established anywhere relying entirely or even substantially on exports. Even apart from the costs and uncertainties of foreign trade, even assuming perfect freedom of trade, a new line of production can take its first steps only if it bases itself exclusively or almost exclusively on a local market that is known and on networks of distribution and finance that the producer can check on or that are to some extent under his control, or with which he is simply familiar.

36. To illustrate this optical illusion, let me refer to a similar phenomenon that is happening in the United States at the present time with the residential discrimination between whites and blacks. There are pleasant districts where whites live and unpleasant districts where blacks live. And yet everyone is free to live wherever he likes. What happens then? As soon as some blacks settle in a district, the whites leave it and go off to find somewhere else to live. As there is plenty of room elsewhere, whatever blacks may do, there will always be pleasant

and unpleasant districts. It would be pointless to advise blacks to go and live in the pleasant districts. These were not chosen by whites because they are pleasant, they are pleasant because whites live there. If the blacks moved in they would cease to be pleasant! (Harlem, adjoining Central Park, was from its topographical situation one of the best districts in New York before it was occupied by blacks.) Similarly, it would be pointless to advise the underdeveloped countries to choose the branches that sell their products for high prices. These branches have not been chosen by the rich countries because they sell dear, they sell dear because they are operated by the rich countries. If they were taken over by the poor countries, their products would cease to realize high prices.

37. François Perroux, "Intégration économique," *Economie appliquée*, vol. 19 (1966); G. Destanne de Bernis, "Industries industrialisantes," ibid.

38. Bernis, "Industries industrialisantes," p. 464.

39. From "Address on Free Trade, 1848," *Poverty of Philosophy* (New York, 1963), p. 223.

Chapter 4
Limits and Implications of Unequal Exchange

I. DIFFERENT ORGANIC COMPOSITIONS WITH THE SAME WAGE LEVEL

1. *Unequal Exchange in the Broad Sense*

In Chapter 2 I distinguished between two forms of nonequivalence. One (apparent) form arises from the mere transformation of values into prices of production, when wage rates are the same but the organic compositions of capital are different. The other, which I called nonequivalence in the strict sense, is characterized by differences in both wages and organic compositions. I refused to consider the first form as constituting unequal exchange and based my definition upon the second. Since, however, many Marxists regard the first form as constituting the very type of nonequivalent exchange, I must justify the position I take on this matter.

To do this I will first refer to a passage from the pen of Professor Charles Bettelheim in which this question is discussed.[1] He concludes by agreeing that the unequal exchange that arises from differences in wages is much the more important, both from the standpoint of the immediate exploitation of one country by another and from that of the uneven development of different countries.[2]

However, the arguments he sets out at the beginning of this passage, apparently with a view to showing the scope of the problem, and without sticking too closely to them thereafter, tend to show that between the two forms of unequal exchange there is only a difference of degree. For this reason I shall discuss these arguments as they stand, while appreciating that the point of view for which they might constitute the elements is not the same as Professor Bettelheim's own, as I have been able to learn it subsequently and as it is even expressed later on in the same passage.

According to these arguments, when we consider the two forms of

nonequivalence we might think fit to speak of unequal exchange "in the broad sense" and unequal exchange "in the narrow sense."

Let us take again the example we used in Chapter 2 (see over).

Here, according to the argument we are discussing, is a case of unequal exchange in the broad sense, since country B exchanges its production, which has cost it 120 hours of living labor and a certain quantity of past labor, for 150/190 of the production that has cost country A the same amount of living labor and an equivalent amount of past labor.[3] In other words, and leaving aside the inputs in past labor that we assume to be the same in both countries, country B exchanges one hour of its national living labour for 15/19 hours of A's living labor.

It is undeniable (and I have accepted this in Chapter 2) that already in this type of exchange there is a transfer of surplus value (20 units) from country B to country A. I cannot, however, put this transfer in the same category with the transfer caused by difference in wage levels, even if we distinguish between a "broad" sense and a "narrow" sense, because I see between the two a difference not of degree but of quality.

2. *Nonequivalence in the Broad Sense is Not a Phenomenon Peculiar to Foreign Trade*

The first reason that forbids us to make this identification is that this kind of nonequivalence exists in every exchange that occurs under the capitalist system, whether inside or outside a nation, and from the point of view of method there would be nothing to gain by creating a new category.

Our limit is the capitalist system itself. When we say that there is unequal exchange between France and Guinea, we are not concerned with what would happen if capitalist production relations did not exist, and commodities were exchanged in accordance with their values and not their prices of production, but with what would happen if Guinea were a part of France, like Brittany or the *département* of Alpes Maritimes, that is, if the exchange we are analyzing were intranational instead of international.

For a Guinea that was a part of France, with free circulation of capital and of people to and from other parts of France, with the same legislation and the same relationship between social forces as elsewhere in France, and a unified labor market embracing Guinea and the rest of France, unequal exchange "in the narrow sense" would vanish, but unequal exchange "in the broad sense" would continue. How then can one talk of an inequality

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Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	60	60	170	110	$33\frac{1}{3}\%$	80	190
B	120	50	60	60	170	110		40	150
	360	100	120	120	340	220		120	340

peculiar to international trade if exactly the same phenomenon occurs between regions *and between branches of production* inside one country? How could France or Guinea complain about the mere transformation of values into prices of production when this same transformation takes place inside each country's national economy?

However, this argument, I agree, is not decisive. The reply could be made that inside a given country redistributive mechanisms wipe out the inequality of exchange that is due to differences in organic composition between different branches or regions. There is a unified capital market, which is not the same thing as international investment. The branches or regions with a higher organic composition pour back into the other branches and regions the extra surplus value they have drawn out of the common pool, either through social legislation and state expenditure or else through interbranch financing carried out via the banking network or the stock exchange. All this is missing from the international scene. The 20 units of surplus value transferred from B to A owing to the difference in organic compositions are irrecoverably lost by B.

3. *Prices of Production as a Structural Necessity for Capitalism*

There is, however, another fundamental difference between "inequality" of exchange due to difference in organic composition and inequality due to difference in wages. Differentiation in organic composition is inevitable even in a model of perfect competition; it is independent of the degree of this competition or the imperfections in it. It is due, among other things, to the specific technical features of the different branches. Differentiation in wages is due to imperfect competition by the labor factor, caused by distances and political frontiers, and is proportionate to the imperfection of this competition. Constant increase in organic composition is a structural necessity for the development of capitalism, whereas disparity of wage levels is an accidental feature.

Nobody, whether an individual firm or a country, would go on accumulating if profits were not proportionate to capital invested. Prices corresponding to values would put a premium on nonmechanization. Technological progress would be held up. This is even valid regardless of the internal regime of each country, if each country presents itself externally as an independent producer of commodities exchangeable on the international market.

Prices of production, which take account of the capital invested, are thus an element that is immanent in the competitive system. They are an instrument for maximizing society's economic product. Even if we consider only the aim pursued by the capitalist class (since this class alone is in charge of the working of the system), namely, the maximizing of profit, we see that increase in organic composition is a factor favoring this. All other things being equal, and if wages remain the same, to maximize production means to maximize profit, since the latter is only what remains after paying wages.[4]

When, however, a low-wage country pours away abroad the extra surplus value that its enterprises have extracted from its own workers, this does not correspond to any sort of rationality or any sort of progress.

Difference in organic compositions is an objective condition of production. Disparity in wages, if my analysis in Chapter 3 is correct, is an institutional factor. An international division of labor conditioned by this factor is "suboptimal" insofar as there is no necessary correspondence between the natural and objective advantages of each country and a location of branches of production that is determined by differences in wages.[5]

Let us suppose that, for some reason or other (political changes, trade-union activity, or whatever), wages in the Third World were suddenly to increase fivefold or tenfold, or that wages in the advanced countries were to fall by that much: the greater part of today's international division of labor would lose all justification, even though no objective factor of production had changed.

4. *Organic Compositions and Terms of Trade*

In conclusion, if we try to explain the long-term worsening of terms of trade by differences in organic composition and regardless of disparity in wages, we shall be on the wrong track. For the transfer of surplus value that is occasioned by difference between organic compositions, that is, by the transformation of values into prices of production, though it certainly corresponds to a disadvantage that exists in the factoral terms of trade, does not necessarily correspond to one in the barter terms of trade.[6]

We must indeed refrain from losing sight of the fact that the prices of production A = 190 and B = 150 are not unit prices but the countervalue of the total production of countries A and B.

What would the situation be if A had the same organic composition

(120) as B and exchanged its products at par with those of B, the other elements in cost remaining the same? Would it be better or worse for B? This depends on the physical quantities produced by A in these two cases.

For B's situation to be better, the increase in A's organic composition, from 120 units of capital per 120 units of labor to 240 units of capital per 120 units of labor, would have to result in an increase of productivity of less than 190/150. In other words, it would be necessary that, all other things being equal, the price of production *per unit product* should not diminish with the increase in equipment and advance in technique, but instead should increase. This is something that, though theoretically possible, is improbable in practice, given that, under a regime of free competition, a higher technique is adopted only insofar as and to the extent that it will have the effect of reducing the unit price.

If we bring the physical quantities of the goods into our numerical example, the respective positions will be as shown on page 166.

Everything thus depends on the magnitude of x. if $x < 126\frac{2}{3}$, B's terms of trade are indeed worsened; if $x = 126\frac{2}{3}$ they remain the same; and if $x > 126\frac{2}{3}$ they are even improved. It is therefore necessary, in this numerical example, that the marginal productivity of capital be less than 4/15 of its average productivity for this inequality "in the broad sense" to bring about a worsening in the terms of trade.

Since, as a general rule, in the system of free competition, a higher technique is useful only on condition that, with wages unchanged, the unit price of the product is less than that obtained with the lower technique; and that, despite this, the additional capital needed for this technique is rewarded at the prevailing rate, or that the unit price is equal to that obtained with the old technique, but the total capital (initial and additional) earns a rate of profit higher than the prevailing rate; and as this condition implies a corresponding growth in production per unit of living labor, we can conclude that, accidents excepted, the country that has not increased its organic composition will receive from the country that has done this, for the same value and the same use values, a lower value, to be sure, but a higher quantity of use values than before.[7]

We must distinguish the *ex ante* motives and calculations of each individual capitalist from the *ex post* result that ensues for all the capitalists. Individual calculation is necessarily linear. Each capitalist separately assumes that the elasticities of the market are infinite so far as he is concerned, and he cannot reckon either with the effect his own actions will

See text page 165

With Equal Organic Compositions

Country	K Total capital investment	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $R+p$	Use values	Unit prices
A	120	50	60	60	170	50%	60	170	100	1·70
B	120	50	60	60	170		60	170	200	0·85
	240	100	120	120	340		120	340		

B's barter terms of trade are $Px/Pm = 1/2$.

With Unequal Organic Compositions

A	240	50	60	60	170	$33\frac{1}{3}$%	80	190	x	$190/x$
B	120	50	60	60	170		40	150	200	0·75
	360	100	120	120	340		120	340		

B's barter terms of trade are $Px/Pm = \frac{0{\cdot}75}{190/x}$.

have upon the commodity and capital markets or with what would happen if the other capitalists were to copy his example. Even if he realizes that the new technique will soon be introduced generally and that the end result will be a worsening of the situation of all the capitalists, himself included, he cannot refrain from using the new technique, if it is profitable in relation to the existing situation. Were he to hold back while others adopted the new technique, his individual position would be still worse than if he hastened to make use of it, along with the others and as soon as possible.

Thus, faced with the new technique, the position of the individual capitalist in country A is a simple one. The general rate of profit is 50 percent. The price of the product is 1·70. Two reasons may persuade him to adopt the new technique that requires twice as much capital for the same number of workers. He can either reduce his price below 1·70 in order to undersell his competitors, while retaining the same rate of profit, or he can increase this rate of profit, while keeping his price at 1·70. In both cases it is clear that he will only adopt the new technique if he can produce with it more than 136 units of the product for the same total cost of production. Thus, it is necessary that $x > 136$. If this is so, then after this new technique has come into general use in country A, the international price of a unit product of A will fall below 1·39 or 190/136, having previously been 1·70, whereas a unit product of B will fall in price only from 0·85 to 0·75. Thus, the commodity terms of trade will improve for B instead of getting worse.

Consequently, neither the barter terms nor the simple factoral terms of trade can, as a rule, suffer from this nonequivalence "in the broad sense." Only the double factoral terms can be affected by it, and then only provided it is accepted a priori that only the service of labor is productive and deserves reward. If we were to keep to Pigou's formula of "a certain quantity of labor and of service of capital," then q (or Z, according to Kindleberger) would be composite and indeterminate, and the inequality pointed out by Bettelheim would be no inequality at all, since, though B gives one hour of its labor for 15/19 of an hour of A's, on the other hand, it gives the "service" of only 120 units of its capital for 240 of A's. Between the two inequalities there is no common yardstick by which we could compare them, except for wages and the rate of profit, which cause one to compensate the other at the new prices of production, 190/150.

Only if we reject the "service" of capital, that is, if we exclude the time factor and assume that one hour of labor at t_1 is equal to one hour of labor

at t_n; in other words, if we postulate that country A has no right to any special payment for the fact that it has had to wait the time needed to accumulate 240 units of capital before exporting its goods, whereas country B had to accumulate only 120; only then would unequal exchange "in the broad sense" correspond to a worsening in the double factoral terms of trade, and of them alone.

It is not the same with inequality of exchange caused by inequality of wages. There, the low-wage country receives in exchange not only less value but also fewer use values, and the inequality is reflected in all the terms of trade, barter as well as factoral.

5. *The Criterion of Conformity with the Law of Value*

It follows from what has been said that to describe as unequal the exchange that results from the transformation of values into prices of production would be to express a value judgment and take a stand in a controversy that is philosophical rather than economic. One would then have first to answer the question whether a present good is or is not worth more than a future good—whether the fruit of the sacrifices of the generation that built the railways and the blast furnaces in Europe belongs to that generation's own descendants or to mankind as a whole (given that it was the existence of this mankind-as-a-whole, and in many cases the profit Europe drew from them, that made that construction work possible). If this were my theme I should not be very far away from Bettelheim's formulation. But my theme is a different one: it is to analyze exchange from the standpoint of commodity economy itself.[8]

Bettelheim answers that, insofar as prices of production are respected and wages are fixed under conditions that conform to the law of value, it can be said that "from the standpoint of capitalist production," no exchange is unequal.

That prices of production be respected is indeed in conformity with the law of value, and this is precisely why I do not accept difference in organic compositions as an element that in itself contributes to inequality of exchange. But I am doubtful whether the geographical differentiation of wages is equally in conformity with the law of value. One of the most essential conditions for the working of this law is that there should be a single market and a single price for every commodity (leaving aside, of course, transport costs). Since labor power is, under the capitalist regime,

commodity like any other, it ought, if competition is perfect, to command the same price everywhere. If in fact it commands different prices, then competition is not perfect, and the law of value has been distorted. And what prevents this competition from being perfect is, first and foremost and above all, the *political* fact that the world is divided into separate states.

Underpinning unequal exchange there is a monopoly, all right; not, however, a monopoly of goods—certain writers in the socialist countries, whom we have quoted in Chapter 3, are not wrong when they say that *this* monopoly is to be found on both sides of the barrier—but the monopoly position held by the workers in the advanced countries. And this is no structural necessity of the capitalist system.[9]

6. *How Growth is Affected by the Transformation of Values into Prices of Production*

What are the advantages possessed by the country with a high organic composition? In my numerical example country A obtains a national income of 140, country B one of 100. Yet the amount of wages paid out in the two countries is the same (60). Therefore, country A's advantage depends on the use it makes of the surplus. If we assume that the surplus is wholly accumulated in both countries, new capital is formed to the extent of one-third of what was there before, and we find ourselves at the beginning of the second period at the same point as at the beginning of the first. (This obviously implies that the marginal return on capital is the same in both countries, but there is no reason to suppose that it is higher in the one with the higher organic composition. As a rule, the contrary happens.)

In this case the wealth of country A becomes something entirely fictitious, since in order to have an accumulation rate of 33⅓ percent the two countries are obliged to capitalize the whole of their surplus. Should country A decide to enjoy its wealth by consuming part of its surplus, it thereby enables country B to catch up with it, and the organic compositions are equalized.

Everything changes if we consider that the two countries need, over and above the individual consumption that is reflected in wages (60:60), a collective consumption, what is called unproductive expenditure, on matters such as education, national defense, etc. Then the advantage held by country A at once becomes apparent. For if the surpluses are equal in

terms of percentages on existing capital ($33\frac{1}{3}$ percent), they are not equal in absolute terms (80:40). Now, while for growth it is percentage that counts, for consumption in all its forms what matters is amounts.[10]

Thus, if we assume that both countries must devote half of their surplus to unproductive expenditure, each of them will have $16\frac{2}{3}$ percent of their existing capital left for accumulation, and this will have a nil effect on the divergence between their respective organic compositions; but country A will have at its disposal, for unproductive expenditure, a value of 40, whereas country B will have only 20.

Is there a contradiction between this observation and my attributing inequality of exchange exclusively to a difference in the rate of surplus value? I do not think so. Let us look more closely at what is meant by unproductive expenditure. Both countries have, in an initial phase, distributed a value of 60 each in the form of wages. Then, in a second phase they proceed to a second distribution, through social services, by making deductions from profit, but this time the sum distributed amounts to 40 in country A and 20 in country B. It is a kind of social wage awarded in addition to the nominal wage. If we were to imagine a model of a super-pure capitalism in which all the public services, including justice and national defense, would be run by private enterprise and where there would therefore be neither budget nor taxes, the situation described above would be equivalent to the situation expressed by the diagram opposite showing exchange with differential rates of surplus value.

We note that nothing has been changed in the relative situation of the two countries as compared with the diagram given at the beginning of this chapter. Prices remain the same and both countries have a surplus that ensures the same rate of accumulation.

We may thus conclude that the advantage held by A, which we have already seen materialize through the difference in unproductive expenditure, is not an advantage that results, strictly speaking, from a difference in organic compositions but from a hidden difference in wages, the unproductive expenditure being in reality only an indirect wage.[11]

It is certain, however, that the difference in unproductive expenditure, whether in absolute terms or per worker, which is made possible by the difference in organic compositions, while it does not constitute an element in my definition of unequal exchange, does nevertheless constitute a factor in economic and social development. Although Marxist and classical terminology, which classifies as unproductive all expenditure that does

See text page opposite

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	100	20	170	150	$16\frac{2}{3}\%$	40	190
B	120	50	80	40	170	130		20	150
	360	100	180	60	340	280		60	340

not produce surplus value, has allowed us to identify expenditure on health, education, and justice, and even expenditure on infrastructure defrayed by the state, with a social wage that is "consumed," in a broader sense and indirectly this expenditure is productive and ought, at least on the plane of development and growth, to be identified with investment rather than with consumption.

Like the differences in the organic composition of labor of which I spoke in the previous chapter, the differences in the organic composition of capital constitute, under conditions of concrete capitalist relations, a factor in development but not a factor in unequal exchange, except indirectly, insofar as development itself results in an increase in the equilibrium wage in accordance with the process analyzed in Chapter 3.

7. *Consumption Determines Income*

Whatever the organic composition, for a country in a competitive system to derive an advantage from its foreign trade, it must consume more than the others do, whether in the form of direct wages or in that of unproductive collective expenditure or other kinds of consumption.

I am aware that this proposition may seem somewhat outrageous. Elementary logic and the natural order of things tell us that we can only spend as much as we earn; this is why orthodox political economy tends to think that wages depend on prices. The object of this study is to prove that under capitalist production relations one earns as much as one spends, and that prices depend on wages. If this thesis is correct, it will follow that capitalist production relations are fundamentally contrary to elementary logic and the natural order of things. Confronted with such a dreadful consequence, many people will hope that it is not correct.[12]

If my thesis is correct, then we shall have to say, for example, that it is not because it exports timber that Sweden has the highest standard of living in Europe, but that timber is expensive because it is produced in a country (one of several high-wage countries) where the working class, owing to certain historico-political circumstances which need not be examined here, has secured remarkable social conquests.

It would be interesting to compare, for instance, timber and petroleum on the basis of Nurkse's six points, which are used today to explain the decline in prices of raw materials, and which I mentioned in Chapter 2 (note 51).

1. Industrial production in the advanced economies is shifting away from light industry toward heavy industry, in which the relative consumption of raw materials is low. If this were so, petroleum should have a clear superiority over timber.

2. The share of services in the total output is rising in these advanced economies. On this point it can be said that there is either equality between timber and petroleum or a slight advantage to the latter.

3. The income elasticity of demand for many agricultural commodities tends to be low. Petroleum, which benefits from the very high income elasticity of the demand for automobiles, has from this standpoint an overwhelming superiority over timber.

4. The advanced countries especially have resorted to agricultural protectionism. The effect of this factor is nil for petroleum, since, even if we allow for North American protectionism (the only case), the increase in world consumption is so rapid that the other producing countries experience practically no difficulty in finding outlets for their increasing production. If we assume that it is nil for timber as well, which is not altogether true, the two products are equally placed in this respect.

5. Modern technique has achieved substantial economies in the use of natural materials. Undoubtedly, this factor affects timber more severely than it affects petroleum.

6. Synthetic substitutes are displacing and competing with natural products. There is no commercial synthetic substitute for petroleum, but there are many such substitutes for timber.

Thus, from whatever angle we look at the matter, so long as we remain at the orthodox point of view for which the market determines prices, petroleum indisputably holds a "fundamental superiority" over timber. Moreover, consumption of petroleum has made striking progress through several decades. Between 1913 and 1962, production and, as a result, consumption, on the world scale have risen from about 50 million tons to 1,215 million tons. But the consumption of timber has been steadily falling. Between 1913 and 1950 consumption per capita declined by about 10 percent in Europe and 25 percent in the United States.

And yet, despite this extraordinary market superiority enjoyed by petroleum, its price fell from index 100 in 1913 to index 43 in 1952 and index 27 in 1962, while that of timber rose from index 100 in 1913 to index 559 in 1952. The terms of trade between petroleum and timber have thus evolved from index 100 in 1913 to index 7·7 in 1952. At the latter date it

was necessary to give 13 times as much petroleum as in 1913 in order to receive the same quantity of timber.

It may perhaps be objected that this is due to an increase in productivity, which is greater in the case of petroleum than in that of timber. But there is a practical and easy way of measuring the incidence of productivity: the factoral terms of trade. When we look at these we find that, despite this increase in productivity, the producers of petroleum receive only a subsistence wage (except in the United States and Canada, which are protected by preferential prices), whereas the producers of timber receive a wage of a quite different order of magnitude, 20, 30 or 40 times higher. The mere fact of the worsening of the double factoral terms of trade shows per se that the barter terms of trade have worsened to a greater extent than can be accounted for by the increase in productivity.

If it were the market that determined incomes, then timber, as such, would have no particular tendency to enrich Sweden, Finland, Canada, or Austria, any more than petroleum would have to impoverish the Middle East or Venezuela. If, however, it is incomes that determine the market, then everything is explained by the mere fact that timber happens to be a product of high-wage countries and petroleum one of low-wage countries.

Finally, there are certain kinds of timber that do not follow the general movement, either in barter or in factoral terms. These are the exotic species that are above all produced in Africa. Curiously enough, these are precisely those timbers of superior quality that ought, according to the prevailing theory, to be favored by the market, or at least to enjoy an income elasticity of demand higher than that enjoyed by the species that are exported by European and North American countries. In defiance of the prevailing theory, however, these high-quality species, which are practically the only ones produced and exported by low-wage countries, are also the only ones whose prices are falling.

8. The Idea of Unequal Exchange "in the Broad Sense" in the History of Political Economy

Quesnay (in whose work are to be found, if one looks carefully, the germs of all the major ideas in political economy) noted that a country that exported the produce of its soil and purchased manufactured goods from abroad would employ fewer men than would be the case without this trade —which was another way of saying that it would exchange a certain

quantity of its national labor for a larger quantity of foreign labor. Despite the different formulation used, it emerges clearly from a reading of his argument that for Quesnay this "unequal exchange" was the effect of the difference in "organic composition" between agriculture and industry, the fixed capital of the latter being, in his day, insignificant as compared with that very substantial quantity constituted by the soil.

But it was naturally the Marxists who deepened this idea. Otto Bauer observed that the German-speaking areas of the Austrian realm, owing to the higher organic composition of their industry, pumped out part of the value produced in the Czech-speaking agricultural areas:[13]

> If we wish to study the situation of two areas which are at different stages of capitalist development but which exchange their goods . . . the Marxist theory of prices provides us with the key. The mass of surplus value produced in the two areas is determined by the surplus labor provided by the workers of both areas. But what share of this surplus value goes to the capitalists of each of those areas?
>
> The capital of the more highly developed area has a higher organic composition, which means that in this more advanced area a larger quantity of constant capital corresponds to the same size of wage fund (variable capital) than in the backward area. Now, Marx taught us that, owing to the tendency to equalization of the rate of profit, it is not the labor of each of the two areas respectively that produces the surplus value taken by each area's capitalists: the totality of the surplus value produced by the workers of both areas will be shared between the capitalists of these two areas not in proportion to the amount of labor contributed in each but in proportion to the amount of capital invested in each. Since in the more highly developed area there is more capital to the same amount of labor, this area appropriates a larger share of the surplus value than would correspond to the amount of labor it has contributed. It all happens as though the surplus value produced in the two areas were first of all cast into a heap and then shared out among the capitalists according to each one's holding of capital. Thus, the capitalists of the more highly developed areas not only exploit their own workers but also appropriate some of the surplus value produced in the less highly developed areas. If we consider the prices of commodities, each area receives in exchange as much as it has given. But if we look at the values involved we see that the things exchanged are not equivalent. . . .

Later, Otto Bauer notes that, besides the difference in the organic composition of capital, wages in the Czech provinces are lower than in the German-speaking ones, but the only conclusion he draws from this fact is that, since the gap between organic compositions is bigger than that

between wage levels, the profit per worker in German-speaking Bohemia is nevertheless higher than the profit per worker in Czech-speaking Bohemia.

More or less the same position on the transfer of value from a country with a low organic composition to one with a high organic composition is adopted by Henryk Grossmann.[14] Maurice Dobb seems to agree with this conception, though in a more carefully qualified and even rather oblique fashion.[15]

A Marxist who goes all the way along this line, which he discusses as though it were something quite original, is the Yugoslav Milentije Popović. In a polemical pamphlet aimed at justifying certain demands and written with a virulence equal to his lack of precision, this writer refers to differences in organic composition in order to show the disadvantages suffered by Yugoslavia, as an underdeveloped country, in her exchanges with the Soviet Union.[16] ". . . considering that countries which place their commodities on the world market possess different national organic composition of capital . . . it follows, then, that countries in which the economic [*sic*] composition of capital is above the average world organic composition, . . . extract, at the given moment, extra profits at the expense of those countries whose organic composition of capital is on a lower level."

In the course of his argument Popović often mixes up the difference in organic compositions between the different branches in which exchanging countries specialize with the difference in productivity in the same branch in two countries: "For example, the labor of American workers engaged in the production of trucks, while it is qualitatively exactly the same as the labor of our own workers engaged in the production of trucks, nevertheless is being sold on the world market as labor of a greater specific weight, i.e., as labor of a higher quality."

Popović does not seem to grasp that in this example what we have is not a transfer of surplus value caused by the transformation of values into prices of production but the simple difference between the individual (national) value and the social (international) value of a certain commodity. If Yugoslavia wants to sell her trucks to a third country, obviously she has to bring her prices into line with the American prices. As, however, the technological level of her truck-producing industry is below that of the American, the same price for the same goods procures higher wages in the United States than in Yugoslavia. This is similar to what happens to a firm inside a given country that suffers a loss, or fails to make a gain, because its individual costs are higher than the average social costs of the branch to

which it belongs. This situation has nothing in common with that of Brazil, for example, which exchanges her coffee, in which she possesses the highest productivity in the world, for American trucks, which come from the source with the highest productivity of trucks in the world, and which nevertheless suffers a disadvantage in exchange due either to the difference in organic composition between coffee production and truck production or to the difference in wages between Brazil and the United States.[17]

Here and there, however, we find in Popović's work some interesting remarks, such as this: "In the exploitation of a backward country (for example, Yugoslavia), all countries which are on the upper levels of this scale [of economic development] are taking part, whether they exchange commodities with it or not."

II. THE POSITION OF THE WORKING CLASS ON THE INTERNATIONAL SCALE

1. International Workers' Solidarity According to the Marxists

The idea that differences in organic composition are responsible for unequal exchange has been, since Otto Bauer wrote, widely accepted among Marxist economists.[18] It is hard, all the same, to understand how a Marxist economist can draw the conclusion that differences in organic composition affect international prices without encountering on his way to this conclusion the determination of these prices by differences in wages.[19] The condition necessary if organic compositions are to govern prices is the equalization of profits; and the equalization of profits constitutes, in the same context, a sufficient condition for wage levels to have an influence on prices. Could it be that on reaching this point, Marxist thought has been inhibited by the dreadful implications of such a proposition in relation to the international solidarity of working people?

And yet the hopes that revolutionary Marxism based upon this solidarity have been so cruelly disappointed in recent years that perhaps the time has come to emancipate ourselves from this taboo.

2. Is the "Labor Aristocracy" a Byproduct of Imperialism?

Marxism did not completely overlook the possibility of the class struggle becoming weakened through a certain margin of reforms that the advanced

capitalist countries were able to provide by dipping into the superprofits of international exploitation. But it linked this phenomenon with the imperialist phase and restricted its bearing to the upper stratum of the proletariat, so that it appeared to be transitory in character. This was approximately Lenin's position, and Bukharin could say at the Sixth Congress of the Comintern, in 1928: ". . . we see certain countries which are, so to speak, 'aristocratic', countries, which (to use an expression that needs to be made more precise) possess a 'labor aristocracy,' that is, a proletariat whose standard of living is higher than that of the average for the world proletariat."[20]

Sometimes the narrow limits of the "labor aristocracy" were transcended, but never those, equally transitory, of imperialism and colonial profits. Thus, in some passages of *Imperialism and World Economy* (1917) Bukharin speaks, still with regard to the imperialist countries, of a relative and momentary solidarity of interest between capital and labor, coexisting with a deeper and more lasting antagonism between them, or of a momentary association of the interests of capital and labor on the basis of an increase in wages made possible by colonial superprofits, etc., without making any distinction between the privileged stratum of the "labor aristocracy" and the other strata of the proletariat. Sometimes he even uses terms that exclude this distinction: "The bill for this [colonial] policy is paid, not by the continental workers, and not by the workers of England. . . . The European workers, considered from the point of view of the moment are the winners [i.e., gainers—Trans.]."[21]

When we read this passage and other, similar ones in the writings of Marxist authors, we ask ourselves whether this solidarity of interests between the capitalists and workers of the imperialist countries, however temporary and transitory it may be, has an objective basis or is merely the effect of a monstrous deception of the working class. This last phrase of Bukharin's gives one to suppose that objective conditions determine this situation. So far back as 1858, that is, in the midst of the free-trade epoch, Engels went further along this path: "The English proletariat is actually becoming more and more bourgeois, so that this most bourgeois of all nations is apparently aiming ultimately at the possession of a bourgeois aristocracy and a bourgeois proletariat *as well as* a bourgeoisie. *For a nation which exploits the whole world this is of course to a certain extent justifiable.*"[22] But this was only one of those whimsical outbursts that were habitual with Engels, and, as such, need not be accorded any importance.

In the orthodox line of Marxism this "objective" basis has rather been regarded as illusory. Revolutionary Marxism chose to consider that what actually happened was an opportunist deception of the proletariat based on the increased employment that imperialist policies created in the metropolitan countries, together with what Bukharin called "the additional pennies received by the European workers from the colonial policy of imperialism."[23] Accordingly, over a long period revolutionary Marxism concentrated all its fire upon the instigators and beneficiaries of this deception, the Social Democratic leaders, in the vain hope of exposing them in the eyes of their supporters. After the bitter and repeated defeats suffered by this approach, after World War I, contrary to all expectations, had broken the unity of international organizations of the working class instead of drawing them closer together, and had opened a period of crisis in the socialist movement, and after the four Internationals had disappeared or declined (the second continuing its formal existence only at the price of abandoning any internationalist action, and the third being born only to be wound up after barely two decades), the experience and instinct of self-preservation of the first workers' state was still needed before it was realized that little was to be expected for the defense of this state from the solidarity of the working classes in the capitalist countries. Then in 1934 there took place the turn toward Popular Front policies, with a radical change in the strategy of the communist parties in the industrialized countries.

Since that time a process of integration in the nation has been undertaken. It is in the name of the national interest and with reference to this interest that the communist parties defend the line they choose to adopt in foreign policy; yesterday and today, as between the United States and the U.S.S.R., today and tomorrow, as between the U.S.S.R. and China, the latter choice of position confirming already in deeds, if not so far in words, that the antagonism between rich and poor nations is likely to prevail over that between classes.[24]

To explain a historical fact that has endured for nearly a century by the corruption of the leaders and the deception of the masses is, to say the least, hardly in conformity with the method of historical materialism. Political parties are not churches possessing eternal truth and renouncing on principle any interest in the present moment and the men of the moment. Political parties are "opportunist" by nature, since their business is the conquest of the masses and the seizure of power at a given historical

moment and under given historical conditions. A political party anxious to preserve its identity may consent to make temporary retreats, refusing to bow to transitory objective conditions. But it cannot ignore structural objective conditions persisting for several generations, on the excuse of service to a transcendental truth. Itself an objective condition, the party as such can and must "make" history; it cannot do violence to history. When a deep-seated change has occurred in objective conditions, a class party, though it can still go on, through inertia, living outside the realities of its epoch, must eventually reach a moment when it has either to transform itself or to disappear. Due to this time lag between base and superstructure, however, when the objective antagonisms are intensified the masses are more revolutionary than their parties, but when the antagonisms soften the parties remain for a long time more radical than the masses. This is what has happened between the end of the nineteenth century and our time. It is not the conservatism of the leaders that has held back the revolutionary élan of the masses, as has been believed in the Marxist-Leninist camp; it is the slow but steady growth in awareness by the masses that they belong to privileged exploiting nations that has obliged the leaders of their parties to revise their ideologies so as not to lose their clientele.[25]

This does not mean that antagonisms have disappeared within the developed capitalist nations. Whether wages be high or low, whether the social product be large or small, the two shares, that of the working class and that of the receivers of surplus value, continue to be magnitudes that are inversely proportional to each other, and so the antagonism continues. When, however, the relative importance of the national exploitation from which a working class suffers through belonging to the proletariat diminishes continually as compared with that from which it benefits through belonging to a privileged nation, a moment comes when the aim of increasing the national income in absolute terms prevails over that of improving the relative share of one part of the nation over the other. From that point onward the principle of national solidarity ceases to be challenged in principle, however violent and radical the struggle over the sharing of the cake may be. Thereafter a de facto united front of the workers and capitalists of the well-to-do countries, directed against the poor nations, coexists with an internal trade-union struggle over the sharing of the loot. Under these conditions this trade-union struggle necessarily becomes more and more a sort of settlement of accounts between partners, and it is no accident that in the richest countries, such as the United States—with similar

tendencies already apparent in the other big capitalist countries—militant trade-union struggle is degenerating first into trade unionism of the classic British type, then into corporatism, and finally into racketeering.

The workers in the most advanced capitalist countries now hold front-line positions in the defense of the national interest. President Johnson had only to point out the harmful effects that it would have on the war in Vietnam to stop any strike by American dockers. He did not have the same success with some bourgeois elements, and still less with their sons and daughters in the universities. In former times dockers went on strike precisely in order to prevent imperialist interventions. Today they stop strikes they have begun for other reasons in order to avoid embarrassing these interventions in any way. They even go on strike rather than unload ships trading with Cuba, against the advice of their own government. (President Kennedy used to refer to the interviews he had with American trade-union leaders as "pressure from my Right.")

The bloody struggle being waged by the blacks in the United States today shows, by its very violence and its style, that this is the revolt of a disappointed partner rather than a thoroughgoing challenge to America's Great Society and its overseas adventures. The strongest of the arguments formulated during this crisis is at bottom an argument of petty blackmail, namely, that the American blacks cannot fight in Asia for principles that the whites deny to them at home; this implies that if these principles were to be accorded to them and if one day they were to become fully privileged citizens of their country—something that is not materially impossible—they would then have no further objection to fighting the Vietnamese people.

Oskar Lange's "people's imperialism" is today becoming a living reality in the big capitalist countries. Hardly thirty years ago the title of "social patriot" was regarded as a serious insult by any militant worker. Who would take offense at it today? "Popular movements," writes Myrdal, "which fifty years ago were imbued with internationalism have now become narrowly nationalistic." And speaking of Britain, the author adds: "Labour economists have usually carried out their practical studies under more narrow national premises than their colleagues to the right."[26] The same writer goes on: "There does not exist for mankind as a whole that psychological basis . . . of mutual human solidarity."[27]

To an increasing extent the attitude of the working class in the advanced capitalist countries as a whole in relation to the Third World is becoming

like that of the British working class toward the rest of the world all through the nineteenth century: struggles for wage-and-hour demands, sometimes very violent and very effective, inside the country; a united national front against the outside world, with the working class sometimes taking up vanguard positions. This is what Joseph Chamberlain expressed in his equation: democracy means imperialism plus social reforms. The socialist, Marxist, and Darwinist Karl Pearson did not shrink from writing in 1894: "No thoughtful socialist, so far as I am aware, would object to cultivate Uganda at *the expense of its present occupiers* if Lancashire were starving."[28]

Marx and Engels cherished no illusions about the sentiments of the British workers at the time when they alone constituted the labor aristocracy of the whole world. Speaking of the underpaid Irish workers, they observed: "Every industrial and commercial center in England now possesses a working class divided into two hostile camps, English proletarians and Irish proletarians. The ordinary English worker hates the Irish worker as a competitor who lowers his standard of life. . . . He cherishes religious, social and national prejudices against the Irish worker. His attitude toward him is much the same as that of the 'poor whites' to the 'niggers' in the former slave states of the U.S.A."[29]

As we see, Marx and Engels did not hesitate to speak of the deep feelings of "the ordinary English worker" in general and did not put the blame for them on the opportunism and treachery of their leaders. Today everything suggests that there is more socialism and internationalism in the brains of the intellectuals of the Labor party, and perhaps more still in those of some bourgeois liberals, than in the feelings and reactions of the British working class. At each of the recent British general elections [i.e., 1951, 1955, 1959 —Trans.] it was enough for the Conservatives to claim that the Labor party was planning to carry out fresh nationalizations for that party's chances to be gravely jeopardized. Naturally, the Laborites hasten each time to deny with vigor this frightful "slander." A charge to which the British workers would have been even more sensitive would have been lack of loyalty to British imperial interests. On that point, however, the Labor party has given such guarantees in the past that nobody would have taken such a charge seriously.

In France, Cartierism, the supreme expression of national egoism, addressed itself neither to the capitalists nor to the intellectual elite but to the "little people" of town and country, whose language it spoke.

On their part the representatives of the Third World have not been deceived. Sometimes using in their analyses, more correctly than some Western Marxists, the method of historical materialism, they have arrived at conclusions that are extremely realistic and disillusioned. "In contrast to what for a long time I used to believe," wrote Ferhat Abbas, "the existence of a revolutionary proletariat and of liberals in France made no difference to the fundamental facts of the Algerian problem."[30] The class is not a form of integration that takes precedence over the nation; this is proved by the fact that the Western working class appropriates to its own benefit part of the profits of exchange with the underdeveloped countries. This is essentially the view expressed by Mamadou Dia.[31] Even the dispute between the two blocs, the one headed by the United States and the one headed by the U.S.S.R., is described as a dispute between rich countries by Abdoulaye Ly, and Sekou Touré declares that he knows of no difference between East and West but only between rich nations and poor ones.

All this may seem odd if one is used to regarding the bourgeois as the promoters and sole beneficiaries of "the nation." It is undeniable that they were its promoters, but since the middle of the nineteenth century, in the industrialized countries, they have ceased to be its chief beneficiaries. If we recognize the equalization of profits, it must be a matter of indifference (on the economic plane, at least) to a capitalist whether he is American or Indian. And if we do not recognize the equalization of profits, he would be better off as an Indian than as an American.[32] But it is not at all a matter of indifference to a docker whether he is an American or an Indian.

Let us imagine that a major defeat brings the United States down to the condition of an underdeveloped country. Leaving out of account the material losses suffered during and as a result of the event itself, the American capitalist will not find himself any worse off. The members of the liberal professions and the highly skilled workers will experience at worst an insignificant decrease in their incomes. (Despite the huge disparity in general wage levels, an engineer, a manager, or a lawyer in Egypt or in India earns nearly as much as his counterpart in one of the richest countries). The laborers and the ordinary skilled workers, however, will be hurled into an abyss. It is even hard to imagine how, in the event of such a catastrophe, an American worker who today earns three dollars an hour could survive on a wage of a few cents *a day*. And this is no arbitrary and fantastic speculation. Something of the kind has already happened in Algeria. When the threat of independence became immediately real, big

financial capital as a whole adjusted itself to the idea of Algerian Algeria. Provided Algeria did not take the path of socialism, the capitalists had no privileges at risk. Their only privilege was their capital itself, and as long as national independence did not threaten this, they had no reason to oppose it, any more than had the real labor aristocracy, those who earned the wages or salaries of their trade or profession, not those of their nationality or race. Individually, these people made different decisions, conditioned by the ideological superstructure, but as a class they refrained from acting against the Algerian people. It was the European proletariat of Bab-el-Oued (previously a stronghold of the Algerian Communist party) that mobilized in defense of French Algeria and supplied the OAS killers. For them it was a question of life or death. *Their* privilege was their quality as Europeans or whites. Algeria as a French dependency guaranteed them European, or French, wages in an underdeveloped country. They earned in a few days what an Algerian earned in a month. Without this privilege they were materially, objectively, unable to live. "La valise ou le cercueil" —the suitcase (for an escape to France) or the coffin—was a saying that related to *their* problem alone.

3. *Financial Colonialism and Mercantile Colonialism*

As long as we see imperialist expansion as the cause and the "disengagement" of the working class as the effect, it is natural to consider the decline of internationalism and of the revolutionary spirit as a passing and transient phenomenon without any bearing on the fundamental position and conditioning of the proletariat, since imperialist expansion has its seamy side. From a certain point onward it can be effected only at the expense of an existing imperialist position. In the cycle of victory and defeat the balance sheet of the working class clearly shows a loss: the victim loses more than the despoiler gains, as Plato put it. "However, the war itself, which could be waged only because the proletariat gave its tacit consent or showed insufficient indignation, has proven to it that its share in the imperialist policy is nothing compared with the wounds inflicted by the war," wrote Bukharin about World War I.[33]

The Italian working class was stirred up against the unfortunate Abyssinian war of 1896 but heartily collaborated in the victorious war against Turkey for the annexation of Libya in 1911.

Under these conditions the revolutionary parties could only strive to

preserve the purity of their political line, despite temporary setbacks, and bide their time. Orthodox Marxism took its stand upon the hope that the world war to which the imperialist path would inevitably lead would rapidly bring about the destruction of capitalism.

This view followed indirectly from the idea of financial imperialism. Expansion previous to 1850 was seen as mercantile colonialism, whereas expansion subsequent to 1875 was regarded as investment imperialism. The argument ran like this: in proportion as capital accumulates, the rate of profit falls. At a certain stage of development, capitalism is faced with the dilemma of maintaining its rate of profit by keeping the standard of living of the masses at a very low level, which means depriving itself of scope for profitable investment inside the home country. The only way out, if the system is to be saved from freezing up, is to undertake investment abroad, which calls for imperialist protection. Alternatively, one could, of course, redistribute the national income so as to expand the home market and thus make possible increased internal investment, but this would mean a lower rate of profit. Seen like this, there was a fundamental antagonism between the long-term interests of the working class and imperialism.

This analysis took a few liberties with historical facts. During the period of this "financial imperialism" the expansion of the big industrial states assumed the form, principally, of the partition of Africa, the breakup of the Ottoman Empire, and the completion of the French conquests in Indochina. Yet investment in those areas was practically nil, apart from petroleum, gold, and copper. Even if we include these, the investments made were very much smaller than those made both in the previous period in other parts of the world and, in the period of "financial imperialism" itself, in the old-established markets of America, Australasia, India, the Balkans, and Russia.

On the other hand, the fact that 66 percent of the foreign capital invested in Africa was invested in a particular group of countries often called the mining areas—the Union of South Africa, South-West Africa, the Rhodesias, and Katanga—shows clearly that "financial imperialism"—ridding the home market of surplus capital and seeking higher dividends elsewhere —was never an end in itself.[34]

It is interesting to observe that the men who promoted the "second colonialism" always talked of trade, sources of raw material, outlets for industrial products—never of capital in search of places for investment. I do not claim that one can explain the whole of history by the conscious

motives of its protagonists. Nevertheless, it does seem to me that if the imperialist states had been suffering at that time such severe constraint from their overaccumulated masses of capital and had felt such an overwhelming need for profitable investments abroad, this would not have failed to find expression, for instance, in the deliberations of that eminently aware race of men, British politicians in general and those of the Victorian period in particular. Not so, however. From Durham, Cobden, and Goldwin Smith to Salisbury, Granville, and Milner, and including Dilke, Disraeli, and Rosebery, all the British statesmen who debated in Parliament first the disengagement and easing off in the liberal period in the middle of the nineteenth century and then the revival of colonialism in the last quarter, whether they were for or against, talked always about trade, very occasionally about protection of British capital *already* invested abroad, but *never* about capital seeking outlets.

When we read their speeches, extending over nearly a century, we are struck by the stereotyped character of the arguments used and the naiveté or cynicism of the statements made. They defend imperialism or reject it in terms of raw materials for industry, customers for British products, and the balance of trade. Everything suggests that the state which, by virtue of its geographical position and its sea power, held the initiative for action, had recourse to colonialism for the first time when its economic power was not yet strong enough to ensure the same advantages through mere competition; had then repudiated colonialism around the 1840's, when its industrial supremacy guaranteed it an effective monopoly position in world trade; and had returned to a colonialist policy when, around the 1870's, this industrial supremacy began to be challenged.

The conversion of one of the biggest opportunists in modern history, Disraeli, to the imperialist idea in 1872 was a symptom of the last-mentioned turn. But this second imperialism does not seem to have differed at all from the first one, except that instead of sending one's customers to settle in conquered countries one now tried to turn the existing population into customers. Joseph Chamberlain's remark, at the end of the nineteenth century; "the Empire is commerce," echoed Burke's remark at the end of the eighteenth century, defining the colonial system as "purely commercial," and Livingstone's motto, "Christianity and commerce," recalls that of Wilberforce a half-century earlier. The great idea of the Cape-to-Cairo railway that occupied the minds of Britain's leaders for so long was never advocated except as a factor favorable to trade. And Cecil Rhodes, the

champion of the second British imperialism, did not hesitate to say that the Union Jack was the biggest commercial asset in the world. All imperialisms are, in the last analysis, mercantile in character.

This is why, from the time when formal privileges for the home country and monopolistic systems like the Navigation Act ceased to be fashionable, colonialism ceased to be a paying proposition. The entire history of the partition of Africa shows that what moved each of the big European states was not so much desire to seize a certain territory for itself as fear that a rival power might seize it. This is what explains the remarkable ease with which quite small countries, such as Belgium and Portugal, were able, in the midst of this unscrupulous banditry, to retain or to acquire huge and wealthy regions without any special exertion and without any opposition from the Great Powers. The Berlin conference of 1885, which allocated to Leopold II, in his personal capacity, a country five times the size of France, is significant from this standpoint. Once the Great Powers were sure of an open door for their trade, they no longer had any desire to assume the expense of direct administration.

Some discriminatory measures, de facto and even de jure in favor of the respective metropolitan countries did indeed continue to exist in a number of cases, but the industrial countries that lacked colonies did not suffer from these. Either by direct trade in the margins left by these discriminatory measures or by the system of communicating vessels that the movement of capital and goods established between the colonialist countries and the other industrial countries, each of them got its share in the worldwide unequal exchange, and everything shows that this share did not depend on size of imperial possessions, but on industrial potential and wage level in each of these countries. We have only to compare the standard of living of Sweden, Denmark, and Canada, on the one hand, with that of Portugal, Italy, and even France before the last war, on the other.

History repeats itself. At the highest point of its colonial expansion under Charles V and Philip II, Spain was the poorest country in Europe. At a time when all the gold and silver mines of the New World were under Spain's political control, and when attempts to export precious metals from Spanish territory incurred very heavy penalties, gold and silver were so scarce in Spain that the country was obliged to use copper currency. At the same time, as Locke observed, the bulk of the currency used in England came from Spain. It was the example of Spain and Portugal that Josiah Child had in view when he wrote: "... where there is little manufacturing

and as little husbandry of lands, the profit of plantations, viz., the greatest part thereof, will not redound to the mother-kingdom, but to other countries, wherein there are more manufactures and more productions from the earth. . . ."[35]

On this basis the facility and rapidity with which the great colonial powers have recently agreed to dismantle their huge empires is easily explained. In the middle of the nineteenth century the de facto monopoly enjoyed by Britain made de jure colonial monopoly pointless; now, in the middle of the twentieth century the impracticability and anachronistic character of this de jure monopoly, under pressure from the United States for the freeing of trade, has made colonialism pointless once more. Direct plundering being more or less excluded, the former imperialist states resigned themselves without too much sorrow to letting the free play of economic laws perform the task of attributing to each of them what was due from the product of that indirect exploitation that is constituted by unequal exchange.[36]

4. *The Respective Positions of the Social Classes in the Era of Colonialism*

This misunderstanding about the real nature of colonialism entailed the conviction that the antagonism between capital and labor, even in the advanced countries, was so profound that no long-term loyalty to the nation on the workers' part was possible. In the first place the unexploited territories in the world are not unlimited in number, and since the growth of the advanced countries proceeds unevenly, a moment must come when the expansion of one imperialist country can no longer be achieved except through redistribution of colonial possessions. This redistribution means war. In the second place the export of capital, insofar as it is profitable to the capitalists, is detrimental to the workers. The scarcity of capital in the home country exerts an upward pressure on profits and a downward pressure on wages. Whatever share of their superprofits the capitalists may concede in order to buy over part or all of their working class, the situation is fundamentally an antagonistic one. The eventual transformation of a large section of the active capitalists into idle *rentiers*, clippers of (overseas) coupons, and of their sons into officials to administer the colonies or officers to defend them or hold them down, cannot but lead in the end to the enrichment of the capitalists and the impoverishment of the workers.[37]

Things certainly change with the coming of commercial imperialism, but not very much. Whether it be financial or commercial, as long as external expansion is seen as the cause and the incomes of the different classes as the effect, the gain that the working class can draw from it remains subsidiary and subordinate. It is not at all the same, though, if, as I believe, it is wages that are the cause and external exploitation the effect. From that point the initiative is held, consciously or unconsciously, by the working class; it is their demands that become the driving force of the world economic antagonism, and international workers' solidarity becomes an historical misconception.

The question may be asked: if, as I have declared, the trade-union action of the timber workers makes Sweden rich, that of the weavers and miners does the same for Britain, and that of the iron and steel workers likewise for the United States and Germany, why then do the capitalists of these countries oppose the demands of their workers so vigorously and yield to them only when they are forced to? For the simple reason that these wage increases make poorer not only the low-wage countries, through the terms of exchange, but also the capitalists themselves in the advanced countries. They make them poorer first, in the short run, through raising individual (national) value above social (international) value during the period needed for these increases to become general in the same branch in all the developed countries. Second, in the long run—that is, when these increases have become general in the group of countries in question—they make them poorer through the fall in the world rate of profit that they entail.

Let us take up again our numerical example with wage levels the same in different countries (see page 190).

Countries A and A′ are assumed to be specializing in the same branch, and country B in a different one. In an initial phase country A increases its wages by 50 percent. As it suffers from the competition of country A′, it cannot increase its prices and, leaving aside the case of increasing costs in A′, the capitalists of A must content themselves for the time being with a lower rate of profit (see page 191).

The capitalists of A have had to bear alone the difference in their national wage level, and prices and terms of exchange have not changed.

This situation is not a stable one. Either the increase in wages will spread to country A′, which specializes in the same branch, and we shall have two groups of countries, one with high wages and the other with low

See text page 189

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	60	60	170	110	30%	72	182
A′	240	50	60	60	170	110		72	182
B	120	50	60	60	170	110		36	146
	600	150	180	180	510	330		180	510

See text page 189

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	90	30	170	140	17½%	42	182
A′	240	50	60	60	170	110	30%	72	182
B	120	50	60	60	170	110	30%	36	146
	600	150	210	150	510	360		150	510

wages, (A, A′) and B; or country A will change its specialization in order to escape from competition by A′, and we shall also have two groups with different wage levels, but these will be A and (A′, B). In both cases capital, which we assume to be mobile and competitive, will by its movements bring about equalization of profits at a general rate lower than before. So as not to overburden this analysis I confine myself opposite to the first case only, but it is obvious that the second will differ only in its parameters.

The capitalists of the developed countries emerge as losers from this operation since their rate of profit has fallen from 30 to 20 percent—those of country A, where the wage increase began, have lost even more than that since for a certain period they were getting only 17½ percent—but their countries have gained, since, thanks to unequal exchange, the national income of each of these countries has risen, in value terms, from 132 to 138. In terms of use values the gain has been still greater. It has been equal to the differential in the barter terms of trade, that is: 188/134: 182/146. It is their workers who have gained the whole of the difference—the sum of the national gain and the capitalists' loss.

On their part the countries of the second group have lost doubly, both by the fall in the rate of profit and by the worsening of their terms of trade.

The preceding analysis may give the impression that a basis is thus created for international workers' solidarity in that an increase in wages, wherever it occurs, leads to a fall in the world rate of profit. But this would be to confuse diminution in profits due to a local fall in the rate of surplus value with diminution in profits due to a fall in the *general* rate of profit. If profits diminish owing to an increase in wages in a closed system—and in the short run every system is closed—it is obvious that this benefits the workers concerned. This is merely tautology. But if the profits of the Indian capitalists diminish because an increase in wages in the United States causes a fall in the world rate of profit, this not merely fails to make the Indian workers any better off, it makes their position worse. The Indian capitalists have indeed a solidarity of interest with the American capitalists against an increase in wages in Detroit, but the Indian workers have no solidarity of interest at all with the workers of Detroit. This is so because, under the conditions we have assumed, capital is competitive but labor is not. This is why, *inside* a nation where both factors are competitive, an increase in wages, wherever it may occur, arouses both solidarities, that of the workers on the one side and that of the capitalists on the other.

See text page opposite

Countries		K Total capital invested	c Total capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $R+p$
Developed	A	240	50	90	30	170	140		48	188
	A′	240	50	90	30	170	140	20%	48	188
Under-developed:	B	120	50	60	60	170	110		24	134
		600	150	240	120	510	390		120	510

Notes

1. Cf. 'Echange international et développement régional," *Problèmes de planification*, no. 2.

2. "To sum up, an initial difference between the organic composition of capital in different countries does not appear to be likely per se to cause a subsequent worsening of inequality of exchange between these countries, if we assume that there is free circulation of capital among them and no *systematic* inequality in wage levels.

"We are thus led to ask if it is not inequality of wages that, on the one hand, causes unequal exchange to worsen (that even explains it, if we accept the restrictive definition given by Arghiri Emmanuel), and that, on the other hand, also causes an increasingly unfavorable economic evolution to take place in the low-wage countries. If this were so, we should be justified in considering that the type of unequal exchange that results from the existence of different rates of exploitation deserves to be seen as especially important" (ibid., p. 7).

3. I avoid saying 50 hours of past labor so as not to become liable to Bortkiewicz's objection, mentioned in Chapter 2. It can be taken that the values of the constant capital consumed have already been transformed into prices of production or international prices. For instance, it can be assumed that both A and B buy their raw materials and auxiliary materials, as well as the machines to replace those that become used up in each cycle, from country C, for the same amount of money.

4. We must not confuse maximizing the amount of profit with maximizing the rate of profit. An increase in organic composition causes the former to occur, but not necessarily the latter. Nor must we confuse the aim of maximizing the total amount of profit with the individual capitalist's striving for profit. With wages unchanged, maximizing the total amount of profit corresponds to maximizing production, but under the same conditions the individual capitalist's search for profit does not necessarily lead to maximizing the total amount of profit, and consequently not to the maximizing of production, either, but often to the opposite result. Here we have a fundamental inner contradiction of capitalism, which, at a certain moment in its evolution, brings about crises and imperils the system; but the logic of the system does not in itself contradict the maximizing of production, and under certain historical conditions it is the capitalist system that can alone ensure that this maximizing of production takes place.

5. As I said in a review of Guy de Lacharrière's *Commerce extérieur et sous-développement*, "when an industry is established where power is cheap, that is to say, easy to produce, mankind as a whole is the gainer, but when it is established where labor is cheap, then what some gain, others lose. Mankind as a whole gains nothing in any case, and in some instances it may lose, as when, for

example, the difference in wages causes the international division of labor to deviate from its optimum line" (*Présence africaine*, 4th quarter [1964]). This is what Bettelheim calls specialization on a socioeconomic rather than a technico-economic basis. I will come back to this irrational location of industries when I criticize Ricardo's comparative costs.

6. There is a certain vagueness in the definitions of the different categories of terms of trade.

There is first of all the distinction to be made between "barter terms of trade" and "factoral terms of trade." The category called "barter terms of trade" is divided into "gross barter terms of trade" and "net barter terms of trade" (Taussig) or "commodity terms of trade" (Viner), which we can call simply "terms of trade."

By "gross barter terms of trade" is meant the ratio between the overall quantities of goods exported and imported: Qx/Qm or Qm/Qx, Q being the quantity of goods. Some British writers call this ratio the "terms of exchange."

The "net barter terms of trade" means the ratio between two quantities of goods exported and imported that have equal market value in international prices. They thus exclude any and every movement of goods destined to make up for other items in the balance of payments. They can be recorded as Px/Pm or Pm/Px (the form used by British writers), with P standing for the price index. Kindleberger also suggests $(Px/Pm)Qx$, so as to express the combined effects of changes in the price and in the volume of exports.

As for the factoral terms, these are divided into simple and double. In the first case we compare the quantity of productive services expended in order to export a certain quantity of goods with the quantity of goods obtained in return, or qx/Qm, q being the quantity of productive services; in the second case we compare the quantity of these same productive services with the quantity of productive services expended by the foreign partner in order to pay for the goods that are sent him, or qx/qm. Kindleberger suggests (Px/Pm): (Zx/Zm), Z being the productivity index. It was Pigou who first drew attention to the factoral terms of exchange by observing that one must get behind the quantities exported and imported so as to ascertain what lies behind exports, that is, a certain quantity of labor and of capital service.

7. It is clear that if exchange took place in accordance with values, country B would receive even more use values. This difference, however, does not amount to a loss but only to a failure to gain. To demand that this be supplied would be to demand that the advanced countries hand over to their customers the whole of the advantage of productivity.

8. "What you think just or equitable is out of the question [i.e., has nothing to do with it—Trans.]. The question is: what is necessary and unavoidable with

a given system of production?" (Marx, *Wages, Price and Profit: Selected Works* [Moscow, 1955], 1: 314–315).

9. It is true that there does not exist and has never existed a capitalist system as pure as is assumed by the law of value. To varying degrees, monopolies or quasimonopolies both on the commodity market and on the factors market are inseparable from concrete capitalism.

I do not think, though, that this is sufficient reason for putting in the same category the effects of a monopoly on the factors market—one might almost say a hereditary monopoly—such as that enjoyed by the workers in the rich countries, and the effects of the working of the law of value itself, just as one would not think of identifying monopoly prices on the commodity market with unequal exchange, even in the broad sense.

10. As Bettelheim comments very rightly, if in both categories of countries profit represents each year the same proportion of new capital to old, the amount of profit *per worker* is substantially higher in the countries with a higher organic composition, and this "makes it possible to deduct more easily from this mass of profit the sums needed to finance, directly or indirectly, expenditure on education, scientific and technical research, and the like all of which are things that will contribute to make possible a better use of labor, natural resources and capital itself in the countries benefiting from unequal exchange" (Bettelheim, "Echange international," p. 6). Except for the adjective "unequal," I completely agree with this passage.

11. My argument presupposes, of course, equivalence between household consumption and the total amount of the wages and salaries, real and imputed, of the wage earners and the active capitalists taken together. I believe that in fact the real situation is not far from this equivalence. On the one hand, I think it is realistic to assume that the invested savings of the true wage earners come to a negligible sum. (I do not speak here of saving for deferred consumption. It seems legitimate to assume that this is balanced in practice and at any given moment by the spending of sums previously saved.)

On the other hand, taking into account the almost complete disappearance of mere idlers from the world of modern capitalism, I think that total consumption by the capitalist class does not significantly exceed the salaries imputed to the active capitalists, especially if we add the sum, however small this may be, of *capitalized* saving from the incomes of the true wage earners.

12. This proposition has nothing to do with Keynes's argument. Growth in the propensity to consume, according to the General Theory, may enrich a country by increasing activity, that is, by mobilizing underemployed factors. So long as these factors are there, prices do not change, except insofar as the marginal productivity of capital and of labor diminishes. Apart from this natural tie-up with costs, prices do not rise until full employment is achieved. At that

moment, however, this growth in consumption ceases to be beneficial and the economy is in a state of what Keynes calls real inflation.

13. Cf. Otto Bauer, *Die Nationalitätenfrage und die Sozialdemokratie* (Vienna, 1924).

14. Cf. Henryk Grossmann, *Das Akkumulations-und Zusammenbruchgesetz des Kapitalistischen Systems* (Leipzig, 1929).

15. Maurice Dobb, *Political Economy and Capitalism*, 4th ed. (London, 1946), pp. 229–230.

16. Milentije Popovi′, *On Economic Relations among Socialist States* (London, 1950), pp. 5, 7, 16.

17. Many economists fail to take account of the futility of comparing the level of productivity in different branches. This comparison is meaningless. Labor may be higher or lower in quality in one branch as compared with another; it may be more or less intense; it may, finally, be more or less profitable; but it cannot be more or less productive.

18. Thus, L. Lavallée, speaking of certain contradictions between the national interests of the socialist countries and the interest shared by this group as a whole as regards the international division of labor, could write: "Only a structure . . . similar in its tendencies . . . enables us . . . to draw nearer to solving the famous problem of equivalent exchange" (*Economie et politique* [January 1963], p. 60). The context shows that what Lavallée means by "a structure similar in its tendencies" is such a diversification and distribution of branches as will ensure that the various countries under consideration have, as a group and on the average, an approximately equal social organic composition of capital.

19. This does not affect the argument of Charles Bettelheim, who not only accepts the two types of unequal exchange but furthermore agrees that "an initial difference between the organic composition of capital in different countries does not appear to be likely per se to cause a subsequent worsening of unequal exchange, if we assume that there is free circulation of capital among them and no *systematic* inequality in wage levels." He adds: "If this were so, we should be justified in considering that the type of unequal exchange that results from the existence of different rates of exploitation deserves to be seen as especially important" (Bettelheim, "Echange international," p. 7).

20. To have a standard of living higher than "the average for the world proletariat" it is today not necessary to belong to the "labor aristocracy" of the rich countries. It is enough to be the humblest of their street sweepers.

21. Nicolai Bukharin, *Imperialism and World Economy* (London, 1930), pp. 164–165.

22. Letter to Marx, October 7, 1858, *Marx on Britain* (Moscow, 1953), pp. 491–492. My emphasis, A. E.

23. Bukharin, *Imperialism and World Economy*, p. 167.

24. The only "internationalism" that is left to the communist parties of the rich countries is a certain loyalty to the Soviet Union, and this is on the wane, having ceased in the case of some of these parties to be unconditional. In any case, none of the existing communist parties would dare to declare openly that the support they give to the Soviet Union (or to China) *is* unconditional, that is, independent of the national interest. This fact alone shows what a distance has been travelled since the beginning of the century, when the revolutionary Marxist parties wrote plainly and without qualification in their programs that in the event of external conflict the duty of each party was to take advantage of the difficulties of their country's ruling classes in order to overthrow them.

25. It is impossible to refrain from quoting Eduard Bernstein: "The formula according to which the proletariat has no fatherland ceases to be true in proportion as the worker ceases to be a proletarian and becomes a bourgeois" (*Revolutionary Socialism* [London, 1909]).

26. Gunnar Myrdal, *An International Economy* (London, 1956), pp. 36–37.

27. Gunnar Myrdal, *Economic Theory and Underdeveloped Regions* (London, 1963), p. 63.

28. Quoted by B. Semmel, *Imperialism and Social Reform* (London, 1960), p. 42.

29. Marx and Engels, *On Colonialism* (Moscow, 1960), p. 301: Marx to S. Meyer and A. Vogt, April 9, 1870.

It is significant that in Britain, where the working class was the most developed, best organized, and the most militant on the internal front, the influence of the First International was negligible, as is eloquently revealed by the laughable amounts of the contributions it was able to raise there:

1864–1865	£23
1866	£9 13s.
1867	£5 17s.
1868	£14 4s.
1869	£30 12s.
1870	£28 1s.

(Figures published by Howell, and quoted by Thomas Brassey in *Foreign Work and English Wages Considered with Reference to the Depression of Trade* [London, 1879], p. 253).

30. Ferhat Abbas, "La nuit coloniale," *Présence africaine*, 4th quarter (1962), p. 198. (The reference to "Cartierism" in the previous paragraph relates to a series of articles in *Paris-Match* by Raymond Cartier, urging that the French government stop all aid to France's ex-colonies, on the ground that their peoples and governments are idle and corrupt.—Trans.)

31. Mamadou Dia, *Nations Africaines et solidarité mondiale* (Paris, 1963), p. 7.

32. I am speaking here, of course, of capitalism as a state of affairs or of the capitalist in the abstract. The situation is not the same, and the question does not even arise, for a particular corporation, trust, or other economic power that is *established* in a given nation and is living and developing within that setting. In other words, we are concerned here with the "pure" capitalist who is interested only in the return he gets on his capital.

33. Bukharin, *Imperialism and World Economy*, p. 167.

34. Lenin sometimes tended to think that it was. Thus, in *Imperialism*, he quotes J. A. Hobson: "'The annual income Great Britain derives from commissions in her whole foreign and colonial trade, import and export, is estimated by Sir R. Giffen at £18 million for 1899, taken at 2½ percent upon a turnover of £800 million'," and comments on the figure given: "Great as this sum is, it cannot explain the aggressive imperialism of Great Britain, which is explained by the income of £90 million to £100 million from 'invested' capital, the income of the rentiers" (Lenin, *Collected Works*, 4th ed. [London, 1960], 22: 277).

Faithful to the line of classical political economy, which holds that free trade is merely an exchange of equivalents, Lenin could see no other advantage to Britain from a turnover of £800 million in overseas trade than the commissions obtained by her brokers, shippers, bankers, and insurance companies. He says that this is only a marginal income that cannot provide an adequate motivation for an imperialist policy. This way of looking at the matter was not really very different from Adam Smith's: "To found a great empire for the sole purpose of raising up a people of customers may at first sight appear a project fit only for a nation of shopkeepers. It is, however, a project altogether unfit for a nation of shopkeepers, but extremely fit for a nation whose government is influenced by shopkeepers" (*The Wealth of Nations* [Edinburgh, 1814], bk. 4, ch. 7).

The founders of Marxism, despite their attachment, within the national setting, to the classical doctrine of equal exchange, went further and saw more clearly where external exchange was involved: "and the workers gaily share the feast of England's monopoly of the world market and the colonies" (Marx and Engels, *On Colonialism*, p. 306: Engels to Kautsky, September 12, 1882).

35. Josiah Child, *A New Discourse of Trade*, 2nd ed. (London, 1694), p. 190.

36. I do not wish to underestimate the other factors in this process, namely, the national liberation movements and the competition between the two blocs resulting in their striving to outbid each other for support in the colonial countries. But the example of Portugal shows that a colonialist country, however weak, could easily have refused to surrender, in most cases at least, if it had so wished.

37. This explains the persistent popular hostility toward the export of capital in all countries and periods.

Chapter 5
The International Equilibrium Price with More Than Two Factors

I. GENERAL OBSERVATIONS

1. The "Other" Factors in the Formula of Prices of Production

If we let f represent the sum of the prices of the other possible factors in addition to wages and profits, the general formula for the international price of production of a branch that we will call i becomes:

$$L_i = c_i + v_i + f_i + p_i. \tag{1}$$

The formula for the general rate of profit will be:

$$T = \frac{\Sigma m - \Sigma f}{\Sigma K} \tag{2}$$

K being the capital invested.[1]

And the formula for the profits of branch i will be:

$$p_i = K_i \frac{\Sigma m - \Sigma f}{\Sigma K}. \tag{3}$$

It is then possible to rewrite equation (1) like this:

$$L_i = c_i + v_i + f_i + K_i \frac{\Sigma m - \Sigma f}{\Sigma K}.$$

Equations (2) and (3) show us that Σm must be greater than Σf:

$$\Sigma m > \Sigma f \tag{4}$$

because otherwise T and p_i would be negative, which would be absurd.

As I have already shown by implication in paragraph 2 of the first part of Chapter 3, "Σm" must itself be positive, that is, the actual labor time must always be greater than the "necessary time," without which wage labor and the capitalist system itself would become a material impossibility. "Σf" is positive by definition.[2]

These observations show us the key position that is held by m (surplus value). It depends on wages, which have already been presented in the previous chapters as the independent variable of the system, and all the other factors depend on "Σm," the sum of which they merely share among themselves. They depend on "Σm," however, only in the sense that it sets the limit that they cannot exceed; within that limit they may very well behave as independent variables.

Furthermore, if we take the aggregate of the branches, 1, 2, 3 . . . n, we shall have

$$p_1 = K_1 \frac{\Sigma m - \Sigma f}{\Sigma K}$$

$$p_2 = K_2 \frac{\Sigma m - \Sigma f}{\Sigma K}$$

and so on to

$$p_n = K_n \frac{\Sigma m - \Sigma f}{\Sigma K}$$

$$\Sigma p = \frac{\Sigma K\,(\Sigma m - \Sigma f)}{\Sigma K} = \Sigma m - \Sigma f$$

from which we get

$$\Sigma m = \Sigma f + \Sigma p. \tag{5}$$

Thus the total of primary incomes, other than wages, is equal to the total amount of surplus value extracted in a closed capitalist system, with perfect competition.

On the other hand:

$$L_1 = c_1 + v_1 + f_1 + p_1$$

$$L_2 = c_2 + v_2 + f_2 + p_2$$

and so on, to

$$L_n = c_n + v_n + f_n + p_n$$

$$\Sigma L = \Sigma c + \Sigma v + \Sigma f + \Sigma p.$$

By substituting in accordance with equation (5), we have:

$$\Sigma L = \Sigma c + \Sigma v + \Sigma m.$$

However, we know that value V is equal to $c + v + m$, from which we get:

$$\Sigma L = \Sigma V. \tag{6}$$

Thus, whatever the number of factors, the sum of prices of production equals the sum of values.

If, however, we look more closely at the functions indicated by the above equations, we note that the second category of factors is subdivided into two: (1) profit (p), which is a competitive factor, subject to interbranch equalization, and (2) all the others (f), which are noncompetitive factors, not subject to interbranch equalization. This differentiation confers a certain fixity on the "other" factors, despite their dependence on m, and gives pure profit a residual character. We thus have, strictly speaking, three categories of factors: wages, the "other" factors, and profit; and, from a static point of view, that is, within the limits of a single production cycle, the first two categories correspond to what in practice are called fixed incomes, while the third corresponds to what are called variable incomes:

Fixed incomes		Variable incomes
↓	↓	↓
Wages	Other factors	Profit

This distinction is based on the fact that the ratio of "necessary time" to actual labor time, and so the amount of surplus value, is not known at the beginning of the production cycle but only at the end of it, whereas all the primary incomes, except profit, are already determined and allotted, if not paid out, to the owners of the respective factors before the end of the cycle.

Here we have a fundamental element that has a certain influence on the formation of prices of production, which is our present subject, and also an influence of cardinal importance on the general equilibrium of the capitalist system and on the interaction between this equilibrium and the trade balance, which will be dealt with in another work.

2. *The Effect of the "Other Factors" on the Terms of Trade*

Let me now apply all this to my numerical example (see pp. 203 and 204).

Although B's terms of trade have been worsened by the addition of the "other" factors, they have not been worsened to the full extent of the excess of the "other" factors in A. The reason for this is that the diminution of the average rate of profit that followed naturally put at a disadvantage the country with the higher organic composition, and as this country is A, the one change has partly made up for the other. If we were to

See text page opposite

With Two Factors: Wages and Profits

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	R Cost of production $c+v$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	60	60	170	110		80	190
							$33\frac{1}{3}\%$		
B	120	50	60	60	170	110		40	150
	360	100	120	120	340	220		120	340

See text page 202

With More Than Two Factors: Wages, Profit and "Others"

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	f Other factors	R Cost of production $c+v+f$	T Rate of profit $\frac{\Sigma m - \Sigma f}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	60	60	170	38	148		48	196
								20%		
B	120	50	60	60	170	10	120		24	144
	360	100	120	120	340	48	268		72	340

presume the opposite, that is, if it were in B, the country with the lower organic composition, that the "other" factors weighed the heavier, then this country's terms of trade would be influenced doubly, but in the same direction, and would be improved over and above the excess of the "other" factors (see page 206).

It is obvious that even if the "other" factors were equal in the two countries, adding them would have improved the terms of trade of the country with a low organic composition (see page 207).

If the country with a low organic composition is at the same time, as is usually the case in reality, the low-wage country, the sign of the variations in the terms of trade resulting from the adding of the other factors is the same as in the case where wages are equal (see page 208).

We can thus conclude that, all other things being equal, it is fully in the interest of the underdeveloped countries, with low wages and sometimes with low organic composition, that the worldwide average rate of profit should fall, regardless of the cause of this fall, and in particular that it should fall through the addition of other factors, such as rent, indirect taxes, etc., even if the level of those other factors is the same in the two groups of countries—and all the more if this level is higher in the underdeveloped countries.[2a] If the level is *lower* in these countries, their terms of trade will continue to improve to the extent that the deficit of other factors is less than the effect of the fall in the general rate of profit; but as the deficit counteracts the effects of this fall, there is a limit beyond which the terms of trade of the countries with low wages and/or low organic composition will start to worsen despite the fall in the general rate of profit.

II. RENTS

1. Differential Rent, Determined by Prices

According to the classical view, rent is constituted by the difference between individual costs of production in a branch with diminishing returns. The classical economists saw land as the branch *par excellence* belonging to this category, and most of their writings on the theory of rent related to land. They were aware, however, that the same phenomenon could occur in any other branch, and they said so.

Thus, John Stuart Mill speaks of cases in industry that are "analogous" to ground rent, such as patents, special business abilities, business arrangements, superior forms of organization, etc. And Ricardo defines rent in a

See text page 205

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	f Other factors	R Cost of production $c+v+f$	T Rate of profit $\frac{\Sigma m - \Sigma f}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	60	60	170	10	120	20%	48	168
B	120	50	60	60	170	38	148		24	172
	360	100	120	120	340	48	268		72	340

See text page 205

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value $c+v+m$	f Other factors	R Cost of production $c+v+f$	T Rate of profit $\frac{\Sigma m - \Sigma f}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	60	60	170	24	134	20%	48	182
B	120	50	60	60	170	24	134		24	158
	360	100	120	120	340	48	268		72	340

See text page 205

With Two Factors: Wages and Profits

Country	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value	f Other factors	R Cost of production $c+v+f$	T Rate of profit $\frac{\Sigma m - \Sigma f}{\Sigma K}$	p Profit TK	L Price of production $R+p$
A	240	50	100	20	170	—	150	$33\frac{1}{3}\%$	80	230
B	120	50	20	100	170	—	70		40	110
	360	100	120	120	340		220		120	340

With More Than Two Factors: Wages, Profits, and "Others"

A	240	50	100	20	170	24	174	20%	48	222
B	120	50	20	100	170	24	94		24	118
	360	100	120	120	340	48	268		72	340

general way, as being always the difference between the products obtained by the employment of two equal quantities of capital and labor. It is true, nevertheless, that what the classical economists were preoccupied with was ground rent, and, essentially, ground rent in agriculture.

The classical theory of rent was worked out systematically for the first time by James Anderson in 1777, in a pamphlet dealing with the Corn Laws, with a clarity that Ricardo himself did not improve upon. The essence of this theory is based on the consideration that the market price of the product of a branch with diminishing returns, such as agriculture, must be just enough to cover the cost of production and the profit on capital (price of production) of the last production unit that has begun to operate so as to equalize supply and demand. The prices of production of all the other production units being lower than that of the last, and the market price being the same for all the sellers, all the enterprises but one obtain a rent. This is the difference between the market price and the price of production. Thus, according to Adam Smith, ground rent is what is left after paying the usual wages, allowing for depreciation of tools and implements, and providing the farmer's profit that is normal for the area concerned.[3]

"So long," wrote John Stuart Mill, "as any of the land of a country which is fit for cultivation . . . is not cultivated, the worst land in actual cultivation . . . pays no rent. . . . A standard is afforded for estimating the amount of rent which will be yielded by all other land."[4]

This is what Marx called differential rent. If we look more closely we see that the whole of the marginalist doctrine that subsequently invaded political economy is nothing more than a carrying further of the idea of differential rent, applying it to the entire capitalist market by arbitrarily extending the premises of diminishing returns and of perfect continuity to all branches of production.

From what has gone before it would seem to follow that the differential rent of the classical economists, the rent in which they believed to the exclusion of any other kind, is not a factor. Far from determining price, it is determined by the latter: "Rent, it is to be observed, therefore," said Adam Smith, "enters into the composition of the price of commodities in a different way from wages and profit. High or low wages and profit are the causes of high or low price; high or low rent is the effect of it."[5] Ricardo confirmed just as categorically this view of the matter: "Corn is not high because a rent is paid, a rent is paid because corn is high."[6]

If this were so, differential rent would not be a factor in the sense in which I have used this term; at all events, it would not enter into the determining of relative prices on the same basis as wages and profits do, as I have shown in Chapters 1 and 2.

Let me insert, in my numerical example, differential rent into the economy of country A, dividing its export branch into four enterprises, A^1, A^2, A^3, and A^4, with diminishing returns (see opposite).

At first sight it looks as though even if we accept the classical theory that rules out any rent other than the differential kind, its unconditional assertion that prices are the cause and rent the effect is not well-founded. According to the classical economists themselves, the price is what enables the worst land to pay the wages of its workers and provide its capital with the general rate of profit. But what is this rate? It can be calculated only if we already know at least the total amount of rent. In my example the rate is 20 percent *because* the total of rent comes to 48 and only 72 is left to be divided among the capitalists. If therefore price continues to depend on the rate of profit, as the classical writers agree it does, and if the rate of profit depends on rent, then it can also be said that, in a sense, price depends on rent.

On taking a closer look, however, we find that the classical economists were right, within the context of their own assumptions. In my diagram I started from a certain scale of returns that I chose arbitrarily. In a situation such as I have supposed, demand must meet with a *certain* supply, which imposes its conditions. But the classical economists assumed a continuous series of plots of land of infinitely small size, the returns from which ranged from X to O. Given this assumption, whatever the price might be, an adequate number of plots could always be found in the series, the worst of which would obtain, by selling at this price, only the general rate of profit, and the total of whose rents would be exactly equal to the excess of surplus value over the total of profits.

Let us suppose that the best plot of land in A produces, with K capital invested, c constant capital consumed, and v wages, x units of product; that the second best plot of land produces, with the same amount of capital invested and consumed and the same amount of wages paid, only $x - 1$; that the third best produces $x - 2$; and so on, the worst plot of land producing (still with the same inputs) only $x - (x - 1) = 1$. Let us further suppose that branch B retains the parameters of my numerical example,

See text page opposite

Country or Branch	K Total capital invested	c Constant capital consumed	v Variable capital	m Surplus value	V Value	F Rent	R Cost $c+v+F$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	Quantities	Unit price	L Price of production
A[1]	60	12½	15	15	42½	22	49½		12	123	0·50	61½
A[2]	60	12½	15	15	42½	20½	48		12	120	0·50	60
A[3]	60	12½	15	15	42½	5½	33	20%	12	90	0·50	45
A[4]	60	12½	15	15	42½	—	27½		12	79	0·50	39½
B	120	50	60	60	170	—	110		24	134	1	134
	360	100	120	120	340	48	268		72			340

that is, $K_b = 120$ and $v_b = 60$, and that the rate of surplus value is 100 percent, in other words that $v_i = m_i$. Prices will then be:

1. For a quantity x:

$$\frac{c + v + K\dfrac{v + 60}{120 + K}}{x}$$

The price cannot be less than this, because in that case even the best plot of land, even without rent, would not realize the general rate of profit, which is $(v + 60)/(120 + K)$, and would be withdrawn from production. Nor can it be greater, because then it would enable the second plot of land to realize this general rate of profit and consequently to add its production to that of the first plot.

If K and v are regarded as negligible in relation to 120 and 60—this is the assumption of the microenterprise, which is made by both the classical and marginalist writers—the price will be:

$$\frac{c + v + \dfrac{K}{2}}{x}$$

2. For a quantity $x + (x - 1) = 2x - 1$, the price will be:

$$\frac{c + v + \dfrac{K}{2}}{x - 1}$$

It cannot be less than this, because in that case the second plot of land, which pays no rent, would not realize even the general rate of profit, 50 percent, and would be withdrawn from production; it cannot be greater, because this would enable the third plot to realize the average rate of profit and compete.

At this price, however, the first plot of land collects from the sale of its product

$$\frac{x\left(c + v + \dfrac{K}{2}\right)}{x - 1}$$

Since, with $c + v + K/2$, this plot of land already covers its cost of production plus the general rate of profit, the surplus

$$\frac{x}{x-1}\left(c+v+\frac{K}{2}\right)-\left(c+v+\frac{K}{2}\right)=\frac{1}{x-1}\left(c+v+\frac{K}{2}\right)$$

constitutes the rent. This rent is so much the bigger as $1/(x-1)$ is bigger, that is, as x is bigger than $x-1$. *In other words, differential rent is an increasing function of the rate of variation of returns.*

3. For a quantity $x+(x-1)+(x-2)=3x-3$, the price will be:

$$\frac{c+v+\frac{K}{2}}{x-2}$$

Then the rent of the second plot of land will be:

$$\frac{x-1}{x-2}\left(c+v+\frac{K}{2}\right)-\left(c+v+\frac{K}{2}\right)=\frac{1}{x-2}\left(c+v+\frac{K}{2}\right)$$

and that of the first plot will be raised to:

$$\frac{x}{x-2}\left(c+v+\frac{K}{2}\right)-\left(c+v+\frac{K}{2}\right)=\frac{2}{x-2}\left(c+v+\frac{K}{2}\right)$$

and so on.

If $c+v+K/2=L$ and if we have $n+1$ plots of land, meaning n plots of land paying a rent and one plot (the last) without rent, then the price will be $L/(x-n)$ and the rents will be:

1st plot: $\frac{n}{x-n}L$

2nd plot: $\frac{n-1}{x-n}L$

and so on, to

nth plot: $\frac{1}{x-n}L$

As we see, the price may vary indifferently from L/x to $L/(x-n)$; production and rents will have to follow. If x is considered as being very large in relation to L, that is, if we assume that there is always a very small plot of land of very high fertility, then L/x can be considered as being infinitely small. On the other hand, as n draws nearer to x, $L/(x-n)$ tends to become infinitely large. Consequently, in the assumption, made by the classical and marginalist writers, of a very wide range of productivities and a very large number of very small plots of land, the lower and higher

limits vanish and price becomes completely undermined, though all rents are derived from it.

Figure 2 may perhaps enable the direction of determination to be seen more clearly.

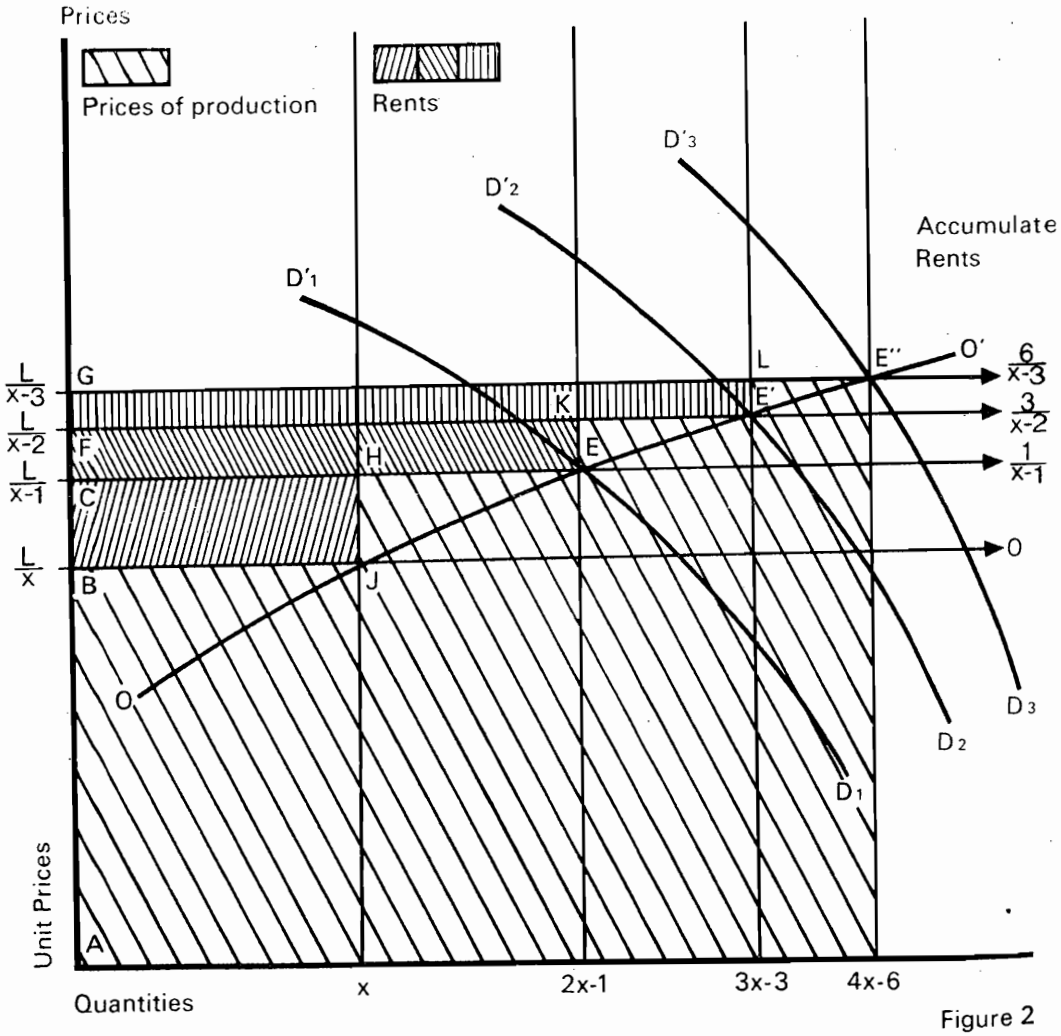

Figure 2

If we use prices as the ordinate and quantities as the abscissa (see Figure 2 above), we observe that, the curve o – o′ being given by the function of increasing costs, the equilibrium price depends on the demand curve. If this curve is $D_1 - D'_1$, the equilibrium price E yields a total rent of HJBC = $[1/(x - 1)]$L. If the demand curve is $D_2 - D'_2$, the equilibrium price E′ yields accumulated rents of HJBC + KECF = $[3/(x - 2)]$ L, and if the demand is $D_3 - D'_3$, the equilibrium price E″ yields accumulated rents of LE′FG + KECF + HJBC = $[6/(x - 3)]$L.

It is clear that the steeper the slope of the demand curve, D – D′, in other words, the less elastic the demand, the higher will the equilibrium point E be situated, and consequently the higher will be the price and the larger the amount of accumulated rents. We thus see that, in given conditions of production with diminishing returns and perfect continuity, it is demand that determines prices, and through prices, rents, and not rents that determine prices. Here we have the typical case the generalizing and sophistication of which has constituted the entire structure of marginalism.

On this basis it would seem that we ought not to regard rent as a factor in price, and still less as a factor in unequal exchange. Although this rent is paid by the foreign purchaser, where an exported commodity is concerned, whereas it does not entail in return any charge upon the community of the country that receives this rent, it is, as presented by the classical economists, the product of free competition and the objective conditions of production, and so of the laws of operation of the capitalist system, and has not been engendered by any monopoly that would infringe these laws—as is the case, we have seen, with the superwages of the advanced countries.

For the monopoly of landownership is not, from this standpoint, the element that gives rise to the rent; it is the element that determines its transfer from the capitalists to the landlords. If no landlords existed and the land were put at the capitalists' disposal free of charge, the differential rent of the classical schema would not cease to exist; it would simply be appropriated by the capitalists themselves. Thus, Ricardo could write: "It has been justly observed that no reduction would take place, in the price of corn although landlords should forego the whole of their rent. Such a measure would only enable some farmers to live like gentlemen, but would not diminish the quantity of labor necessary to raise raw produce on the least productive land in cultivation."[7]

It is thus clear that, according to the classical writers, rent is the effect not of an institutional monopoly, such as landownership, but of the objective fact of the differential returns given by production units. The equilibrium price corresponds to the price of production of the least productive enterprise. The result is that all the other enterprises must necessarily realize a superprofit. The monopoly of landownership merely decides who is to benefit from this superprofit. Ground rent, said Ricardo, does not create wealth, it only transfers it.

2. *Absolute Rent, a Determinant of Prices*

While accepting the differential rent of the classical economists, Marx introduced the category of absolute rent. Based on the assumption that agricultural capital has an organic composition lower than the social average, and so that the value of agricultural products is greater than their price of production, he defined absolute rent as the difference between value and price of production—differential rent continuing to be the difference between the market price and the individual price of production.[8]

From this standpoint the two rents are essentially, qualitatively different. While differential rent depends on demand, since it is determined by the market price, absolute rent depends solely on the monopoly of landownership, since it is this monopoly that is responsible for the fact that, in contrast to all other commodities, the product of the worst plot of land is sold not at its price of production but at its value; which (1) gives the same absolute rent to all the other plots of land, a rent that is added to the differential rent proper to each; (2) ensures that even the worst plot of land still provides its owner with a rent; and (3) shows that absolute rent does not result from prices but, on the contrary, modifies them.

I know the weaknesses in Marx's argument on absolute rent and have no intention of enlarging upon them here. This is perhaps the weakest chapter in Marx's theory. Nevertheless, I will briefly mention a few essential points.[9]

All Marx's calculations in the numerical examples that he gives are based on the premise that the real price of the product is governed by value. But the very existence of landownership makes such a relationship unnecessary, since it does away with the competition of capitals. Marx gives no precise reason why the market price of agricultural products should be governed by value. His imaginary conversation between a farmer and his landlord tends to show that the latter intercepts the excess of value over price of production. In the absence of the landlord, this excess would have been poured into the capitalists' general pool that enables a general rate of profit to be formed. The landlord succeeds all the more easily in his negotiations because, according to Marx, it is in the end all the same to the capitalist whether he pays this surplus to the landlord, as rent, or pays it into the "common fund" of the capitalist class.

Let us distinguish between the theoretical and practical planes. For the abstract farmer, representing the class of farmers, it is not at all a matter of

indifference whether he pays this surplus to the landlords or into the capitalists' common fund. In the first case the farmers lose it irrevocably and completely. In the second a certain part of it comes back to them in the form of an increase in the general rate of profit. On the practical plane and so far as each separate farmer is concerned, this "reimbursement" may be seen as a negligible quantity, but the individual farmer does not decide whether ground rent in general should exist or not, but fights out the issue of *his* rent, and he is in all circumstances interested in reducing or annulling *that*.

If we agree that it is the monopoly of landownership that makes this transfer possible, without any sort of consent being given by the farmer, there is no reason to assume that it is restricted merely to the excess of value over price of production. From the existence of capital as the second factor in prices, transforming values into prices of production, and, further, from the existence of the monopoly of landownership, it results that value is no longer in itself a significant magnitude in the conflict between the landlord and his farmer, and that it has no direct determining effect on prices.

This becomes clearer when Marx speaks of the modifications caused to rent by shifting to the cultivation of more fertile soil. If the new level of fertility, says Marx, requires a capital that is smaller but with the same organic composition in order to produce the same quantity of products, the rate of rent (ratio between rent and capital invested) remains unchanged, but its amount declines if demand does not change. Thus, let us assume a situation like this: $100c + 50v + 50m =$ Value 200 (francs). If the quantity produced is 200 kilos, the price will be 1 franc per kilo (since price is governed by value). If we assume the general rate of profit to be 10 percent, the rent must be 35 francs, since with the 165 francs left to him the farmer covers his cost of production of 150 and the 10 percent profit on his invested capital, which is also 150. Thus the rate of rent is $23\frac{1}{3}$ percent.

If productivity now doubles and, demand being inelastic, the market is still "equilibrated" with 200 kilos, we shall have: $50c + 25v + 25m =$ Value 100, quantity produced 200. According to Marx, the unit price will fall to 0·50, from which it follows that the amount of rent will fall to 17·50, its rate remaining unchanged at $23\frac{1}{3}$ percent.

But why should the price fall from 1 franc to 0·50? What obliges the farmer to reduce his price, since neither the quantity produced nor the

demand has changed? Competition from another farmer? This is excluded by virtue of the monopoly of landownership. Why should the landlord, who is strong enough to annex the difference between price of production and value, not be strong enough to annex the difference between the new productivity and the old? Why, in the example given above, could we not assume that the price would continue to be 1 franc the kilo and the farmer's profit 7·50 francs (10 percent), while the rent rose by 35 francs to 117·50, thus soaking up the entire difference?

It is impossible to discover any foundation for Marx's premise that the market price rises, under the pressure of rent, to the amount of the individual value of the worst plot of land, then stops and moves no more. If nothing can prevent it from rising to that point, what prevents it from rising higher? In *Theories of Surplus Value* Marx says that it is not always the individual value of the worst plot of land that determines market value.[10] What then does determine this? It seems that at this point Marx abandons this determination to the law of supply and demand. But what are the limits? The lower limit is obviously the price of production on the worst plot of land. That we can understand. But what about the upper limit? Is it the individual value of the worst plot of land? That we cannot understand.

If, however, the upper limit is the best plot of land eliminated from cultivation—the marginal plot, as would be said nowadays—as seems to emerge from another argument in *Theories of Surplus Value*,[11] the category of absolute rent becomes superfluous, everything being reduced to differential rent on the basis of this best plot of land eliminated from cultivation, which is brought into use as soon as "market value" has risen sufficiently to guarantee the average profit to this plot. In that case, however, Ricardo's theory is modified only on a secondary point, with the standard of the best plot not under cultivation substituted for the standard of the worst plot under cultivation.

Market value, says Marx, can never be greater than the individual value of the product of the least productive unit since—he claims—market value must represent real value. Yes, if the thing concerned is freely reproducible at this "real value." No, if it is not—and in agriculture it is not. For a piece of writing from Marx's hand, these passages are singularly lacking in precision. It is impossible to conceive Marx formulating such gratuitous assertions if he had himself prepared this text for publication.

If market value, Marx goes on, is less than the individual value obtain-

able from a certain plot of land, then this plot will receive only part of the absolute rent. But why should the market value be lower than this? Obviously because otherwise another plot of land would come into use. So it is the best plot of land not under cultivation that determines the market value and thereby the "absolute rent." But it is also this same plot of land, operating through the same mechanism, that determines the differential rent. If this is so, it is not very clear what is the use of this category of absolute rent, which has nothing absolute about it, since some plots of land are free from it, not momentarily but in equilibrium, and since the same factor that determines this rent, namely, the competition of capitals, also determines "impairments" of it.

Marx himself, as might have been expected, asks the question that has been forming in the reader's mind from the start of this chapter: "If landed property gives the powers to sell the product *above* its cost price, *at* its value, why does it not equally well give the power to sell the product *above* its value, at an arbitrary monopoly price?"[12]

The reply he gives, however, is disappointing and confirms the reader in his feeling that what we have is not a finished text but scattered notes that Marx wrote down with a view to working them up later, something that unfortunately he did not have the time to do. It would be tedious to go over this reply in detail, but what seems to be emphasized is that a limit is set to the rise of this monopoly price by the competition of imported products.

It is true that any national monopoly does find one of its limits there, another being the elasticity of demand. But it is impossible to see why this limit, imposed by external trade, should coincide exactly with the individual value of the worst plot of the land under cultivation in the country itself.

Finally, Marx, referring to Richard Jones, invokes the fact that improvements tending to diminish differences in the fertility of plots of land under cultivation increase the absolute produce of each plot, and therefore raise the rent.[13] As Marx argues, this phenomenon confirms the existence of absolute rent, since, in itself, bringing the plots into uniformity should tend to reduce the differential rent.[14]

This argument would be valid if we kept to the standard of the worst plot of land under cultivation. If, however, we make the zero point the best plot of land eliminated from cultivation in a given state of social needs, there is nothing surprising in the fact that the improvements that equalize

the plots under cultivation nevertheless increase the total rent, since they increase the *difference* between the plots under cultivation, taken as a whole, and this marginal plot. Here we have a case of leveling up. If we were to assume a leveling *down*, through general deterioration of the plots under cultivation, the result would then be an overall reduction in differential rent. The category of absolute rent does not seem necessary in order to explain these variations.

Must we then, in rejecting Marx's absolute rent and noting that Ricardo's differential rent is derived from prices and does not determine them, reject rent as a factor in prices and thereby in unequal exchange? I do not think one can draw this conclusion.

First, as regards absolute rent, it will be seen, if we look more closely, that what is involved in the brief summary I have given of Marx's proposition is not so much the actual existence of this rent but what measures it, that is, the difference between value and price of production. Absolute rent can very well exist, however, without this yardstick and without this limit. If all the land, good or bad, under cultivation or not, is monopolized, if there is no land without an owner, except land that can produce nothing and is absolutely uncultivable, then the best plot of land not under cultivation comes into use not when the market price has risen sufficiently to cover its price of production, but when it has risen sufficiently to cover this price of production *plus* the rent demanded by its owner.

Absolute rent would then be the amount of the rent that would be demanded by the owner of the best plot of land eliminated from cultivation if he were to be asked to lease it out, and differential rent would be the difference between the price of production of each plot of land under cultivation and the price of production of the best plot of land eliminated from cultivation.

If this is so, the worst plot of land under cultivation *also* pays a rent, and even a twofold one, namely, an absolute rent equal to the rent that is, or could be, demanded by the owner of the best plot of land not under cultivation, and a differential rent equal to the difference between its price of production and the price of production of this eliminated plot.[15]

It is obvious that if economic reality were perfectly continuous, and if every landowner preferred to accept any rent at all, however tiny, rather than let his plot of land lie fallow—two assumptions that underlie *both* the classical theory of differential rent *and* modern marginalism—then absolute rent would practically disappear, because the difference between the

prices of production of two plots of land situated so close to each other as the worst plot under cultivation and the best not under cultivation would be negligible, and because the competition between landowners would be such that the owner of the second plot would be content, in order to be able to find a farmer for it, to accept a rent so small that the sum of the two would also be negligible, and we should then be able to say with pertinence that the worst plot of land under cultivation does not pay rent.

However, on the one hand, reality is not continuous, and, on the other, competition between landowners (like all competition, incidentally) is far from being perfect. The difference in fertility between two plots that are neighbors on the scale of returns is not usually an insignificant sum; and, above all, a landowner does not usually put his land up to public auction in order to lease it out without delay. He looks around at leisure to find a farmer. He cherishes hopes; the return from each plot has not been defined in centigrams by laboratory analysis and is not posted up on the doors of the Town Hall, but is estimated subjectively. He regards it as normal to wait a while rather than "throw away" his plot of land. He becomes stubborn—considerations of self-respect come into the matter—and prefers to lose money rather than seem to have been made a fool of. He is unreasonable. In short, he is a man, and not the infallible electronic machine that the marginalists have put in the place of every economic agent. But the mere fact that every landowner is inclined to wait, and does in fact wait a certain time between one farmer and the next, and in no case agrees to go below a certain limit that he regards as equitable, for reasons that have nothing to do with objective economic laws, automatically *sterilizes* part of the supply and causes the market to reach equilibrium at a level higher than that which would have been attained if the economic agents had acted in accordance with marginalist "rationality." What was a subjective and irrational attitude in each one's head becomes *ex post* extremely rational and effective conduct, since this is what preserves rents, and above all that rent of the worst plot under cultivation which is an observed fact but which pure political economy has never been able to digest.

In their fight against this rent-of-the-worst-plot-under-cultivation, the classical writers make use of some brittle devices. If, wrote John Stuart Mill,

when the demand of the community had forced up food to such a price as would remunerate the expense of producing it from a certain quality of soil, it happened

nevertheless that all the soil of that quality was withheld from cultivation, by the obstinacy of the owners in demanding a rent for it . . . the increase of produce which the wants of society required would for the time be obtained wholly . . . not by an extension of cultivation, but by an increased application of labour and capital to land already cultivated. . . . Even, therefore, if it were the fact that there is never any *land* taken into cultivation for which rent . . . was not paid . . . it would be true, nevertheless, that there is always some *agricultural capital* which pays no rent, because it returns nothing beyond the ordinary rate of profit. . . .[16]

Where does Mill find evidence that the return on this additional capital from a plot of land "already cultivated" would suffice to cover the price of production, so that the farmer would prefer this solution to leasing the best plot of land *not* under cultivation, even if he should be obliged to pay the rent that its obstinate owner demanded? The argument would be valid if Mill had confined himself to saying that the return from intensive cultivation constitutes another limit, alongside those I have mentioned—external competition, elasticity of demand—to the rents that would be engendered by extensive cultivation. All monopoly prices are limited by something, and ground rent is no exception.

However, every monopoly, whether agricultural or industrial, engenders a twofold rent, absolute and differential; and Marx was right, despite the fact that the unfortunate draft he has left us lets him down so badly. A monopoly is not obliged to regulate its prices by the price of production or the value of the least productive enterprise in the branch. It has to reckon with the elasticity of demand, and perhaps with foreign competition, substitute products, etc., but it does *not* have to reckon with the productivity of the least satisfactory enterprise in its group. There is nothing to rule out the possibility that it may give a rent to the least productive enterprise. In this case all the other enterprises in the same group will necessarily enjoy *both* this rent *and* the differential rent arising from differential productivity.

Thus, absolute rent exists, and this rent is undeniably a factor in prices and in unequal exchange. If an absolute rent is inserted into my diagram (Figure 2), the supply curve $o - o'$ will be shifted to the left, toward the position $o_1 - o'_1$, and whatever the demand curve may be, it will be cut by the new supply curve at a point higher up the price scale (Figure 3).

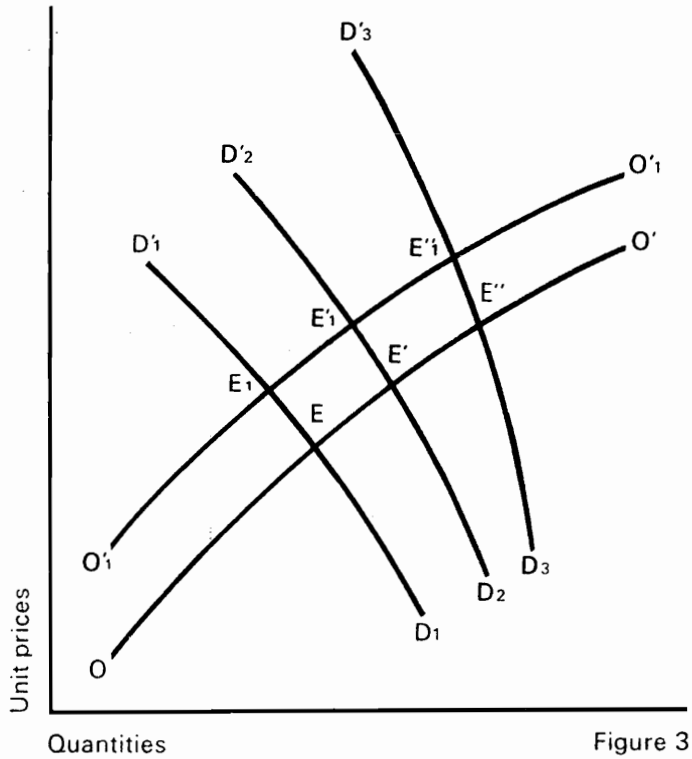

Figure 3

3. *Differential Rent as Determinant of Prices*

While the problem regarding absolute rent seems to have been solved, can we agree that differential rent is, as certainly as the classical economists supposed, the effect of prices rather than their cause? The best way to go about answering this question would seem to be to examine what would happen if private ownership of land did not exist.

Ricardo, as we have already seen, is categorical on this point. Even if the landlords renounced their rent, the product's price would not fall. Differential rent would continue to exist and would be pocketed by the farmers.

That is the crux of the problem. Ricardo's reasoning is correct on the condition that we assume that the farmer who cultivates the best plot of land retains from year to year the *exclusive right* to his share. In that case, though, it would not be a matter of abolishing private landownership but only of handing it over to the capitalists themselves. And nothing, of course, prevents a single person (whether physical or juridical) from combining the attributes of capitalist and landowner. The fact that the formal title to property is abolished changes nothing if the real content of this right continues to exist and is exercised by the farmer himself.

If, though, a system could be imagined in which nobody had an exclusive right to the land, not even someone who had cultivated it previously—supposing, for instance, that the plots of land were reallocated periodically by a drawing of lots, *then the market price would not be governed by the price of production of the worst plot but by the average price of production.*

This is what happens with fishing and also with hunting, in countries where this is carried on over unoccupied, and ownerless land. For unpredictable reasons, due to sheer luck, the productivity of fishermen is not identical. No one can be certain beforehand which is the spot most propitious for fishing on any particular day. And even if someone did know this, he might not be able to profit by the knowledge, since the sea is at the disposal of the first fisherman to cast his net, and no natural link, such as might entail a prior right, exists between the fisherman's equipment and the natural element in which he operates—unlike the situation in agriculture, where a link of this kind is inevitably established between the capital invested and the material basis of production.

Thus, it is not necessary for the price of fish to allow the general rate of profit to be realized by the least lucky of the fishing concerns for new capital to be invested in this branch. So long as the price allows an *average* rate of profit to the entire branch that exceeds the general rate by however little, new capital will flow into it, since every fresh entrepreneur may reasonably hope to obtain this average rate for himself. This competition prevents the price of fish from rising above this point, and so differential rent is impossible.

The same thing happens in agriculture, too, if, despite the fixation of capital in land already under cultivation, and the conditions of priority thus established, which might, at first sight, give rise to a rent, uncultivated and ownerless land is available in practically unlimited quantity and its productivity cannot be known exactly beforehand. This was the case in the United States in the eighteenth century and down to the middle of the nineteenth, and it was also the case in the African colonies, with the European plantations of coffee, sisal, cocoa, rubber, palms, and so on. By declaring unoccupied all the land that was not under cultivation or was not occupied on an individual basis, in accordance with the European legal fiction that refused to recognize collective (tribal) ownership, the colonial powers put immense tracts of land at the disposal of the colonizers without requiring any payment from them beyond a small tax that was negligible in comparison with the return to be had on the capital to be invested.[17]

Depending on the chance results of prospecting activity that was inevitably incomplete, on intuition and luck, everyone selected and secured a concession. But the extent of the unoccupied land and the difficulties of penetration were such that there was no reason to suppose that the first wave of planters acquired the most fertile land. They prospected only where access was possible, given the means then available to them. The construction of new communications opened up new areas to prospecting and the setting up of plantations. Thus, the hundredth or thousandth concession owner had the same chance of gain as the first one. Under these conditions, for a capital to be invested in coffee, for example, it was not at all necessary for the price to be such as would enable the worst plantation to realize the general rate of profit; it was enough for the price to be that at which the average plantation would realize this rate, since the new capitalist was just as likely to hit upon a superior plot of land as on an inferior one.

This is just what happens in industry. The returns realized by firms in the same branch of production are different, but when the differentiating factor is not something monopolizable and actually monopolized, but consists simply of the quality of management and organization, or of those thousand imponderable and unforeseen elements that contribute to a firm's success, then it is not necessarily the last-born firm that has the lowest return, as the marginalists suppose—each new firm has the same chance as all the rest. As a result, when, for example, there is an issue of shares in a new factory making electronic apparatus, no investor bothers to find out how much profit the worst of the existing electronic apparatus factories is making—what interests him is the *average* return on electronics shares, and it is on this information that he bases his decision. He may buy these shares even though some marginal firms already operating in this line are not merely not making a profit but may actually be suffering losses.

It is clear that, under these conditions, the price cannot rise above the average price of production, and differential rent is out of the question. Things are quite different if production in a branch depends on a monopoly of some kind—a patent, a license, a royalty, ownership of land, etc.

We may thus conclude that, even if competition between landowners were to prevent the formation of absolute rent, the mere fact that property in land exists, whether or not it be separated from capital, entails an increase in the price of the product as compared with a situation in which

this property in land does not exist; and it thus obliges the foreign purchaser, if the product be exported, to pay a tribute that corresponds to no productive service and costs nothing in return to the exporting community, either in labor or in time.

An international division of labor based on the cost of production, in which rent, where it exists, is allowed for, cannot correspond to the world optimum sought by the classical writers and the modern liberals. An institutional change that abolished or reduced rent would render some specializations pointless, even though the objective conditions of production had not changed.

Finally, this tribute is neither useful nor necessary to the development of capitalism in general. Private ownership of land, though it afflicts most of the actual capitalist models, is not a constituent element in very possible capitalist model. It may even be said that the tendency of capitalism in general has always been to limit ground rent or to avoid its appearance.[18]

4. *Quasirents*

A kind of rent other than ground rent that undoubtedly is a factor in prices is that constituted by oil royalties. The cost structure in 1963 was as follows:

	In U.S. dollars, per ton		
	Costs of production	Royalties	Total
United States	18 to 21	—	18 to 21
Venezuela	5·5 to 5·7	6 to 7	12 to 12·5
Middle East	2·3 to 2·5	5	± 7·5

The selling price of crude petroleum in the Middle East was ± $12·50 per ton.

In 1959 the four chief oil-producing countries of the Middle East received the following royalties:

Iran	$252 million
Iraq	$242 million
Saudi Arabia	$315 million
Kuwait	$345 million
Total	$1,154 million

The populations of these countries were:

Iran	19 million
Iraq	6½ million
Saudi Arabia and Kuwait	9½ million
	35 million

The royalties thus represented over $30 per head. For Kuwait and Qatar they represented about $1,600 per head, which would put these little countries in the front rank of the advanced countries if these sums were used internally, whether for consumption or for investment. In fact, however, the greater part of this money, especially as regards Saudi Arabia and Kuwait, is not used by anyone—neither by the people nor even by the potentates who receive it. British Petroleum sends a check to the king of Saudi Arabia or to the sheik of Kuwait. They pass this check on to their bank in London, receiving in exchange another piece of paper called a "credit note," together with a personal checkbook. With this they buy, perhaps, a few Rolls-Royces and some high-class sporting guns; then they go to London and enjoy the service of a luxury hotel for a week or two; they sample Scottish smoked salmon and cutlets of best English mutton; they buy some jewels, some suits, some gewgaws. This is about all that Saudi Arabia or Kuwait receives in terms of real value—if what has been listed above can be regarded as real value—from its oil royalties. The whole does not exceed a few hundred thousand pounds a year, whereas the royalties amount to hundreds of millions. The rest is mere paper work. The monarchs' credit balances pile up in their banker's ledger. One day they order the purchase of some shares or other. At once, the bank sends them a debit note, on the one hand, and, on the other, a certificate of deposit of x shares of the y or z company—two more pieces of paper that balance each other. Later on the bank collects dividends for them and sends them a credit note—yet another! And so the game goes on. And they fancy they are millionaires many times over.

What has actually happened is that the oil companies have indeed paid out many thousands of millions—not, however, to these monarchs or their countries but to Britain and the other industrial countries, the great consumers of oil, where a proportion of these sums is eventually invested by way of stock-exchange operations. In the end the actual price that these rich countries pay for the oil they buy is not $12·50 per ton but $7.50 or

$8.00, as the greater part of the $5.00 royalties comes back to them. This is another form of indirect exploitation of the underdeveloped countries, perhaps even more subtle than unequal exchange, but it is outside the scope of the present study.

However, and this is of cardinal importance, if the foreign oil companies were to be driven out of the Middle East, and nationally owned companies were to take their place, the result would be still more disastrous for the countries concerned. As in such a situation we must assume that the royalty payments would be abolished, competition between the oil-producing states would cause the price of oil to come into line with its price of production, about $7.50 per ton, and these states would lose even that part of the royalties that formerly came to them as real values. This might perhaps make no difference in the case of Saudi Arabia or Kuwait but it would mean a substantial failure to gain for Iraq and Iran. As John Strachey very rightly observes, in this situation Britain would gain in terms of trade even though she lost in income from overseas investment.[19] However paradoxical this may seem, the presence of the foreign companies has led the Arab and Iranian governments to establish a rent that has prevented the price of Middle-Eastern oil, already very low (less than half the American price) from sinking still further through the working of unequal exchange.[20]

III. INDIRECT TAXES

1. *Indirect Taxes as a Factor*

As already said in Chapter 1, indirect taxes fulfil the conditions of my definition of a factor, since they undeniably constitute an established claim to a primary share in the economic product of society. It is not the same with direct taxes, which constitute an established claim to a second-stage share, a sort of redistribution of this product.

It may even be said that indirect taxes constitute the factor *par excellence* in relative prices, since, in the sharing out of the economic product of society, what distinguishes the first distribution from the second is precisely the fact that the former takes place *indirectly*, through relative prices, whereas the second takes place directly, through immediate transfer from one economic subject to another. The very adjective "indirect" itself is based on this distinction, for there is no other mechanism than prices for

indirect distribution. Direct taxes can in certain circumstances influence the general level of prices, but can in no way affect relative prices.

Here, finally, there can be no doubt about the direction in which determination takes place. Indirect taxes are the effect of a voluntaristic act, independent of the "objective" laws of the market and even prior to the working of these laws. We must not confuse the obligation that the authority that imposes a tax is under, to take account of the foreseeable reactions of the market, with the question of what prices depend on. This obligation relates to the need to fix a rate that will be compatible with a certain situation, in order to increase the return the tax brings and not to cause disturbances detrimental to economic activity. In the end, however, whatever the rate chosen, whether it be good or bad, well or badly calculated, too high or too low, beneficial or harmful, it will none the less exert all its effects on equilibrium prices.

If, as we have shown, wages are fixed in advance in accordance with the factors specific to them, and if the rate of profit of the branch affected by the indirect tax must in any case come into line with the average rate of profit, the tax can react only upon prices—leaving aside the slight effect it will have on the profits of the branch through the reduction in the general rate of profit caused by the actual amount of the tax. Given worldwide circulation of capital, this effect is absolutely negligible.

2. *The Effects of Taxes on Exports and Imports on the Terms of Trade and on the Trade Balance*

The classical and neoclassical writers do not seem to have taken the foregoing into account when they made the repercussion of taxes on prices depend on the elasticity of demand. On this point I quoted in the Introduction Ricardo, John Stuart Mill, Bastable, Taussig, Sidgwick, Edgeworth, and Marshall. With differences of wording and slight differences of conception, all these writers agree in general that in the field of external trade, the incidence of a tax on exports upon the foreign purchaser is a decreasing function of the elasticity of external demand, while that of a tax on imports upon the foreign seller is an increasing function of the elasticity of internal demand. In other words, the more elastic the external demand for an exported product, the less substantial will be the improvement in the terms of trade as a result of a tax on exports, and the more elastic the

national demand for an imported product, the more substantial will be the improvement in the terms of trade as a result of a tax on imports.

This assertion can be understood only if we identify, or confuse, the net barter terms of trade with the gross barter terms of trade. If the external demand for a given product is very elastic, considerably greater than unity, the volume of the producing country's exports can decline substantially as a result of a tax on exports that increases the price of the product in question. This may have disagreeable effects on the country's trade balance and on its economic equilibrium, *but the country's terms of trade will improve in proportion to the tax*. It is hard to see how the price of the product could be prevented from rising in proportion to the tax, except in the very short run.

The only exception would be the case of diminishing returns. In this case, if external demand is very elastic, the incidence of the tax will be shared in accordance with the gradient of the two curves, that of returns and that of demand, between an increase in the price paid by the purchaser and a diminution in the cost of production of the product. Then the barter terms of trade will improve less than proportionally to the tax, *but the factoral terms, both simple and double, will improve in strict proportion to the tax*, since the share of the tax that the foreign purchaser does not pay will be gained by the national economy in the form of a diminution in pure cost.

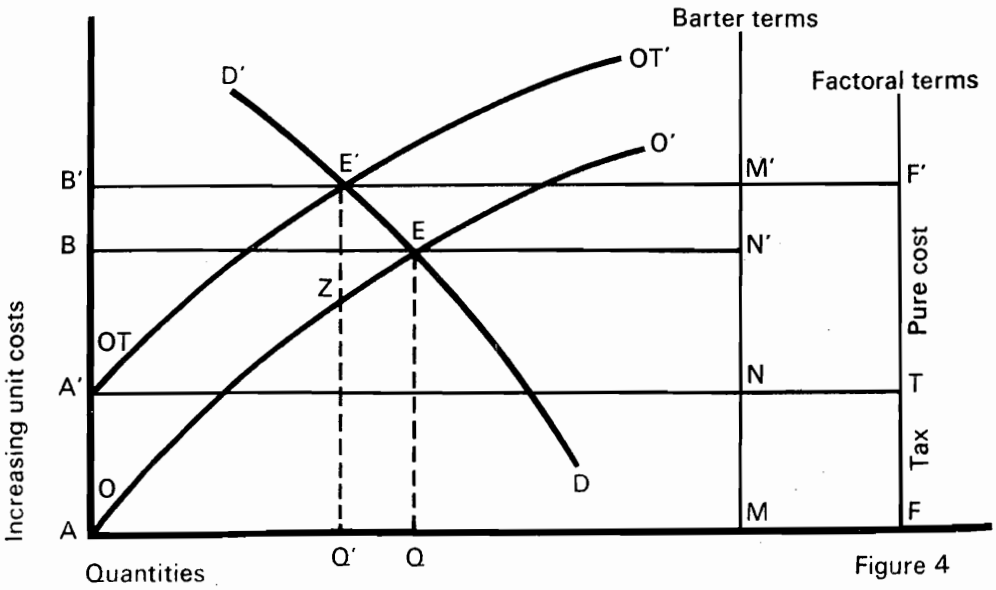

Figure 4

The demand curve D – D′ being given (Figure 4), the equilibrium price without tax is E′. If a tax AA′ is applied, the supply curve OO′ will be displaced to OT – OT′, parallel to O – O′, since the tax is the same for all quantities (E′Z = AA′). The equilibrium price with tax is E′. All other things being equal and the price of the commodity against which exchange is made being assumed as unchanged, the barter terms are improved by N′M′, i.e., in a smaller proportion than the tax, since N′M′ < AA′; but the factoral terms, simple and double, are improved proportionally to the tax, since FT = AA′. The part of the tax FT – N′M′ that the purchaser does not pay is gained by the selling country in the form of a diminution in unit cost, since the cost, which was AB for a quantity Q has become A′B′ for a quantity Q′.

But:

$$AB = AA' + A'B$$

and:

$$A'B' = A'B + BB'$$

so that:

$$AB - A'B' = AA' + A'B' - (A'B + BB')$$

or:

$$AB - A'B' = AA' - BB'$$

or:

$$AB - A'B' = FT - N'M'$$

so that:

Diminution in unit cost = tax minus increase in equilibrium price.

When reading economic writings on this subject, one often has the impression that it is too easily forgotten that the terms of trade have nothing to do with *quantities* exported or imported, but solely with unit prices. Very often economists imagine they are arguing about terms of trade and the national income when in fact they are arguing about the balance of trade.[21]

A tax on imports, however, whatever the elasticity of internal demand for the imported product, can in no circumstances affect the terms of trade, barter or factoral; it can, however, improve the trade balance to a greater or lesser extent, depending on the elasticity of demand. The exception once again is provided by the case of increasing costs on the part of the foreign seller; in this case the improvement in the trade balance through reduction in the quantity imported will bring about a reduction

in cost and in equilibrium price and will improve the barter and simple factoral terms of trade, but not the double factoral terms. In the case of increasing costs, however, there is, in practice, a considerable difference between a tax on exports and a tax on imports. The former affects overall demand, and reduction in this has its effect on costs—we must suppose that the country or countries applying the tax are the only or the chief exporters, since otherwise the tax becomes impracticable—whereas the latter affects only a small part of demand, that of the importing country applying the tax, and unless we assume that this country is the chief consumer of the product taxed, the reduction of this demand will usually have a negligible effect on the cost-of-production curve. The difference arises from the fact that though it often happens that a country is almost the sole producer of a given product, it is very rare for a country to be almost the sole consumer of such a product.

To sum up:

1. *Constant costs—inelastic demand*

The tax on exports falls entirely on the foreign consumer and improves all the terms of trade, barter and factoral.

It improves the trade balance.

The tax on imports affects neither the terms of trade nor the trade balance.

2. *Constant costs—elastic demand*

Tax on exports: same improvement in terms of trade as above. Tendency to worsening of the trade balance in direct proportion to the degree of demand.

The tax on imports has no effect on the terms of trade. It tends to improve the trade balance in direct proportion to the degree of elasticity.

3. *Increasing costs—inelastic demand*

Tax on exports: same improvement in terms of trade as in (1).

Improvement in trade balance.

Tax on imports: no effect either on terms of trade or on trade balance.

4. *Increasing costs—elastic demand*

Tax on exports: partial improvement in barter terms; total improvement—to the amount of the tax—in the simple and double factoral terms of trade.

Tendency to worsening of the trade balance in direct proportion to the degree of elasticity.

Tax on imports: if the country's consumption represents a considerable

specific weight in world consumption, its barter and simple factoral terms are improved. No effect on double factoral terms.

Tendency to improvement of trade balance in direct proportion to degree of elasticity.

Finally, if costs are decreasing and demand is elastic—if demand is inelastic the effects are the same regardless of costs, since elasticity of demand constitutes the very condition for the functioning of non-proportionality of costs—then the tax on exports improves the barter terms of trade more than proportionally to the tax, and the simple and double factoral terms proportionally to the tax. It tends to worsen the trade balance in direct proportion to elasticity of demand. The tax on imports, subject to the same reservation as in (4)—that the consumption of the country in question has a substantial specific weight—will tend to worsen the barter terms and the simple factoral terms but not the double factoral terms. It will tend to improve the trade balance.

3. *Taxes on Exports as a Means of Defense for Underdeveloped Countries*

It follows from the foregoing that a tax on exports can be a very useful device in the hands of the underdeveloped countries, with a view to redressing their terms of trade, which are suffering from the inequality of exchange due to low wages. If wages cannot be raised, either in the country generally or selectively in the export sectors, the only means left to these countries for preventing the excess surplus value from draining away abroad through unequal exchange is to make up for the inequality in the rate of surplus value by imposing a tax on exports. This tax increases the amount of money received for the commodity taxed without increasing either the real social costs of producing it or the profit of the capitalist producer.

This last point is important because, in the absence of a structural change in the competitive system inside the country, an artificial increase in the selling price through international agreements, such as has already been experienced in the case of coffee and cocoa, entails a superprofit for the producing concerns, and thereby an influx of capital into the branch and overproduction, which soon crashes through all the price floors that may be laid down by conferences.

The fixing of export quotas is also found to be useless in practice. In the

first place these quotas, which are necessarily based on extrapolation from previous export figures, take a long time and much difficulty to negotiate. The development of the production of each exporting country being very different, it is in practice impossible to find base years satisfactory to everyone. The general criteria laid down at the opening of conferences are soon broken through by the selective criteria that have increasingly to be adopted the longer the conference goes on, in order to dispose of the objections raised by certain especially tough negotiators.

Depending on whether the exporter is a big producer whose exports count for a lot in the world market, or a small producer whose exports are more or less marginal, the positions taken differ. The small exporters tend to blackmail the big ones. It is rare for an agreement of this sort to be made without some breakaways, which, however insignificant in themselves, offer a bad example and a germ of dissension for the future. Finally, if and when the agreement is made, many of the signatories are left feeling that their interests have been harmed, and they are already looking forward to the next revision. As these arguments and revisions of agreements are made on the basis of existing production potential, each of the countries involved is interested in letting this potential expand, in disregard of all the restrictions recommended or imposed by the agreement.

The very application of these agreements implies a procedure that is complicated and vexatious both for the producing countries and for the consumer countries and that goes very much against the principles of free enterprise that are nevertheless maintained in force. Insofar as these agreements prove at all effective, that is, insofar as they are followed by a certain increase in prices, the pressure of overproduction, which nothing can check, becomes irresistible.

All qualities of a product are not affected to the same extent by any stabilization of the market that may be achieved. An all-around improvement in prices following an artificial shortage brought about by quotas will benefit the producers of some qualities more than the producers of others, depending on the structure of demand.

At each momentary improvement in demand, appeals to export in excess of the quota flow into the directing office. Fraudulent exports increase, together with the traffic in forged certificates of origin. Some country that by mistake or through the skill of its negotiators has obtained too generous a quota sometimes finds that it cannot fulfil this quota. Normally, it ought to lose its right to the amount it cannot supply at the next revision of

quotas. But there is another country that has exceeded its quota because it was unwilling or unable to restrict production. Normally, it ought to destroy this surplus, which would give it an incentive to take more effective measures to restrict production in the future. But then the former country, which has an available quota and not enough product to fill it, sells certificates of origin to the latter country, which has the product but not the quota. If the two countries are neighbors and their production goes out through the same port, this semiclandestine operation, performed with the more or less tacit connivance of the local authorities, is considerably easier to carry out. Finally, instead of adapting production to quotas, what happens is that quotas are adapted, automatically, and either openly or not, to production—which ends by depriving the system of all meaning.

Let us imagine, however, that a worldwide tax on exports is established, a sort of international excise, expressed as a percentage of the current market price and collected by an international organization that appoints agents in all export ports. The product of this tax will be paid back to the exporting country in the form, say, of a development fund, subject to the sole condition that it may not be returned, directly or indirectly, to the branch producing the exported goods. All the inconvenient features of the direct agreements to raise prices or the quota systems, listed above, are eliminated. An increase in prices will be brought about automatically, without any hitches and without clashing with the mechanisms of free trade that govern international trade. Production and consumption will come into line on their own, at the new point of equilibrium conditioned by whatever the elasticity of demand may be. The tax would not modify the relative status of the producing countries, and all the frictions under that score would be eliminated. Fraud would be much more difficult. The risk would remain that some or all of the tax might find its way back to the producers, perhaps through a reduction in the taxes on exports already in force in the producing countries. Apart from the fact that this procedure would be forbidden by the agreement, this risk would be practically nil if the restitution procedure adopted were such that it ruled out any movement of the money concerned through the state budget, a special fund being provided for instead, which should be independent of the budget. Since in the underdeveloped countries customs receipts form the most substantial item in state revenue, it would be very hard to abolish them once they have been established, especially if the only motive for doing so were to violate an

international agreement the beneficial effects of which would be felt without delay, in the form of credits on the special development fund to be set up. Let us also not forget that the sanctions, which in any other agreement would be limited to expulsion, something that the offending country very often wants to bring about, could in this case have a much greater bearing, since the international organization charged with collecting the tax would at all times be in debt to the recalcitrant country.

Finally, with this system there would be much less need than with quotas or contractual price raising for the cooperation of the consumer countries. From the standpoint of the ethics of international relations, a measure like this would be a measure of legitimate defense, which the poor countries could adopt without shame in order to ensure for themselves a just (partial) restitution of the losses due to their terms of trade.

Notes

1. Let me recall that c = constant capital consumed, v = variable capital (wages), p = profit, and m = surplus value.

2. Let me recall my definition of a "factor": an established claim to a primary share in society's economic product.

2a. Unless, of course, this fall were caused by a rise in wages in the advanced countries. It is because of this exception, that is, in order to exclude this case, that I say "all other things being equal."

3. Cf. Adam Smith, *The Wealth of Nations* (Edinburgh, 1814), bk. 1, chap. 11.

4. John Stuart Mill, *Principles of Political Economy* (London, 1867), p. 257.

5. Smith, *The Wealth of Nations*, bk. 1, chap. 11.

6. David Ricardo, *Principles of Political Economy and Taxation*, 3rd ed. (London, 1821), ch. 2, p. 39.

7. Ibid.

8. Thus, in the hypothetical case where the land is of the same quality and the value of the agricultural product is equal to or lower than its price of production (organic composition equal to or higher than the average), there would be neither absolute nor differential rent. Marx confirms this in *Theories of Surplus Value* (Moscow, 1968), pt. 2, pp. 38–40.

9. It should, besides, be observed that Marx himself did not present "absolute rent" as a finished theory, but only as a working hypothesis. Thus, in pt. 2, p. 287, of *Theories of Surplus Value*, he says: "Furthermore, since it has been assumed (*not proved*) that of the surplus value . . . a portion falls to the landlord as rent, it would follow . . ." (my emphasis, A. E.).

Moreover, his exposition is full of conditionals: "According to this, the

volume of rent would in fact alter . . ." (p. 78); "Because it is presupposed . . ." (p. 79); "This would therefore be . . ." (p. 93); etc.

10. Ibid., pt. 2, p. 256.

11. Ibid., pt. 2, p. 260.

12. Ibid., pt. 2, p. 332.

13. *Histoire des doctrines économiques* (*Theories of Surplus Value*), Costes ed., 8: 53.

14. Cf. p. 213 above: "Differential rent is an increasing function of the rate of variation of returns."

15. Sismondi believes in an absolute rent. He rejects Ricardo's theory, declaring that all land gives a rent. Cf. *Nouveaux principes d'économie politique* (Paris, 1819), vol. 1, bk. 3, ch. xii, pp. 278–280. Rodbertus takes up a similar position. There would be rent, he says, even if all soils were of equal fertility. "Letter to Kirchmann," *Das Kapital* (Berlin, 1884).

16. Mill, *Principles of Political Economy* (London, 1867), p. 258.

17. "A part of the investment undertaken by the concerns in question consisted of whatever price was paid for the property title on the natural resources acquired. As just mentioned, this price was usually very low, frequently not amounting to more than what was required to bribe the officials and potentates involved" (Paul Baran, *The Political Economy of Growth* [New York, 1957], p. 179).

18. American capitalism began to function without private property in land, and as Henri Denis has pointed out, the U.S. government was in 1860 still the owner of more than half of the land (cf. "Le rôle des 'débouchés préalables' dans la croissance économique de l'Europe occidentale et des Etats-Unis d'Amérique" *I.S.E.A.*, no. 113 [May 1961].)

It was this awkward competition provided in the New World by land that was unlimited in extent and had no lord that worried Quesnay and caused him to lose confidence. In his *Questions intéressantes* ("Wealth," art. 1), he had shown that rent which increases the price of goods is beneficial in two ways—within the country, because it transforms part of consumable income into nonconsumable income, thus increasing the available surplus; and abroad, because it increases this surplus in absolute value, since the foreigner pays more for what he buys from us, and this not only in the case of products of nature but also in that of manufactured articles, the prices of these goods being reducible to the prices of subsistence for the workers and entrepreneurs who make them.

In his articles on "Farmers" and on "Corn," however, Quesnay shows his disquiet when faced with the large-scale production of "Pennsylvania" and other "colonies," where there is neither rent nor tithe, and which threatens to pour forth at a very low price into the rest of the world, ruining the data of Quesnay's model and forcing the social (world) purchase value of corn to cease

being determined by the "normal" conditions of old Europe and instead to be governed by the individual price of these new countries. Quesnay can exorcize this bogey only by invoking transport costs, deterioration in quality during the sea passage, etc., etc., but he already feels that something is giving way under his feet.

He was right, too: for one of the reasons that caused rents to collapse from the third quarter of the nineteenth century onward in Britain and on the Continent was this competition from the rent-free lands of the new countries. Malthus was also intrigued by this strange system they had in America, under which land not cultivated by its owner after a certain lapse of time was declared assignable to any other person (*An Essay on the Principle of Population*, 7th ed. [London, 1872], ch. 13, p. 253).

19. John Strachey, *End of Empire* (London, 1961), p. 160.

20. It is clear that the effects, described above, of an "Arabization" or "Iranization" of oil production are subject to the assumption that the various countries concerned would compete with each other after the foreign companies had gone. If, however, these countries could manage to come to an agreement, they would be able to safeguard their prices by introducing, in place of the royalties, dues payable to their own exchequers, in the form of export taxes.

21. In the Introduction I mentioned an argument of this sort by Guy de Lacharrière which is typical of its kind.

Chapter 6
Comparative Costs

I. THE INTERNATIONAL DIVISION OF LABOR

1. General Observations

In its authors' minds and in the way it was formulated, the proposition regarding comparative costs has a twofold significance. (1) As regards the formation of international value, it reverses the direction of determination, so that it is no longer the relative quantities and remunerations of the factors that determine equilibrium prices, but the reciprocal elasticities of demand, and consequently market prices, that determine how the factors are remunerated.[1] (2) As regards the international division of labor, it ensures a *relative* optimum, each country specializing in the branches in which it possesses a comparative advantage.[2]

In challenging the classical economists' fundamental assumption of noncompetition in the capital factor, I have rejected, in the foregoing chapters, the formation of international value in accordance with comparative costs. It now remains to examine from this standpoint the alleged optimization of the international division of labor.

When approaching this subject, there is one observation that has to be made at once: optimization of production on the world scale can only be conceived either as a saving of human labor in order to achieve a determined economic result, or as the securing of a better economic result with the same amount of human labor, whether direct (living labor) or indirect (past labor), expended on producing the means of production.

Now, under the system of commodity economy it is not the quantities of the factors expended in production that are the *immediate* determinant of specialization, but their costs in money. Consequently, optimization through the working of comparative costs can have meaning, on the world scale, only if there is such a correspondence between money costs and real costs, between the remunerations and the quantities of the factors, that a

comparison made on the basis of the prices of production of the capitalist enterprises, the *immediate* agent of specialization, produces in every case the same results as a comparison made in accordance with the social costs of the countries concerned.[3]

The classical writers seem to believe in this correspondence. We shall see in the paragraphs that follow, however, that it can be accepted only with qualifications that are so restrictive that the alleged optimization loses all practical significance.

A preliminary question arises here: are we justified, in any case, in using money costs or prices of production when talking about Ricardo's comparative costs? Some writers hold that this is not possible, and therefore, before examining the conditions mentioned above, I think it proper first of all to clear the ground by considering an argument that the opponents of comparative costs have made much of, but which, it seems to me, is only a futile dispute arising from a singular misunderstanding of Ricardo's words.

2. *The Terms of the Comparison*

Because Ricardo was so unlucky as to construct his example in terms of labor costs, his detractors have dealt unfairly with him, quibbling on this point. Ohlin, for example, thinks that the classical economists "go back on their steps" and prefer, when dealing with international trade, to argue on the basis of simple, untransformed labor value. Angell says much the same thing but thinks that the problem is solved on the basis of the labor theory of value itself, since, if prices are determined by labor costs, a comparison between prices gives the same result as a comparison between labor costs. (In this he makes not one but two mistakes, for it is just as wrong to say that labor costs constitute an indispensable element in the theory of comparative costs as it is to believe that, in Ricardo's view, comparison in accordance with *these* costs gives the same results as comparison in accordance with prices.) Samuelson also says that the law of comparative costs is a proposition derived from barter, which does not necessarily apply to a money economy.[4] Finally, as I had occasion to mention in the Introduction, Maurice Byé also alleges that the theory of comparative costs is inseparable from the idea of barter.

This serious misunderstanding about comparative costs is all the more curious since from the very beginning the theory was closely linked with the debate on the monetary problems of Ricardo's time. It was in "The

High Price of Bullion" (1809) that Ricardo first expounded the theory by assuming that the distribution of money in the different countries would establish such a relation between prices that exchanges would be undertaken in accordance with comparative costs, *and as if money did not exist.* Later, in Chapter 7 of his *Principles*, he contemplated two possible cases: (1) with metallic or convertible currency, specialization according to comparative costs would be effected by movements of money and subsequent price changes in accordance with the quantity theory; (2) with fiduciary and inconvertible currency, the same effect would be obtained through alterations in the rate of exchange.

True, Ricardo deals with these matters in a way that lacks synthesis and is perhaps even rather uneven; but the two cases can easily be illustrated.

Let us suppose that in his example the figure 80,90 express escudos in Portugal and the figures 120,100 express shillings in England, and that before trade began an escudo was worth two shillings. Let us further suppose that the price at which the respective demands reach equilibrium is: one of wine = one of cloth, an intermediate rate between the Portuguese cost ratio of one of wine = 8/9 of cloth and the English cost ratio of one of wine = 12/10 of cloth.

It is clear that, despite the comparative costs, at 1 escudo = 2 shillings Portugal can sell nothing to England, whereas England can sell everything to Portugal. The wine and the cloth, bought in England at 120s. and 110s. respectively, realize in Portugal respectively 80 esc., or 160s., and 90 esc., or 180s. The wine brings in $33\frac{1}{3}$ percent and the cloth 80 percent. The English therefore start to sell cloth to Portugal without buying anything from her. Portugal's trade balance becomes negative and the monetary mechanism starts to function.

1. *With metallic or convertible money.* Bills of exchange drawn on Lisbon will depreciate in London, and as there is no equivalent to be had, their rate will soon fall to the level of the lower limit of the transport costs for metallic money (gold points), and then the only way to settle them will be either to despatch escudos in the form of coins to London, melt them down, and have guineas struck from them at the Mint, or else to send ingots of gold and exchange them for notes at the Bank of England. In either case the amount of money in circulation (what Albert Aftalion would call incomes) will diminish in Portugal and increase in England. Prices will fall in Portugal and rise in England.

If the respective rise and fall come to $14\frac{2}{7}$ percent, wine will cost the

same in Portugal and in England, that is, $68\frac{4}{7}$ esc. = $137\frac{1}{7}$s. This will thus constitute a first limit. Beyond it, Portuguese wine starts to become interesting in England, and some of the bills of exchange on Lisbon are bought by English wine importers. In the vicinity of this limit, however, English cloth continues to be much more interesting in Portugal than Portuguese wine is in England. Indeed, let us suppose that prices rise and fall, in England and Portugal respectively, by 15 percent. The prices will be:

Wine	In England		138s.	= 69 esc.
	In Portugal	68 esc. =	136s.	
		Difference	2s.	
Cloth	In Portugal	$76\frac{1}{2}$ esc. =	153s.	
	In England		115s.	= $57\frac{1}{2}$ esc.
		Difference	38s.	

Portuguese wine is thus still too dear in England, compared with the cheapness of English cloth in Portugal. Exports of English cloth continue to exceed imports of Portuguese wine; an excess of bills of exchange on Lisbon continues to glut the market in London; and the flow of metallic currency or gold ingots from Portugal to England continues to bring down prices in the former country and push them up in the latter.

If these upward and downward price movements reach the level of $28\frac{4}{7}$ percent, prices of cloth will be equal in Portugal and in England, at $64\frac{2}{7}$ esc. and $128\frac{4}{7}$s. respectively. This percentage thus constitutes the second limit. Beyond this limit, it becomes more interesting to export cloth from Portugal to England than the other way round.

Between these limits, $14\frac{2}{7}$ and $28\frac{4}{7}$ percent, there is an equilibrium percentage that is determined by the reciprocal elasticities of demand. As we have assumed that these elasticities are such that one of wine = one of cloth, this percentage is $23\frac{1}{13}$ percent. At this percentage (of rise and fall respectively, in England and Portugal) one of wine = $61\frac{7}{13}$ esc. = one of cloth = $123\frac{1}{13}$s.

2. *Fluctuating changes.* If the export of escudos in the form of coins is forbidden in Portugal and is out of the question, or if the currency of Portugal is neither metallic nor convertible, then, under the conditions we have assumed, bills of exchange on Lisbon will continue to depreciate in

London beyond the gold points. Nominal prices will remain stable in Portugal and in England, but the escudo will fall farther and farther in relation to the shilling. At 1 esc. = $1\frac{1}{2}$s., the bills of exchange on Lisbon that are circulating in London start to be taken up. This rate constitutes the first limit. Below it, by buying an 80 esc. bill of exchange on Lisbon for a little less than 120s. it is possible, with this bill, to buy one of wine in Portugal and resell it in England for 120s.

In the vicinity of this rate, however, there is a greater demand in Portugal for English cloth, which now costs only a little over $66\frac{2}{3}$ esc., as against 90 esc., the local cost of production, than there is in England for Portuguese wine that costs a little under 120s., as against 120s., the local cost of production. Bills of exchange on Lisbon therefore go on depreciating. They cannot, however, fall below 1 esc. = $1\frac{1}{9}$s., because below that rate English cloth costs more in Portugal than the local price of production, which is still 90 esc., and bills of exchange on Lisbon vanish from the London market. In contrast, at this rate Portuguese wine is very cheap in London, since its price is 80 esc. x $1\frac{1}{9}$ = $88\frac{8}{9}$s., as against 120s., the local price of production. There will therefore be bills of exchange on London offered in Lisbon that will find no takers.

Consequently, the rate of the escudo, which we assumed to be 2s., before the beginning of trade, varies freely thereafter between 1 esc., = $1\frac{1}{2}$s., and 1 esc. = $1\frac{1}{9}$s., these limits corresponding to one of wine = 8/9 of cloth and one of wine = 12/10 of cloth. (There is the same ratio between 8/9 and 12/10 as between $1/1\frac{1}{2}$ and $1/1\frac{1}{9}$.)

As we have assumed that the reciprocal elasticities of demand are such that one of wine = one of cloth, the rate of exchange will eventually reach equilibrium at 1 esc. = $1\frac{1}{4}$s. without any change in nominal prices. At this rate, English cloth bought in London for 100s. will sell in Portugal at 80 esc.; this eliminates the Portuguese cloth industry, which can sell only at 90 esc. and ensures that in Portugal one of cloth = one of wine = 80 escudos. At this rate, too, Portuguese wine costs 100s. in London; this eliminates the English wine industry, which can sell only at 120s. and ensures that in England, too, one of cloth = one of wine = 100s. And England exchanges her cloth for Portugal's wine at a rate determined by the law of comparative costs, *as if money did not exist.* Not only is the validity of Ricardo's proposition not affected by the introduction of prices and money economy—on the contrary, it seems that the very mechanism by which it works is that of prices and money.

To cut short the otiose discussion about labor costs and show clearly that what matters for the study of comparative costs is the relationship between costs and not their structure, several supporters of the theory have tried to use neutral common denominators. Thus, Senior and Cairnes proposed an indeterminate aggregate of labor and abstinence, which Cairnes called "sacrifice." Mangoldt used as standard a third article produced *in both countries*; but this latter condition was superfluous, since the comparison is made, in any case, not between the costs of the same article in the two countries, but between the costs of two or more articles in the same country.[5] Very sensibly, Marshall used for each trading country a separate and independent standard, namely, the cost of some third article produced in the country itself and only there, and reduced the cost of each of the commodities, being subjected to the arbitrament of comparative costs, to "bales" of this imaginary product, which, according to Letiche, represents a given quantity of productive services.[6] Marshall's thesis means that we are not at all obliged to use a common standard for both (or all) trading countries. Any standard whatsoever would do for any country, even if this were not the same as that used for the other country, since we are not comparing absolute values but relative ones, and the variation of the standard itself does not affect the ratio between the magnitudes that it measures. Bastable and Edgeworth replaced "hours of labor" by "units of productive power" or other similar expressions aimed at indicating different combinations of factors. Finally, it was Jean Weiller, perhaps, who stated the problem in the most correct way: "It is enough to agree on a common measurement of the physical cost of production; it matters little whether this be amount of labor or unit of productive forces, provided that it be identical *within one and the same country*."[7]

We may thus conclude that, in the spirit of the law of comparative costs, the "hour of labor" is merely a simple unit of reckoning, so that the elements of the theory mean nothing but that in Portugal, for reasons that do not concern international trade, one of wine = 8/9 of cloth, whereas in England one of wine = 12/10 of cloth. These are the apparent costs in each of the two countries, only the ratio between which matters.

It could not be otherwise, since the author himself acknowledges that under capitalism commodities exchange in accordance not with labor value but with (equilibrium) prices, which differ from labor value, to an extent depending on the proportion of capital invested in each branch. Marx later gave the name of prices of production to these equilibrium prices, when he

studied in a systematic and thorough way the fundamental problem of the transformation of values. What enabled him to do this was the concept of surplus value and the equivalence between the sum of prices and the sum of values to which this leads. Ricardo lacked these theoretical elements and this was what prevented him from working out the theory of transformation. But that did not at all prevent him from seeing and accepting the principle of this transformation and coming to correct conclusions on all the particular cases he had to examine.

3. *The Assumption of Equality in Organic Composition of Capital*

Let us now look at the implications of Ricardo's proposition in regard to the international division of labor. As we saw in the first paragraph of this section, in order that the optimization called for by the classical writers may be achieved, there must be no divergence between the relationship of the equilibrium prices of the various commodities of each other and that between their real social costs.[8]

A first circumstance that may lead to such a divergence is constituted by possible variations in the general wage level. Ricardo himself allows that a modification of this level taking place in a country entails an inverse modification of prices in the branches where capital intensity is higher than the social average, a modification in the same direction in the branches where capital intensity is lower than average, and no change at all in the branches of average capital intensity.[9]

Now, in order that the indicator of comparative costs may reflect the objective conditions of production, it is necessary that institutional variations in wages, due to trade-union struggle, political circumstances, etc., have a neutral effect on equilibrium prices. As this is possible only in cases in which all the branches, within each country taken separately, have the same capital intensity, or, to use Marxist terminology, the same organic composition of capital, it follows that the optimization in question is dependent upon this particularly strong assumption. If it does not apply, variations in wages in one or other of the countries participating in exchange may shift the comparative advantage from one of the branches under consideration to another, without any change in the objective conditions of production, and if this happened it would make nonsense of optimization through specialization dictated by comparative costs.

Let us take Ricardo's example once more: Portugal expends 80 hours of

labor for one unit of wine and 90 for one unit of cloth; England expends 120 and 100 respectively. Despite Portugal's advantage in relation to both articles, that country will specialize in wine and England in cloth. The Portugal–England entity gains by this.

If, in accordance with what has been said in the preceding paragraph, we take these figures 80–90 and 120–100 as expressing, instead of hours of labor, the prices of production of wine and cloth in Portugal and England respectively; if we also assume that the total capital invested in cloth is four times as much as that invested in wine in the two countries; and if, finally, in order to simplify, we leave out of account the constant capital consumed, then we shall have, in order to arrive at Ricardo's figures, the following transformation table:

Wages Equal. Rate of Surplus Value 100 percent

Country	Article	K Total capital invested	v Variable capital	m Surplus value	V Value $v+m$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $v+p$
Portugal	Wine	100	63	63	126		17	**80**
	Cloth	400	22	22	44	17%	68	**90**
		500	85	85	170		85	170
England	Wine	100	98	98	196		22	**120**
	Cloth	400	12	12	24	22%	88	**100**
		500	110	110	220		110	220

Since 80/90 is less than 120/100, Portugal specializes in wine, and since 100/120 is less than 90/80, England specializes in cloth.[10] From the point of view of the two countries taken together, the results are as follows:

Before Specialization

	Wine	Cloth	Totals
Portugal: hours of labor	126	44	170
England: hours of labor	196	24	220

Portugal and England together, with 1,000 K expended 390 hours of living labor.

After Specialization

	Wine	Cloth	Totals
Portugal	2×126	—	252
England	—	2×24	48

Portugal and England together, with 1,000 K expend 300 hours of living labor to achieve the same overall result.

There has been a saving of 90 hours by the two countries taken together, while the total capital invested has remained the same. Everything has thus turned out for the better.[11]

Let us suppose, however, that wages in Portugal increase by one-third, without any alteration in the objective conditions of production, and without any alteration either in wages or in conditions of production in England. The transformation table will then look like this:

With Wages Unequal

Country	Article	K Total capital invested	v Variable capital	m Surplus value	V Value $v+m$	T Rate of profit $\frac{\Sigma m}{\Sigma K}$	p Profit TK	L Price of production $v+p$
Portugal (Rate of surplus value 50%)	Wine	100	84	42	126	$11\frac{1}{3}\%$	$11\frac{1}{3}$	$95\frac{1}{3}$
	Cloth	400	$29\frac{1}{3}$	$14\frac{2}{3}$	44		$45\frac{1}{3}$	$74\frac{2}{3}$
		500	$113\frac{1}{3}$	$56\frac{2}{3}$	170		$56\frac{2}{3}$	170
England (Rate of surplus value 100%)	Wine	100	98	98	196	22%	22	120
	Cloth	400	12	12	24		88	100
		500	110	110	220		110	220

The comparative advantages have been reversed. Since $74\frac{2}{3}/95\frac{1}{3} < 100/120$, Portugal specializes in cloth, and since $120/100 < 95\frac{1}{3}/74\frac{2}{3}$, England specializes in wine.

After Specialization

	Wine	Cloth	Totals
Portugal: hours of labor	—	2×44	88
England: hours of labor	2×196	—	392

Portugal and England together, with 1,000 K expend 480 hours of living labor instead of 390 before specializing. Thus, the two countries together lose, with the opening of trade, 90 hours of living labor, while the total capital invested has not changed.[12]

Consequently, if the organic composition of the different branches is not the same (and in reality it is not the same), only a certain disparity in wages (in some cases, as in our example, a very slight one) between the different countries is needed for an international division of labor based on comparative costs to lead, not to a gain, but to a loss for the world as a whole.

4. *The Assumption of Equality in Organic Composition of Labor*

A second assumption, implicit but also very strong, without which overall optimization through specialization based on comparative costs may be transformed into its opposite, is that of an identical structure of the amounts of abstract living labor, in terms of skilled and unskilled labor, and of the same scale for reducing money costs in one country to those in the others, throughout all the countries in the group.[13]

So as to examine the opposite case, let us isolate this factor by assuming that the organic composition of capital is the same in all branches and that the rates of surplus value remain unchanged, but that the scale for reducing complex labor to simple labor is modified in one of the countries in the group, without any change in the objective conditions of production.

If, before this modification, one hour's labor by an engineer was equivalent, in both countries, to ten hours' labor by a laborer, and wine needed everywhere one hour of engineer's labor for 70 hours of laborer's labor, while cloth needed one for five, comparative costs would break down like this:

Before Specialization, in Hours of Living Labor

Country	Wine		Cloth		Totals Engineer	Totals Laborer
Portugal						
Engineer	$1 \times 10 = 10$	80	$6 \times 10 = 60$	90	7	100
Laborer	$70 \times 1 = 70$		$30 \times 1 = 30$			
England						
Engineer	$1\frac{1}{2} \times 10 = 15$	120	$6\frac{2}{3} \times 10 = 66\frac{2}{3}$	100	$8\frac{1}{6}$	$138\frac{1}{3}$
Laborer	$105 \times 1 = 105$		$33\frac{1}{3} \times 1 = 33\frac{1}{3}$			
		200		190	$15\frac{1}{6}$	$238\frac{1}{3}$

Portugal specializes in wine and England in cloth (see page 250).

Balance Sheet for the Two Countries Together, in Hours of Living Labor

	Engineer	Laborer	Abstract
Before specialization	$15\frac{1}{6}$	$238\frac{1}{3}$	390
After specialization	$15\frac{1}{3}$	$206\frac{2}{3}$	360
Differences	$+\frac{1}{6}$	$-31\frac{2}{3}$	-30

With specialization, Portugal and England together expend one-sixth hour more of engineer's labor and save $31\frac{2}{3}$ hours of laborer's labor. As in both countries one hour of engineer's labor is worth only 10 hours of laborer's labor, the two countries together realize a clear advantage when they start to trade, an advantage equivalent to 30 hours of abstract labor.[14]

Let us now assume that, as a result of socio-cultural development in Portugal, an hour of engineer's labor in that country is worth only five hours of laborer's labor, while the ratio in England and all the other conditions remain unchanged. The comparative costs would now break down as shown on page 251.

Despite the fact that the objective conditions of production have not changed—the amounts of concrete labor figuring in the last two columns remain the same—Portugal has a comparative advantage that leads her to specialize in cloth, since $60/75 < 100/120$, whereas England has a comparative advantage which leads her to specialize in wine, since $120/100 < 75/60$.

In that event, however, the result for the two countries taken together will be absolutely bad (see page 252).

See text page 249

After Specialization, in Hours of Living Labor

Country	Wine			Cloth			Totals	
	Concrete labor	Coefficient	Abstract labor	Concrete labor	Coefficient	Abstract labor	Engineer	Laborer
Portugal								
Engineer	2	10	20	—	—	—	2	140
Laborer	140	1	140	—	—	—		
England								
Engineer	—	—	—	$13\frac{1}{3}$	10	$133\frac{1}{3}$	$13\frac{1}{3}$	$66\frac{2}{3}$
Laborer	—	—	—	$66\frac{2}{3}$	1	$66\frac{2}{3}$		
			160			200	$15\frac{1}{3}$	$206\frac{2}{3}$

See text page 249

Before Specialization, in Hours of Living Labor

Country	Wine			Cloth			Totals	
	Concrete labor	Coefficient	Abstract labor	Concrete labor	Coefficient	Abstract labor	Engineer	Laborer
Portugal								
Engineer	1	5	5	6	5	30	7	
Laborer	70	1	70	30	1	30		100
			75			60		
England								
Engineer	$1\frac{1}{2}$	10	15	$6\frac{2}{3}$	10	$66\frac{2}{3}$	$8\frac{1}{6}$	
Laborer	105	1	105	$33\frac{1}{3}$	1	$33\frac{1}{3}$		$138\frac{1}{3}$
			120			100	$15\frac{1}{6}$	$238\frac{1}{3}$

See text page 249

After Specialization, in Hours of Living Labor

Country	Wine			Cloth			Totals	
	Concrete labor	Coefficient	Abstract labor	Concrete labor	Coefficient	Abstract labor	Engineer	Laborer
Portugal								
Engineer	—	—	—	12	5	60	12	
Laborer	—	—	—	60	1	60		60
England								
Engineer	3	10	30	—	—	—	3	
Laborer	210	1	210	—	—	—		210
			240			120	15	270

Balance Sheet of Both Countries, in Hours of Living Labor

	Engineer	Laborer
Before specialization	$15\frac{1}{6}$	$238\frac{1}{3}$
After specialization	15	270
Differences	$-\frac{1}{6}$	$+31\frac{2}{3}$

The balance sheet of the international division of labor in accordance with comparative costs is thus in this case obviously negative, since, for one-sixth hour of engineer's labor saved, Portugal and England together have to expend, in order to obtain the same result as before specialization, that is, two units of cloth and two of wine, an extra $31\frac{2}{3}$ hours of laborer's labor. As in neither of the two countries is an hour of engineer's labor worth more than 10 hours of laborer's labor, the world as a whole has suffered an absolute disadvantage.

5. *The Assumption of Constant Costs*

Ricardo based his theory on an assumption of constant costs. John Stuart Mill retained this assumption, but his successors, Mangoldt, Fawcett, and Bastable abandoned it. Bastable began concerning himself seriously with the effect that nonproportionality of costs could have on the limits of comparative costs between which the reciprocal elasticities of demand operate. Parallel and together with Cairnes he noted that the existence of increasing costs results in the same article being produced in several countries, because in such a case the sum of the costs of all these partial productions in a number of countries comes to less than the cost of the same total production if it were concentrated in a single country.

The optimization of the group as a whole was not challenged, however, only the distribution of the advantage among the different partners being affected. John Stuart Mill's statement that each country necessarily specializes in a single commodity was shown to be mistaken, and in addition some doubts might arise regarding the relative advantages obtained by the countries participating in trade and their terms of trade. But the dogma of an absolute advantage for the group as a whole, and of a situation for each of the partners at least equal to the status quo ante, was not really challenged, at least in regard to the latter element in it, until somewhat later, during a discussion involving a large number of economists, the most

important, or the most systematic, of whom were J. S. Nicholson, F. Walker, A. Marshall, T. N. Carver, and F. D. Graham. Graham was thenceforth associated with the "paradox" that resulted from this discussion.

The essence of the argument is based on the observation that when one of two commodities offered to the arbitrament of external trade shows diminishing returns and the other shows increasing returns, the country that has a comparative advantage and specializes in the branch with diminishing returns will find itself, after specializing, in a less favorable situation than before. In this form the proposition was easy to understand and accept, but the discussion livened up when the question was raised whether under these conditions exclusive specialization (or, at least, specialization to the point where disadvantage is engendered) was a real possibility—without which, the proposition would lose all practical significance. This question divided the economists, but it was Graham who argued most convincingly for the affirmative view, according to which, not only at the starting point but also at all the intermediate positions, calculation on the basis of comparative costs leads to specialization, despite the steady worsening of the situation of the country concerned.

Here is Graham's numerical example aimed at illustrating this thesis, as it was modified and improved by J. Viner:[15] Country A produces 4 wheat in 1 hour, or 800 wheat in 200 hours, and 4 watches in 1 hour, or 800 watches in 200 hours. Country B produces 4 wheat in 1 hour, or 800 wheat in 200 hours, and 3 watches in 1 hour, or 600 watches in 200 hours. A has a comparative advantage and specializes in watches, while B has a comparative advantage and specializes in wheat. However, wheat is a branch with very *markedly* diminishing returns, whereas watches are a branch with *slightly* increasing returns.

If we take a median position during the process of specialization—A produces 4·5 wheat in 1 hour, or 450 wheat in 100 hours, and 4·5 watches in 1 hour, or 1,350 watches in 300 hours, B produces 3·5 wheat in 1 hour, or 1,050 wheat in 300 hours, and 2 watches in 1 hour, or 200 watches in 100 hours—we see that A continues to enjoy a comparative advantage in watches and is therefore interested in increasing its specialization, while B retains and even strengthens its comparative advantage in wheat and is interested in developing its specialization.

All that remains now is to see what happens with the marginal hour of labor, at the moment when specialization is complete, in order to make

certain that no comparative advantage pointing back toward diversification appears at the ultimate limit.

A produces 5 wheat in 1 hour, or 5 wheat in 1 hour, and 5 watches in 1 hour, or 1,995 watches in 399 hours. B produces $\frac{1}{2}$ wheat in 1 hour, or $199\frac{1}{2}$ wheat in 399 hours, and $\frac{1}{4}$ watch in 1 hour, or $\frac{1}{4}$ watch in 1 hour. It is clear that it is to A's interest to transfer its last hour of labor to watches, and to B's interest to transfer its last hour of labor to wheat. Then A produces 2,000 watches in 400 hours, and B produces 200 wheat in 400 hours. Whatever the rate of exchange of wheat for watches, it is obvious that B's situation has been seriously worsened by this trade, since it now produces only 200 wheat where previously it produced 800 wheat + 600 watches. But what is A's situation? That depends on the reciprocal elasticities of demand, since it now produces 2,000 watches instead of the 800 watches + 800 wheat that it produced previously.

Graham seems, curiously enough, to attach no great importance to the question whether the situation of the two countries, taken together, is better or worse than before. In the first example he gives, the gain made by one country is greater than the loss suffered by the other. Then he gives a second example: A works 10 hours to produce 40 wheat and 10 hours to produce 40 watches. B works 10 hours to produce 40 wheat and 10 hours to produce 30 watches. A and B together produce 80 wheat and 70 watches. A specializes in watches and B in wheat. After specialization, A produces 84 watches, that is, + 14, and B produces 60 wheat, that is, − 20.

"But," says Graham, "this is a net loss, since 20 wheat are worth more than 14 watches, in either country under either set of conditions. These figures illustrate the loss that List may have had in mind when he insisted upon the advantage of the development of productive forces. But neither List nor his followers have shown that this was anything more than an emotion."[16]

In Viner's improved example, the ratios between the marginal comparative costs, at the moment of the last transfer, are one wheat = one watch, and one wheat = one-half watch. At the start they were one wheat = one watch and one wheat = three-quarters watch. By taking the rate most favorable for watches, one to three-quarters and translating the whole into a conventional unit of account, we get:

Before specialization,	A produced 1,400 units and B produced 1,200 units	2,600 units
After specialization	A produces 2,000 units and B produces 150 units	2,150 units
Loss for A and B together		450 units

Naturally, neither Graham nor, still less, Viner, stressed this point, which seems to me, however, to be of cardinal importance. It is not at all the same thing to say that the international division of labor can bring disadvantage to certain countries as it is to say that under certain circumstances this division can bring disadvantage to the world as a whole. Pareto approached the problem from the other end by looking into Ricardo's absolute advantage. He concluded that, if the total quantity is bigger for one commodity and smaller for another, we cannot know whether, "taking into account individual differences of taste," there is any advantage gained or not.[17]

However, the ratio of marginal utilities, whatever it may be in a situation of isolation, can only evolve, in the Graham-Viner case, to the detriment of watches, whereas it has been proved that, even without this deterioration, the situation of the two countries together is less good with trade than without it.

Finally, it must not be forgotten that we are not concerned to prove that in *all* circumstances calculations based on comparative costs will lead to disadvantage, but only that this may happen in certain particular circumstances. This is why a numerical example with selected parameters suffices to compel us to attach an extra condition to Ricardo's proposition, namely, proportionality of costs.

6. *The Assumption of Full Employment and Absence of Nonsocial Factors*

The whole of classical political economy, and therefore the law of comparative costs, is built upon the assumption of full employment. The problem of finding work for men to do, which so much troubled the mercantilists, simply did not exist for the classical economists. Their "Euclidean" axiom that incomes equal value added by production, plus the ruling out of any hoarding by income receivers, excludes any idea of disequilibrium between supply of goods and purchasing power, or willingness to buy, and, therefore, any idea of overproduction, depression, and

underemployment.[18] The objections brought forward by Malthus and Sismondi did not worry Ricardo and J. B. Say, any more than their orthodox successors.

Once employment of the factors is ensured, in quantitative terms, the only problem that remains is that of improving it qualitatively. This task is looked after by the law of comparative costs. Cloth or wine. Diversification can take place only at the expense of specialization, and vice versa. The idea that cloth can be made, not by workers diverted from producing wine, but by workers who would otherwise be doomed to unemployment, does not enter into the assumptions of Ricardo's theory.

In all the examples I have cited up to now, and in all the analyses I have carried out, the production potential of each of the countries under consideration was *given*, and it was a matter of "maximizing" the result that could be got from this potential. If for convenience of calculation, certain examples, and in the first place Ricardo's own, were constructed in such a way as to minimize through specialization the expenditure of hours of labor to achieve the same result, it was implicit that this saving of labor would not lead to simple unemployment, but to the transfer of workers to other branches. It was in this light that labor saving was seen as a gain.

Of course, even though the hours of labor made redundant through specialization are not directed into other branches, the national economy as a whole undoubtedly and in every case realizes a gain if it turns out that production and exchange result in the same quantity of goods being available with less labor than before. Individually, the workers will also realize an improvement in their welfare if the distribution of labor and income enables everyone to transform the saving of labor into leisure. Otherwise, despite the overall advantage, one section of the citizens will obtain more goods with the same labor while another section will obtain fewer goods with less labor, the saving of the nation's labor being translated into unemployment or underemployment.

But this is not the point. It is not a matter of the reduction in employment determined directly by saving of labor and in proportion to this saving. What is involved is something that goes beyond that—a reduction in employment due to an economic depression brought on by freedom of imports, causing the country concerned to produce fewer values and ultimately to dispose of *fewer* goods with trade than without trade. It is not a matter, so to speak, of a technological reduction in labor time, but of structural unemployment, or underemployment.

Refutation in theory of the classical premise that excludes this kind of underemployment is outside the scope of this study. It would be necessary to refute it within the context of the internal functioning of commodity economy, before thinking of taking away the support it gives to the international division of labor. We have here a separate and enormous subject that calls into question the entire rationality of the capitalist system. Its implications in the field of external trade, considerable as they are, form merely a subordinate question. The same is true of the influence of this trade on the level of internal activity. Within the limits of this book I will content myself with saying that if, for one moment, we were to envisage in practice the possibility of underemployment—if, in other words, the Portuguese workers who would be displaced from the production of cloth found nothing else to do, not because of some friction caused by transfer and conversion but because of a structural decline in the level of activity in Portugal resulting from the opening of the country's market to international trade—then Ricardo's proposition would be emptied of all meaning and would become a mere scholastic exercise.

If production equals incomes, and if incomes are destined to be spent, in one way or another, whether productively or unproductively, the mere idea of the possibility I have just described, the idea that one may suffer harm by buying from abroad what one cannot make so cheaply for oneself, is intellectually intolerable. But the statesmen of yesterday and today do not seem to have troubled about our mental comfort when they decided to make steel in Egypt or refrigerators in Brazil. And if worldwide and century-old protectionism is not just an illusion, economists will certainly one day have to revise the premises that condition their theories.

I said earlier that any aggregate of factors whatsoever can serve as common measure for comparative costs. This is so if we confine ourselves to studying the conditions in which the proposition works. It is no longer so if we require that the specializations obtained on the basis of comparative costs should give us optimization of the entire situation.

A first category of factors made up of labor and capital is just as burdensome for a single production unit as for society as a whole. All other things being equal, and taking account of all the circumstances set out above that spoil the calculation, as well as the assumption of full employment, the utilization of these factors represents an equal "sacrifice" for the individual enterprise and for the nation. But there is a second category of factors, those that I have called "other" factors, namely, rent and indirect taxes,

which, while influencing relative prices and consequently the decision taken by individual enterprises, the agents of specialization, are not burdens upon society as a whole. There may even exist a third category of "factors," such as certain natural resources liable to exhaustion, for example, certain forest or mineral resources that, insofar as they are available to production units without any equivalent, or any adequate equivalent, being required, are not true factors by my definition and do not count for the enterprises and for the establishment of equilibrium prices—the basis of comparative costs—though their utilization nevertheless constitutes expenditure on the part of society.

It is clear that in every case where factors of the second category, or productive forces of the third category, play a part, the specializations induced by comparative costs do not necessarily represent optimum international division of labor. We must thus include, among the conditions restricting the applicability of Ricardo's proposition, one more, namely, that of absence of these "other factors."[19]

Notes

1. As I have already had occasion to say, for Ricardo and the earliest classical writers, prices did not determine the remuneration of all the factors in general but only that of capital, wages being regarded as always and everywhere unchangeable. Only with John Stuart Mill did economists start to consider—sometimes explicitly, but usually implicitly—that all incomes within the nation were influenced by the prices obtained in external exchange. Some later writers, such as Nicholson and Taussig, even came to "forget" profit and spoke only of wages. It was in order to palliate this vagueness that Heckscher and Ohlin thought up their well-known thesis on the effects of foreign trade on the internal distribution of income, according to which the opening of trade leads to a rise in remuneration for the most plentiful factor and a fall in remuneration for the scarcest one (cf. Eli F. Heckscher, "The Effects of Foreign Trade on the Distribution of Income," *Ekonomiske Tidskrift*, 21 [1919]: 497–512, and Bertil Ohlin, *Inter-Regional and International Trade* [Cambridge, Mass.]).

2. As I pointed out in my Introduction, the absolute optimum would be obtained not by localizing of production but by transfer of the factors, including transfer of population. In this connection Ohlin makes a judicious observation: "the mobility of goods to some extent compensates the lack of interregional mobility of the factors" (Ohlin, *Inter-Regional and International Trade*, p. 42).

3. I shall come back later to the social cost of exports and shall have occasion to define this notion.

4. Cf. Paul Samuelson, "Disparity in Post-war Exchange Rates," in S. E. Harris, ed., *Foreign Economic Policy for the U.S.* (Cambridge, Mass., 1948), p. 407.

5. H. K. von Mangoldt, *Grundriss der Volkswirthschaftslehre* (Stuttgart, 1872).

6. John M. Letiche, *Balance of Payments and Economic Growth* (New York, 1959), p. 70.

7. Jean Weiller, *Problèmes d'économie internationale* (Paris, 1946–1950), 1: 65.

8. Cf. note 3, above.

9. Cf. sections 4 and 5 of Chapter 1 of *Principles of Political Economy and Taxation.* Marx reiterated and developed this proposition in *The Poverty of Philosophy*, *Theories of Surplus Value*, and Volumes 2 and 3 of *Capital.*

10. Let me remind the reader that K = total capital invested, v = variable capital (wages), m = surplus-value, V = value, T = rate of profit, p = profit, and L = price of production.

11. Except, of course, for Portugal, which now expends 252 hours of living labor instead of the previous 170, but which, on the other hand, uses only 200 "capital" instead of the previous 500. Here we have the problem of transferring living labor in order to ensure a share of the surplus value for past labor, already discussed in the first section of Chapter 4.

12. It is clear that England loses more in living labor than is lost by the two countries taken together, and Portugal gains in living labor despite the loss suffered by the two countries taken together. As against this, Portugal now has 800 K tied up, instead of 500, and England 200, instead of 500. (Cf. note 11.)

13. This is the structure of abstract labor which I suggested should be called the "organic composition of labor," and which I have already analyzed in III: 5 of Chapter 3.

14. Since we have assumed organic compositions to be the same throughout, the effect of the second factor is neutralized and the ratios of labor costs are the same as the ratios of total costs.

15. Viner's intention was to refute Graham, but he expounded the latter's thesis honestly, even making it clearer than it was in its original form. *Studies in the Theory of International Trade* (New York, 1937), pp. 474–481.

16. Frank Graham, "Some Aspects of Protection Further Considered," *Quarterly Journal of Economics*, 37 (1923): 213. I do not think that List's well-known proposition has any connection with the absolute disadvantage brought out by Graham's case. List said that the development of productive forces is much more important than the values produced. In Graham's example, however, it is a question of a shortfall in values produced and not in the development of productive forces. I myself have referred to this proposition of List's, but in a different context. Cf. note 26 to Chapter 3.

17. Vilfredo Pareto, *Manuale di economia politica* (Milan, 1906).

18. It was Keynes who described this axiom as "Euclidean," without intending any irony. The Keynesian theory has this special feature, that, while accepting a basic equivalence between value produced and incomes, it nonetheless also accepts underemployment. It solves the contradiction by situating the possibility of equilibrium at all levels of employment.

19. In the Olympian world of general interdependence, all the blind alleys examined in this section are disposed of by the affirmation that the influence of each factor is always and everywhere strictly proportional to its scarcity. In F. Perroux's words, "the logical grill presented by the equilibrium of general interdependence stands in the way of any confrontation with the massive and pressing difficulties of real life and economic policy ("Intégration économique," *Economie appliquée*, 19 [1966]: 391).

Conclusions

If by economic underdevelopment we mean a certain ratio, which may be the ratio, both quantitative and qualitative, between the means of production actually set to work and the potential of the productive forces as shown by the technological level attained at the present time—or, more concisely, between the existing implements of labor and those that *could* exist—then the world is an underdeveloped planet. In this age of interplanetary rockets and of automation we have, for a population of nearly 3·5 billion, only 930,000 miles of railway line and an annual production of some 25 million motor vehicles of all kinds, so that several hundred million people continue to travel by the most primitive means or even on foot.

Our production of cement and steel does not exceed 450 million tons of each, so that a substantial proportion of the earth's inhabitants live in straw huts or something similar.

It has already been pointed out that our world still largely lies fallow. Out of some 27 million square miles of cultivable land, less than one-eighth, a mere 3·38 million is under cultivation, and a large section of this eighth is worked neither by tractors nor even by draught animals.

Our world is poor. From the series published in 1955 by Kindleberger we can work out the world net product at about $330 per head per year, which is approximately the average product of Latin America: and Singer is able to declare that the economic well-being of the average person in the world outside the U.S.S.R. was in 1956 less than in 1913 and perhaps less than in 1900.

Within this poor and underdeveloped world, however, there are some islets of advanced development, in which approximately nine-tenths of the equipment and, in general, of the human and material productive forces of the entire world are concentrated. As a whole, the world of today offers much the same picture as a European nation at the beginning of industrialization, and history has proceeded as though, instead of the centrifugal

forces foreseen by economic science, which were to diffuse progress from the center to the periphery, unforeseen centripetal forces had come into play, drawing all wealth toward certain poles of growth. History has proceeded, too, as if the industrialized countries had succeeded in exporting impoverishment so effectively that the forecasts of Marxism, which have begun to show signs of losing reality within the context of the industrial nations, are being realized to perfection on the scale of *world* economy.

In the face of these inequalities, the same problems that confronted the industrial nation at the end of the eighteenth century and the beginning of the nineteenth now stand before the world as a whole. In those days, within the context of the nation, a duty on the part of the rich to help the poor was fully recognized, but this was not erected into a right possessed by the poor. The state continued (in France) to draw a large part of its resources from the salt tax, the most devilish of fiscal devices for cruelly equalizing the contributions made by every citizen and obstructing any mechanism for redistributing incomes.

Eventually, as the unity of the national economy was consolidated, industrial society began, despite its philosophy of the independence of the producers, to take note, under the pressure of the demands of its deprived classes, of the fact that poverty and wealth were not accidental phenomena but structural ones, both of them being necessary products of a group of economic relations constituting a whole. And the salt tax was replaced by the income tax, at first proportional and later progressive.

Nothing comparable yet exists on the international plane, where we seem to be still at the stage of the moral duty not backed by any law, the stage of voluntary almsgiving. It is as if poverty and wealth were independent phenomena that happened to exist side by side in a world where national independence automatically entailed equal opportunity for development.

Not so, however. A change is already under way. As the integration of the world economy increases and becomes complete, awareness of the existence of structural connections and of mechanisms for the transfer of wealth also progresses. In a confused, intuitive way men are beginning to realize that, in a world that is both poor and unified, the enrichment of a minority would be impossible without impoverishing most of the rest of mankind; that, in relation to the present level of development of the productive forces (and I restrict this concept to the actual means of production already accumulated), some are too rich and others too poor; that, while

one may be able to find reasons, whether good or bad, to explain the difference between the wages of an American metal worker who controls a power press worth a million dollars and those of a worker on a Brazilian coffee plantation who uses only a simple machete, it is much harder to explain why a building worker who puts up a bungalow in the suburbs of New York has to be paid 30 times as much as his counterpart in the Lebanon, though both of them use the same tools and perform exactly the same movements as their Assyrian fellow worker of 4,000 years ago. Inevitably, people start to wonder what would happen to the wages of that American building worker, in the present state of world production, if all the building workers in the world, and all the miners and the hundreds of millions of agricultural workers, too, were to be paid two or three dollars an hour, like him.

It seems to me that economic theory lags strangely behind this awareness, this "great awakening," as Myrdal calls it, when such statements are made as Eugen Varga's in *Die wirtschaftspolitischen Probleme der proletarischen Diktatur* (Problems of the Political Economy of the Dictatorship of the Proletariat): "Just as the share that comes to the individual worker during the period of dictatorship is calculated not in relation to his needs but to the output of his labor, it is also necessary to take account of higher output of labor in international commodity exchange." True, this was published in 1920, but things have not improved much since, especially in the Marxist camp, which one might have expected to be the first to get down to the task of forging the theoretical weapon needed by the "proletarian nations," in the way that Marx did during last century on behalf of the proletarians within each nation.

As far as the underdeveloped countries are concerned, however, awareness is advancing inexorably. Already these countries have ceased to think of themselves merely as countries that happen to be relatively poor, and instead see themselves as *the poor of the world*, which means that they expect the world to take responsibility for them. International aid has ceased to be regarded as a one-sided and gratuitous act on the part of the rich countries and is seen as an obligation that corresponds to a certain right of compensation.

Compensation for what? That is indeed the question, and this is what I have tried to answer. To do it I have had to discover and take to pieces the mechanism whereby one nation exploits another (what has been called "exploitation at a distance"), the task that Marx set aside for the end of his

work but did not have time to complete. I do not claim that unequal exchange explains by itself the entire difference between the standards of living of the rich countries and the poor ones, even though, if we base ourselves on certain statistical data that are available, however fragmentary and arguable these may be, we arrive at a loss in double factoral terms (if not in terms of trade) that is enormous in relation to the poverty of the underdeveloped countries while being far from negligible in relation to the wealth of the advanced countries. Even if we agree that unequal exchange is only one of the mechanisms whereby value is transferred from one group of countries to another, and that its *direct* effects account for only part of the difference in standards of living, I think it is possible to state that unequal exchange is the *elementary* transfer mechanism, and that, as such, it enables the advanced countries to begin and regularly to give new impetus to that *unevenness of development* that sets in motion all the other mechanisms of exploitation and fully explains the way that wealth is distributed.

Now, established economic science takes no note of the exchange of non-equivalents, except where this occurs as a momentary accident of market-price fluctuations, or as the effect of imperfect competition due either to economic monopoly or to political domination. Since Condillac said that, in exchange generally, equal value is not given for equal value, but less for more, and for this was struck down by the thunderbolts of Le Trosne, for whom things exchanged were equivalent, economists have been divided into objectivists and subjectivists, but unequal exchange is denied by both parties—by one party because for them exchange is always equal in a situation of equilibrium, and by the other because for them equal exchange does not exist and, equivalence being an *ex post* market phenomenon, there is no such thing as either unequal or equal exchange in itself. The worsening in the terms of trade over a long period is either seen as a statistical illusion or is relegated to the jungle of those structural tendencies of the elasticities of demand, as improbable as they are ill-defined, which condemn one category of products to perpetual decline and another to perpetual rise.

As the worsening in factoral terms cannot be denied, the supporters of the first-mentioned position content themselves with repeating the basic argument of the theory of comparative costs, namely, that the gap between incomes is due to the difference in respective national averages of comparative productivity for the article exported and the article imported. If

this determination were operating today, most of the underdeveloped countries ought to be able to reward their factors at a rate far superior to that of the industrial countries, since the inferiority of the advanced countries in the article imported (coffee, sugar, oil, exotic fruits) is generally much greater than their superiority in the article exported (machinery, hardware, vehicles, etc.).

As for the second conception, which is blind to the very notion of productivity, knowing only the *profitability* of labor, and which afflicts a certain category of products with an inferiority allegedly inherent in their natural properties, Viner, though himself a convinced marginalist, has observed with some reason that all that has been accomplished on this basis is a dogmatic identification of agriculture with poverty and industry with wealth, to refute which one has only to mention Australia, New Zealand, and Denmark, on the one hand, and Spain, Italy, and Japan, on the other. The supporters of this doctrine easily forget that what worsens is not the terms of trade of certain *products* but those of certain *countries*, regardless of the kind of products they may export or import.

It has therefore been necessary to go beyond world market relations, to study world *production* relations. We have had to look at equivalence inside the nation first of all, that is, under conditions of mobility (or rather of competition) of the factors, and then outside the nation, that is, under conditions of immobility (or noncompetition) of one or more factors. Then we have had to go back to the classical and Marxist labor theory of value and study successively the case of a single factor, where it is the quantities of this factor that determine equilibrium prices, and the case of two or more factors, where it is still the quantities of the factors that determine equilibrium prices, but these are weighted by their respective rewards. We have thus succeeded in integrating unequal exchange and the theory of international value into the general theory of value *tout court*, as propounded by the classical economists and by Marx, and proving that the former, far from being the weak spot in the latter, as the opponents of the labor theory of value have hitherto claimed, constitutes on the contrary an additional proof of its validity, since it succeeds precisely in explaining such phenomena as the long-term worsening of a certain category of prices, something that all the tricks played with the fundamental deficiencies of demand have proved unable to account for. In short, we have had to show that the formation of international value is a special case of the general theory of labor value in its developed form as the theory of price of production. This

was done by using the assumption that seems to me the most realistic possible in the world of today, the assumption that the capital factor is mobile but the labor factor is immobile on the international plane.

Finally, after we had studied the relative disadvantages that the low-wage countries may suffer from free trade, it remained to refute the premise that a general and absolute advantage accrues automatically to the world as a whole from free trade and the international division of labor, by showing that under conditions of regional disparity in rewarding of the factors, and in particular the labor factor, nothing guarantees that specialization in accordance with the rewarding of the factors shall correspond to specialization in accordance with the quantities of the factors and thereby result in the sought-for world optimum.

On the basis of the classical and Marxist doctrine of labor value, I reversed the fundamental assumption of Ricardo's theory of international trade. Instead of equal wages and unequal rates of profit, I adopted the assumption of unequal wages and of profits subject to standardization and tending to equalization. These premises led me to take on all points the opposite line to the official theory of international trade. However provocative my conclusions may be, I do not think any different ones can be drawn, once my assumptions are accepted.

What must the underdeveloped countries now do in face of the inequality of exchange and the continual worsening of their terms of trade? A sudden leveling up of their wage levels to those of the advanced countries being, of course, out of the question a priori, they can only seek means to keep for themselves and prevent from leaking abroad the excess surplus value that they extract from their own workers. Somebody has to benefit from these low wages. If the national capitalists cannot do this, owing to the standardization of profits, and if it is not desired that the foreign consumer shall be the beneficiary, then only two solutions are left: a tax on exports that will transfer this excess surplus value to the state; and diversification of production through transfer of factors from the traditional exporting branches to the branches that can replace imports, which will enable the national consumer to benefit from the low national wage level. Both of the methods described are suitable ways for channeling the excess surplus value into the hands of the national community, to be used for development purposes, the former through direct utilization of these additional items of revenue in order to finance investment projects, and the second through measures of redistribution that it is permissible to

take since we accept the assumption that real wages, and thereby consumption, cannot be raised immediately.

If, though, we consider that taxes on exports presuppose agreement between several producing countries, that consequently they are difficult to apply except where there is a natural monopoly, and that, also, they bear a more or less spectacularly aggressive character that entails the risk of provoking very sharp reactions and reprisals on the part of the consuming countries, then we are left with the second solution, that of diversification. This is a very effective weapon, for it strikes at the trading partner in two ways. On the one hand, the traditional exports diminish, while the world's needs continue unchanged for a certain period, which results in an upward pressure on prices; on the other, the traditional imports also diminish, and the partner who stays geared to an expansion of trade sees his sales fall off sharply, which compels him to reduce his prices.

In any event the equilibrium of world transactions cannot be maintained or restored unless the diversification of the production of one country or group of countries is followed by a diversification on an equal scale in the rest of the world. Since diversification requires a certain time to be carried through properly, this gives a definite advantage to the countries that take the initiative in it. When, however, "the rest of the world" is made up of highly developed countries whose existing specializations involve substantial investments; in which, moreover, any contraction of foreign trade brings dangerous repercussions on the level of internal activity; and in which, also, certain raw materials and certain products of the soil are absolutely lacking, regardless of any question of costs—then we can understand the ferocity with which the advanced countries and the international financial authorities they have set up, such as the IMF, the IBRD, the IDA, etc., combat all tendencies to protectionism and development directed toward the internal economy, wherever they appear, but especially in the countries of the Third World.

What then becomes of the international division of labor and the benefits, so highly praised, that it brings to mankind as a whole?

When we consider that most tropical products, among them those that today seem most traditional, result from transplants, which themselves were often the result of mere historical accidents; when we consider that the most formidable specialization ever known, that of England in cotton-textile goods (Marx called his time the Age of Cotton), was an entirely voluntaristic operation, the weaving of cotton having flourished in other

continents before Europe, and in several countries of Continental Europe before England; that nothing marked England out specially for this particular specialization; that in the eighteenth century England possessed neither the relevant raw material nor any experience of weaving apart from the weaving of wool; that *that* industry had itself been implanted just as artificially a century and a half earlier, by means of a draconic ban on the export of wool, with such sanctions as cutting off the arms of anyone who broke this ban, because the cloth industry of Flanders was so much more productive that it was able, despite transport costs, to offer a better price for English wool than could be offered by the English manufacturers themselves; that, subsequently, it was through tariffs and direct legislative coercion that England made India her supplier of cotton and Australia her storehouse of wool—something that, let it be said in passing, had the effect of ruining India but enriching Australia, which is a further proof that the "old colonial system" did not in itself imply impoverishment of the colonies unless it was associated with a low wage level in the countries concerned—when we consider all this, we can legitimately harbor a few doubts as to the intrinsic value of the international division of labor.

Even admitting that however this structure may have originated, a sudden smashing of the existing structure of specializations would entail losses for the world as a whole, it would, I think, be unwarranted to suggest to the poor countries that they sacrifice their national interests for the good of humanity. One may, for example, find it absurd that Poland should neglect the production and export of the cotton-textile goods in which she has so much experience, in order to make a vehicle that costs her 1,000 hours of labor, when this same vehicle is produced in Turin with only 500 hours. If, however, a vehicle hour is worth four or five times as much on the world market as a cotton-textile hour (because vehicles are produced chiefly in high-wage countries and cotton textiles in low-wage countries), Poland may well find that her advantage lies in producing her own vehicles rather than acquiring them in exchange for her cotton goods, despite the considerable difference in productivity. If world economy does not find this to *its* advantage, it seems to me that this is not something that Poland specifically has to worry about.

Finally, wages being what they are, the whole problem lies in this question: who is going to pay the costs of the world optimum? If the very concept of a world economy has any meaning at all, and if it is not desired

that the poor countries turn in on themselves and thereby cause a dangerous dislocation of the established division of labor, it will indeed be necessary to resolve to set up internationally at least such mechanisms of redistribution as already exist on the national scale. It will indeed be necessary to have an incomes policy on the international scale corresponding to what exists, however imperfectly, inside the nation. What the concrete content of this policy will be depends first and foremost on the social and political transformations that will come about within each country.

Appendix I
Theoretical Comments by Charles Bettelheim

The basic problem that this book undertakes to solve is ultimately the economic inequalities between nations and the reasons why these inequalities increase. The importance of this problem must be apparent to everyone. In a sense the questions dealt with here seem to be at the heart of the struggles that have been developing throughout the world during the past several decades. These struggles, together with the direct and immediate economic and political interests of the big industrial countries, are the reasons why the latter, along with the institutions that adapt the dominant ideology to current tastes, are so greatly "concerned" with what they call "problems of development."

Actually, while the growth of inequality in standards of living constitutes one of the elements explaining the rise of struggles for national independence in countries exploited or dominated by imperialism, and the fact that these countries are pregnant with revolution, these inequalities are, in reality, only *one* of the elements that account for these processes.

What is really decisive is the development of the internal contradictions (economic, political, and ideological) between the masses, subjected to increasingly unbearable exploitation, and the privileged minorities linked with imperialism and protected by it, who enrich themselves from the labor of "their own people" and are themselves dominated by the ideology and way of life of the "great" industrial and imperialist countries.

Nevertheless, the question of the increase in economic inequality between nations is a crucial one, from both the theoretical and the practical standpoint, for this increase in inequality is accompanied by a shift toward the dominated nations of the center of gravity of social and political struggles.

Any work that endeavors to give a serious answer to this question, even if the answers it offers are debatable or only partial, deserves to be read, insofar as the intellectual approach leading to these answers is a scientific

one, for it can provide the starting point for a fruitful discussion. This is the case with A. Emmanuel's present work.

The purpose of these words is not to stress the merits of the book, since the latter are obvious and will be perceived by every reader. Their purpose is quite different, namely, to open the debate for which Emmanuel's work ought to provide the occasion. Consequently, what I have to say will necessarily take the form of criticism.

One of the chief conclusions of this work is that the increase in economic inequality between nations is rooted in "unequal exchange." This expression is used to convey the idea that on the world market the poor nations are obliged to sell the product of a relatively large number of hours of labor in order to obtain in exchange from the rich nations the product of a smaller number of hours of labor.

It is clearly important to observe from the outset that the expression "unequal exchange" indicates in ideological terms a phenomenon that is far from being reducible to mere "exchange."

"UNEQUAL EXCHANGE" AND THE VALUE FORM

We know that exchange is primarily a *form* of circulation of the products of labor (and, by extension, of labor power itself). What is characteristic of this form of circulation is that it always appears as ensuring the exchange of "equivalent" products. This is why Marx was able to show that commodity exchange necessarily takes the form of *equivalent exchange*. Consequently, the "value form" is what he also calls the "equivalent form."[1] The latter, he explains, is only the form of a "reflection": every commodity "reflects" its value in another commodity that serves it as a *mirror*.[2] This mirror effect is typical of any phenomenal framework—here, the framework of commodity economy, which provides bourgeois ideology with its familiar *figures:* equivalence, equality, reciprocity, etc. Struggles that are waged on the field of bourgeois ideology never do more than set these notions in action, so that those who are the prisoners of this ideology may thereby strive to discover "grounds" for what is "just" and what is "unjust" and "prove" that some particular relationship satisfies or fails to satisfy the ideological criteria of equivalence, equality, etc. Thus, the reversals that ideological struggles inflict upon apparent equivalences fail themselves to go beyond the illusory field of the forms inherent in the phenomenal framework of commodity relations. Denouncing the injustice

of an exchange implies the illusion of a "just exchange," a "just price," etc. Of this order, for instance, is the content of the reversal effected by the ideology of Proudhonism and, in general, by all petty-bourgeois "challenges," which are always dominated by the same ideological figures.

The form of equivalence, which is already that of the simple value form, is reproduced through all the transformations to which the latter is subjected and is thus also that of the price form. Marx, who devotes long passages to the analysis of forms, shows why the economists whose attention is focused on value "as quantity" never asked themselves the essential question, which relates precisely to that of the value *form* and its transformations. This enables us to understand why it is easy to confuse the *value form* with value, and to make the mistake of reducing value to what exchange relations "express" (while concealing).

What the representation space of commodity society conceals is that value results from the working of the *law of value*, and that the latter does not regulate the exchange of "equal quantities" of labor, since exchange relations are "accidental and ever fluctuating"[3] and the price-of-production form fails to bring about such an equality even in the long run and on the average.

The law of value produces effects quite different from the exchange of "equal" or "unequal quantities" of labor: this is a false "problem" to which the *form* of exchange gives rise.[4] What the law of value brings about, under the action of production relations, is a certain distribution of expenditures of labor; if, as we shall see, the law of value appears to undergo a far-reaching transformation on the world scale, this is because it operates in a setting of international production relations that has specific features of its own.

It is because the term "unequal exchange" remains confined within the representation space of the value form and the ideological figures rooted in this space that it does no more than *indicate* in ideological terms *the difference between value and its form*, between the complex structure of the productive forces and the relations of production and the circulation space.[5]

When we read the expression "unequal exchange," we must thus take all these reservations into account.

"UNEQUAL EXCHANGE" AND THE "REWARDING OF THE FACTORS"

According to Emmanuel, the capitalist world market is dominated by a definite law of price formation, which has the effect that unequal "rewarding of the factors" (and, in particular, unequal rewarding of the "labor factor," i.e., unequal prices for labor power) necessarily causes "inequality in exchange." This same inequality in reward dictates *an international division of labor that is inevitably unfavorable to the poor countries.*

This view of reality is an essential feature of Emmanuel's thesis and enables him to develop a radical criticism of Ricardo's thesis regarding comparative costs and its "modern" variants, and so of the claim that the international division of labor resulting from the specific action of economic forces through the capitalist world market realizes conditions of production and exchange that are based on the "relative natural advantages" of the countries participating in exchange. As is known, it is usually deduced from this claim that the capitalist international division of labor makes "advantageous" exchanges possible for the poor countries just as for the rich and enables "maximum production" to be obtained, taking account of the "factors of production" available on the world scale and their geographical "localization."

Emmanuel's argument aims also at showing that "inequality of exchange" tends to increase with the passage of time, as is proved by what is called the "worsening of the terms of trade"; consequently, the poor nations participating in the international division of labor tend to become ever poorer while the rich ones become ever richer.

Emmanuel's critique constitutes an extremely important contribution to the overturning of what might be called the "dogma of the theory of comparative costs and of the benefits of the capitalist international division of labor." Nevertheless, it seems to me that certain theoretical foundations of his problematic call for critical examination. This should help to safeguard the positive contribution made by this work, a contribution that can provide the starting point for new theoretical developments.

I would add that this approach seems to me unavoidable because some of the theses upheld in the book strike me as being, in the form in which they appear here, to some extent debatable and thus capable of leading to incorrect conclusions that could be the source of political and economic practice that would prove disappointing and eventually dangerous.

It is, of course, pointless to go in detail here over the author's various theses. I shall merely stress, in order to start the discussion, that in Emmanuel's eyes the law of the formation of prices on the capitalist world market is of the same nature as that which determines the formation of what Marx, in Volume 3 of *Capital*, called "prices of production." If the working of this law gives rise to economic inequalities between nations, this, says Emmanuel, happens because one of the constituent elements of the price of production is wages, and wages are much lower in the poor countries than in the rich ones. It is thus, according to Emmanuel, as a result of this inequality in wage levels that a product supplied thanks to a certain number of hours of labor on the part of the poor countries can be bought by the rich ones by giving in exchange a product that has cost them a smaller number of hours of labor. What in fact counts, he says, on the capitalist world market, that around which the price level of the various commodities oscillates, is not their cost in labor but their cost in money, and this is made up of a cost in wages that corresponds to rates of payment that differ widely from country to country. In their turn these inequalities of payment are due to the fact that the "labor factor" does not, as a rule, move from country to country, and so does not move from low-wage countries to high-wage ones. Under these conditions an international division of labor develops that is "automatically" advantageous to the rich countries (the high-wage countries) and disadvantageous to the poor ones. This sort of international division of labor contributes not only to maintaining but also to increasing the economic inequalities between nations.

This line of argument leads then, *inter alia*, to a refutation both of Ricardo's theory of "comparative costs" (which is still the dominant theory of non-Marxist economics and is also fairly widely accepted by Marxist or would-be Marxist economists) and of the claims regarding the advantages of the international division of labor that is alleged to follow from it.

This reasoning of Emmanuel implies that there exists "independently of and prior to" imperialist exploitation (in the sense of exploitation through capital investment) a "commercial exploitation" of the colonial or semi-colonial countries. This, it is implied, is much more deep-seated than imperialist exploitation, since it is based on the immanent laws of the capitalist world market.

It must be noted here (it is a point to which I shall come back) that the idea of an "exploitation" based on simple exchange relations merely indicates the existence of a problem, namely, that of the reproduction of

these exchanges—this *reproduction* necessarily refers back to specific *production relations*, the nature of which must be defined. The reality described by the term "commercial exploitation" seems indeed to be one of the *effects* of what Marx called the "international relations of production," but which he did not have the time to conceptualize. If so, imperialist exploitation, along with what has here been called "commercial exploitation," must be among the effects of these "international capitalist relations of production." In the present state of knowledge one can only offer pointers on the question. One of the serious weaknesses of the terms "commercial exploitation" and "unequal exchange" is that they obscure the fact that what is described by them is necessarily rooted in production relations.

As I have said, Emmanuel's criticism of the theory of comparative costs and the claims regarding the "advantages" allegedly derived by all countries from the capitalist international division of labor is telling. It shows that, within the context of the capitalist world market, economic inequalities between nations are not to be explained by imperialist exploitation alone. More precisely, this criticism shows, it seems, that what we ought to say is that imperialist exploitation is a developed form of capitalist production relations, insofar as these are predominant on the international scale.

Yet the problematic on which Emmanuel's critique of the comparative costs theory depends is based, in part, upon grounds that seem to me debatable and that I think need examining.

Clearly, I cannot follow step by step all the lines of thought and discuss all the arguments used by Emmanuel. Nor is such a procedure needed here, since what essentially has to be done is to discuss a theoretical problematic. I shall therefore concentrate on a few points that, it seems to me, weaken the theoretical foundations of Emmanuel's theses and that also lead to certain conclusions that I think should be challenged.

PRICE OF PRODUCTION AND VALUE

One of the first points to be discussed (because it throws light on the problematic within which Emmanuel's theses have been worked out) relates to the meaning and place of the concept "price of production" in the theory of the capitalist mode of production.

We know that in Marx's theory the price of production is a "form of

value" and that, consequently, its variations correspond ultimately to the variations of value itself. This is what Marx says explicitly when he writes: "All changes in the price of production of commodities are reduced, in the last analysis, to changes in value."[6]

Under the capitalist mode of production the law of value acts as the law of the formation of prices of production (and not as the law of the formation of "value in the pure state"), so that it is not possible to "contrast" value and price of production. Price of production is the effect of the law of value operating in the capitalist mode of production, that is, in the form of fully developed commodity production. Under this mode of production there is no "other" value that is more "authentic" than price of production.

Why, then, does Emmanuel, who refers explicitly to Marx, think that he can argue *as though there were not one single law of value but two*, namely, the one that bears the name, and another representing the "law of the formation of prices of production"?

There appears to be a profound theoretical reason for this. In Emmanuel's eyes the theory of value as it is expounded in Volume 1 of *Capital* is a theory that "applies" to a "simple commodity mode of production" but "does not apply" to the capitalist mode of production.

To be sure, on this fundamental point, Emmanuel seems to be able to invoke in support a passage by Engels (his preface to Volume 3 of *Capital*). But the authority of this passage is not sufficient. Such a proposition, indeed, contradicts the theoretical structure within which the concept of price of production was worked out, that is to say, it contradicts the theory of value based on socially necessary labor time. It leads, as we see clearly in Emmanuel's book, to price of production being "seen" not as a transformed form of value but—coinciding with conceptions that Marx always opposed—as the sum of a group of "factors."

It is obviously not by chance that Emmanuel begins his analysis by setting up the notion of "factors of production." He introduces it as early as the first paragraph of Chapter 1 and defines a "factor of production" as an "established claim to a primary share in society's economic product." Actually, from the moment this definition has been laid down, the theory of value itself is challenged, since it seems to be possible to "think of" value equally well as the sum of "primary incomes" received by the producers of a product or as a magnitude corresponding to the labor time socially necessary in order to obtain this product, which is then shared out as primary incomes. The second paragraph of this same Chapter 1

formulates this "indifference principle" in relation to the ultimate determination of value.[7]

From the *formal* standpoint the effect of this indifference principle with regard to the determination of value or price of production may seem to be canceled out by his resort to a "theory of equilibrium," which brings in the market to justify the determination of value by the quantity of labor. However, the very fact that Emmanuel is obliged to bring in the "forces of the market" and a "theory of equilibrium" in order to "reconstitute" the theory of value shows that if one starts from a conception that takes as its first term the "factors of production" (in the sense of claims to reward), it is not possible to join up again with the theoretical foundations of the law of value as these were laid down by Marx.

The Marxist theory of value is not worked out in market terms. On the contrary, it reveals the fact that what assumes the *form* of value is the effect of a determined distribution of socially necessary labor time between the different branches of production. This law of necessary distribution of social labor is itself nothing but the effect of the requirements for the reproduction of the material and social conditions of production. This is why it is not the "market" that "determines" value. The action of the "market" can appear only at a later stage of the construction of the theory, in order to explain the formation of current prices of commodities, which may depart to a greater or lesser extent from value, whatever the form of the latter (the "value" of simple commodity production or the "price of production" of the capitalist mode of production), a form that is itself determined by the conditions of production. In any case there is no room, under given conditions, for "two ways" in which value can manifest itself, but only for one "form" of value, that which is rooted in the material and social conditions of production and reproduction. Consequently, it is also on the basis of these conditions that a theory can be worked out to explain value, how its magnitude is determined, and how it functions. There is no need to have recourse, like Walras or Pareto, to a "general equilibrium" that is supposed to be realized through the market.

The foregoing remarks enable us to understand that though there exist for Emmanuel, so to speak, two abstract laws of price formation (the law of value, operating simple commodity economy where only one "factor of production" is present, and the law of the formation of prices of production, operating under the capitalist mode of production where two "factors of production" are present, combined in different proportions in different

branches), these laws end up, nevertheless, by being "reduced" to one only,[8] that which causes the value of a product, or its price of production, to appear as the *sum of the payments of the "factors"* ("labor" and "capital") *that have served to produce it.*

This conception is formulated explicitly by A. Emmanuel when he writes that "the payments made for the factors are the determinant, and the equilibrium prices are what is determined" (p. 27), or again: "it is not relative prices that determine the rewards of the factors, but the relative rewards of the factors that determine prices, if we assume that the two factors present are homogeneous and competitive" (p. 28).

The "price of production" conceived as the sum of "rewards for the factors" is thus not the same thing as the Marxist concept described by the same term. It is not built up like the latter (that is, on the basis of value, of which the price of production is a transformed form, or, in other words, a way in which the socially necessary labor time is manifested and concealed), for the latter does not presuppose "payment for the factors"; it appears as the sum of these payments only in what Marx calls "the illusions created by competition."

The theoretical (and practical) implications of a conception of price of production that "bases" the latter on the rewarding of the "factors", a rewarding that is itself assumed to be constituted by "independent variables," are considerable.

This conception means, in particular, that when, in the "construction" of the price of production, reference is made to the "conditions of production," this has nothing to do with what Marx called by that term (namely, the material and social conditions of production) but signifies the "conditions of rewarding," that is, the *monetary magnitudes* that are themselves assumed to be "independent variables."

This formulation requires attention. It implies that variations in wages and profits are not seen as being subject to determination by the relations of production and the productive forces. This is why Emmanuel's analysis, though seemingly carried out with Marxist concepts, brings these in here as categories, that is, in a way that gives them a status similar to that of the categories, or rather the notions, of political economy.

In this analysis everything seems to "happen" as it does in econometric models, that is, within a homogeneous space inside which homogeneous magnitudes (in the given instance, monetary magnitudes) "combine", or,

in other words, are added to each other.[9] But the Marxist concepts are not built up in a "space" like this: they relate to a *nonspatial complex structure* in which the relations of production and the productive forces are combined.

Thus, Emmanuel's analysis does not take into account this decisive aspect of Marx's *break* with political economy (the construction of concepts that relate to a complex structure, itself articulated at the different level of the social structure)—a break that enabled Marx to found, for the first time, an economic science whose domain corresponds to a determined and determining instance in every mode of production. This has noticeable effects at several levels of Emmanuel's theoretical construction, notably in the use he makes of reproduction formulas, of the concept of organic composition, and also of the very notion of "factor of production." I will now take up these points, beginning with the last-mentioned.

UNITY OR DUALITY OF THE "FACTORS OF PRODUCTION"

Chapter 1 of Emmanuel's book sets out his conception of the "factors of production" and contrasts a "simple commodity economy," alleged to involve "only one factor," and a "capitalist economy" alleged to involve "two factors." We know that this contrast, regardless of appearances, relates neither to the productive forces and their material form (the means of production), nor, consequently, to the social conditions under which the means of production are appropriated, that is, the relations of production: it relates, instead, to the effects of those absent causes, that is, the payments made for the factors.

The nature of this contrast shows that the idea of "factor of production," as Emmanuel formulates it, does not describe the same realities that Marx means by "labor forces" and "means of production." In fact, means of production (objects of labor and instruments of labor) are present in *every* production process, whatever its social form may be. This is precisely why, even in the context of simple commodity production, *it is impossible to "reduce" the value of the various products merely to the living labor* expended in current production; simple commodity production is no more characterized by "homogeneity" of the elements of production than is the capitalist mode of production. It is therefore not possible to contrast these two forms of production from this standpoint. The contrast exists at a different level, namely, that of the relations of production and the productive forces.

What distinguishes the concept of "price of production" is not that it is "more complex" than the concept of value (because allegedly including an "additional payment"), but that it is a transformed form of value, which has emerged as a result of the *separation* of the production units from each other and of the workers from their means of production. Under the capitalist mode of production the latter separation takes *two* forms: the form of capitalist production relations, or capitalist ownership of the means of production (ownership by the nonworkers as against ownership by the workers), and the form of the productive forces of the capitalist mode of production, forces characterized by the separation of the individual worker from his tools (through the coming of machinery). It is these forms of separation, not found under simple commodity production, that distinguish the doubly articulated structure of capitalist productive forces and capitalist relations of production, and it is they that (as the whole of *Capital* shows us) cause *the law of value to function as the law of the formation of prices of production*, the law that actually regulates the social process of reproduction.

The fact that Emmanuel works out his theory not on the basis of the complex structure of production relations and productive forces but in the domain of money (where payments can be added up) has the result that the contrast he makes between simple commodity production and capitalist production does not relate to the effects of specific combinations between different productive forces and production relations, but to the nature and number of the "rewards" that are alleged to "constitute" value, on the one hand, and price of production, on the other.

The substitution of the idea of "factors of production" for that of elements of production has an important theoretical consequence: owing to this substitution, the domain of monetary phenomena is *isolated* from the domain of production relations and productive forces. Because of this, what appears, in the domain of circulation, in the form of "income of labor" and "income of capital" cannot be grounded in the material and social conditions of production. Thus, the totality of monetary magnitudes appears as the result of simple reckonings (which they are *as well*): sums of money are spent or received, added or shared, in accordance with the rules that are imposed by competition and that take the form of "claims" and not of the objective requirements characteristic of a particular mode of production.

Refusal to recognize the position always held by the means of production, whatever the forms of production may be, entails a number of theoretical consequences that it is not possible to deal with here. I must, however, recall the importance that Marx attaches to taking account of the necessity, under *any* form of production, of the functioning not merely of the labor force but also of the means of production. The latter constitute, indeed, the necessary *material basis* of any and every productive activity, whatever its social form may be, and around this material basis are fought out the class struggles whose outcome is decisive, because on it depends also the nature of the political authority.

We know how vigorously Marx criticized Adam Smith for having "left out" constant capital from his analysis of value. The vigor of Marx's criticism was due to the fact that, by putting constant capital "in brackets," so to speak, Smith removed from the economic domain all the problems that are bound up with the necessary existence of means of production, means that can never be "reduced" to present living labor alone.

When we examine the way Emmanuel's reproduction formulas "operate," and the concept of organic composition in the construction of prices that he puts forward, we shall perceive some other results of the economic categories that he relies on and that he makes use of.

THE REPRODUCTION FORMULAS AND THE CONCEPT OF ORGANIC COMPOSITION

We know that Marx's reproduction formulas relate to the complex structure of the production relations and the productive forces: this is why they reveal simultaneously the requirements for the reproduction of the *social conditions* of production (reproduction of constant capital and variable capital, and production of surplus value, which in the case of expanded reproduction is accumulated) and those for the reproduction of the *material conditions* of production (production of means of production and of objects of consumption, in proportions determined by the social and technical conditions of production). The very structure of the formulas corresponds to their function: they express the requirements for *reproduction cycles.*

If we "withdraw" from the formulas the theoretical setting that supports them, we alter their function in a fundamental way. They cease to be the arithmetical or algebraic representation of *concepts* relating to theoreti-

cal objects, thanks to which, through and beyond the "appearances" of immediate reality (*Wirklichkeit*), we can grasp the real movement (*wirkliche Bewegung*). By losing their relationship with the theoretical setting that supports them they change their function and become "models." By means of such models the attempt is made to "reproduce" immediate appearances—the ebb and flow of money received or spent by the economic agents.

If we inflict a change of function like this upon the Marxist reproduction formulas, they can no longer serve as instruments of theoretical cognition, since they are henceforth merely one type of "model" among many others that can be constructed empirically. We know that the economic ideology that is dominant today is marked by a tendency to make use of models of this sort.

These "economic models" are, in fact, of two kinds. Some fulfil "technical" functions: they play a part in real economic activity (management, forecasting, etc.) and, within their limits, they may answer to the "practical purposes" for which they are set up—without, however, contributing to theoretical understanding in any way. This is the case with "econometric models" (programming models, models of economic budgets, etc.), the construction of which is dominated by an ideology that is empirical in form (these models may, of course, in addition to their technical functions, fulfil ideological and political functions, but these will be secondary).

Other "economic models" directly serve ideological and political purposes. They thus have nothing directly to do with real economic practice (though they may provide 'support" from afar to the econometric models): such are, for example, models of global equilibrium. The construction of this second type of model, while using empirical and descriptive notions, is dominated by an ideology that is speculative in form. These models bring into relationship abstract notions that are assumed to be "measurable," and the magnitudes of which are varied in accordance with the needs of the argument. Owing to the change in function that Emmanuel's problematic inflicts upon Marx's formulas, the latter are treated in his book as models of this second type. The distinction I have explained between the function of Marx's formulas and that of "models" entails important practical consequences.

When we are dealing with Marx's formulas and are using them in full awareness of their function, we have no right to alter the "magnitudes"

given in these formulas unless such alterations are justified by variations that affect, in accordance with laws, the different elements making up the structure to which these formulas refer. Only such theoretically justified changes are capable of altering these magnitudes, not arbitrarily but in a way that conforms precisely to the actual laws of the structure. In other words, we cannot here employ "independent variables," for within a complex structure *all* change is governed by laws. It is for this reason that a theoretical structure that is constructed scientifically produces not "assumptions" but knowledge, that is, it can grasp the real movement of things.

When, however, we are dealing with "models," the latter, not being constructed in a complete conceptual field, form a one-dimensional system of variables; in such a system of variables we have the "right" to subject some of the variables to algebraic manipulations, without having to take account of overall theoretical conditions that relate to the real movements corresponding to these manipulations. The latter thus imply a precritical use of mathematics, such as many econometrists engage in—but which physicists, for example, refrain from, since the magnitudes they work with belong to a rigorous conceptual system and not to a "model" constructed for the needs of some "proof" or other.

If we can say that in Emmanuel's argument about prices, Marx's formulas play the part of "models," this is precisely because the magnitudes with which the prices are constructed are "assumed" in such a way that they can be varied without the variations having any necessary relation to the changes, whether real or assumed, taking place in the domain of the productive forces or the production relations. This is given explicit expression by the title of "independent variable" attached to wages.

The importance of this last point is substantial. On the practical plane the description of wages as an "independent variable" gives rise to the impression that to "correct" the "inequality of exchanges" it would be sufficient to change wage levels. I shall come back to this question.

For the moment, what matters is to underline two consequences of the conception of the formulas as "models" containing "independent variables."

The first concerns the notion of organic composition. The latter, once inserted in a model of this type, seems to be open to any and every variation. Consequently, the organic composition of capital ceases to be a rigorous theoretical matter, with law-governed variations, and becomes a

notion the content of which is arbitrary. Thus, one of the essential features of the Marxist concept of *organic composition* is suppressed, namely, that organic composition in value terms "represents" *technical composition.* We know, indeed, that for Marx organic composition is value composition since this gives expression to technical composition in a particular conjunction of production relations and productive forces. It is thus not a simple arithmetical ratio.

We see from this example that the use of a model also conceals a point of essential significance, namely, that *inequality of organic compositions* (like *inequality of wages*) is an effect of *inequality of development of the productive forces.* That is the fundamental phenomenon that cannot be present in any model. This is why no model can teach us anything about the social and material conditions that determine both inequality of wages and the prices of production that ensue from this; and yet it is of the highest importance to realize that they, and the "unequal exchange" to which they appear to be linked, are rooted in a harsh reality, that of the social and material conditions of production.

Because Emmanuel's problematic tends to "reduce" the inequality or unevenness of the development of the productive forces to inequality of wage levels, without setting the latter in a law-governed relation with the former, he is also prevented from appreciating the importance for "unequal exchange" itself of the lower organic composition of capital in the economically weakest countries, which is why he rejects the idea of "unequal exchange" in the broad sense.[10]

The second consequence of the "model" character the writer gives to the reproduction formulas relates, of course, to the prices of production themselves, since in Emmanuel's problematic these are "constructed" on the basis of a wage that appears as an "independent variable," that is, as a magnitude that could be "made to vary" independently of any change in the conditions of production, thus affecting the organic composition of capital, the prices of production, and, consequently, the conditions of international exchange. It is just at this point that the fact is suppressed that prices of production are based on a *cycle of reproduction* that is itself anchored in the structure of the production relations and the productive forces. What the formulas "show" are the conditions for the reproduction of this structure, among which, when the capitalist mode of production is dominant, are a certain level and a certain structure of prices of production.

Emmanuel's problematic is developed in the framework of an equilibrium model and, moreover, on the assumption of "perfect competition," which also results in concealment of one of the possible real consequences of the differences in wage levels and of the prices of production that follow from these, a consequence that is the *opposite* of the one suggested by the model.

In fact, in world economy as it really is, the low wages in the countries with poorly developed productive forces, and the low "individual" prices of production that may result from these low wages, make it possible, given certain conditions, for some of these countries, when they employ a technique that is more "advanced" than before, to realize *differential profits*. What this means is that low-wage countries can achieve exceptionally low costs of production when they use relatively modern techniques, and thus, so long as the world price does not alter owing to the sales made by these countries on the international market (and, in reality, prices cannot change until a relatively long period has elapsed), the low-wage countries realize especially high current prices. This may have considerable practical consequences and enable some countries that are poor to begin with, if they are situated in "favorable conditions" (which merely means that the internal and international production relations are such as to make accelerated accumulation possible for them), to embark upon large-scale industrialization. It is this transfer effect in favor of an initially "poor" country where wages continue to be relatively low, whereas in *certain sectors* its productive forces have grown substantially, that explains why some countries, such as Japan, have succeeded, starting from a low level of productive forces and wages, in effecting an extremely rapid accumulation of capital, which has resulted in a considerable growth in the volume of their industrial production.

If Emmanuel's model does not permit us to take account of such possibilities, which do not correspond to the "school assumptions," the reason is that this model "leaves out the time element" and is constructed on the assumption of "perfect competition."

Having arrived at this point, we must give attention to the wage theory that results from Emmanuel's problematic.

WAGES—VALUE OF LABOR POWER OR "INDEPENDENT VARIABLE"?

The conception of wages that follows from Emmanuel's problematic is the point at which the effects of this problematic are condensed, and upon which part of his argument is very directly built up.

We have already seen that in Emmanuel's problematic wages appear as an "independent variable" or "extraneous variable." This is why changes in wages (as elements in the prices of production or constituent elements in reproduction formulas) seem to be able to appear independently of any variation that is assumed to take place in the production relations or in the level of the productive forces.

Let us leave aside for the moment the theoretical context within which the idea of an "independent variable" may function and try to see what reality this formulation relates to, since it clearly does relate to some reality, even if this be translated into the language of "models."

This reality is a complex one that is grasped theoretically (in part, at least) when we put forward the proposition that wages are the price of labor power; when we add that this price is a form of value; and when we further add, as Marx does, that the value of labor power includes an "historical and moral element" (Emmanuel also speaks of a "moral," "ethical," or "institutional" element.)[11]

This proposition, or rather this series of interconnected propositions (which are all connected with a theoretical structure), means that *wages are not determined solely by capitalist production relations*, but are subject to a certain number of *other determining elements*. These include the effects of the class struggle and the effects of the different instances in a complex social formation. This last point is especially important: on the one hand, it means that wages are indeed subject to determination from the ideological and political levels, and, on the other, it means that at the economic level itself wages are subject to determination both by variations in the productivity of labor and by noncapitalist production relations. Within a complex social formation, such relations may indeed be combined with capitalist production relations. This is so, in a way that is particularly significant for this discussion, in the underindustrialized countries, where many wage earners are not "pure wage earners" ("freed" from their means of production) but are involved in other than capitalist relations of production. In cases like this wages are often "supplementary income,"

(which means that the relation between wages and the cost of reproducing labor power is modified), for the worker's subsistence is partly based on relations of production that are other than capitalist (agricultural work within the framework of the enlarged family, for instance). As we know, Engels long ago drew attention to the significance of situations like this, in the case of workers who are also peasants, e.g., in *The Housing Question.*

Thus, the "historical element" included in the price of labor power *does not refer to an absolute absence of determination of wages*, enabling the latter to be treated as an "independent variable," but refers only to "relative absence of determination." This means that wages, though not *wholly* determined by *one particular level* (economic, political, or ideological) of the structure, are nevertheless entirely integrated in the complex structure of a concrete social formation and are thus in no way "independent" of this structure.

Just as one cannot "pass" from the relative absence of determination of wages by capitalist production relations alone to complete absence of any determination of wages at all, so also one cannot transform the "absolute independence" of wages, thus claimed, into a *causality* that is independent and ultimately "dominant." In Emmanuel's problematic, however, changes in wage levels appear as automatically determining changes in the whole system of prices of production and in the positions of different countries in relation to each other. Hence the apparent possibility of drawing this "practical conclusion": if the countries with underdeveloped productive forces were to "modify" upward the level of the wages they pay to their workers, these countries could become "richer" and so escape from unequal exchange and "underdevelopment."

We have seen, however, that when we do not treat wages as an "independent variable," we are led to *relate* the low wages in the poor countries both to the low level of development of their *productive forces* and to the *production relations* that have hindered and continue to hinder the growth of these forces.

It is the nature and the specific combination of the productive forces and production relations in the poor countries, under the aegis of worldwide capitalist relations, that form the *objective basis* of the "poverty" of certain countries, the dominated countries, and explain both their low wages and the "unequal exchange" that may in some circumstances result from this. To achieve a lasting escape from "unequal exchange," there is no other means than *the transforming of this objective basis* and thus the

removal of those production relations that "hinder the development of the productive forces."

ABOUT THE IDEA OF "BLOCKING" THE PRODUCTIVE FORCES

This provides an opportunity to emphasize that the ideas of "blocking" the productive forces, or "hindering" their development, are not, of course, anything more than *metaphors* and do not provide any explanation of what they describe. The complete explanation remains to be worked out, but its constituent elements are nevertheless quite clear. The essential element is the domination of the world by the capitalist mode of production.

This implies a complex domination, which is *economic, political, and ideological.* It entails an international division of labor that renders inevitable a *polarized development of the world's productive forces:*[12] a relatively rapid development of the productive forces of the already more advanced countries, which are the dominant ones, and a relatively slow development of the productive forces of the still poorly developed countries, which are the ones dominated. It thus entails the *expanded reproduction of economic inequalities.* This polarized development results, first and foremost, from the domination of the world by capitalist production relations, which gives rise to a certain international division of labor that is unfavorable to the development of the productive forces of the poor countries. The *material basis* of this expanded reproduction of economic inequalities is constituted by the conditions favorable to a rapid development of the productive forces that appeared with the development of machine production in the countries that were the first to be industrialized; subsequently, a series of other elements (themselves rooted in the nature of the production relations and productive forces characteristic of the industrialized capitalist countries), which I shall discuss later, have emerged to reinforce, at the economic level itself, the tendency for economic inequalities to increase.

The decisive role played by the existence of a material basis for polarized economic development of the world was stressed by Marx. He showed that in those countries *where modern industry was first established*, production "acquires an elasticity, a capacity for sudden extension by leaps and bounds" that contrasts with the conditions of production in the other countries, whose industry is thus easily overwhelmed. These other countries are transformed "into fields for the supply of [machinery's] raw

material." He adds: "A new and international division of labor, a division suited to the requirements of the chief centers of modern industry springs up, and converts one part of the globe into a chiefly agricultural field of production, for supplying the other part which remains a chiefly industrial field."[13] Of course, the appearance of large-scale industry first of all in some countries rather than others is itself to be explained by the transformation of the relations of production that had taken place in those countries, which permitted and gave rise to the development of capitalist industry.[14]

While the existence of a specific material basis is the determining element in the polarized development of the productive forces within capitalist world economy, this type of development is subsequently reinforced by the political and ideological domination wielded by the rich countries. This *consolidates*, within the "poor" countries, the domination of *social classes* that cannot play an active role in the advance of the productive forces of these countries. This last-mentioned class domination is *overdetermined* by the domination of imperialist political and ideological relations, which links the dominant classes of the "poor" countries with the interests of the big industrial countries.

It is this *specific combination* of *internal* production relations with production relations and political and ideological relations *on the world scale* that engenders what is meant by the "blocking" of the productive forces in the dominated countries.

This "blocking," with the uneven development of world productive forces that follows from it, thus constitutes both a result of and a condition for the capitalist mode of production. It ensures the expanded reproduction of capitalist production relations on the world scale. At the same time it provides the "guarantee" of imperialist domination. It can therefore only be illusory to believe that the imperialist countries might be able to contribute to altering, in favor of the dominated countries, the unequal economic relations that are distinctive of capitalist world economy. The so-called programs of aid to underdeveloped countries are not intended to speed up the "development" of these countries and objectively cannot be so intended; their result is *necessarily* to keep these countries in a state of dependence by reproducing economic inequalities. If any "aid" is given by the imperialist countries, it is given to the *dominant classes* of the poor countries, whom it enables to consolidate their domination.[15]

Thus, the "blocking" of the productive forces cannot be broken through except by a *class struggle* that opens the road to power in the poor countries

either to the working people, under the leadership of the proletariat, the only class capable of organizing social production and causing new economic, political, and ideological relations to prevail, or, in certain cases, to the national bourgeoisie. The latter's role, however, can only be exceptional and limited, owing to the close ties (economic, political, and ideological) that it maintains inside the country with the noncapitalist exploiting classes, and, on the international plane, with imperialism. Hitherto it is only the big bourgeoisie of Japan that has been able to break through, to some extent, the complex of determining elements that "block" the development of the productive forces of a poor country confronted by the great industrial powers of the world.[16]

It is therefore imperialist domination and the incapacity of the dominant classes of the poor countries to free themselves from this domination, an incapacity shared by the petty bourgeoisie of these countries (whatever the nationalist desires of this petty bourgeoisie and, sometimes, the courage shown by some of its leaders), that account for the stagnation of the poor countries and the poverty and superexploitation of their working people, and which make these countries the "stormy area" of the world. The fact that this "stormy area" exists should not cause us to overlook the fact that the contradictions are sharpening in the dominating countries *as well*, and that revolution is equally the order of the day in those countries.

To sum up, what has been said means concretely that it is *world domination by the capitalist mode of production*, resulting from economic, political, and ideological relations the effects of which are called colonization and imperialism, that has favored the maintenance (or in some cases the development) in the dominated countries of production relations and also of political and ideological relations that have "blocked" the development of the productive forces.

It is thus not a simple exchange relationship, which might be altered, but a definite combination of productive forces and social relations that creates the objective conditions for the maintenance in the dominated countries of a wretched wage level, together with massive unemployment and underemployment. In these countries the low cost of reproduction of labor power is basically tied up with the low level of subsistence to which the great majority of the population is condemned. This majority live, generally speaking, on land that is cultivated under very bad technical conditions,[17] and they are obliged, moreover, to pay over part of the product of the soil they cultivate to landowners and usurers.[18] In its turn,

this situation entails restriction of the home market, obstructs the growth of national accumulation, and favors the strengthening of a comprador bourgeoisie that is hostile to any substantial industrial development.

One of the essential conclusions to be drawn from this part of the discussion seems to be this: the poverty of the "poor countries" and the wealth of the "rich countries," that is, their economic inequality, is "prior" to exchange between them and to what is called the "inequality" of this exchange. It results from world relationships of domination and exploitation and from the effects of these relations on the development of the productive forces and on the transformation of the relations of production. This does not mean, of course, that these economic inequalities do not give rise to "inequality" in the conditions of exchange or that this does not worsen still further the economic inequalities; but what it is important to stress is that "unequal exchange" cannot be explained merely by the "rates of reward of the factors," for these have—and this is an essential point—an *objective basis*. It is this objective basis that "*supports*" and *reproduces* what is described by the expression "unequal exchange."

To conclude what I have to say on this point, Emmanuel's problematic, which consists in treating wages as an "independent variable," leads to suppressing the fact that *the economic inequalities between countries are rooted* in the complex combination of productive forces and production relations that is characteristic of the different countries and of the structure of capitalist world economy. It is this combination that determines the conditions of exchange within this world economy and that causes these conditions, so long as they are not smashed, to tend to reproduce themselves on an expanding scale.

At this point it is possible and necessary to deal more particularly with one of the propositions put forward by Emmanuel on the exploitation of the poor *countries* by the rich *countries*. This exploitation, he says, is rooted in the losses that unequal exchange inflicts upon the poor countries. It is this proposition that I will now proceed to discuss. In order to do this usefully, however, we must first examine a certain range of problems.

The discussion must obviously start from a reflection concerning the fact that on the capitalist world market the *product* of an hour's labor contributed in a country with underdeveloped productive forces is sold, on the average, for a sum less than that paid for the *product* of an hour's labor contributed in a country with more developed productive forces. *This* is the fact that Emmanuel describes as "unequal exchange." How-

ever, what has first to be explained, because it is more fundamental, is not "inequality of exchange" (something that cannot be defined with any strictness) but inequality in the social productivity of labor, as this manifests itself on the world market. What is involved, too, and this is the point that must now be given attention, is the specific *form* of socialization of labor that operates through the capitalist world market (what Emmanuel partly grasps with his descriptive notion of "mobility of the workers.")

THE LAW OF VALUE AND CAPITALIST WORLD ECONOMY

The central problem here is this: does the law of value, as it operates within a capitalist social formation, operate in the same way on the capitalist world market, or is this law itself profoundly transformed there?

Emmanuel's thesis is that the law of value operates in the same way on the capitalist world market as it does inside each social formation, but that it *produces different effects* owing to the unequal reward of the labor factor in different countries, an inequality made possible by the nonmobility of the workers between countries.

This formulation does not strike me as theoretically satisfactory. First of all, it obliges us to describe by an ideological term ("unequal exchange") a reality that cannot be explained by the working of an "independent variable" (inequality of wages). Then, and especially, it does not enable us to grasp why what is a "possibility" becomes in fact a necessity. We cannot grasp why that is unless we see that the structure of the capitalist world market is much more complex than that of a particular social formation, and that one of the effects of this more complex structure manifests itself in the form of a profound transformation of the working of the law of value (hence the "specialization," though this is never complete, by certain countries in "disadvantageous" exports can only be an effect).

I cannot undertake to produce in the present essay a theory of the transformation in the way the law of value operates on the international scale. All that can be done here is to indicate the direction in which, it seems to me, a satisfactory solution should be sought.

This solution would appear to be linked with the development of a *twofold tendency characteristic of the capitalist mode of production.* This mode of production is marked both by the tendency to reproduction, on the scale of each "national entity," of the productive forces and the production relations (what is meant by the "*development of the national market*" as the

basic "geographical framework" of the capitalist mode of production, and what is implied by the socialization of labor within this framework, and thus the repercussion within the social formation of the variations affecting the material conditions of the labor process in one or other of its sections) *and* by the tendency to *reproduction on the international scale* of unequal relations between the national entities. This latter form of reproduction *tends to break up the former*, a process that is described by the expression "*tendency of the capitalist mode of production to become worldwide.*" Of course, what "appears" as a "geographical framework," that is, a "physical space," is really something quite different. The "physical space" in question functions, in fact, only as the *carrier* of a group of *agents* whose activity tends to reproduce not only the material conditions of existence but the specific systems of places through which these agents ensure the reproduction of their conditions of existence, which are not only material in character. These systems form a contradictory unity (a determined social formation) that is always tending to transform itself through the action of internal contradictions, the chief of which is that which counterposes the agents, insofar as they are subsumed under the relations that constitute them as classes and social forces. These systems thus relate both to an "economic basis" and to a "superstructure" (that is, a group of ideological and political relations).

The "defense" of the internal and external conditions of existence of each of these contradictory unities is ensured by the role played by a "state," or, more generally, by an organ of the political power of a dominant class. The latter upholds, if necessary by using force, a certain type of unity, that is, of class subordination. (If it fails, it is replaced by another organ of political power, ensuring the domination of another class.) It undertakes, at the same time, the defense of the existence of the given social formation in its relations with other social formations, the expanded reproduction of which may threaten its own conditions of expanded reproduction. Generally speaking, as long as relations of domination and exploitation continue to exist inside a social formation, expanded reproduction of the latter threatens the existence of other social formations, and the state power is an instrument destined to put this threat into effect, either by actual use of the force at the state's disposal or by the unequal relations that the possibility of the use of this force, along with the concentration of economic, political, and ideological means in the state's hands, make it possible to establish.

The tendency of the capitalist mode of production to become worldwide is manifested not only through the constitution of a group of national economies forming a complex and hierarchical structure, including an imperialist pole and a dominated one, and not only through the antagonistic relations that develop between the different "national economies" and the different states, but also through the constant "transcending" of "national limits" by big capital (the formation of "international big capital," "world firms," etc., the effect of which is to make the reproduction of the capital thus centralized increasingly "independent" of the "local" conditions of reproduction characteristic of a particular country) and through the tendency for historically formed national markets to merge into a "common market," something that presupposes the "merging" or "alliance" of some big capitalist groups.

The action of the two contradictory tendencies characteristic of the structure of the world wide capitalist mode of production implies that inside each capitalist social formation that is "national," or that tends to take the form of a nation or federation of nations, the law of value ensures: expanded reproduction of the material and social conditions of production characteristic of this social formation, a specific form of domination by the capitalist mode of production over other modes of production present in this social formation, the reproduction of the system of places in production that corresponds to this specific form of domination, a specific pace of growth and rhythm of crises of the productive forces, a definite level of wages and definite tendencies to variation in this level, and so a "national" form of the socialization of labor (insofar as the latter reproduce the social conditions of production).

Within the capitalist world market, the law of value ensures: expanded reproduction of the material and social conditions of worldwide production, a definite pattern of domination and subordination of the different social formations, reproduction of the system of places corresponding to these relations of domination and subordination, uneven paces of development resulting from the occupation of these places and the exchange conditions that ensue therefrom.

It is therefore in this exact sense that socialization of labor on the international scale takes place through a *structure* of specific complexity, embracing the structure of each social formation and the world structure of the totality of social formations. And *it is the existence of this complex international structure* that imposes a change in the way the law of value operates.

The law of value, as it operates within this structure, tends, on the one hand, to reproduce (failing which there would be no capitalist world market) the international relations of production, something that cannot be done without crises, owing to the unevenness of development and the uneven pace of development of the different social formations. It tends, on the other hand, to reproduce the conditions of reproduction specific to each of the different social formations, which means that the wage level "proper" to each social formation cannot be determined by the "world level of development of the productive forces" (which is merely a false abstraction in a world system made up of distinct and opposed social formations), but that it is fundamentally linked with the specific combination of productive forces and production relations characteristic of each social formation.

Each specific combination is subjected, however, to the effects of the whole, and thus of the "place" occupied by each social formation in the structure of world economy, a place that is itself determined by antagonistic relations, that is, by social and national struggles. This is why, furthermore, a country cannot escape the effects of imperialist domination and exploitation except through a long and complex struggle. This struggle is primarily political, but also ideological and economic. Inside each social formation, victory in the struggle thus carried on can be won only through the transformation of the relations of production and the productive forces. Thus, a dominated country, or a previously dominated one that does not alter its situation in the *international capitalist division of labor*, merely *reproduces* its unfavorable situation: the more it increases the production of the products that its "place" assigns it, the more does it participate in the worsening of its own unfavorable situation (price manipulations cannot change this fact so long as a world capitalist economy exists.)

Whatever may result from this last point, we see that it is the "necessary" heterogeneity (imposed by the conditions of expanded reproduction on the world scale) of the material and social conditions of production—which contrasts with the *relative* homogeneity of the conditions of reproduction within each separate social formation—that causes the working of the law of value on the international scale to undergo fundamental transformations.

It is obvious that the foregoing propositions, apparently essential for the construction of the concept of the "capitalist world economy" (as distinct from that of the "capitalist social formation" and that, also, of a mere

"coexistence" of "juxtaposed" social formations), need to be elaborated further, something that cannot be done here. I will therefore confine myself to a few pointers, which can only serve as the beginning of an investigation. They merely correspond to a first attempt at thinking out, in the terms of historical materialism, the "observed" tendencies, that is, those that have already been given "practical" concepts, but linking them with the theoretical concepts of historical materialism.

The "necessary" heterogeneity of the material and social conditions of production on the world scale describes the effects produced by two tendencies in the expanded reproduction of the capitalist mode of production, one of which predominates at one pole of capitalist world economy and the other at the opposite pole.

These "tendencies" take the following form:

1. *Inside social formations in which the capitalist mode of production is predominant*, this domination mainly tends to expanded reproduction of the capitalist mode of production, that is, to dissolution of the other modes of production and subsumption of their agents to capitalist production relations. The qualification "mainly" indicates that this is the *predominant tendency* of the capitalist mode of production within the social formations under consideration. However, this predominant tendency is combined with another, *secondary* tendency, that of "conservation-dissolution." This means that within a capitalist social formation the noncapitalist forms of production, before they disappear, are "restructured" (partly dissolved) and thus *subordinated* to the predominant capitalist relations (and so *conserved*). The "concrete history" of agriculture in the capitalist social formations is that of such a conservation-dissolution process, the final stage of which is dissolution, and thus the disappearance of agriculture as such and its transformation into a "branch of industry." One of the problems that arises is obviously that of the reasons why, in a social formation in which the capitalist mode of production *predominates*, the *main tendency* is not conservation-dissolution but dissolution. A number of indications suggest that it is to be explained not only by the rapid development of the productive forces characteristic of the capitalist mode of production when this is predominant within a social formation but also by an *overdetermination* of the phenomena of dissolution by the ideological and political levels.

2. *Inside social formations in which the capitalist mode of production is not directly predominant*, that is, in social formations that are capitalist social

formations *because* they are subordinated to the capitalist mode of production through the world market (but in which other modes of production *predominate*), the main tendency is not to dissolution of the noncapitalist modes of production but to their *conservation-dissolution.* The predominance of this tendency is doubtless connected with a group of determining factors produced by the "external" domination of capitalism: "blocking" of the development of the productive forces, constraint to a disadvantageous international specialization, "external" presence of *centers of capital accumulation* (toward which converges the capital that might have "revolutionized" the material and social conditions of production), all this being *overdetermined* by *political* factors (the maintenance with the help of imperialism of domination by classes incapable of revolutionizing the conditions of production) and also ideological ones (defense of the "integrity" of the social formation in face of external domination favors everything that tends to conserve the past, even though under apparently "renewed" forms—this is, it would seem, the function of certain "specific socialisms" that can serve as a second line of defense for the *old* social relations).

It must be added that, as long as the tendency to conservation-dissolution of noncapitalist modes of production is predominant in a social formation, it is the "heterogeneity" of the material and social conditions of production that "appears" in the foreground. This is the aspect that is interpreted, in ideological terms, by the metaphor of the "dualistic character" of these social formations—a metaphor that *conceals* the specific type of domination by the capitalist mode of production that is characteristic of these social formations.

Here I must mention a point that is extremely important (because directly connected with the conditions of reproduction as they operate in relation to prices) but that it is impossible to develop within the context of these remarks. It is this: in the countries where there are a large number of producers who produce for the market only to a minor extent, the prices of the products placed on the market under these conditions have an extremely complex relation to their cost in money or in labor, for these costs do not directly play the role of regulator. It is thus possible for prices to fall, for an indefinite period below these costs of production.

Marx emphasized in *Capital* that when the capitalist mode of production is not strongly developed, the prices at which products are sold by the peasants do not have as their lower limit the value or price of production

of these products: the peasants who are in debt are *obliged to produce and sell*, even at prices that merely give them the means to survive and to pay off, at least in part, the *burden of debt* that weighs upon them. This is often the situation of the peasants who own very small pieces (parcels) of land.[19] The role played by usurer's capital, and later by banking capital, as the dominant element in the reproduction process, is particularly obvious here.

On the international scale this role is also a considerable one: the international banking network forms, indeed, an essential link in imperialist domination—and this applies, of course, to such "international institutions" as the Bank for Reconstruction and Development or the International Monetary Fund. The international banking network functions as an instrument constraining the underdeveloped countries to go on reproducing forms of specialization that are to their disadvantage.[20]

The foregoing is intended merely to serve as a pointer, drawing attention to the fundamental nature of the transformations that the operation of the law of value suffers in the context of capitalist world economy.

The effects of these transformations may seem to be connected with the "nonmobility" of the workers, but in reality this "nonmobility" is itself only *one of the possible effects* of the specific conditions of reproduction distinctive of capitalist world economy. This is why these conditions of reproduction can *impose* either "nonmobility" or "mobility" of the working population, as is shown by the *phenomena of mass migration*,[21] which in certain situations is characteristic of the domination of the world by the capitalist mode of production (emigration from Europe to the United States and Latin America in the nineteenth century and even today; the current large-scale emigration of Italians, Spaniards, Portuguese, Serbs and Croats, Turks, Algerians, Senegalese, Indians, etc., to Northwestern Europe).

Thus, it is not the "nonmobility" of the workers that explains a "particular effect" of the law of value operating on the international scale; it is the complex structure (national and worldwide) of the capitalist mode of production that causes the law of value to undergo essential transformations on the capitalist world market. It is this twofold structure that, furthermore, provides a *twofold basis* for the exploitation of *the workers of all countries* by the capitalist of the industrial countries.

Here we explicitly encounter once more (though it was only in appearance that we ever left it) the theme of "the exploitation of the poor countries by the rich ones."

ON THE NOTION OF EXPLOITATION OF THE POOR COUNTRIES BY THE RICH ONES

The foregoing enables us, in fact, to understand through what a complex structure (the reproduction of which is ensured by the law of value) the capitalists of the industrialized countries have at their disposal not only a "basis of their own" for exploitation, that is, the basis that ensures expanded reproduction of the predominant capitalist relationships through *exploitation of the proletariat of the industrialized countries* (by buying labor power at a price lower than the value produced by this labor power), but also an "international basis" of exploitation, ensured by the *enlarged reproduction of the international production relations specific to capitalism*. It is these *relations* that enable the capitalists of the industrialized countries to exploit also the *working people* of the dominated countries (by buying the *products* they supply at *prices* that ensure expanded reproduction of economic inequalities, and so expanded reproduction of the international division of labor thanks to which exchanges may continue to be carried on at such prices).

Thus, the substitution, in our analysis of capitalist world economy, of a really heterogeneous structure for a structure that is hetereogeneous in appearance only (because it places the different countries in a setting in which they can be arranged according to the level of the "development of their productive forces," that is, according to a seemingly simple quantitative criterion) enables us to see that it is not possible to give a strict meaning to the notion of exploitation of one *country* by another *country*. These two terms themselves cease, indeed, to relate in illusory fashion to homogeneous "unities," some made up of exploiters and the others of exploited. Henceforth it is necessary to think of each "country" as constituting a social formation with a specific structure, in particular because of the existence of *classes* with contradictory interests. It is this structure that determines the way in which each social formation fits into international production relations.

Here we again come upon this fundamental proposition: relations of exploitation cannot be constituted at the "level of exchange"; they necessarily have to be rooted at the level of *production*, or otherwise exchange could not be renewed.[22] Also, capitalist relations of exploitation are constituted not by relations between "partners in exchange" (and still less by relations between "countries") but by relations between *workers*, on the

one hand, and owners of the means of production and exchange, on the other. Of course, the fact that the relations between the capital of the industrialized countries and the workers of the underindustrialized countries are usually not "direct relations" (most commonly it is not a matter of buying the labor power of these workers but of buying products from "local" exploiters—landlords, merchants, usurers, traders, capitalists, etc.) implies that expanding the exploitation of the working people of these countries requires an expansion of banking and commercial capital. This helps to "conceal" still further the relations of exploitation that "unite" the working people of the poor countries with the capital[23] of the industrialized ones.

Because the concept of *exploitation* expresses a *production relation*—production of surplus labor and appropriation of this by a social class—it necessarily relates to *class relations* (and a relation between "countries" is not and cannot be a relation between classes). This, too, is why a mere *transfer of surplus value from the capitalists* (or other exploiters) of the poor countries to the *capitalists* of the rich ones cannot be described as "exploitation," in the strict sense of the word, since only *working people* can be exploited,[24] but not other exploiters.

Emmanuel's formulation regarding "exploitation" of poor countries by rich ones thus describes inadequately (because it suppresses the *social relations*) the apparent effect, at the level of exchange, of the specific structure of capitalist world economy. This inevitably results in a series of concealment effects.

In the first place this formulation relegates *imperialist* exploitation, namely, the exploitation to which the working people of the countries dominated by the international monopolies and trusts are subjected directly, to a position of secondary importance, whereas this exploitation is bound up both with the important fact of the "penetration" of the capitalist mode of production into the dominated countries and with the structural changes that *movements of capital* give rise to within capitalist world economy. In fact, these movements tend to create an increasingly *hierarchical* structure of capitalist world economy, since even *the already industrialized countries themselves tend, to an increasing extent, to fall into subjection to a dominant imperialism* precisely because of the international movements of capital.

Second, this formulation leads to making the *proletarians* of the rich countries "appear" to be "exploiters" of the poor ones. These proletarians

must therefore have ceased to be exploited themselves, which must mean that *their labor is no longer a source of surplus value*. In reality, these workers are, in general, *more exploited* (in the strict sense of the word) than the workers in the poor countries. Marx emphasized this, noting that, owing to the high level of intensity and productivity of labor *in the rich countries*, the wages of the workers in those countries, *though nominally higher, and (to a less extent) higher in purchasing power than in the poor countries*, generally correspond to a smaller proportion of the value these workers produce. Thus, speaking of a rich country that he is comparing with a poor one, Marx writes: ". . . it will be found, frequently, that the daily or weekly, etc., wage in the first nation is higher than in the second, whilst the relative price of labour, *i.e.*, the price of labor as compared both with surplus value and with the value of the product, stands higher in the second than in the first."[25]

In other words, *the more the productive forces are developed, the more the proletarians are exploited*,[26] that is, the higher is the proportion of surplus labor to necessary labor. This is *one of the fundamental laws of the capitalist mode of production*. (Reciprocally, of course, this means that, despite their low wages, the workers of the underdeveloped countries are *less exploited* than those of the advanced, and so dominant, countries.)

If some may find the above proposition "paradoxical," this is because they reduce relations of exploitation to crude superexploitation carried out on a primitive foundation (that is, to the tendency to increase absolute surplus value that characterized the forms of production "prior" to capitalism), and they cannot grasp the fact that the workers of the industrialized countries, while they have mostly ceased to be exploited in *that* way, are exploited in a way that is more "refined," more "civilized" (to use this term in the double sense from which Lenin knew how to extract all the irony), and therefore also more "efficient" and more intensive.

While the proletarians of the industrialized countries are not subject to "superexploitation" as are the proletarians of the dominated countries, they are *more intensively exploited*. The capitalists, who cannot be accused of not knowing how to do their sums, are not deceived: they know that, generally speaking, it is more profitable to exploit the proletarians of the industrialized countries than their brothers in the poor countries.

It is this *intensive exploitation* of the proletariat of the industrialized countries that provides the chief explanation of the extreme concentration of international capital investments precisely in the industrialized coun-

tries. This is why the big international companies have made the "advanced" countries their preferred sphere of investment, so that, out of nearly $2 billion of new direct annual investment by the United States outside of its own frontiers between 1963 and 1966 (excluding the extractive industries and oil), only $300 million was invested in the underdeveloped countries.[27]

The attempt to "conceive" of the economic relations between countries in terms of "exploitation" thus produces a series of concealment effects. It transforms the concept of "exploitation" into an ideological notion, which, instead of describing a relation between classes, is then given the task of describing a group of relations of different kinds that cannot be grasped by a single concept.

As a result of the ideological transformation that is thus inflicted on the concept of exploitation, we see emerging again that ideological pair which historical materialism eliminated from its field of work, namely, "the rich and the poor."

Moreover, and this is what is decisive, by thinking in this way one ceases to be able to grasp an essential fact, namely, that *domination by imperialism is based above all upon the exploitation of the proletarians in the imperialist countries.* Indeed, if the imperialist countries are countries whose productive forces are developing rapidly, this is just because the level of development attained by them (on the basis of exploitation of "their own" proletarians and of the working people of the rest of the world) enables the capitalists of the imperialist countries to impose a high rate of exploitation upon their proletariat, which results in a huge mass of profit being put at the disposal of the capitalists of the imperialist metropolitan countries. This mass of profit, greater than that which can be "extracted" from the working people of the dominated countries, whose labor provides only a meager surplus product (that is, whose necessary labor almost coincides with the total labor they put in), "feeds" an accumulation fund that is *constantly growing.* This growth, which contrasts with the relative stagnation of the underindustrialized capitalist countries, is bound up with the rapid expansion of the productive forces of the dominant countries. In turn, this expansion ensures reproduction of the conditions for exploitation of the working people of the dominated countries.

This explains why, when the *internal contradictions* develop in a dominant country and the expansion of its productive forces slows down, its world domination is also quickly brought into jeopardy. Britain provides

an excellent example of this situation. The efforts of the Wilson government to "freeze" the wages of the British workers are conditioned by the requirements of British imperialism's world policy.

It is very important not to lose sight of *the fundamental role played in imperialist domination by the exploitation of the proletariat of the imperialist countries themselves*, for this role is of decisive strategic significance from the standpoint of the class struggle on the international scale. This role explains, moreover, why the domination exercised by each imperialist country is *much more fragile* than it looks at first sight. This domination is constantly threatened by the expanded reproduction that develops in the other imperialist countries. Today, expanded reproduction in the imperialist countries as a whole is marked by great rapidity and also by great international unevenness. The rapidity of the present-day pace of development of the productive forces is given concrete expression in the extreme brevity of life of each "generation" of machines.[28]

Thus, the rate of exploitation of the proletarians of the imperialist countries must be ceaselessly and rapidly increased,[29] which means that capitalist exploitation is concentrated to an ever increasing extent in the imperialist countries,[30] whereas the growth in relative surplus value plays as yet only a secondary role in relations between imperialist countries and dominated ones.

What is decisive in the relations between the dominating and the dominated countries is not so much the *increase* in the exploitation of the workers of the latter, however real and brutal this may be, as the *maintenance* of this exploitation. This situation is "conceived" of, ideologically, as the "blocking" of the development of the productive forces in the dominated countries. It is because the working of capitalist world economy essentially requires both maintenance of the exploitation of the working people in the dominated countries, with the draining off part of the surplus value resulting from this exploitation to the metropolitan countries of imperialism, *and* "blocking" of the development of the productive forces in the dominated countries, that it is possible to say that world domination by the capitalist mode of production is based upon a *twofold foundation* of exploitation—that of the proletarians in the imperialist countries (exploitation of whom increases with the development of the productive forces of these countries) and that of the working people in the dominated countries, exploitation of whom also increases, but more slowly, just as the productive forces of these countries develop more slowly.

It is obviously not accidental that the capitalists of the industrialized countries constantly strive to put obstacles in the way of the development of imports from the underindustrialized countries: this not only fits their immediate interests but also helps to hold back the development of the productive forces of the dominated countries, so keeping them in a dependent situation. If the *principal* source of the profits of the capitalists of the industrialized countries were not the exploitation of "their own" proletariat, but that of the working people in the underindustrialized countries, the opposite tendency would prevail, that is, ever greater utilization of this source of profit.

Of course, refusing to employ the concept of exploitation to describe the effects of international exchange conditions upon the countries with underdeveloped productive forces does not in the least mean denying a fact that is obvious, *but of quite a different order*, namely, that if the conditions of exchange between "poor" countries and "rich" ones were more favorable to the former, that is, if, as a result of this exchange, the former were to obtain relatively more in *use values* and the latter relatively less, then the "standard of living" in the "rich" countries would be affected by this, in the sense of being lowered, and the opposite effect would occur in the "poor" countries. Recognizing this fact, however, and recognizing also that the living conditions of the workers in the rich countries might in some circumstances by lowered, is not at all the same thing as alleging that there is exploitation of the workers and peasants of the poor countries by the proletariat of the rich ones.

In short, the exploitation of the working people of the dominated countries by the capital of the industrialized countries is itself twofold in nature. On the one hand, it is an *indirect* exploitation, resulting from the polarized structure of capitalist world economy. On the other, it is a *direct* exploitation resulting from investments (industrial, commercial, financial, etc.) made by the capitalists of one country in another country. It is these investments that make it possible *directly to exploit the workers* of the country where they are made. Here we have capitalist exploitation on the international scale, taking the same form as capitalist exploitation inside a given country; however, though the same in form, it can be a source of exceptional profits, whenever the capitalists of the industrialized countries are able, thanks to the investments thus made, to take advantage of the polarized structure of capitalist world economy.

On the international scale what is specific is the set of effects produced

by the polarized structure of capitalist world economy, insofar as this hinders the development of the capitalist mode of production in the dominated countries, maintains or develops other forms of exploitation there, keeps prices and wages there at a relatively low level, slows down the development of the productive forces.[31] and enables the capitalists of the industrialized countries to participate in the exploitation of the working people of the less industrialized countries. This "participation" in exploitation is effected in a great variety of ways, from downward pressure on the costs in money at which the products of the less industrialized countries are produced, and the prices at which they are sold, to transfers of surplus value realized when interest or redemption payments are made on bank loans, the public debt, etc., or when transactions relating to patents, etc., take place.

In all cases where foreign capital enters directly into definite production relations, this enables it to participate in the process of extracting and appropriating the surplus value produced by the labor of the direct producers of another country. This is the type of exploitation that is typical, to some extent at least, of the activity of the international oil companies, or big international companies like United Fruit, Unilever, etc., or the big mining, chemical, and other trusts.

Once again, however, none of these forms of exploitation of the working people of the dominated countries by the capitalists of the imperialist countries causes the exploitation of the proletarians of the latter countries to cease or transforms them into "exploiters" themselves.

True, it does happen that the capitalists who exploit the working people of another country *relatively* reduce the exploitation to which they subject the workers of their own country, in an attempt to corrupt them by creating a "labor aristocracy," but the workers whose rate of exploitation is thus *relatively* reduced cannot for that reason be described as "exploiters" of the workers of the dominated countries, for they are themselves subjected to intensive exploitation. The fact that these workers may, as Engels put it, "become bourgeois" is quite another thing, belonging to the realm of *ideological relations*, not to that of production relations.

Presenting the totality of economic relations between "rich" and "poor" countries, and, in particular, their trade relations, in terms of the "exploitation" of some "countries" by others leads to concealing the complexity of these relations and engendering the illusion that a "rectification of the terms of trade" could put an end to the inequalities of economic develop-

ment. The content of imperialist domination is infinitely more complex than appears at the level of exchange and the worsening of the conditions of exchange ("terms of trade").

THE UNEVEN DEVELOPMENT OF THE PRODUCTIVE FORCES

The decisive fact is that imperialist domination produces effects that go *very far beyond* the exploitation of the workers of one country by the capitalists of another. This domination creates the conditions for what is described as a relative "blocking" of the development of the productive forces in the dominated countries, this "blocking" being, in reality, merely one of the aspects of the uneven development of the productive forces within the capitalist world economy, and so of the expanded reproduction of the economic inequalities that are typical of imperialist domination.

This domination produces effects on the economic plane (mass-scale competition on the markets of the dominated countries by products of the industry of the industrialized countries, draining away of part of the surplus value produced in the dominated countries, and so on). It also produces effects on the political plane (support given by imperialism to the dominant classes, both capitalist and precapitalist, to comprador capitalism, to the local dictatorships that "protect" these classes, and so on), and on the ideological plane (diffusion among the dominant classes and the petty bourgeoisie of the dominated countries of the ways of living and thinking of the dominant strata of the imperialist countries, spread of the dominant economic ideology in these countries, and the like). All this is involved in what has been described as the relative "blocking" of the development of the productive forces.

However, and this point is of decisive importance, this "blocking" occurs not only in the *dominated* countries but also, though to a slighter extent, in the *dominant* ones.

Indeed, we must not overlook the fact that the possibility of exploiting the cheap labor of the dominated countries, and of buying cheaply the products supplied by these same countries, puts a relative brake upon technical development in the advanced capitalist countries as well. This is why we observe that when economic relations between imperialist countries and dominated ones are at their most difficult (in time of war, for example), *both groups of countries* are able to achieve exceptionally rapid progress in some of their branches of production. Thus, during World

War II India was able to start a process of industrialization, and the same development occurred in several countries of Latin America (Argentina, Brazil, Chile).[32]

On their part the industrialized countries, finding themselves more or less cut off from "their" sources of cheap raw materials, were led to develop industries for the production of substitutes (e.g., synthetic rubber, artificial fibers). Industries like these generally prove capable of supplying something more than substitutes, namely, products that play a considerable economic role and the cost of which, as a result of technical progress, eventually stands comparison with that of the "natural products" obtained by exploiting "cheap labor."

The "blocking" of the development of the productive forces brought about by imperialist domination is thus effective at *both poles*, the dominating and the dominated. Obviously, these consequences are much more visible and dramatic for the poor countries, but from the standpoint of theoretical analysis this *double effect* must not be ignored.

The foregoing enables us to understand how mistaken is the idea that the dominant countries must necessarily be "ruined" by the ending of their period of domination, on the grounds that this will suddenly alter their terms of trade. Such "ruin" could come about only if the wealth of the dominating countries arose not essentially from the uneven development of the productive forces but from unequal exchange.

If this were so, indeed, by losing the advantages that "unequal exchange" gives them, the dominating countries would lose the very source of their wealth. If, however, the source of the wealth of the rich countries is, above all, the *relatively high level of their productive forces*, the losses they would suffer through the disappearance of "unequal exchange"would reduce only to a limited extent and, above all, only during a period of transition, the level of their real incomes, this reduction being capable of more or less rapid compensation through the development of their own productive forces brought about (by way of crises, readjustments, and contradictions of all kinds) through the disappearance of the "blocking" induced by the existence of relations of imperialist domination.

The question of "*who*" in the industrialized countries would be affected by the (transitory) losses that would result from the upheavals in international exchange conditions cannot, of course, be decided a priori. A superficial view would lead one to think that the chief "losers" would be certain to be the international trusts, since it is they who at present benefit

most directly from the exploitation of the working people in the under-industrialized countries. In reality, however, the dominant position held by the most powerful trusts in the imperialist metropolitan countries, their relations with the state, and so on, would enable them, generally speaking, to ensure that others bore the burden of such "losses"; in terms of profit the big capitalist monopolies often even manage to gain from such upheavals by realizing profits from speculation.

The idea of the "ruin" or "catastrophe" that would be suffered *on the economic plane* by the imperialist countries as a result of the struggle for liberation waged by the countries at present under imperialist domination forms part of the mythology of what might be called "apocalyptic economism" (along with the myth of capitalism's "final economic crisis"). Such myths can contribute to reducing the proletariat of the industrialized countries to political passivity by persuading them to await "the inevitable catastrophe." Some tendencies in Marxist thought, both on the Left (Rosa Luxemburg) and on the Right (H. Grossmann), are marked by such a "vision" of future events, which has nothing scientific about it.[33]

Quite a different matter, of course, is the question of what effects the liberation of the peoples who are at present dominated would have upon the scope and character of the class struggles inside the dominant countries. These effects would necessarily tend toward an upsurge in the revolutionary movement in those countries, for whatever shakes one of the pillars of capitalist exploitation also shakes the other pillar as well.

Thus, the working class of the industrialized countries has absolutely nothing to "fear," but quite the contrary, from the revolutionary struggle of the dominated countries. The victories won in this struggle contribute to overthrowing one of the foundations of the power of imperialism and therefore create increasingly favorable conditions for the proletarian struggle *in all countries.*

The objective solidarity of the peoples of the "rich" countries with those of the "poor" ones is just as great today as in the age of Marx and Lenin. Today, just as yesterday, the revolutionary victories of the peoples of the poor countries are also victories for the peoples of the rich ones: they weaken the common class enemy, the capitalist class, whose *basis for exploitation* shrinks; they create better conditions for revolutionary struggles in all countries and constitute no lasting "threat" to the "standard of living" of the workers in the industrialized countries.[34] (It could be otherwise only if the proletariat of the industrialized countries, instead of

taking advantage of the weakening of imperialism, were to allow "their" capitalists to use the new situation as a *pretext* for exploiting them still more.) This is contrary to what is proclaimed by a certain propaganda that aims at uniting the working class with the capitalist class in the imperialist countries, a propaganda that has had an effect in some countries, especially the United States.

In this regard it must not be concealed that Emmanuel's thesis concerning the "exploitation" of the poor countries by the rich ones, in the form that he gives to this thesis, leads to relations between classes being made to appear as simple "relations between countries," that is, to replacing the real antagonism between workers and exploiters by the fictitious one between "rich nations" and "poor nations."

A formulation like this, which links up with the ideological thesis about "proletarian nations," can be used both by the imperialist bourgeoisie and by the national bourgeoisies of the "poor" countries. The latter are always trying to convince the working masses of their countries that their poverty is due not to the class exploitation of which they are victims, and the existence of production relations that block the development of the productive forces, but to the national "exploitation" of which rich and poor, capitalists, peasants, and workers are said to be *all alike victims*, and which could and should be reduced through a sufficient alteration in the terms of trade.

The ideological character of the contrast between poor countries and rich ones obviously produces effects even at the level of description. It suggests that this contrast may be in some sense "natural," so concealing the fact that it describes the result of a twofold social process; a process of differentiation between levels of development, on the one hand, and, on the other, a process of internal differentiation. The "poor" countries are not "naturally" poorer than the others, and often *their only "poverty" is that of their exploited masses*, not that of their resources. A typical example is provided by Brazil. As always, ideological formulations tend to shift onto an illusory "nature" the responsibility for what is actually the result of a social process.

In concluding this commencement of a discussion, let me say that what seems to me fundamentally positive in Emmanuel's thesis is his contribution to proving the invalidity of the theory of comparative costs. This is an important contribution to theory, some of the premises for which are

present, and even partly developed, in Marx's writings, especially in certain remarks in the chapter of *Capital* devoted to "Illusions Created by Competition."[35] What is also positive is Emmanuel's criticism of claims regarding the "advantages" that the capitalist international division of labor is alleged to bring to all countries participating in exchange; he shows, indeed, on the basis of his critique of the theory of comparative costs, that the international division of labor that has been established in the setting of the capitalist market, on the basis of the relative costs and wages that exist at present, tends to *reproduce its own conditions on an expanding scale*. This last observation is of considerable importance.[36]

To sum up, these positive contributions result from the author's taking account of some of the effects at the international level of capitalist production relations. These effects, however, that are produced by the bringing into relation with each other, on the capitalist world market, of social formations that have developed to an unequal degree, are conceived under the category of "unequal exchange," a category that conceals the far-reaching changes undergone by the operation of the law of value in the setting of the capitalist world market, the specific structure of which is not brought out.

This shortcoming results, *inter alia*, from a problematic that isolates the "moment of exchange," that is, which fails to situate it within the field of production relations and productive forces and to integrate it in the structure of capitalism as a world system. Thus, something is ascribed to "exchange conditions" that is really an effect of the structure of the capitalist system on the world scale.

If this effect is perceived at the level of exchange, the reason is that this level has certain "advantages": it is *on the surface* of economic reality, where the categories of circulation (prices, wages, money, etc.) seem to function, that is, at the point where certain structural effects show aboveground, so to speak.

If, however, this "surface effect" is isolated from the structure that produces it, we are led to "imprison" it within the field where it manifests itself in an immediate way (the field of prices and money); and that, in turn, produces a series of ideological effects (the ideology of the "model," of prices as "the sum of the costs of factors," of the "rationality" or "irrationality" of the international division of labor, the ideology of ethics—the "fairness" or "unfairness" of certain prices, ideas that underlie the idea of "unequal exchange").

Finally, the idea of "unequal exchange" describes one of the impressions that are spontaneously produced by the form of commodity exchange, an impression that tends to become more and more striking as the capitalist mode of production develops and economic inequalities increase. Since, however, like every idea of this type, taking for what they seem ("as given") the "economic facts" peculiar to the sphere of circulation (that is, the phenomena belonging to this sphere: the market, prices, wages, as prices), the idea of "unequal exchange" cannot relate the "facts" thus "given" to the structures (production relations and productive forces) of which they are the effects. It can therefore produce only an illusory explanation, combining elements that are present on the surface of economic reality, where they appear to be endowed with an independence that is, indeed, only superficial. The "mechanism of price formation" constitutes one of the figures that inhabit this field of illusory independence.

Every combination of ideas that relate only to the economic "facts" belonging to the sphere of circulation thus remains imprisoned in a "universe" which is that of political economy ever since it began. Marx's analytical effort took the form precisely of *a critique of this illusory foundation of political economy* and resulted in its replacement by another, which puts the science of economic relations *on a different basis*. This is what is meant by Marx's *break* with political economy.

We know, indeed, that all "economic theories," from Adam Smith to the economists of today, and including Ricardo as well as the "subjectivists," Jevons as well as Walras or Pareto, have accepted the universe of "prices" as the only "real economic world." Some have boldly decided to close this "world "in upon itself (prices being explained strictly by other prices), while others have tried to bring it seemingly out of isolation by "duplicating" it with another world made in its own image. This "double" functions only when needed to support the arguments of a certain school of political economy by giving them apparent "density."

This imaginary second world is, for some, that of "labor," conceived as a sum of expenditures of labor that is homogeneous and therefore directly capable of being added up—which merely duplicates the homogeneous field of prices with a homogeneous field of labor time.

For others this imaginary world is that of "needs," the immediate diversity of which requires more considerable speculative effects, in order to reduce this diversity to the appearance of homogeneity needed for

reduplication of the "facts" belonging to the flat world of exchange and money.

This oscillation between the world of "needs" and the world of "labor" made up the history of that political economy which Marx subjected to a criticism that was indispensable if a genuine science was to be created. Nothing, indeed, is explained so long as we confine ourselves to bringing into relationship the "surface effects" observed in a "real" world, which is nevertheless *mythical in its isolation*, and the imaginary "magnitudes" of another "world," which is more mythical still, because wholly unreal.

This kind of "bringing into relationship," far from helping to explain, results in the possibility of finding an explanation being made more remote. Explanation requires that we take into account (going beyond the appearances of a homogeneous economic universe) the complex structure of the production relations and the productive forces, together with the effects of this fundamental structure on the ideological and political structures.

Only if we analyze these structures, using concepts adequate to the purpose, can we explain, among other things, the real "price systems" both inside a social formation and in the world economic system.

When analysis of the worldwide capitalist system takes this direction, the illusory character of "explanations" that are closed in on themselves (through the construction of price systems of greater or less "complexity") becomes plain, together with the impossibility of constructing a system of world prices on the basis of a single "model."

In addition, analysis shows the extreme diversity of the "conditions of price formation" on the world market, and theory enables us to understand that if these prices are subject to a single *law*, the latter, operating within a complex structure marked by extremely heterogeneous conditions of production, can only ensure the reproduction of this heterogeneity. The law that determines the form of this reproduction is never reduced to a "uniform rule."

True, under certain conditions (taking account of the actual structure of the worldwide capitalist system, since this is a system in which are interrelated both capitalist social formations and others that are merely *dominated* by the capitalist mode of production but without this mode of production being dominant within them), the "formula" of the price of production may appear to constitute the "rule" for the formation of the prices at which certain international exchanges are effected. This is so when

the exchanges involve commodities all of which are produced within the scope of capitalist production relations. If, furthermore, these exchanges take place between countries where the capitalist mode of production has developed to an unequal degree, and which also have unequal wage levels, the phenomenon described as "unequal exchange" appears in the specific form presented by A. Emmanuel. This is because the partners in exchange, though all involved in capitalist production relations, are not situated in the same "local" or "national" conditions for the reproduction of their conditions of production. The expression "unequal exchange" thus does indeed describe a surface effect that appears only when certain conditions of reproduction are present; but this expression does not enable us to grasp what these conditions are, because it does not raise the problem of their existence.

The construction of a model "corresponding" to the picture of a homogeneous world economy, everywhere penetrated to an equal extent by capitalist production relations, its "units" being distinguished only by differences of specialization in the international division of labor and by unequal wage levels, produces a special ideological effect. Such a "model" tends to remove from our field of vision the exploitation of the working people of all countries by their own exploiting class: *the exploitation of some classes by others* is thus replaced by the exploitation of some "countries" by others. This first ideological effect develops a series of secondary effects the chief of which is *concealment* of the solidarity between the exploiting classes of the different countries. This solidarity is not free from antagonisms, as is witnessed by wars, especially interimperialist wars, but, in the last analysis, the solidarity of the exploiters takes precedence over their antagonisms whenever their domination is threatened, thus testifying to the fundamental character of the contradiction between the dominant classes and the dominated ones. So long as the existence of these antagonistic *social relations* is not brought out, it is impossible to understand the *maintenance* of the heterogeneous structure of the worldwide capitalist system, and the specific role played in this maintenance by the dominant classes of the dominated countries, whether these be bourgeois, latifundia owners, or even petty bourgeois. Without bringing out this fact it is likewise impossible to understand the complex financial and monetary relations that, at the *imperialist stage* of capitalism, *reduplicate* and reinforce the economic and social structures of exploitation and domination. These structures tend eventually to subject world capitalism to direction by

a few financial and military centers, against which a huge movement of revolt has begun.

The worldwide capitalist system is not merely a "market" where domination and exploitation take place by way of prices; it is a genuine *system*, made up of economic political and ideological instances, which themselves break down into a series of *levels*.

On the plane of the world economic system, the transition of capitalism to the imperialist stage is marked, at the structural level, by a specific shifting of the dominant *instance* (*toward the political and military levels*) and a transformation of the ways in which domination is exercised (the increasing role played by the banks and financial organs). However, a series of concrete analyses are needed before we can specify the conditions of and the forms taken by these shifts, together with the precise periodization resulting from them.

At the level of class struggles and struggles for national liberation, the transition to the imperialist stage, followed by the *breach* in world imperialist domination begun by the October Revolution and carried further by the Chinese Revolution, have also caused a series of shifts in the principal contradiction, both on the international scale and inside each social formation.

Within the worldwide capitalist system, the setting up, on the morrow of World War II, of a new structure for the international monetary and financial system (a structure that is now being shaken by the maturation of a serious crisis) has enabled and is continuing to enable the imperialist powers to have part of their investments and their budget deficits "financed" directly by the dominated countries, the effect of this being to intensify still further the draining off toward the metropolitan countries of imperialism of the surplus value extracted from the working people of the dominated countries, something that is obviously not without influence on the concrete conditions for the formation of prices on the capitalist world market.

To sum up, while Emmanuel's theses have the great merit of bringing out the fallacious and apologetic nature of some of the dogmas of political economy regarding the "virtues" of the international division of labor, the theoretical construction he proposes to substitute for these dogmas does not enable us to grasp at the root the conditions for the expanded reproduction of *unequal relations* (and not merely of "unequal exchange"). This is due to the fact that Emmanuel has not completely broken with the

conception of political economy that ignores the specific complexity of the structure within which "economic facts" make their appearance. This results in a theoretical construction in which the Marxist concepts are mutilated, that is to say, transformed into notions fitted into a problematic that is alien to the one that would allow them to be themselves, and so to be able to function as concepts.[37]

On the political plane this problematic directs us toward illusory reformist solutions. For example, the inequalities of development seem to be capable of "correction" through manipulations of prices and wages, whereas only a revolutionary transformation of production relations, with the subsequent development of the productive forces, can make it possible to end the poverty of the peoples of the dominated countries, who are exploited *at one and the same time* by imperialism and by their own dominant classes.

It is important to see how theses that are correct in isolation can take on, once they are cut off from the problematic that would enable them to be given proper foundation, a meaning different from what they could have in the context of a correct theoretical problematic. This is why one can arrive at radically different conclusions depending on whether one treats the economic field as homogeneous, in the way that political economy and econometry treat it, or whether one acknowledges that it is a complex structure occupied by the combination of productive forces and production relations, this combination being itself only one specific level of a complex formation possessing several levels.

A formation like this has not only a "structure" but also a history, because it is the sphere of uneven developments, contradictions, and struggles, including class struggles, which are, as it has been said, the locomotive of history.

Notes

1. Karl Marx, *Capital* (London, 1970), 1: 48 et seq.
2. Ibid., p. 58.
3. Ibid., p. 75.
4. This false problem is nothing but the illusory quest for a "fundamental equality" supposed to be concealed (and revealed) by the equivalent form in which commodity exchange "appears."
5. I am indebted to Yves Duroux for this formulation.

6. Marx, *Capital* (Moscow, 1966), 3: 206.

7. Indeed, Emmanuel explains here that "whatever may be the determinant and whatever the determined," there is "precise correspondence between the relative size of these incomes [i.e., primary incomes, C. B.] and the rate of exchange, or exchange value, of the commodities concerned."

Similarly, in the first paragraph of Section III of Chapter 1, Emmanuel writes: "Up to now we have assumed the existence of one factor only, competitive and homogeneous. Under such conditions it is a matter of complete indifference whether exchange value is measured by the amount of the factor or by its rewards. The factor's internal competition (mobility) implying, as it does, equalization of its rewards, it is obvious that both methods produce exactly the same results."

It is just because value thus appears as capable of being "constructed" as the sum of rewards that the "intervention" of "capital's claim" on the product is, in turn, thought of as having an "influence" on exchange value, as soon as the organic composition of the capitals used in different branches of production is itself different. Thus, in the second subsection of this same Section III of Chapter 1, Emmanuel writes: "If in every branch the intervention of this claim by capital were proportionate to the amount of labor expended for each kind of production, then the fact that this claim is rewarded at a uniform rate would have no influence on the exchange values of commodities, as established in accordance with the respective amounts of labor embodied in them" (p. 14)—but, he adds, it is a different matter when this proportionality ceases, for calculation in quantities of labor would then become impossible and "we are compelled to weight them in terms of the respective rates at which the factors are rewarded" (p. 15).

8. As I said earlier, it is impossible to talk of "two laws" and thus of the "reduction" of these two laws to one. One can talk only of a single law, which produces "different effects," depending on the conditions of production. These are the effects that are grasped by means of the concepts of "value" and "price of production."

9. The fact that econometry constructs "models" that correspond to "n-dimensional" polyhedra does not affect this at all, for these "dimensions" are, in fact, merely "directions" constructed in a *homogeneous space*.

10. This rejection is unjustified theoretically, for if one is going to use the term "unequal exchange," there is no theoretical reason why it should be restricted to a particular case of "deviation" by price of production from "value" (that is, from the magnitude said to be the regulating magnitude of prices under simple commodity production) and not allowed to be used for other cases. Actually, we know this "deviation" to be the *law* of the capitalist mode of production, and it produces effects that can be described as "transfers of value."

the case where there is unequal organic composition of capital in the branches between which products circulate, such "transfers" take place to the advantage of the branches with a high organic composition of capital.

By reserving, as Emmanuel does, the term "unequal exchange" for the effects on conditions of exchange of inequality of wages alone, one redoubles the ideological nature of the expression, since a "moral dimension" is smuggled into it —the only exchange that "deserves" to be called "unequal" is that which is effected with prices "differing from value," and when, moreover, this difference is due to inequality of wages; only this exchange appears to be carried out under "unfair" conditions. By taking this line one implicitly brings in a moral notion, and low wages are "detached" from the objective conditions that determine them.

11. To speak, as Marx does, of a "moral" element that enters into the determination of wages has no more direct relation to the entry of a "moral notion" into the determination of wages than it has to the determination of the "moral depreciation" of capital. The term "moral" here relates not to "ethical" conceptions but to "rules" determined by concrete historical conditions.

12. The polarized development of the world's productive forces is related to the tendency to centralization, which is characteristic of the capitalist mode of production. The unstructured heterogeneity that made up world reality before the formation of the capitalist world market has been transformed by the tendency to industrial and financial centralization; in this way a contradiction has developed between a dominant and a dominated pole of the world economy. The production relations and the productive forces at the dominated pole are increasingly subject to the requirements of expanded reproduction of capital at the dominant pole; this may even involve a setback to, or the collapse of, production in certain countries (in India, for example, the ruin of the industry that was beginning to arise at the time when British domination began, and the ruin of the country's formerly prosperous agriculture). As Kuusinen points out in *Fundamentals of Marxism-Leninism* (New York, 1967), p. 8: "It is characteristic of capitalism that the development of some countries takes place at the cost of suffering and disaster for the peoples of other countries. For the soaring development of the economy and culture of the so-called 'civilized world,' a handful of capitalist powers of Europe and North America, the majority of the world's population, the peoples of Asia, Africa, Latin America and Australia paid a terrible price."

13. Marx, *Capital*, 1: 451.

14. This refers particularly to the changes in production relations that occurred in Western Europe toward the end of the Middle Ages and at the beginning of the Renaissance. In their turn these changes were linked with the specific features of the feudal mode of production that prevailed in those

countries, features that (according to recent historical investigation) were to be found elsewhere only in Japan—which may furnish one of the elements explaining the rapid development of the capitalist mode of production in that country.

15. This "aid" is, of course, also directly beneficial to monopoly capital in the imperialist countries, which in this way finds an additional outlet for a small part of its production.

16. This Japanese "exception" is doubtless not an exception, insofar as the *social relations* characterizing the Japanese social formation at the time when it had to face up to the imperialist offensive enabled Japan both to resist this offensive and to develop modern industry and transform itself into an imperialist power. (Cf. note 14.)

17. If we compare the level of productivity of agricultural labor in the countries whose productive forces are least developed with that attained in the countries with developed productive forces, we find that the productivity levels are in a ratio of 1 : 60, or 1 : 70, depending on which particular countries we take. These inequalities of productivity are still further aggravated, from the standpoint of the standard of living, and so of the conditions for the reproduction of labor power, by the intensive exploitation to which the great majority of the poor and middle peasantry are subjected. Often, as a result of this exploitation, the level of consumption by these peasants corresponds to only half of what they produce. (On comparative levels of production per agricultural worker, see FAO, *La situation mondiale de l'alimentation et de l'agriculture* [Rome, 1968], pp. 81 et seq.)

18. Marx showed how the abundance of land in the United States in the nineteenth century compelled the American capitalists to pay relatively high wages to their workers, the effect of which was to favor the use of "advanced" ("labor-saving") techniques and to expand the home market.

19. Cf. Marx, *Capital*, 3: 806.

20. Cf. on this point Harry Magdoff's article, "The Age of Imperialism," especially Part II, *Monthly Review* (October 1968), pp. 18–64.

21. It will be observed that the fact that *national* wage levels are mainly determined by the *specific* combination of productive forces and production relations explains why, even when these mass migrations take place, they usually have very little effect on national wage levels, that is, they affect them essentially through the changes they bring about in the conditions for the reproduction of capital in each country.

22. Even the regular "plundering" of one "country" by another implies relations of exploitation (and so of *production*) that subject the working people of the countries where the plundering takes place to exploitation by the dominant classes of another country. Without relations of production (and so of reproduction) the "plundering" could not continue. The Roman Empire was based

on such relations of exploitation, and it was in this way that the British Empire began to function (in the form of "tribute" exacted from India). But the "plundering" form is less capable than others of reproducing the conditions for its own reproduction, and so this type of exploitation easily tends to "degenerate" and be replaced by others.

23. Marx emphasizes on several occasions that it is the capitalists that benefit from the uneven international development of the productive forces, because "the labor of the more advanced country is here realized as labor of a higher specific weight," and he adds this comment: "labor which has not been paid as being of a higher quality is sold as such." A little further on, Marx observes: "The favored country recovers more labor in exchange for less labor, although this difference, this excess is pocketed, as in any exchange between labor and capital *by a certain class.*" (*Capital*, 3: 238. Emphasis mine, C. B.)

24. If working people who own (individually or collectively) their means of production can be exploited, it is as working people, not as owners: in a case like this relations of circulation are duplicated by relations of production.

25. *Capital*, 1: 560.

26. The rate of exploitation of the workers necessarily tends to increase when the productive forces develop, since the technical transformations connected with the accumulation of capital imply precisely an increase in relative surplus value.

27. Cf. United Nations, *Bulletin économique pour l'Europe*, vol. 19, no. 1, p. 69.

28. This brevity appears, at the ideological level, as a "squandering" of accumulation funds, since machines are scrapped in the imperialist countries when these very machines are "lacking" in the dominated countries, where they would make possible a great increase in the productivity of labor. This is one of the consequences of the expanded reproduction of economic inequalities.

29. However imperfect the statistics may be, they show that this is indeed the case: the social productivity of labor is growing rapidly in the big industrial countries, while wages are growing much more slowly.

30. This phenomenon of concentration of the sources of profit within the imperialist metropolitan countries themselves is revealed by a series of statistical indices: the much slower development of commercial exchanges between the industrialized countries and the underindustrialized ones than between the industrialized countries themselves, the much faster growth of profits in the industrialized countries than of the volume of their trade with the underindustrialized countries, and so on.

31. Marx mentions the effects of this uneven development of capitalism in the following passage: "If wages and the price of land are low in one country while interest on capital is high, because the capitalist mode of production has not been developed generally, whereas in another country wages and the price

of land are nominally high, while interest on capital is low, then the capitalist employs more labor and land in the one country, and in the other relatively more capital" (*Capital*, 3: 875).

Marx shows here how the *uneven development of capitalism* between different countries produces effects on prices and costs in money.

32. These tendencies are well described in André Gunder Frank's book, *Capitalism and Underdevelopment in Latin America* (New York, 1957).

33. It is obviously not possible to give figures for the effects, even in the short run, that the industrialized countries, and more especially the different social classes in these countries (which is ultimately what matters), would undergo as a result of a radical change in the conditions of their exchanges with the underindustrialized countries. The impossibility of doing this is not due only to the "inadequacy" from which the statistics may suffer, but more fundamentally to the volume of chain reactions that such a change would provoke, in regard to both the relations between classes and the productive forces. (I have mentioned earlier that a number of technical developments, at present held back in the industrialized countries owing to the fact that they can supply themselves cheaply from abroad, would get under way.) Consequently, the few figures that follow are intended merely to indicate what is approximately the specific weight of imports from the underindustrialized countries, in relation to the gross internal product of the industrialized countries.

In 1965, with a gross internal product of about $1,100 billion for all the industrialized capitalist countries taken together, these countries' imports from the "underdeveloped" countries amounted to $25·8 billion, or about 2·3 percent of the gross internal product (cf. GATT, *Le commerce international* [Geneva, 1966], p. 40, and United Nations, *Annuaire statistique*, 1968, pp. 579 and 580).

These figures do not mean, of course, that if the industrialized countries were to be cut off from "their" external sources of raw materials they would not have to solve some very serious problems, especially in regard to oil and scarce metals (imports of which amount to nearly half of all the imports into the industrialized capitalist countries from the dominated countries), but these problems would essentially be connected with *the nature of the products* and not with the terms of trade.

34. We must not of course forget, either, the "price" paid by the workers of the dominant countries in order to ensure the *simultaneous* perpetuation of imperialist domination and defense of the "acquired positions" of the various imperialist countries. In financial terms this "price" amounts to over $100 billion a year—but the "cost" of imperialist domination to the workers of the dominant countries is obviously greater than just this expenditure, heavy though it be, for it also includes ideological and political effects inside the imperialist countries.

35. Marx, *Capital*, vol. 3, ch. 50.

36. It will be observed in passing that this analysis enables us to see that the practice followed by the socialist countries of Europe in using capitalist world market prices in their exchanges (with a few minor rectifications) contributed to maintaining unequal relations between countries with unequally developed productive forces. The Rumanian economists have often emphasized this point.

37. I cannot here say more about the point and will merely mention that we here perceive a sort of theoretical "slipping" that leads to the use of Marxist concepts as "analogies." On this, see A. Badiou, "Le (re)commencement du matérialisme dialectique," *Critique* (May 1967), pp. 438–468, esp. p. 441.

An example of theoretical slipping like this has been called by Thomas Herbert a "theoretical blunder." Such theoretical blunders are inevitable in the sense that *they necessarily mark stages in the progress of scientific knowledge*. In the given circumstances this blunder apparently results from the conjunctural dominations to which economic analysis is nowadays subject. These dominations are present in the ideological field of the "social sciences" (including political economy), but they also influence historical materialism, not only by tending to attack its scientific status "from without," but also by attacking it "from within." (Cf. Thomas Herbert, "Pour une théorie générale des idéologies," *Cahiers pour l'analyse* [Summer 1968], pp. 74–92, esp. pp. 76–79).

Appendix II
Reply to Charles Bettelheim

I am one of those who do not consider that the law of value as bequeathed to us, partly in the first volume of *Capital*, which Marx himself published, partly in the rough drafts and the notes from reading, which were published decades later by Engels and Kautsky, and partly in preliminary sketches, the manuscripts of which have still not all been discovered and published, constitutes a finished theory. Still less do I regard as finished the theory of wages, on which Marx intended to write a special book—a plan that he unfortunately did not have time to carry through.

The coexistence of so many passages from Marx's pen, differing in maturity and in systematic presentation, has given rise to endless dispute among Marxists about how the link between labor value and price of production is to be understood, all of the disputants being armed with authoritative arguments in the form of quotations from Engels, and even from Marx himself, that are, apparently or actually, in contradiction with each other. Since, on the one hand, I had no wish to bring this scholasticism into the present work, and since, on the other, I was not particularly concerned about orthodoxy and aimed at addressing myself to economists of all tendencies in a common language, it may be that I have here and there taken some epistemological short-cuts, to which Bettelheim, no doubt quite rightly, is especially sensitive.

This is the only way I can account for Bettelheim's surprising allegation that I recognize the existence of *two* distinct laws of value—one for simple commodity economy and the other for the capitalist mode of production. Not only do I not believe in this dualism, it seems to me that I go further than Bettelheim in a "monistic" conception of the law of value.

I say this because Bettelheim—and this is the deep root of the disagreement between us—while upholding the identity of the principle, the content, yet sees price of production as a transmuted form of value, a view that comes close, it seems to me, to a certain dualism, whereas I uphold

not only identity of principle but even identity of calculation. Thus, in subsection 5 of Section III of my first chapter, by canceling constant capital I make the formula for prices of production applicable to the case of a single factor (it matters little whether this be hypothetical or real), that is, to the case of exchange in accordance with simple value; and in my fifth chapter, by adding a column I allow, by the same method of calculation, for the case of *more* than two factors. It would, after this, be as unjustified to say that I believe in the existence of two laws as to say that I believe in three, or "n," laws of value. Even admitting that a society made up exclusively of independent workers selling their own products has never existed in history—and on this point I am wholly in agreement with Bettelheim—it is possible to consider that analyzing the *case* of a single factor, and on that basis the exchange of commodities in proportion to the labor socially necessary for their production, is merely employing a methodological abstraction, and that is indeed the basis from which I approach the problems.

With the very first words of my analysis I assume a plurality of factors. (It would be hard to imagine how *a claim* could exist if it were not limited by at least *one other claim.*) I begin the second section of Chapter 1 by making this assumption: "If there were no other claimants in society apart from a certain number of independent workers. . . ." And I begin the next section with these words: "Up to now we have assumed the existence of one factor only. . . ."

This is why I eliminate from the field of unequal exchange the difference between value and price of production—what Bettelheim once called "unequal exchange in the broad sense." In a world in which the very presupposition underlying the law of value is private ownership, that is, a *claim* on the product of someone else's labor, to include in the category of unequal exchange the difference between the exchange value of commodities *without* private ownership and their exchange value *with* private ownership would have been mere juggling with ideas. This difference is purely notional: it does not reflect any reality. For there is no exchange value—in the world of today at least, which is what I am studying—without private ownership.

I can therefore only attribute to an oversight on his part the passage in which Bettelheim blames me for restricting the term "unequal exchange" to "a particular case of deviation by price of production from value . . . and refusing to use it in the other cases." I think I was explicit enough on this

point in subsection 2 of Section II of Chapter 2, when, of the two inequalities, between values and prices of production, on the one hand, and between national and international prices of production, on the other, I retained only the latter. *Since equivalence in capitalist production relations signifies not the exchange of equal quantities of labor, but that of equal aggregates of factors (labor and use of capital), nonequivalence (unequal exchange) can only signify the exchange of unequal aggregates of these same factors.*

This is certainly not the view taken by the majority of Marxists, including Bettelheim, for whom exchange value, whatever it may be, is merely a (phenomenal) form of the "value" created in production, appearing at the level of circulation and accompanying the commodity as an intrinsic quality, like a substance that has, so to speak, been injected into the commodity by productive labor. This unconsciously metaphysical belief in a perennial content of value, independent of its form, a sort of thing in itself, is to be found to a greater or lesser extent among most Marxists.

There are several passages in Marx that seem to contradict this notion of absolute value. In Volume 1, Chapter 1, of *Capital*, we find the following: "Every product of labor is, in all states of society, a use value; but it is only at a definite historical epoch in a society's development that such a product becomes a commodity, viz., at the epoch when the labor spent on the production of a useful article becomes expressed [*darstellt*] as one of the objective qualities of that article, i.e., as its value."[1] It might be concluded from this that "the labor spent" is not really an "objective quality" of the commodity, since even these definite historical conditions cause it merely to "become expressed" as such. Already, however, in the French translation of the first volume of *Capital*, which Marx himself supervised, the last phrase of this passage was modified so as to accord greater "reality" to the "labor spent": "it is only at a definite historical epoch . . . that such a product becomes a commodity, namely, at the epoch when the labor spent on the production of a useful article *assumes the character* of a quality inherent in the article, of its value."[2] And it is also true that a host of other passages, including all those in which Marx speaks of labor embodied or materialized in the commodity, give support to the idea of absolute value and contradict the position I take, namely, that value is merely a relation (a relation of claims, or a social production relation).[3]

It was not by chance that Engels wrote in his preface to Volume 3 of *Capital* the passage that Bettelheim challenges, and which, contrary to

his supposition, I should take good care *not* to invoke. In this passage Engels was answering an objection put forward from several quarters after the publication of Volume 3, to the effect that Marx had written a whole big book (Volume 1) analyzing a value that never applied in reality, either as an actual rate of exchange or as the magnitude regulating this rate. Engels had sensed the danger in a certain Hegelianism that showed through in some of the purely deductive, if not axiomatic, formulations in Volume 1, in which a more than formal analogy with the Hegelian dialectic might be perceived. If it were to be admitted that commodities are never actually exchanged in proportion to their "value," but that value is a content that is conceived mentally, and, as such, is independent of the phenomenal form it takes, there would be a grave risk of finding oneself, on the pretext of proceeding from being to concept slipping from being to essence, and from essence to Absolute Idea. And so Engels undertook a historical survey in order to show that "simple value" has indeed prevailed in the exchange of commodities from the earliest times of Egypt and Babylon down to the fifteenth century of our era, that is, for a period of from 5,000 to 7,000 years.[4]

It is, I think, this contrast between absolute and relative value that is the crux of my disagreement with Charles Bettelheim. I do not believe in absolute value. The very fact that value is measured not by labor actually expended (whether individually or as an average) but by socially *necessary* labor, which can only mean, as several of Marx's writings make clear, the labor that is necessary for *reproduction*, shows in my view that it is absurd to talk of *materialized* labor, since existing commodities cannot give material form to labor that does not yet exist, future labor. If, however, we accept that what commodities "materialize," and what is exchanged on the market, behind the material appearance of commodities, is the claims of their producers, we understand very well that these claims are measured not by the conditions of past production but by those of future production, since it is only by refusing reproduction to certain commodities and transferring themselves from one branch to another that the producers are able to press their claims.[5] The law of value is not a law of magnitudes but a law of relations and of the movement of these relations. *It is ultimately nothing but the law of the distribution of the productive forces among different activities and of the distribution of the product in a society of independent owners (claimants).*

These claims are not to be found on the surface, at the level of circulation

as Bettelheim puts it. Both theoretically and historically, they are *prior* to everything else. But we must not confuse these claims with the legal forms that clothe them and consolidate them in any particular social formation, and which are undeniably *subsequent* in character. Thus, private ownership (which is one of these legal forms, indeed, the most highly developed), as we conceive it today as abstract wealth, is a derived category, being merely the capitalization of a primary and pre-existent claim to income. The first thing that started the long process of dissolving the primitive community and preparing the ground for the law of value was a tribute levied on the produce of the soil by some ruler or bandit.[6] It was the regularity with which this right was exercised, this due collected (it is no accident that the word "due," as in "what is due to someone," that is, "what he has a right, a legitimate claim, to," is also used to mean a tax), and the fixing of its amount in proportion to a certain area of land that led to the idea of the first kind of private ownership, property in land; and it was the capitalization of this right of ownership that produced the "price of land." This shows through in the everyday expressions people use. Thus, it used to be said that land was sold at 20 years' purchase, or at 25 years' purchase, meaning 20 or 25 times the rent, and today they say on the stock exchange that such-and-such a share is selling at 20 or 15 times (its annual earnings), thus revealing the fact that behind the illusion of joint ownership of certain concrete means of production lies the real content of a share, which is merely a claim to a proportionate share in the profits of an enterprise.

It is thus not the appropriation of the means of production that is the cause, and the rewarding of the factors that is the effect, as Bettelheim maintains, but the existence of the factors as claims that leads to the idea of appropriation, as the legal form assumed by the rewarding of the factors.[7] Exchange is not, as Bettelheim supposes, something that complements production at a level external to the latter, and at most a condition for capitalist production; it is an *essential moment* of this production.[8] Once we assume the existence of private ownership, it is not value that leads to exchange, but exchange that necessarily results in value.[9]

Can production be dissociated from exchange? I do not think it can, and I consider that the reproach Bettelheim brings against me, that I situate exploitation in the sphere of circulation and exchange, is ill-founded, since no such "sphere" exists in reality, and every phenomenon is organically included in the entire system of social production relations, in which production and exchange are inextricably interlinked.

If, nevertheless, we agree to distinguish between production relations and exchange relations, as an abstraction necessary for the requirements of analysis, we are then no longer dealing with *social* production relations but with production relations in the basic sense, that is, with the technical process of production and the relations of man with nature. In this case, though production relations certainly do give rise to surplus product, they just as certainly do not give rise to exploitation. Surplus product is common to all social formations that have reached a certain level of development, whether or not they are societies in which classes and exploitation are present.

This surplus product, though the condition and presupposition for exploitation, does not in itself constitute exploitation. The latter begins not with the creation of surplus product but with its *appropriation.*

Now, appropriation, in the context of the distinction just made, is a matter of exchange, not of production. It begins with the contract for the purchase of labor power, made between the capitalist and the worker. This contract Marx himself describes as an act of exchange.

This act does not yet show us definitively, however, who the exploiter is, since the employer who participates in it is not necessarily the only beneficiary of the surplus product that will be created, nor does it show what share will go to each of the beneficiaries, if there are several, nor even the total amount of the surplus product and consequently the exact degree of exploitation suffered by the worker, since this amount depends partly on the material results of the production that is to follow from the labor contract, and partly on the prices that the product will realize on the market. We know at this stage only the worker's nominal wage, whereas exploitation depends on his real wage, which will not be known until after the circulation and realization of the product.

After the contract comes the act of production in the true sense. During this act nothing happens by way of exploitation. The exploitation engendered by the preliminary contract of employment is in suspension, kept on ice, so to speak. Finally comes the phase of circulation and the exchange of the product, in the course of which not only does the "subject," the agent, of exploitation change, since the surplus value produced is partly transferred from one "subject" to another—from the industrialist to the rentier, or to the merchant, or to the banker, etc., and also from one branch to another and from one country to another—but also the volume, of exploitation changes, since the total amount of surplus value is modified

by the prices at which the workers' consumer goods will be sold. *Exploitation is not a fact of production but of appropriation.*[10]

Bettelheim's formulation recalls an old dispute among Marxists about the distinction that has to be made between production relations and *social* production relations. It was Plekhanov who put the matter with precision. Marx and Engels did not always strictly observe this distinction and often used the two expressions interchangeably. Whenever, though, they had occasion to speak specifically about relations of exploitation, they were careful to explain that social production relations are property relations, and frequently they juxtaposed the two concepts, between two commas, as mere synonyms.

In the dialectic of social production relations and productive forces, production relations in the basic sense, that is, the technical relations arising from the material process of production, do not belong with social production relations but are an integral part of the productive forces.

It is this confusion that accounts for Bettelheim's attack on my assertion that social production relations are relations between *claims* on the social product and are nonexistent both in primitive society and in any other nonclass society. It is obvious that production relations, in the sense of the technical organization of labor, exist in any society, with or without classes. But *social* production relations, in the sense of relations of appropriation, exist only in class societies.

Charles Bettelheim vigorously opposes putting on the same footing "socially necessary labor" and "primary incomes" as claims on the product. To take these claims as the primary term is, he says, in contradiction to the theoretical structure of the law of value.

But just try to construct the concept of "socially necessary labor" without using that of abstract labor, and try to "conceive" the transmutation of concrete and complex labor into simple and abstract labor without resorting to the *quantification* of the various concrete forms of labor by means of a reduction scale established through the competition of the factors and the possibility of their passing from one branch to another!

Marx does not undertake to perform this feat. When the objection was made to him that this *reduction* is an abstraction, a trick of analysis, an arbitrary assertion, he answered quite simply that it is a procedure that is *practiced* every day, a fact of experience.[11] Now, what is "practiced every day," in the actual sense that Marx gives to this expression, is nothing but a scale of differential equilibrium payments. *It is only by becoming a simple*

"claim" to an undifferentiated, quantifiable, and thereby abstract share of the social product that concrete labor is transformed into undifferentiated, quantifiable, and thereby abstract labor.

Concrete labor corresponds to a society that does not in any way link up men's productive activity with the sharing of the product; the act of participation in social labor is independent of and without any reference to the act of participation in social consumption. (As I wrote in Chapter 1, in a society like this it is unthinkable to compare a canoe and a cow, just as it is to compare or measure the labor of a carpenter and that of a cowherd.)

Abstract labor, on the contrary, corresponds to a society that closely links men's productive activity with the sharing of the product, so that the one becomes the measure of the other. The problem may be turned this way and that; but *labor can be abstract and universal only as the generator of a claim to a share in society's economic product.* Only in this capacity is it a "factor."

What then becomes in all this of that "something beyond" political economy of which Bettelheim so rightly speaks (in clearer language, what is meant is historical materialism), that which enabled Marx to found, for the first time, real economic science? This "something beyond" consists precisely in the study and analysis of these "established claims," their structure and conflicts, the evolutions and upheavals that determine them, their interaction with the productive forces, their birth and their disappearance.[12] We enter upon this study automatically as soon as we discover that these established claims result from the class struggle. I do not think that in the present work I should go beyond this point. I take these "established claims" as given. My subject is the "exploitation" of one nation by another, not the exploitation of man by man. The former cannot exist without the latter, says Bettelheim, in effect. Whoever dreams of denying this? The very fact that the indispensable condition of unequal exchange is the equalization of capitalist profits assumes capitalism as presupposed. But this does not mean that the former must *necessarily* exist if the latter exists, and this is important, for there is no guarantee that the "exploited" countries will wait for the exploitation of man by man to come to an end in the dominant countries before they shake off the international "exploitation" to which they are subject. They may seek other ways of getting rid of it before that happens.

Impossible, says Charles Bettelheim. There is only one instance of such

a development, namely, Japan, and that was due to altogether exceptional circumstances.

What about the United States, Australia, Canada, New Zealand? Were they not once, even more than Japan, dominated countries with a well-defined "place" in an international division of labor imposed by Britain and endowed with all possible tendencies to "reproduce the international production relations"?

If we challenge the idea of value as an intrinsic quality of commodities, the question at once arises: why must the exchange of commodities on a free market take place, and why does it in fact take place, at a rate that oscillates around a regulating ratio, which, depending on circumstances, is either that of the quantities of labor socially necessary to produce these commodities, or this same ratio as modified by the transfers due to the equalization of profits?

Marx says: two hats are exchanged for one chair. This equation, two hats equal one chair, which Aristotle described as absurd, can exist only if its two terms can be reduced to a third, which is contained in both of them but distinct from either. This common thing can only be the labor socially necessary to produce each of the two commodities. Consequently, the equation denounced by Aristotle expresses the equivalence between these quantities of labor.

The intellect is satisfied. But in the practice of political economy the question arises: if we suppose that the production of two hats requires, under existing social conditions and on the average, ten hours of labor, and that the production of one chair also requires ten hours of labor of the same intensity and the same complexity, *what is it that obliges the actual hatter and the actual joiner actually to agree to exchange their products at a rate that tends, in the long run and on the average, to be: two hats equals one chair?*

This question is not asked in the first volume of *Capital*, that is, when simple commodity relations (hypothetical or real) are being analyzed. It is asked in the third volume, when prices of production are being examined, but even then only as regards the transfer of surplus value from one capitalist to another, that is, precisely as regards the "divergence" between price of production and value. This is what has led a substantial number of economists to consider either that there is a contradiction between Volume 1 and Volume 3, or that price of production is merely a market anomaly.

If, however, this question is not asked and answered, then the conclusion can be drawn that the hatter and the joiner, existing as real persons, are

obliged to conform to a combination of concepts engendered by pure reason—and there we are, in the midst of Hegel's world! This is why Engels feels the need, in his preface to Volume 3, mentioned above (a preface that I agree with Bettelheim in rejecting), to fill in this "gap"; in order to do this, he undertakes a whole historical analysis to show that the quantity of labor contained in each commodity ends by being *known* to the exchanging parties, and that this has been so since the earliest limited markets of the Middle Ages, etc. Engels's analysis fails to achieve its purpose because the question to be answered is not if and how the hatter and the joiner *know* the ratio between the quantities of labor embodied in their respective commodities, but why they *must* fix their respective prices in accordance with this ratio.

(Bettelheim may perhaps say that Marx did not raise this question in Volume 1 because at that stage he was not concerned with the "practice" of political economy, since in practice commodities are never exchanged according to their values but according to their prices of production, and that it is quite in order for this question to be raised in Volume 3 since it is then, and only then, that this practical aspect is examined. I am not so sure about this. There is at least one case where, if we are to believe Marx, commodities *are* really and in practice exchanged in accordance with their values and not with their prices of production, namely, the case of absolute rent—an important case because, in fact, it concerns all agricultural products. Personally, I think that Marx did not ask this question because he doubtless considered that the answer was already contained in the concept of socially necessary labor, which implies a distribution of the factors in conformity with the needs of the moment and with the equilibrating equalization of rewards within each category of claimants. As I have observed earlier (p. 329), unless we take this equalization process into account, the very construction of the concept of socially necessary labor becomes impossible.)

Whatever the truth may be, the answer that Marxists generally give to this question is that what compels the hatter and the joiner, in concrete reality, to allow the ratio between values (or prices of production) to determine their exchanges is *competition*. What competition? Competition on the commodity market, or competition of the factors? This is the crucial question.

We are told that when supply and demand are in equilibrium, hats will be exchanged for chairs in the same ratio as that of their respective

quantities of socially necessary labor. This is untrue. When supply and demand are in equilibrium, the price of hats and the price of chairs may be anything at all, above or below the ratio between values (or prices of production). Everything depends on the quantities of each of these articles produced and marketed, and on the respective elasticities of demand.

If we assume that one franc expresses one hour of labor, a hat may sell at one franc, just as it may sell at ten francs, and the market will none the less be in equilibrium. But what makes the one-franc price unstable in the upward direction, that is, what causes it to engender by itself secondary forces that alter it by increasing it, and what makes the ten-franc price unstable in the downward direction, that is, what causes it to engender secondary forces that alter it by decreasing it, and what makes five francs a stable equilibrium price, meaning that it can be changed only by fresh primary impulses from without, is that, when the price stands at one franc, hatters go bankrupt and leave the trade; when the price stands at ten francs, hatters do too well in comparison with other producers, so that the latter leave their trades; and when the price stands at five francs, hatters make just enough not to want to change their trade, but not enough to make other producers want to change theirs. It turns out that this price corresponds exactly to the quantity of labor socially necessary to produce a hat. Why? Because we have assumed that the direct producer is the only claimant to a share in the economic product of society, and that this labor is homogeneous and competitive, that is, reducible to a simple quantity and capable of being transferred from one branch to another. When these conditions cease to exist, when for one reason or another the hatter cannot become a joiner when he chooses, or vice versa, and that happens often, the real price is freed from determination by value or price of production, however perfect the competition may be on the commodity market, and the "embodied labor" cannot prevent this.

The price that equilibrates *the market* is neither the value nor the price of production, but the market price, that is, a price that may differ substantially from both of these. The value price, in the case of a single claimant (it matters little whether this be a hypothetical case or a real one), or the price of production, in the case of several claimants, are the prices that equilibrate *production*, stopping transfers of productive forces from one branch to another. This is why my analysis, which begins with the factors as *pre-established* claims to a primary share in the economic product

of society, is not an analysis at the level of circulation, as Charles Bettelheim alleges, but an analysis at the level of production.

Actually, the "competition" of the factors is only verbally identical with the competition of commodities. It is this word "competition," perhaps, that gives the impression that my analysis proceeds on the plane of "circulation." The word stands, in fact, for something quite different in these two contexts. In the first case it means the "mobility" of the factors between branches of production. Having said this, I must add that it is true that my analysis contains an *ex post* element, namely, the equalization of equilibrium rewards. But I consider that it is impossible to arrive at the concept of abstract labor—an indispensable link in the process of constructing the concept of socially necessary labor—without this *ex post* element. An entirely *ex ante* reduction of concrete labor to abstract labor is, it seems to me, impossible to effect without resorting to artificial means. Marx himself did not attempt it. (See above, p. 329.)[13]

On the other hand, it is easy to see that if we think of value as an actual substance injected into the commodity by productive labor, we are naturally led to link this labor, and by extension the conditions governing its reward, closely and directly with the *material* conditions of production. (We then unconsciously argue as though a big machine, besides producing more use values, injects more value into labor and, so to speak, produces more wages than a little one.) This is why Bettelheim insists particularly on the *technical* significance of the organic composition of capital and blames me for manipulating Marx's reproduction formulas in an arbitrary way. This is evidently another slip on his part, since I nowhere use the reproduction formulas (which appear in Volume 2 of *Capital*) but only the price-of-production formulas (from Volume 3). The difference between them is an essential one, for what can legitimately be done with the latter cannot be done with the former. In the reproduction formulas the organic composition has a twofold aspect, economic and technical, because these formulas represent the movement both in terms of value and in terms of use values, whereas in the price-of-production formulas the organic composition is merely economic. *It is only on the presupposition of a given rate of wages that the price-of-production formulas represent the technical composition of capital as well as the economic composition.*

With these premises we arrive at the fundamental question that divides Charles Bettelheim and myself. How are wages determined? He says that inequality in wage levels is an effect of inequality in the development of the

productive forces. However, he admits, this determination is not exclusive: there are other elements affecting wage levels—class struggle, international relations of forces, and so on, which operate on the ideological and political level. All these parallel determinations nevertheless confer only a relative indeterminacy upon wages, so that it is not legitimate to treat it as an independent variable.

If I did not know Bettelheim's horror of eclecticism, I would have smelt that when reading this passage. How is it possible to put on the same plane, and bring together as combined causes, on the one hand, the development of the productivity forces, which at best can only mean the *possibility* of an increase in wages, and, on the other, the trade-union factor (the class struggle), which is a driving force in the increasing of wages? I have explained my position on the question of wages in Chapter 3 of this work too fully to need to go over it again. I will merely add that "independent variable" does not mean undetermined variable, nor does it mean extraneous variable: it means predetermined variable. This is what Marx expresses when he says that, despite the *previous* (historical) determinations of the value of labor power, "in a given country, at a given period, the average quantity of means of subsistence necessary for the worker is also given."[14]

Bettelheim does not appear, however, to challenge this point, namely, that *at each moment* the *existing* difference in wages may determine the regulating relative prices (equilibrium prices). What he stresses is that these differences have their source in the uneven development of the productive forces, and he goes on to conclude that the "exploitation"[15] of the dominated countries is based on a certain international division of labor imposed by imperialism, which blocks the productive forces of some countries while overdeveloping those of others.

Now, if we leave out of account the trade-union factor, the development of the productive forces has in itself absolutely no effect on the value of labor power. This is a point that I develop at some length in Chapter 3. I would only add that Marx, when he studied the effect of the development of the productive forces on wages, concluded that this development, far from helping wages to rise, exerted on the contrary a strong downward pressure upon them, and he explained the reasons why: division and simplification of labor, displacement of workers by machinery, destruction of small enterprises and proletarianizing of the middle classes, increase in the organic composition of capital and, consequently, relative diminution

of the share of capital devoted to wages, etc. It was in *this* context that Marx spoke of an absolute *decline*, "due to the ever-greater diminution in the quantity of commodities received by the worker,"[16] a phrase that has given birth to a certain theory of absolute impoverishment in the industrialized countries, refuted by the facts. Yet Marx was not wrong: these are indeed the effects of increasing productivity of labor, *if* we leave out of account the trade-union factor.

But, Bettelheim may object, the trade-union factor itself cannot operate except in dependence on the level of the productive forces and can therefore not be regarded as a primary factor. Here again I must refer to my Chapter 3, where I show, on the one hand, that while development of the productive forces *may* form a favorable circumstance—in no way an exclusive one—for an increase in wages mediated through the trade-union factor, an increase in wages itself acts directly and through the actual working of economic laws in favor of development of the productive forces; and, on the other hand, that the two processes are not interdependent but interact dialectically.

In its various phases this interaction can adapt itself to certain historical time lags, but it is important to stress that development of the productive forces can never go very far in a capitalist country unless institutional factors cause wages to take off from the subsistence level. The example of Japan, cited by Bettelheim, far from invalidating this thesis, merely confirms it. Thanks to a centralized control of the economy that was more or less successful in preventing the excess surplus value from draining away abroad, Japan managed to achieve a certain amount of development despite the country's low wage level. It nevertheless remained, on the eve of World War II, a country at a very low level of development, with quite ordinary growth rates. In 1952-1954, the period at which it can be said that Japan had got back to its prewar level, the country's national income per capita was still only $190 a year—lower than in Mexico, Turkey, and Portugal, hardly better than in Jamaica.[17] Only after this date and especially after 1958-1959, when the substantial increases in wages achieved by an effective trade-union struggle made possible by the democratization of Japanese political life after the war and the considerable increase in the peasants' incomes as a result of the expropriation of the landlords, almost without compensation, had begun to produce their effects, did Japan's economic development take a leap forward, with unprecedentedly high growth rates.

Elaborating his view that wages are determined by the development of the productive forces, and in order, doubtless, to show that this is true even where high wages seem to have antedated this development, as in the United States, Bettelheim quotes a phrase of Marx's where it is said that the high wages in that country in the nineteenth century were due to the abundance of land.

I would observe first of all that "abundance of land" does not in itself express any development of the productive forces, and Marx does not use the expression in that sense. It expresses that meaning even less if, as in the case of the United States, land is abundant not in relation to the indigenous population but in relation to a certain number of conquerors who have exterminated the natives and taken their place, that is, in relation to an historical accident. I would add, and this is the most important point, that what made agriculture in the United States an activity in which men could take refuge, so to speak, thus preventing a fall in urban wages, was not the "abundance of land" but *the free access enjoyed by the immigrants to this land, without having to pay tithe or rent to anyone for the use of it*. This did not apply in Latin America, where the land was just as abundant, but where the conquerors had transplanted the feudal *institutions* of their home countries. It did not apply either for a considerable period in Australia, where, on Wakefield's advice, Britain had introduced a very heavy land tax, the effect of which was to restrict the incomes of the agriculturists and thus make them comparable to urban wages that were acceptable to the capitalists. This explains incidentally why Australia's development lagged somewhat behind that of the United States.

Would it suffice, then, asks Bettelheim, for the underdeveloped countries to increase their wages for their exploitation to come to an end and development to follow? I dealt with this question, too, in Chapter 3 and showed the conditions in which such a measure could indeed set going the mechanism of development. When I see how Bettelheim has formulated this question, however, I am forced to realize that what scandalizes him in my book is that it leads the reader eventually to a recognition that increased consumption brings about greater development and greater enrichment of nations. *That* conflicts with common sense, according to which enrichment is inversely proportional to unproductive expenditure. Under the capitalist system, though, what is true of the individual is no longer altogether true of a closed economic system, for example, world economy as a whole, where there is underemployment of the factors; and it is not true at all of

an open economic system, such as a single nation, where internal consumption, apart from the utilization of underemployed factors, entails the draining off of surplus value and capital from other nations. *No capitalist country has ever become poorer for having spent too much.*

Bettelheim minimizes the possible advantage accruing from unequal exchange. For a gross product of $1,100 billion, the imports into all the industrialized capitalist countries from the underdeveloped countries amounted in 1965 to only $25·8 billion, or about 2·3 percent. As Bettelheim rightly says, it is impossible to give figures for the loss, or the failure to gain, that would be suffered by the advanced countries if exchange were to become "equal". Besides, I must point out that I never said that these countries "would be ruined." But the way Bettelheim presents this figure may give the false impression that the product of unequal exchange is *included in* these $25·8 billion, in which case it would, of course, amount to less than 2·3 percent of the gross national product. These $25·8 billion, however, represent the *present depreciated* countervalue of the imported commodities, and so redressment of the exchange would have to be carried out not *on this side* of the figure quoted but *on the other side of it*. The gain from unequal exchange is to be perceived not by subtracting or dividing this figure but by multiplying it by as much as the wages in the one group of countries are higher than the wages in the other, allowing, of course, for the proportion that wages contribute to the prices of the products of the underdeveloped countries. That could take us a very long way.

On the other hand, Bettelheim does not in the least minimize the harm done by imperialism in general and gives us a long analysis of its actions and their financial, political, and economic effects, which, though an important contribution, I regard as irrelevant to my work. As, moreover, imperialism is not a case of evil for evil's sake and would be pointless if the damage it causes by "blocking" the productive forces in the dominated countries were not accompanied by a profit, even though smaller than the amount of this damage, accruing to the dominant countries, we must suppose that Bettelheim does not regard its economic effects as negligible and does not himself see them as being confined within the limits of that 2·3 percent. He must therefore see them as operating outside these limits. *Now, there is no material possibility of transferring wealth from one country to another other than in the form of a surplus of goods or services*, and every financial transaction, if it has more than mere paper significance, can only be, in the last analysis, a means of bringing about such a surplus. As for

the international division of labor and the specializations to which it gives rise, the latter lead, by definition, to the expansion of exchanges, and it is in and through exchange that their advantageous or disadvantageous character can be measured.

As regards services, they can be ruled out forthwith. However meager the services may be that the dominated countries receive, *they* do not furnish any greater amount of services, since they have neither banks, nor insurance companies, nor international transport organizations, nor tourism of any significance. Only the balance of trade is left, and that, in contrast to what happened with Britain in the nineteenth century, that is, during the period of direct plundering, is constantly passive for these countries.

Under these conditions anyone who hunts around to find the multiple channels whereby value is "drained" from the dominated countries to the dominant ones would be acting like someone who, seeing a gambler go into a casino with 1,000 francs in his pocket and come out a few hours later, still in possession of 1,000 francs, tries to prove to this man that he has lost money, all the same, and proceeds to check up on how much he lost at the baccarat table, how much at roulette, how much of the pool was paid out to him at each game, how many times he changed his chips, and so on. No: if that gambler had 1,000 francs when he went in and still has 1,000 when he comes out, he has won nothing and lost nothing, that is certain. Unless . . . unless the 1,000 franc note he has when he comes out is not the same one that he had when he went in, and, despite their nominal identity, their real value is *not* the same.

In the same way, if every year over a long time the "dominant" countries receive from the "dominated" countries goods amounting to $25 billion and send them the same amount (a fortiori, if they send more, as is actually the case), they can gain nothing; and, though one may well see the harm that imperialism does to its victims, it is not at all clear what benefit it can bring to its promoters. Unless . . . unless the $25 billion imported is not the same as the $25 billion exported, that is, unless an exchange of *unequal real values* has taken place.

Finally, I should like to answer another reproach made by Bettelheim, namely, that my theory is politically dangerous. Sixty-one years ago, Lenin wrote:

> Marx frequently quoted a very significant saying of Sismondi's. The proletarians of the ancient world, this saying runs, lived at the expense of society;

modern society lives at the expense of the proletarians. . . . Only the proletarian class, which maintains the whole of society, can bring about the social revolution. However, as a result of the extensive colonial policy, the European proletarian *partly* finds himself in a position where it is *not* his labor, but the labor of the practically enslaved natives in the colonies, that maintains the whole of society. The British bourgeoisie, for example, derives more profit from the many millions of the population of India and other colonies than from the British workers. In certain countries this provides the material and economic basis for infecting the proletariat with colonial chauvinism. Of course, this may be only a temporary phenomenon, but the evil must nonetheless be clearly realized and its causes understood in order to be able to rally the proletariat of all countries for the struggle against such opportunism. This struggle is bound to be victorious, since the "privileged" nations are a diminishing fraction of the capitalist nations. [18]

What is characteristic in this passage is that Lenin did not see the certainty of victory in the prospect of the "illusions" of the workers in the privileged nations themselves becoming dispersed, but in the fact that these nations were in the minority. In other words he did not say that the revolution would take place in opportunist Britain, after all, but that it would take place *without* Britain.

I can easily see that it is harder to accept such a view today, when the place of "Britain" is held by *all* the industrialized countries, than it was in 1907, when "Britain" meant only a few countries. Nevertheless, the "Britains" are still only a minority in the world. Let us therefore, if we are concerned about dangers, take care not to incur this one: the danger that, by concentrating our revolutionary ardor *inside* this minority group of countries, we may find ourselves, in tomorrow's tempest, *on the side of* the minority. It will not be the first time in history that Rome will have fallen, not under the blows of the Romans but under those of the "barbarians."[19]

Notes

1. Karl Marx, *Capital* (London, 1970), 1: 61.
2. My emphasis, A. E. Marx, *Capital*, Editions Sociales edition, vol. 1, p. 75.
3. It could therefore be said that my disagreement with Bettelheim and my "deviation" from Marxism, if that exists, take the opposite direction from what has been alleged: there is, indeed, only one law—this, however, is not the law of "simple value," but the law of prices of production.
4. This passage appears as a "supplement" to Volume 3 of the English edition.—Trans.

5. "Thanks to the exchange of equivalents, the condition for reproduction is obtained; in other words, the product itself provides, through this intermediary, the possibility of renewing productive activity" (Marx, *Grundrisse*: French ed., *Fondements de la critique de l'économie politique* [Paris, 1968], 2: 117). On the other hand, Lenin could write: "As one of the earlier economists said, value is a relation between two persons; only he should have added: a relation concealed beneath a material wrapping" (*Collected Works*, 4th ed. [London, 1960], 21: 60).

6. This brings us to the idea of violence as a factor in primitive accumulation, as Marx and Engels considered it, in *Capital*, vol. 1, and *Anti-Dühring*, respectively. It goes without saying, however, that violence is not an autonomous or independent factor. For the primordial condition for the levying of this tribute remains a certain degree of development of the productive forces, having the effect of an increase in the productivity of labor sufficient to create an alienable surplus. Without this surplus violence would be pointless.

7. This is, of course, true only as regards the operation of the law of value, that is, leaving out of account other claims that are superadded to the concept of appropriation, such as that of management.

8. Cf. Marx, *Grundrisse* (*Principes d'une critique de l'économie politique*), Pléïade edition of *Oeuvres de Karl Marx: Economie* (Paris, 1968), 2: 258.

9. Cf. Marx, *Notes de Lecture*, Pléïade edition of *Oeuvres de Karl Marx: Economie*, 2: 17.

10. This argument was suggested to me by Ricardo Guastini, Professor at the University of Genoa.

11. Cf. chaps. 1 and 7 of *Capital*, vol. 1, and chap. 1 of the *Introduction to the Critique of Political Economy*, Pléïade edition of *Oeuvres de Karl Marx : Economie* (Paris, 1963), 1: 281, 572, 750.

12. In other words, what is meant is what is called the interaction between production relations and productive forces. Insofar as we speak of production relations that are economic and, consequently antagonistic and not simply technical, these "established claims" are their constituent elements. In the same sense these relations do not exist in the primitive community.

13. In order to effect such a reduction *ex ante* one would have to say, for example, that if one hour of an engineer's labor is worth five times as much as one hour of a laborer's labor, this is because, in the course of an hour's work, the engineer uses up a quantity of grey matter the reproduction of which demands five times the quantity of calories, protein, etc., that is needed to reproduce the muscle and nerve that the laborer uses up in an hour's work.

14. Marx, *Capital*, 1 : 171. (Translation corrected on the basis of the German and French versions—Trans.)

15. Bettelheim disapproves of the term "exploitation" being used to describe the one-sided transfer of value from one country to another, on the grounds that

Marx used this term to mean the purchasing of labor power at its own value and not at the value that it produces. In the generic sense of the word, to exploit someone means to enrich oneself at his expense; Marx was concerned with a particular instance of this. Engels used the word to describe relations between countries, when talking about England: "For a nation which exploits the whole world . . ." (letter to Marx, October 7, 1858). On this basis exploiters may well be exploited in their turn.

16. Marx, *Arbeitslohn* (The Wages of Labor), Pléïade edition of *Oeuvres de Karl Marx: Economie*, 2: 155–156, 160–164.

17. United Nations, *Statistical Papers*, series E, no. 4.

18. Lenin, "The International Socialist Congress in Stuttgart" (August 1907), in *Collected Works*, 4th ed. 13: 77.

19. Out of concern not to overburden this paper, I have refrained from answering some other arguments of Bettelheim's that I regard as of subordinate importance. I reserve the right to do this on another occasion. There is one of them, though, that seems to have a considerable bearing, namely, the assertion that the amount of surplus value extracted from the workers of the advanced countries is greater than that which is extracted from the others, and that, therefore, the former are more exploited than the latter. I consider that we have not been given any proof of this thesis, either theoretical or empirical.

On the theoretical plane, it is true, and I say it myself in this paper, the development of the productive forces exerts, *in itself, and all other things being equal*, a downward pressure on wages. It still remains necessary to prove that other things *are* in fact equal, that is, that other factors, and in particular the trade-union struggle, do not come into play to more than make up for this downward pressure.

On the empirical plane my critic refers, without giving any further details, to statistics that show productivity increasing faster than wages. I wonder if perhaps Bettelheim is referring merely to statistics relating to transformative industry and perhaps also agriculture—that is, if he is neglecting the services sector, which nowadays accounts for 65 to 70 percent of the product of the industrialized countries, and the productivity of which increases very little. I wonder also if Bettelheim is not neglecting, on the other hand, the reduction in absolute surplus value resulting from the reduction in working hours and the substantial increase in social-benefit payments. I am therefore unable to answer in view of the inadequate material put forward.

Appendix III
Preface to the French Edition by Charles Bettelheim

This book is a collection of documents of interest from two points of view. On the one hand, it deals with a number of crucial problems of our time—the problems of the uneven development of different countries and the contradictions that result from this, and those of the conditions governing international exchanges, together with the problem of imperialism, its nature and effects. On the other hand, it enables us to see clearly, owing to the very precision with which A. Emmanuel sets out his views, exactly what the line of demarcation is that divides two positions in relation to these problems. This line of demarcation concerns not merely Emmanuel and myself but a very large number of economists and militants as well. For this reason it is very important to emphasize that the line exists, and not to try to hide it. It is awareness of the existence of this line that makes it possible, not to conduct an illusory "dialogue" but, so far as the militants are concerned, to carry out joint actions. I will explain below what in my view is the nature of this line of demarcation.

The structure of this collection of documents is as follows: the main part consists of Emmanuel's exposition of his views, and this is followed by some "Theoretical Comments" by myself, which are in turn followed by Emmanuel's "Reply" to these comments. This "Reply" to me cannot, of course, claim, any more than what I say in this preface, to "close" a "debate" that has only begun and that, indeed, cannot be closed, given the line of demarcation that divides the opposing views. What this collection of documents contains is (contrary, perhaps, to certain appearances) not a "dialogue" but a *confrontation* of opposing theses.

These are the reasons why this collection of documents takes the form it does, and it seems to me that it is essential to make this plain to readers, as a duty incumbent on me in my capacity as director of the series in which the book appears. Emmanuel fully accepted this when he agreed to my writing the preface to this book. It is doubtless unnecessary to emphasize

that the reasons why a genuine "dialogue" has not taken place also prevent Emmanuel and myself from "seeing" these reasons themselves in the same light. I will therefore speak about these matters as I see them—or, more precisely, as I see them today, that is, after a long period of argument about Emmanuel's views, which has enabled me to see with increasing clarity the nature of the conflict of ideas to which this book gives expression.

To be as brief as possible, and to help readers to find their way in a collection of documents that has become rather bulky, let me say that one of the places where the absence of any dialogue is "most visible" (if an absence can be visible) seems to me to be Emmanuel's "Reply" to my "Theoretical Comments." For my part I consider that this paper of his does not "reply" at all to my theoretical comments, but develops its argument on a different plane and in various directions: a very interesting explanation of some of the *premises* of his earlier argument, and a "refutation" of theoretical positions that he attributes to me, an "attribution" that confirms very clearly that there has been no "dialogue," since, despite his intellectual honesty and strictness of method, Emmanuel sees me as "defending" ideas that are not mine at all. This brings out plainly that what divides us is not just mere "divergences of view," such as may develop on the basis of theoretical positions that are fundamentally shared, but a real "split" between profoundly different theoretical positions.

In this preface I want therefore to help the reader to grasp what is, in my eyes at least, the nature of the theoretical positions that separate me from Emmanuel, and which go deeper than the "discussion" of any particular proposition. This is all the more necessary because very often this "discussion" is not really a discussion at all, since, just because of the difference in our theoretical positions, it frequently happens that the same "words" mean different "things" for him and for me, so that "conflicts" arise that are much more than mere "divergences," a circumstance that makes a true "dialogue" impossible.

What needs to be done in this preface is to focus upon the place where the absence of dialogue is "most visible" and where the *form of expression* itself makes it easier for us to *grasp* the nature of the contrasting theses, and so the division between the theoretical positions that "underlie" them.

As I have said, this place is, in my view, Emmanuel's "Reply" to my "Theoretical Comments." Here he sets out explicitly some of his fundamental positions and, in particular, his conception of "what lies beyond

political economy." For him this "something beyond" consists in the study and analysis of "established claims". He adds that the fact that Marx presented the problem in these terms enabled him to found, for the first time, a real economic science.

Here the division between us is a radical one, even though Emmanuel thinks it possible to draw a distinction between "law" and "claims."[1]

The conflicting theses are, briefly, as follows:

For Emmanuel "what lies beyond political economy" is constituted by the "established claims." As for me, I think that the "something beyond" economic forms is made up of the structure of production relations and productive forces; furthermore, I think (and I am obviously not alone in so thinking) that this is Marx's theoretical position, the position that enabled him to carry out a *revolution in theory*.

What we have here is a question of decisive significance, one that in a sense "governs" all the others, since it concerns *very precisely the epistemological break* that enabled Marx to found the doctrine of historical materialism and thus to replace political economy by a science of modes of production and social formations.

This point "governs" all the others to such an extent and "throws so much light" on our theoretical conflict, that I feel obliged to make my view on the question quite explicit.

It seems to me that when one seeks "what lies beyond political economy" in the realm of "established claims," one takes up not Marx's position (according to which claims, rights, and legal forms, generally, are merely the *expression* of production relations and *ideological forms*), but that of Proudhon, for whom the "right of property" was "prior" to everything else. For Proudhon, unlike Marx, property is thus not rooted in a social structure, but is both based "originally" upon "violence" ("property is theft") and perpetuated by it. It is thus property that "determines" economic and social relations. It is not the *effect* of an economic and social structure but an "original cause" that is endlessly repeated.

Proudhon's position was radically criticized by Marx. We know that it lies "at the root" of ideological development that, though differing widely, all derive from the precritical nature of this position, that is, from the fact that it mistakes a legal *form* and the superficial effect of a structure for a profound relationship. (I will explain this later.) It is of the highest importance to be aware of the ideological consequences, which have been extensively verified by history, of Proudhon's position.

On the one hand, it has fostered, and necessarily fostered, *reformist illusions* (as happened in the case of Proudhon himself, when he suggested "reform projects" to Napoleon III), including a series of illusions about the possible consequences of an organization of credit, a policy on prices and money, and so forth.[2] These *reformist illusions* are due precisely to the fact that *forms* are taken for real relations.

On the other hand, this position of Proudhon's has fostered *anarchist illusions*, since it is possible to "believe logically" that what violence could "create" on its own, violence on its own can destroy. Yet violence is only one factor in a complex struggle and comes to nothing unless, by and through it, men succeed in *establishing* production relations that can *combine* with the structure of the productive forces, and political and ideological relations that can enable them to dominate the development of these forces.

In short, and to express myself in the accepted terminology—which has nothing "pejorative" about it, for this terminology aims to relate an ideological position to a social position—Proudhon's position is a petty-bourgeois one that, depending on the political situation, leads either to a reformist ideology or to an ideology that, though revolutionary, is still petty bourgeois. Fundamentally, I think that this is where Emmanuel is to be placed, as regards his theoretical views.

Marx's position, as "conceived" and "set to work" by the broadest Marxist tradition, finds "what lies beyond" economic forms not in other forms (legal, political, etc.) but in the doubly articulated structure of the production relations and the productive forces.

This structure, like every deep structure (and in contrast to "established claims"), *is not directly visible*. On the contrary, it is *hidden* by the *forms* under which the relations constituting it "manifest themselves" (while concealing themselves). The revolution in theory carried out by Marx consisted precisely in proceeding to *analyze the forms* and *criticize the notions* of the ideology through which the illusory articulation of these relations is conceived.[3] It was in this way, I think, that Marx founded historical materialism, that is, *a new science*. It is for this reason that any use of forms such as was practiced before Marx's revolution in theory can be described as reflecting a "*precritical*" position. When he founded this science, Marx carried through, in fact, an *epistemological break*, which thenceforth has *divided* those who do not follow Marx in his radically critical procedure (even if they think they are following him) from those who see what divides

a "precritical" position from what they themselves consider a scientific one.

For my part I consider, indeed, that what is distinctive of a science is that it goes *beyond forms* and so can give *guidance* to action aimed not at changing forms but at *radically changing the world.* In regard to economic and social relations, a radical change of this order can only be a social revolution aimed at ending the exploitation of man by man. I think that Marx has shown that such a revolution can be carried through only under the leadership of the proletariat. This leadership, as we know, means more than mere action to achieve economic demands; it means political and ideological action, in which the proletariat is guided by the theory of historical materialism, and by the theoretical and political conclusions that have been derived from it by the revolutionary workers' movement in the course of its history.

In my view it is recognition or nonrecognition of the "epistemological break" effected by Marx, and the proletarian class positions derived from this break, that separates A. Emmanuel's position from my own. It is to this same break that there corresponds, in the theoretical sphere (not, of course, in the social sphere), the existence of two currents of revolutionary thought and action, one based, as I see it, on the positions of Marx (and by that I mean the "mature" Marx, the Marx who carried out the epistemological break and founded historical materialism, that is to say, a different Marx from the one who wrote *The German Ideology*), and the other that has remained in, or has "returned" to, *precritical positions.* It is all the more important to characterize the latter current today because it includes certain petty-bourgeois revolutionary movements: anarchists, "ultra-Lefts," and (a point I shall develop in another context) revolutionary trends in Latin America. This current rejects the leading role of the proletariat, substituting for the fundamental conflict recognized by Marxism, namely, that between bourgeoisie and proletariat, another conflict, namely, that between "advanced" countries and "underdeveloped" ones, or between "rich" and "poor" countries.

Recognition or nonrecognition of Marx's epistemological break and of the characterization of this break is also what brings with it all the "theoretical and practical" consequences that the reader will become aware of as he studies this book. This is why I think it essential to stress the point: in my view one's appreciation or lack of appreciation of it will decide whether reading the book proves to be very instructive or, on the contrary, a source of confusion.

Emmanuel's failure to recognize the reality and nature of Marx's epistemological break shows, I think, almost explicitly in some of the expressions he uses. Thus, when he says that he is not concerned with "any kind of orthodoxy," it seems to me that what is indicated here by the pejorative term "orthodoxy" (though scientific problems are involved, an attitude appropriate to religious ideology is referred to) is the position held by those who think it essential to defend the scientific conquests made by Marxism against the ideological counteroffensive with which it is naturally threatened (by the very working of the dominant ideology, through the forms of bourgeois and petty-bourgeois ideology).

True, those who do not see the nature and the decisive importance of Marx's critical and analytical approach may regard this as of secondary significance. They may think that Marx's work produced "results" that can be detached from the procedure that produced them, and then employed in ideological practice, without having to take account of the conditions under which these "results" have a scientific value and those under which they are deprived of their significance.

This last-mentioned "accident" occurs, I think, when the "results" are themselves cut off from the conditions under which they were produced. After that has been done, they do indeed seem to be capable of "combining" directly with ideological forms, even though they were produced by criticism of these forms. This is, in my view, the real content of the false quarrel with "orthodoxy." A. Emmanuel may well be indifferent to what he calls "orthodoxy," and if it were really a question of that, he would be quite right to be indifferent. In fact, however, what is involved, even if he does not see this, is the separation effected by Marx between a new science, on the one hand, and economic ideology, on the other.

Insofar as this series is intended to *assist the development of historical materialism*, the basis of scientific socialism, its director is responsible for emphasizing, to the best of his ability, the existence of the division between science and ideology, and the consequences, implicit or explicit, of not recognizing this division.

I must reply in advance to two questions that may be put to me. Why do you not let the reader "judge for himself" how to place Emmanuel's theses ideologically? And why, if you regard these theses as "precritical," are you publishing them? These two questions call for a reply, which I will set out in a series of propositions.

First, everyone knows that the absence of an epistemological break is

not always obvious. As regards Emmanuel's work, it was not until after a very prolonged analysis that I "saw" the profundity of what at first had seemed to me to be mere "divergences." For a long time, indeed, I thought that he and I had "divergences" of view only on some comparatively secondary questions; for instance, on the precise influence of the structure of production relations and productive forces, on what is meant by the term "unequal exchange," on the precise conditions of this "inequality of exchange" (in particular, on the role that may or may not be played by the organic composition of capital), on the conditions determining wage levels, on the idea of the "bourgeoisification" of the proletariat. Increasingly, however, as I worked for a long period over Emmanuel's book, I came to see that what divided us was more than mere "divergences," that what looked like mere "divergences" was something much more profound: the fact that ultimately Emmanuel, though he uses Marxist terminology (when he refers to price of production, the organic composition of capital, etc.), does this so as to make these terms correspond not to the *concepts* worked out by Marx on the basis of a criticism of ideological forms, but to *notions* that are still those of political economy.

This point is developed in my "Theoretical Comments," and I shall not go over this ground again here. I should like, nevertheless, to draw attention to two passages in Emmanuel's "Reply" where what I have said is, I think, confirmed by the author himself:

1. In one passage Emmanuel says; "I aimed at addressing myself to economists of all tendencies in a common language." Actually, it is not possible to "address oneself to economists of all tendencies" unless one remains on the ground of political economy, on the ground of ideological forms—that is, elsewhere than on the ground on which historical materialism is built.

Contrary to appearances, what is involved here is not a "language" but a "ground": we can speak the language of political economy only if we remain on its own ground. The "language" we speak cannot be divorced from the system of concepts we employ. If we speak the "language" of political economy, this is because we are standing on its ground. Scientific work can be done only by employing concepts that are scientific and are treated as such. In the domain of historical materialism this demands that we make use of the fundamental concepts of production relations, productive forces, process of production, process of reproduction, social

classes. True, at the end of work conducted in this way, we shall "rediscover" the notions of political economy, but their real meaning will then have been *unveiled*, and so likewise the contradictory realities that these notions describe and that make them unsuitable, as such, for scientific work.

Even then it is not possible to cherish the illusion of being "listened to by economists of all tendencies," since the conclusions of an analysis conducted on that level are not directly comprehensible to those who have not undertaken the double leap thanks to which scientific knowledge becomes possible. This is true of all the sciences: their conclusions are not directly "obvious"; on the contrary, they contradict the immediate evidence. It is with the latter that we have to break before we can grasp the truth. The basic difficulty of scientific work consists precisely in the need to break with the false evidence of forms and notions, and so also the need not to fall back onto this ground.

2. Emmanuel's remark that he "nowhere uses Marx's reproduction formulas (from Volume 2 of *Capital*), but only his price-of-production formulas (from Volume 3)," shows, it seems to me, that he treats "prices of production" as empirical notions and not as theoretical concepts, for it is quite impossible to suppose (if one treats Marx's thought as a rigorous conceptual system) that what is true of organic composition in the reproduction formulas is not true as regards prices of production.

The foregoing remarks show that the place, or rather the *level*, of the conflict contained in this volume is far from being immediately obvious—and all the less so because Emmanuel's book is written in a strictly scientific style and yet is at the same time rich in revolutionary feeling. It seemed to me that it would be a great mistake not to locate the field of conflict where I see it. On this basis the reader will be able to make up his mind for himself.

Let me add further that if, despite the nature of the conflict between us, I have thought it right to publish Emmanuel's work in this series, the reason is that the work is of exceptional interest, and this has made it possible to assemble an exceptionally instructive collection of writings. To do this is all the more important at the present time because of the attention that is being given to theses defended by means of the notion of "unequal exchange"—in a great variety of forms, usually much less rigorously argued than Emmanuel's thesis.

As I have said in my "Theoretical Comments," one of the essentially

interesting aspects of Emmanuel's book is, I think, that it brings out the profound inadequacy and illusory character of the classical and "neo-classical" theory of international trade. Because it does this, his book offers what seems to me the most "radical" criticism that can be made of the conclusions of political economy regarding the effects of international trade between countries that are at unequal levels of development, as long as one limits oneself to theoretical positions that are still "precritical"—which does, indeed, ensure that one is "listened to" by all economists. Thus, this book seems to me to set out, within the "precritical" domain, the most advanced conclusions on international trade that can be arrived at while keeping within this domain.

I think we can say that while Ricardo was the precritical economist who, generally speaking, went furthest in working out the theory of this subject, Emmanuel has gone still further, without, however, "breaking" with Ricardo's basic ideas. Emmanuel has been able to effect this remarkable breakthrough because he has managed to embody certain of Marx's concepts (transforming them, as I have already mentioned) in a procedure of the Ricardian type. Even when transformed like this, the "Marxist concepts" have continued to produce propositions of the greatest interest. Henceforth, it is from this point attained by Emmanuel that it will be necessary to go forward, by undertaking a critical transformation of the propositions he has worked out in this way.

The second exceptionally interesting aspect of the work is, I think, that it reveals the limits that any critique of certain conclusions of political economy, if it be undertaken without a fundamental break with economic ideology, is incapable of crossing.

Thereby, this work likewise reveals the concealment effects that ideology produces on the scientific concepts "borrowed" from Marxism when these are "reimmersed" in a precritical setting. This clearly confirms that these concepts can produce a genuine effect of cognition only within the theoretical setting that is proper to them. This is another interesting aspect of this collection of papers, one that I have tried to bring out in my "Theoretical Comments."

I must add that if Emmanuel has been able to advance criticism of the conclusions of political economy regarding the effects of international trade to a point beyond which, I think, it will not be possible to go without abandoning the nations of political economy, this is due both to the strict and rigorous method of his exposition and, above all, to the circumstance

that his approach is sustained by a politically correct attitude. By this I mean an attitude of solidarity with the peoples oppressed and exploited by imperialism.

It is because Emmanuel's political line is one of unreserved support for the struggles of the oppressed and exploited peoples that he has been able to see what the dominant economic ideology is quite incapable of seeing. On the other hand, if he has not been able to go beyond the limits of pre-critical theory, this is, I think, because he has not abandoned positions that belong to petty-bourgeois ideology, and so ultimately to the ruling ideology. That this is indeed the case I find proved not only by his fundamental theoretical positions, which I have already discussed, but also by the propositions that he formulates explicitly in relation to the industrialized countries. In this respect Emmanuel's position seems to me to be clearly irreconcilable with Marxism, since it consists in denying the existence of the class struggle in the industrialized countries (except in the economic form of that struggle, which corresponds to the classical trade-unionist position, that is to say, an "economist," and so non-Marxist, position).

It amounts, indeed, to denying the existence of the political class struggle, and of classes themselves, when one treats the bourgeoisie and the proletariat of the industrial countries as identical, by alleging that the proletariat has "become bourgeois" and so has become "integrated" into the bourgeoisie. A proposition like this can only mean that the proletariat has "disappeared" as a class. Now, we know that for Marx the fundamental contradiction, so far as the class struggle is concerned, is that which sets the proletariat against the bourgeoisie, whereas this contradiction is usually denied by the various petty-bourgeois ideological trends.[4]

It is well known that this rejection of the class line is very commonly accompanied by a tendency to substitute for it a different line of demarcation. Despite his radical political positions, A. Emmanuel often finds himself, whether he wishes or not, in company with the specialists in "under-development," for whom "the great division in the world of today" is that which separates the "proletarian countries" from the "well-off countries," or as it has been put less "crudely," the countries that are "provided for" from those that are less so.

If I stress this "substitution effect" ("countries" instead of "classes"), I do so because it is nowadays very influential among the best elements of the petty bourgeoisie, those who are most radical and revolutionary, and who are capable of joining the revolutionary workers' movement. There is

danger that they may be diverted from this movement by the illusions and mistakes that arise from this "substitution effect." This is why it seems to me impossible to present this collection of documents in an "academic" way, as though it concerned mere divergences of opinion on "problems of international trade."

In reality what is involved is a whole ideological tendency, very broad and very deep, that can divert thousands upon thousands of young people, especially in Latin America, from real struggles in order to lead them into a hopeless battle. Because Emmanuel's book may foster this ideological tendency and the various ideological currents inspired by it, the book cannot be presented to readers in an "academic" way.

Everybody will have understood what I mean—in particular, those political trends in Latin America that reject the need for a theoretical analysis of classes and in practice put their trust in military action alone, without this being subordinated to political guidance. For them the fundamental line of demarcation is ultimately the one between the "advanced" and the "underdeveloped" countries. However heroic and revolutionary these trends may be—and they have proved that they possess these qualities—they are nonetheless dominated by petty-bourgeois ideological tendencies, cut off from the proletariat, tending therefore to isolate themselves from the struggles of the proletariat, and thereby doomed to suffer defeat until they radically change their attitude. It is not accidental that one of the representatives of these tendencies who was most worthy of admiration, from the standpoint of character, courage, and devotion to a revolutionary cause, namely, "Che" Guevara, held views very close to those put forward by Emmanuel (see a speech that he delivered in Algiers).

These same ideological tendencies have not only inspired democratic national and anti-imperialist movements, they have also infected certain political currents among the workers. We see a revival of these political currents from time to time, fostered by the petty-bourgeois ideology that is spontaneous to the working class and at the same time contributing to support this ideology. When these currents develop in a working-class movement that is already strongly dominated by Marxist analysis, they have to "start" from that ideology. This happened with Rosa Luxemburg. It is not accidental that Emmanuel's theses are often very close to those of Luxemburgism, nor that Luxemburgism is nowadays the object of renewed interest among some revolutionary militants in the industrialized countries. For them this ideological trend provides a theoretical basis that

allows them to escape, without realizing it, from the demands of the class analysis that is inherent in the Marxist positions.

We thus see that the ideological trend to which, in my view, Emmanuel belongs forms part of a very extensive ideological "configuration." It has a great past behind it, and doubtless it still has a present and a certain future before it. To its "radical" past belongs Russian populism (Narodism), with its tendency to idealize "precapitalist" production relations, forgetting that these are also relations of exploitation (an approach from which Emmanuel is not free). In the absolutely "nonradical" present of this ideology we find modern revisionism, which also believes (even if it does not admit this) in the "bourgeoisification" of the proletariat. This "bourgeoisification," which corresponds to an ideological tendency, that is, to an effect of domination by bourgeois ideology, is in fact reinforced by modern revisionism.

Standing further back from the tendencies distinctive of the working-class movement or of "ideological radicalism," we see that this configuration has for a fundamental characteristic that *it ignores, explicitly or implicitly, the fact that the modern proletariat is to be found in the industrialized countries, and that it is, to an increasingly decisive extent, the principal producer of wealth.*

More generally still, what is thus "ignored" is both the fundamental contradiction at the level of the class struggle, namely, that between the bourgeoisie and the proletariat, and the fundamental contradiction in social formations, namely, that between productive forces and production relations. From this follows the inability of those who belong to this ideological configuration to understand the material and social effects of the accumulation of capital and, in particular, the relation between the growth in the productive power of labor and the growth in relative surplus value.[5] This gave rise to Malthus's myth, which was revived by Keynes (in a special economic situation), that to "become richer" it is sufficient to consume more. In this way we see denied both the role of the accumulation of capital and the role of the proletariat.

Emmanuel's "Reply" thus lays emphasis on a new form of this myth: that capitalist countries can make themselves richer by spending too much.[6]

This is the point where we must, in concluding, ask some crucial questions. If this "recipe" is good for the industrialized capitalist countries, why should it not also be good for the nonindustrialized ones? The

question could be put in a different way by asking whether the imperialist countries are strong because they consume too much, or whether they consume a lot, or too much, because they are strong?[7]

This would lead on to another question. Are the imperialist countries what they are (that is, countries dominated by big capital, which exploits both its own proletarians and the working people of the other countries) merely because they are "strong," through a sort of "historical privilege," or are they strong because they possess *a vast industrial apparatus by means of which they intensively exploit a numerous proletariat?* And is it not this that enables them to exploit, in addition, the working people of the nonindustrialized countries? And is this not a situation that will last as long as these working people have not freed themselves from imperialist domination—which they will not be able to do except through a socialist revolution, itself impossible without ideological and political leadership by the proletariat?

The question could be put in yet another form. Would it be enough for the peoples who today are under imperialist domination to cut their ties with imperialism, for the wealth at their disposal to increase substantially? Or will it be necessary for them, thanks to the gains they may be able to make in this way, but especially *thanks to the new production relations* their independence will enable them to establish, to develop their productive forces in order at last to enjoy a certain degree of plenty?

I will end my list of questions here. The reader will have to ask himself many more as he studies this collection of documents.

Notes

1. Emmanuel's observation regarding a possible absence of "established claims," *and so of "production relations,"* confirms, in my view, that these claims are for him something different from what Marx meant when he emphasized in his Preface to *A Contribution to the Critique of Political Economy* that, "in the social production which men carry on they enter into definite relations that are indispensable and independent of their will; these relations of production correspond to a definite stage of development of their material forces of production."

2. Reformism does not concern itself exclusively with "economic forms" but also deals with legal forms (transforming private property into state property, for example) and "cultural" ones (relating to the dominant ideology's own picture of itself)—whence, for example, the illusions about "reforms in education."

3. This analysis and critique was not confined, of course, to economic forms and notions alone, but extended to all the others—legal, political, religious, etc. Marx laid the theoretical foundations for this work of criticism and analysis by founding dialectical materialism and began the work concretely by founding historical materialism.

4. Emmanuel thinks he sees agreement between his ideological position and certain passages in Lenin. In this connection he quotes from an article written by Lenin in 1907, on the morrow of the Stuttgart Congress, a passage that in my opinion describes something quite different, namely, certain economic consequences of colonialism, and, above all, certain of its ideological effects on the proletariat (*chauvinism*). Lenin never saw in such effects of colonialism a tendency that would eventually cause the proletariat to "disappear" by "absorbing" it into the bourgeoisie of the "rich countries." On the contrary, he always analyzed the relations between classes in the industrial countries as relations of conflict between bourgeoisie and proletariat, and he always had complete confidence in "the proletariat of all countries" (to use Lenin's own phrase in the passage quoted by Emmanuel.) *Lenin's political activity would be absolutely incomprehensible if that were not so.* Having said this, the problem of the forms of bourgeois ideological domination, and of the ways of struggle against it, is nevertheless a real one: but it is quite different from that of "bourgeoisification" pure and simple, that is, of the "merging" of the proletariat with the bourgeoisie (which would imply that capitalist production relations had ceased to reproduce themselves in the industrialized capitalist countries and had therefore been replaced by others.)

5. Emmanuel's "Reply" contains propositions that show the "unity" between these ideological positions.

6. Let me quote this proposition from Emmanuel's "Reply": "No capitalist country has ever become poorer for having spent too much."

7. Whereas bourgeois ideology tends to believe, with J. B. Say, that production creates its own outlets, petty-bourgeois ideology tends to believe, with Malthus and Sismondi, that consumption creates its own production. We thus find re-edited, so to speak, certain mercantilist illusions denouncing "underconsumption" (by the richest classes), which Keynes "rediscovered" and praised. As we know, it is not a long step to take from there to illusions about "credit as creator of wealth," illusions that (for reasons quite unconnected with the "well-being" of the peoples) also preoccupy certain "monetary" authorities that favor the creation of special issuing privileges.

Within the trade-union movement these same illusions foster the reformist arguments (now being taken up by the CGT), according to which increased wages would make capitalism "work better"—which implies, moreover, that the aim of the "working-class movement" should be to "make capitalism work better."

Appendix IV
Additional Points to My "Reply to Charles Bettelheim"

DISPARITY IN WAGES AND UNEVEN DEVELOPMENT[1]

Some of Charles Bettelheim's propositions in his "Theoretical Comments" do not directly contradict my position, but rather go beyond it. Even if these propositions were correct, they would not disprove the role played by "unequal exchange" as a mechanism for transferring value in a one-sided way from one country to another, though they would detract from the extent to which this process explains the antagonistic nature of international relations and the phenomenon of underdevelopment.

This is why I refrained from dealing with these points in my "Reply," as this appeared in the first French edition of my book and has been reproduced above (Appendix II), where I described them as a contribution that, though important, was *independent* of my own work. However, these propositions of Bettelheim's are not *altogether* correct, and I am glad to have the opportunity of replying to them here.

It is true that the essential condition for the first "industrial revolution" was the emergence of capitalist production relations. Unlike previous societies, in which the development of the productive forces was merely a byproduct of economic activity geared essentially to the present, the capitalist mode of production is carried forward by a class that treats accumulation as an end in itself. From this change there results a sharp change in the way in which labor conditions develop.

It is also true that it was not by accident that Europe preceded the other continents in establishing capitalist production relations. The previously existing social relations prepared the ground for them. Bettelheim attributes this advantage to the peculiarities of European feudalism—which found no parallel elsewhere, it seems, except in Japan—without offering any further explanation. In my opinion the explanation lies in the advanced degree of mercantile development in European societies, which transcended and went beyond feudalism.[2] What, above all, was unique in

human history was the Greco-Roman type of slavery, which we find nowhere else in the world: the treatment of slaves as commodities, combined with the most thorough destruction of tribal collectivism and a sort of primitive capitalism.[3] The essential difference between this type of slavery and the "patriarchal" slavery of the other continents is that the latter usually produces surplus product whereas the former usually produces surplus value. Let me recall that the civil and commercial law codes of today, which fit so well the economic relations of industrial capitalist states, have added but little to the fundamental principles of Roman law.

European feudal relations—the outcome of conquest and of the transplanting of certain structures peculiar to the Germanic tribes—repressed, while conserving in a regressive way, a set of commodity relations (even, in a sense, capitalist relations) from which, in contrast to what happened in the other continents, *every vestige of primitive community relations* had disappeared.[4]

Yet, though a necessary condition, the previous existence of capitalist relations was certainly not a sufficient one for the industrial revolution. At the time when they "took off," the countries of Europe were not merely capitalist, they were also comparatively rich. Centuries of direct plundering had made possible for them a kind of primitive accumulation on an international scale. From the days of those terrible "men from the sea," a strange, vague memory of whom has been handed down to us in early Egyptian inscriptions, to the traders in black slaves of more recent times, and including the Romans, the Vikings, the Crusaders, the Venetians, and the "explorers," the history of Europe's relations with the rest of the world has been one long story of acts of piracy.[5] Thus, at the time when capitalist production relations came to flower, an immense mass of booty had been accumulated, and long before the dates of Rostow's takeoff, Europe was considerably ahead of the rest of the world. While this lead was not yet expressed in the wages received by laborers—a small minority of the population at that time—it was indeed expressed in the standard of living of the average citizen, and also in a substantial degree of development of the productive forces. The latter especially took the form of a high level of training, remarkable achievements in the crafts, and notable progress in transport, both in roads, bridges, and harbors and in land and sea vehicles.[6]

All this, however, is only, so to speak, the prehistory of economic imperialism. My real dispute with Charles Bettelheim begins beyond this

point, when we come to analyze the content of the antagonisms between nations at different levels of development and to explain the conditions for the "expanded reproduction" of these antagonisms.

POLARIZED DEVELOPMENT

Bettelheim's view is not entirely unprecedented. In several recently published writings a number of Marxists have outlined the various elements that go to make up this view. Simplifying somewhat, it can be summarized as follows. In order to ensure the development of the productive forces, it is not enough to accumulate a surplus in value terms. One must, in addition, produce the material means, the specific tools, that enable the productivity of labor to be increased. These are, first and foremost, machines, in the widest sense of the word. It is thus necessary to become industrialized. Industry is not restricted to its immediate natural environment. It is endowed with a special "elasticity" and can reach beyond this limit by importing from abroad such raw materials and means of subsistence for its workers as it lacks, paying for these with the excess products of its headlong expansion.

In order that this exchange may take place, other countries have to specialize in primary production. The first countries to become industrialized thus tend to "block" the industrialization and, consequently, the development of the others by dominating them either through direct political intervention or through the mere impact of trading and financial relations.

Once this system of "places" has been established, the rest just follows and plays only a subordinate role. If unequal exchange exists, it is only a consequence—a consequence of the differential productivity of labor engendered by an international division of labor that is favorable to some and unfavorable to others. The transfers of value that result from this are marginal and insignificant; they are far from covering even the costs of defending the "positions conquered by imperialism"; they merely reinforce the "blocking" of development and perpetuate the system. It is causes, not effects, that need to be dealt with.

IS MECHANIZATION SYNONYMOUS WITH INDUSTRIALIZATION?

In reasoning along these lines we find a series of jumps in the argument and arbitrary assertions of equivalence.

It does not in the least follow from the fact that increased productivity of labor depends on mechanization, and machines are produced by industry, that an indispensable condition for such increase in productivity is *one's own* industrialization. Mechanization and industrialization are two different things. Primary production—agriculture, stockbreeding, fisheries, forestry, mining—can also, broadly speaking, undergo mechanization, and in certain branches within these sectors, indeed, mechanization can be carried even further than in transformative industry.

Belief in the diminishing productivity of agriculture results from a prejudice bequeathed by Ricardo's theory. Today this is being abandoned. There are many statistics and estimates available to disprove the classical proposition about diminishing returns. At random I will mention Andrew Shonfield's calculation that between 1948 and 1958 the rate of growth of agricultural productivity in the United States was between two and three times as high as the average growth rate in other branches. MacDougall evaluates the total increase in real product per hour of labor in the same period as 80 percent for agriculture and 30 percent for the other branches of the economy, which confirms Shonfield. The study published by the FAO in 1959 showed that one hour's labor was needed to produce a quintal of wheat in the United States, as against 54 hours in Japan, 2 hours 45 minutes in the United Kingdom, and 25 hours in Greece —which shows that the "elasticity" of the spread of productivity in agriculture is not less than in industry. It may be objected that the jumps and gaps are here so spectacular because the level of reference is low. This is not so, however. Comparison in absolute terms between the *present* levels in agriculture and in industry is not at all unfavorable to the former. Here are a few figures from a long and detailed series of statistics published by Colin Clark. They relate not to the real product but to comparative indices of value produced in the different sectors, per head of the workers engaged in each of these sectors (see opposite).

Since agricultural prices nowhere enjoy especially favorable terms of trade, and wages in agriculture are not higher than elsewhere, such indices of value produced per worker as 1·52 (52 percent higher than the national average) for Australia and New Zealand, 1·36 for Denmark, and 1·27 and 1·06 for such highly industrialized countries as Great Britain and Germany can be accounted for only if the capital intensity (organic composition), and so the mechanization of agriculture in these countries, is not only not lower but actually higher than in industry.[7]

		Agriculture, forestry, fishing	Mines	Transformative industry
Argentine	1947	1·17	1·20	0·57
Australia	1947	1·52	1·05	0·79
Austria	1951	0·98	—	1·16
Canada	1952	0·87	2·00	1·10
Denmark	1952	1·36	—	0·90
France	1938	1·04	—	1·08
Germany	1953	1·06	—	1·13
Great Britain	1952	1·27	0·98	0·99
Italy	1951	0·92	1·00	1·03
New Zealand	1947	1·52	0·77	1·22
United States	1950	0·79	1·23	1·10

Obviously, these figures relate only to the advanced countries. In the underdeveloped ones the picture is quite different. Since, however, the question that concerns us is whether or not there is an international division of labor that is favorable or unfavorable in itself, what is of interest is not the actual but the potential mechanization of the different branches. If it be found that capacity to absorb technical progress is fundamentally the same in the primary sector as in the others, it will then be interesting to discover why this sector has been mechanized in some countries and yet not in others. It will then be possible to ascertain that it really is the differences in wages that constitute the prime cause of the phenomenon, though Bettelheim wants to relegate them to the status of an effect.

If the primary sector can be mechanized as much as the secondary sector, if not more, it is hard to see why any country should not be able to specialize in the primary branches, importing all the machinery it needs to mechanize these branches and paying for them with the surplus of products thus made possible.

Mechanization, then, does not imply industrialization. For mechanization to imply industrialization, an additional assumption is needed, namely, that for institutional or other reasons it is materially impossible to carry specialization to the point where one imports all the equipment needed for the branches in which one has specialized, together with all the consumer goods that are not produced in the home country.

This seems to be the assumption underlying the argument being

examined, and it seems, *ex post* at least, to be confirmed by historica reality. World trade has never embraced, and still does not embrace, more than a relatively small fraction of world production, and even for the countries situated far above the average level such a degree of specialization seems to be quite unrealistic. For Charles Bettelheim, moreover, even the present level of international trade is excessive, since its "blocking" effect is to be observed even in the dominant countries themselves; so that when, owing to war, for example, industrialized countries are cut off from their sources of raw material, they are "led to develop industries for the production of substitutes [which] . . . generally prove capable of supplying something more than substitutes."

DOES INDUSTRIALIZATION IMPLY INDUSTRIAL "SPECIALIZATION"?

If this limit to specialization be taken as given, then we can say mechanization and, consequently, development necessarily imply industrialization. *But, from the very fact that this limit is a datum that it is neither possible nor —according to Bettelheim himself—desirable (for anyone) to exceed, it follows that specialization in agriculture, or in primary production generally, on the plane of the international division of labor, is an obstacle neither to industrialization nor to development, since it is accepted that foreign trade affects, in any case, only a small part of national production.*

A choice must be made: either specialization can proceed without limit to the stage of complete monoculture, and then, if the aim of development is not to achieve a landscape of factory chimneys and power pylons, but to raise men's standard of living, and *if exchange is assumed to be equal*, it is hard to see why a country that produced nothing but roses, and exchanged them against the machinery needed for rose-growing, together with all the consumer goods in the world, should not be as highly developed and as happy as any other; or else specialization can in no case go beyond a certain percentage of a nation's labor (if only for the simple reason that in some branches the act of production coincides physically, in time and space, with the act of consumption), and then it is hard to see why a country that specializes in some kind of primary production cannot apply the rest of its national labor to secondary or tertiary production.

When supporters of the doctrine under examination are shown that agricultural *specialization* has not hindered the development of such

countries as Australia, New Zealand, or Denmark, they retort that these countries are agricultural only as regards the structure of their exports, whereas in the internal structure of their economy—for example, the distribution of the people among occupations—they are thoroughly industrial countries.[8] How kind of them to admit this! We had indeed suspected that there was no structural connection between, on the one hand, "places" in "world production relations," and, on the other, development, even if development were to imply industrialization.

Assuming that foreign trade is restricted, a country has to produce for itself not only some of the machinery needed in order to increase the productivity of labor, but also some of the industrial consumer goods it needs. The higher the level of development, and, consequently, the higher the level of ultimate consumption, the greater is the proportion of industrial to agricultural products entering into this consumption. It is thus clear that if, at a certain level of a country's development, industrial products make up, say, 70 percent of consumption and if foreign trade cannot exceed 30 or 40 percent of production, this level cannot be attained unless some of these goods are produced on the spot, that is, unless the country becomes industrialized. This is mere tautology. The real problem is whether or not the fact of *specializing*, in the international division of labor, and so in international exchange, in some kind of primary production, the fact of occupying, to use Bettelheim's terminology, a certain "place," is compatible with industrialization and development. The example of the countries mentioned, to which, if we go back to the nineteenth century, we can add several others, such as the United States and Canada, and the explanation of this that is given by those who claim that industrialization is essential, prove that it is indeed compatible.

Australia, New Zealand, Denmark have kept their "place" as agricultural and primary producers in the international division of labor. Nevertheless, they have become industrialized, advanced countries. Yet this has not happened with India.[9] There must, therefore, be another factor at work.

Up to now nobody has to my knowledge explained how countries so thoroughly "blocked" as were Britain's colonies of settlement proved able not merely to escape from this situation but to surpass by far the level of their former metropolitan country. It is surprising that a writer like Gunder Frank can put forward such an outrageous proposition as this: "The development of the British ex-colonies in North America and Oceania was rendered possible because the ties between them and the European

metropolis at no time matched the dependency of the now underdeveloped countries of Latin America, Africa and Asia."[10]

One must really be short of arguments to have recourse to such historical untruths. In 1710 the first attempt to set up a small textile manufactory in North America was vigorously condemned by an act of the British Parliament. In 1732 the transport of hats from one province to another was forbidden, in order to prevent this branch of craft production from becoming an industry. In 1750 a ban was placed on the establishment of any enterprise where iron was worked. In 1765 emigration of craftsmen and skilled workers to North America was made illegal. In 1770 Lord Chatham declared that he would not allow so much as a horseshoe to be made in the colonies. Many more examples could be quoted. If this is not "dependency" and "blocking," what is? But what about Latin America—did the Spanish government impose no bans? Yes, indeed: on olive trees and vines!

TECHNICAL COMPLEMENTING

There is direct and indirect blocking. Bettelheim emphasizes the latter. However, he proceeds by way of assertions rather than proofs. Since a negative cannot be proved, discussion of views set forth in this way becomes very difficult. One thing is certain: though he agrees that wages and prices do play a certain part, Bettelheim relegates them to the end of his etiological chain. The same applies, more or less, to the social and political regimes in the underdeveloped countries. These factors play a certain role of "overdetermination" and "consolidation"; they ensure the "reproduction," possibly on an expanded scale, of existing inequalities. What ensures their "production," however, "the element that determines the polarized development of the productive forces within capitalist world economy," is "the existence of a specific material basis," closely linked with "the use of machinery," to employ Bettelheim's own terms. He does not define this in any other way. What we have here, and in the writer's own mind, is evidently less the formulation of a theory than the outline of an approach to the problem. If, however, the words have the same meaning as I give them, this "specific material basis" can only be a set of special physical connections between certain branches of production, and between these branches, on the one hand, and technical progress, on the other.

Here we encounter views that have recently been formulated in many

different variants by a large number of economists—indeed, they already constitute a school. According to this conception, there are certain industries that are technically interdependent and that, by complementing each other, provide "external economies" (Hla Myint); "strategic sectors" where the network of input-output flows is densest, in the sense that the bulk of both inputs and outputs is bought from and sold to other industries (Albert Hirschman). These branches, described as "dynamic", "driving", etc., depending on the particular vocabulary of the writer—the "industrializing" industries, to use the more expressive term employed by G. Destanne de Bernis—are said to bring a "long-term advantage," in contrast to the "short-term advantage" of the momentary rate of exchange, as Maurice Byé puts it.[11]

As far as the material offered up to now is concerned, all this is merely a series of assumptions that are hard to disprove theoretically just because they themselves lack any foundation of proof. One can therefore only confront them with the facts.

If this kind of argument were sound, the most "dynamic" and "industrializing" branches, the most prolific in "long-term advantages" and "external economies," would be raw materials and fuels, since they are situated both upstream of all the rest and at the most "strategic" point of industrial interdependence, buying all their inputs from and selling all their outputs to other industries.[12] On this basis coal in former times and oil today would be unchallengeably the cocks o' the walk. Coal used to be one of Britain's major exports, but if "polarization" and "blocking" took place, it was not with coal that Britain did this, but with textiles, which is a downstream branch and supplies only finished products to the consumer. Today both oil and textiles are produced and exported by the underdeveloped countries, yet neither of them helps these countries to "take off."

Forest products and iron ore made up, about fifteen years ago, over half of Sweden's exports, and they still account for a substantial percentage. Sweden is none the worse off for that. But this is not the case with the countries that export copper or fats. It is by concentrating all their efforts on a small number of primary products that New Zealand and Canada have profited from foreign trade. Yet it seems that monoculture, or "oligoculture," does not succeed in the underdeveloped countries.

Besides, the share of the underdeveloped countries in the total value of exported primary goods (excluding what are now the socialist countries)

was only 35 percent in 1913. It amounted to 47 percent in 1953. In the same period the total value of exports from Africa and Latin America increased tenfold, while the rich countries of Australasia, and even of Europe and North America, continued to supply a considerable proportion of the world's exports of primary products. It is impossible to see in these figures and the way they have evolved the slightest intrinsic disadvantage attaching to primary products.

THE SOCIO-POLITICAL FACTOR

At this point in our analysis, there is, of course, no reason why the "initial" international division of labor should not be seen as the determinant, with the fact that Britain's ex-colonies have escaped from "blocking" attributable to special historical circumstances, which countered the action of the first factor. That would be a curious coincidence, but not out of the question theoretically. However, the intervention of neutralizing factors could, at best, explain how these countries caught up with Britain; it could never explain how they surpassed her, which is what they have done.

It may also be objected that in the case of Latin America it was the feudal institutions transplanted there by the Spaniards that prevented takeoff. I shall return to this point later. But we have another of Britain's ex-colonies available for comparison: South Africa, where the capitalist production relations transplanted were as pure as in North America and Oceania. Yet South Africa has not followed in their wake. Another factor must thus have been at work in this case, too.

On the other hand, we have the case of Japan, where, according to Bettelheim himself, the most propitious socio-political conditions were present. What is more, this country was on the eve of World War II, already industrialized. *But it nonetheless remained an underdeveloped country*, if by development we mean something more than a landscape and an atmosphere.[13] Japan began really to develop, and at an unprecedented rate, only after the war. Here, too, another factor was at work.

This factor must be sought in the direction of profitability and value. No solution can be found so long as we leave out of our analysis this factor, which is essential in our search for the intrinsic links between initial specializations and the development of the productive forces.

PRICES AS THE VEHICLE OF TRANSFERS

In order to improve the output of present labor, we need the product of past labor, whether this be our own or that of others. It is not by osmosis that a tool produces a tool, or by parthenogenesis that "place" creates wealth. Not mysterious and ill-defined "blocking" forces, but economic ebb and flow, make it possible that "one nation can grow rich at the expense of another."[14]

Economic ebb and flow between nations, whether in capital, value, or surplus value, can be effected only through the medium of goods and services. It is thus materially impossible for one nation to exploit another without some degree of inequality in the exchange of goods and services between them, whether this inequality affects the total volume exchanged, and the total amount of value corresponding to this, or whether it affects the actual unit prices of these goods and services. In the former case we have an obvious transfer of capital in return for securities; in the second we have a hidden transfer of value without anything at all being given in return.

Consequently, if a country's trade balance, visible and invisible, is neutral or negative, this country can be exploited by its trading partners only if unit prices are implicated.[15] Everything else is merely the paper work of bankers and the verbal acrobatics of economists.[16]

THE EFFECT OF NONEQUIVALENCE

What is the quantitative importance of these transfers? Is it great or small? It is what it is. If it appears small and disappointing to some theoreticians of economic imperialism, I cannot help that, and there is nothing more to be said about it.

But in fact it is not small. Charles Bettelheim has made a simple mistake in arithmetic. The sum of the prices of the goods exported by the Third World to the advanced countries is, he says, about $25 billion, whereas the national income of the latter group of countries exceeds $1,000 billion. From this it would follow that the gain made by the advanced countries must be less than 2·5 percent.

According to this method of calculation, if these prices should fall still further tomorrow, so that the Third World receives no more than $12·5 billion for the same amount of goods, the total gain made by the advanced

countries will be cut by half. And so on and so forth, with any further reductions! The more the terms of trade of the underdeveloped countries worsen, the more negligible, according to this method of calculation, will be the gain made by the advanced countries. . . . Is it necessary, then, to reiterate that that sum of $25 billion represents the *present depreciated* value of the Third World's exports? That its loss, and the gain accruing to the other group of countries, is not to be looked for on this side of that sum but on the far side of it? The fact that the present value is only $25 billion in no way prevents the plundering that arises from unequal exchange from assuming the dimensions of 200 or 300 billion. Everything depends on our estimate of the amount by which present value has been reduced.

If we assume that wages account for 50 percent of the cost of these exports, and that the relevant rate of wages is one-twentieth of that prevailing in the advanced countries, a simple calculation will show us that the difference between the present value and the equivalence value is not a difference in tens of thousands, but in hundreds of thousands, of millions. If 50 sacks of coffee are at present exchanged for one automobile, whereas, in order to pay coffee plantation workers at the same rate as workers in the automobile industry, 50 sacks would have to be exchanged for 10 automobiles, the loss suffered by the coffee producers and the gain made by the other party in this transaction are not *less than* the value of 50 sacks, but *nine times as much.*[17]

WAGES AS THE INDEPENDENT VARIABLE

My entire study of unequal exchange is based on the premise that in exchange it is not the incomes of the producers that depend on the relative prices, but the relative prices that depend on the incomes of the producers, that is, on the predetermined "income" of the labor factor, since the income of the capital factor is only a residue, and whatever incomes of other factors there may be result merely from the redistribution of this residue. This premise, like its opposite, or like the basic premise of any other theory, can be proved only empirically. This is what I have tried to do in this book. Since, however, the point constitutes the crux of my dispute with Bettelheim, I think it proper to add a few words to what I have said about it.

Any system of analysis must ultimately be based on one or more *data* taken from outside this system. These data are independent variables

Without them analysis comes to a dead end and argument becomes circular. The search for the foundations of value is no exception to the rule. "It must go on," said Tugan-Baranovsky, "until we have reached facts lying outside the realm of economic science."

Thus, no theory of value is to be blamed for resorting to such data. For the marginalist-subjectivist school these predetermined data are men's needs. On this basis it is demand that determines the prices of goods, and the prices of goods that determine the prices of the factors, and therefore wages. For the classical-objectivist school, these data were the costs of production, themselves determined in the last analysis by the cost of production of labor power, that is, by the basket of goods *biologically* necessary for the worker. It was therefore the real equilibrium wage that determined the prices of products and constituted the independent variable of the system.

And so true is it that no theory of value can be laid down without its system of analysis being "anchored" to an external datum that when Marx wrote: "there enters into the determination of the value of labor power an historical and moral element," thus demolishing the *biological* foundation accepted by Ricardo and his school, he immediately sensed the objection that would be raised. Is not this "historical and moral" element itself determined in the last analysis by the *economic* evolution of society, and does it not thus close the series of determinations within the confines of our system of analysis, that is, within the circle that the *biological* factor of the classical economists had allowed us to leave? What then becomes of our datum, our external anchor? And Marx hastens to add, in the same paragraph: "nevertheless, in a given country, at a given period, the average quantity of means of subsistence necessary for the worker is also given."[18]

WAGES AND DEVELOPMENT

I cannot here go over again in detail my arguments showing that wages are the independent variable, and prices (and so the terms of trade) the dependent variable of the system. These arguments are developed from one end of this book to the other. I will merely say that if this determination is accepted, all the historical phenomena that the theories of demand and those of "blocking" leave unexplained are easily explicable: as, for instance, the distinct destinies of Britain's former colonies and dependencies.

Actually, this *case* is a gift from history to economic science. Laboratory experiments, in which one successively isolates the different factors and then reproduces the phenomenon in its pure state, are out of the question for human sciences. Besides, since the cause produces its effect immediately, the two coexist in time, and it is impossible to prove empirically which determines which. How can one prove that it is high wages that determine development, or vice versa, since each country has, at any given moment, the wages that correspond to its degree of development and the degree of development that corresponds to its wages?

And now, lo and behold, here we have an historical accident that reproduces the conditions of a laboratory experiment! Men set out to build, *ab ovo* so to speak, integrated and independent societies in an economic vacuum. And a series of interesting phenomena ensued. The emigrants were by no means the best or most productive people in their home country. Most of them, indeed, were unemployed, social rejects. At the start they possessed no capital. But they brought with them a relatively high standard of living, together with additional demands justified as compensation for having left their native land. Their labor power was much more expensive than that which stayed behind.[19] Not only did these communities develop rapidly, they overtook and surpassed their country of origin.

This did not happen in Latin America, where not only was the emigrants' standard of living lower to start with, but the partial survival of the natives, and interbreeding between them and the colonists, kept the value of labor power at a low level. And if we are to take into account the feudal institutions (themselves subject to controversy) of which I spoke earlier, what did these mean in practice? This: that the Spanish *conquistador* had a choice between taking employment as a wage earner, and cultivating a piece of land burdened with tithes, taxes, or rent; whereas the British "adventurer" had a choice between taking employment as a wage earner and cultivating free land. It can therefore be said that these *feudal institutions* were, in the last analysis, only a supplementary factor in the differentiation of wages between Latin America and North America. Inside North America itself the slaveowning states of the South developed much less rapidly than those of the North, not only during the period of slavery, owing to the low cost of the slaves, but even after the abolition of slavery, owing to the low wages of the freedmen.

If we compare the British colonies of settlement with Britain's other

dependencies, which experienced the same constraints and the same direct and indirect "blocking," but where the workers were natives receiving very low wages, the difference in evolution leaps to the eye. Here, for example, is India, "compelled to produce cotton," and Australia, "converted into a colony for growing wool." Even among Britain's five colonies of settlement, though, there is a notable exception: South Africa. With resources just as rich and a climate just as healthy as the four others, with settlers of the same stock, linked with the same source of capital and the same financial and commercial networks, South Africa has only succeeded in becoming a semideveloped country. One factor alone was different here, namely, the fate to which the native inhabitants were subjected. Instead of being exterminated, as happened in the other colonies, they were relegated to the ghettos of apartheid, while still being employed as workers. The result has been that, despite the high wages of the white workers, the average rate of wages in South Africa has remained far below that prevailing in the other colonies of settlement.

Finally, we have Japan, to which Bettelheim refers and which I have discussed above. Only after the postwar liberalization of the regime in that country, and the substantial rise in wages achieved through the trade-union struggles thus made possible, was Japan, though already industrialized, able really to develop, with unprecedentedly high growth rates.

The capitalist world cannot show a single instance of a high-wage country that has had to reduce wages owing to failure to develop, or a single instance of a country that has been able to develop while keeping wages low.

Several questions now arise:

1. Would it be enough to improve the terms of trade, by increasing wages, for development to follow?

Certainly not. However substantial may be the transfer of value engendered by unequal exchange, and even if we take into account not merely the immediate and momentary impact this has but also its cumulative effect from year to year, this transfer does not seem to be sufficient to explain completely the difference in standard of living and development that there is today between, on the one hand, the big industrial countries, and on the other, the underdeveloped ones. To find the reason for this we must look at the movement of capital and the international division of labor.

These two factors do indeed include forces that *block* the development

of the Third World. *But it so happens that the same cause, that is, the disparity between wage levels that produces unequal exchange and thereby, indirectly, a certain unevenness of development through the draining off of part of the surplus available for accumulation, also produces, directly and independently of this draining off process, uneven development itself, as a whole, by setting in motion the mechanism of these blocking forces included in the movement of capital and the international division of labor.*

MOVEMENT OF CAPITAL

Since the prime problem for capitalism is not to produce but to sell, capital moves toward countries and regions where there are extensive outlets and expanding markets, that is, where the population's standard of living is high, rather than toward countries and regions where the cost of production is low. It thus moves toward high-wage countries, neglecting those where wages are low. This is true not only of foreign capital flowing in but also of the small surplus formed locally in low-wage countries. Unable to find attractive investment opportunities on the spot, owing to the narrowness of the market due to the low wage level, this local surplus is either wasted in luxury consumption or is expatriated and invested abroad, bringing about those movements of capital that have been called "perverse" because they run from countries where there is a shortage of capital to countries where it is plentiful.

THE INTERNATIONAL DIVISION OF LABOR

If there are some specializations that are advantageous and others that are not, on a structural and long-term basis, and not merely for conjunctural reasons due to the passing phenomena of fluctuations in demand and prices, or to some kind of vague and ill-defined technological "dynamism," we possess only two criteria whereby to distinguish between them. These are the organic composition of capital and the organic composition of labor, that is to say, on the one hand, the proportion of capital to labor, and, on the other, the proportion of skilled to unskilled labor that a branch is able to absorb in the present and the future.

Labor is not the only factor in the production of use values—a point that Marx himself stressed in his *Critique of the Gotha Programme*—nor is it the scarce factor, in the market sense of the expression. Even in the least

highly populated countries it is the man seeking employment who chases after the employer, and not the other way round, whereas even in the countries best supplied with capital it is the borrower who chases after the lender, and not the other way round. But labor is the only factor that is physically limited in relation to the number of inhabitants, and so in relation to the number of mouths to be fed. A given society may possess any quantity at all of instruments of production, previously produced by man himself, and it may possess any quantity at all of land—but whatever it may do, it will never possess more than one pair of hands per adult member of society, or more than a given amount of physical labor time per pair of hands. This is why productivity of labor is the only relevant magnitude for measuring degree of development.

Seen in this way, there are only two means by which to increase the volume of production of a given society, and thereby its level of consumption and material well-being: (1) increasing the quantity and quality of the tools put at the disposition of each pair of hands, and (2) increasing economic labor time as compared with physical labor time, that is, increasing the quality of labor as compared with its quantity. The first ratio is expressed in what Marx called the organic composition of capital; the second, in what I have, in this book, suggested should be called the organic composition of labor.

All branches of production do not, however, possess the same capacity for absorbing capital per head of the workers employed or for employing highly skilled labor as a proportion of the labor force. The most modern of textile mills uses less capital and fewer technicians in relation to the total number of workers it employs than does the most backward of chemical works.

Now, all other things being equal, the private investor, motivated solely by the desire to maximize his profits, selects in each country those branches that absorb the largest proportion of the factor that is relatively cheapest; and, within each branch and as far as possible, he also selects the techniques that involve the greatest use of this same factor. (Note that what is meant here is the cheapest factor, and not the "most abundant" factor, as the Heckscher-Ohlin theorem puts it. If my analysis of the "institutional" determination of wages is correct, the one is not necessarily the same as the other.) In low-wage countries, therefore, he will choose the branches and techniques with the lowest organic composition of capital. But he will also choose those with the lowest organic composition of labor, since the

lower the general wage level, the wider is the range of wage differentials, so that in practice it is only the unskilled and barely skilled categories whose wages are low, the rest of the workers being paid at more or less the same rate everywhere.

Thus, low-paid laborers keep machines and engineers out of the underdeveloped countries, while machines and engineers take the place of highly paid laborers in the advanced ones. This substitution of one factor for another, caused by market forces alone, is the most dynamic element in the blocking of subsequent development in the first group of countries and in the accelerated growth in the second group, the combination of these two effects being what Bettelheim calls the expanded reproduction of world production relations.

This does not mean that we must underestimate other factors in the direct or semidirect blocking of development, such as the old colonial system, or the obstruction of development in certain areas that can be effected, under conditions of monopoly capitalism, by interest groups already established in these areas. When in the eighteenth century Britain forbade by legislation the establishment of some industry or other in her North American colonies, or when she prevented India from imposing any customs dues on Manchester textile goods while herself imposing high tariffs against Indian textiles coming into Britain, these were acts of state that blocked the development of North America and India regardless of the workings of free trade and competition. One may suppose that the Société Générale de Belgique would similarly not have viewed with favor the establishment of a copper refinery in Katanga, since Katangan copper is refined in Belgium in the works at Hoboken belonging to this same group. And one may also suppose that it possessed certain means, before the Congo became independent, and even afterward as well, whereby it could exert pressure to thwart any project of that kind.

One thing is certain, however: despite this kind of obstruction, *everything that was really profitable from the standpoint of pure capitalist rationality and the search for profit succeeded in getting through.* The classical example is textile production. If there was one thing that clashed head on with the interests of the first capital invested in Africa and elsewhere, it was the local manufacture of textiles. Since textile products alone made up 30 to 40 percent of all the goods imported into these colonies, the establishment of textile mills, with the introduction of protective tariffs that this would automatically entail, must literally take away the livelihood of the

great trading companies like the CFAO, the SCOA, the Compagnie du Niger, the SEDEC, and so on, whose chief activity was importing and exporting. And yet textile production was established in these areas. How did this happen? By taking advantage of the occasional weaknesses and the interstices of the system. For "monopoly" capitalism is not as omnipotent or monolithic as is generally believed. Who enabled it to happen? Sometimes other groups of monopolists who were not already involved in the area; sometimes, and especially, outsiders, well-to-do settlers, individual capitalists who had no ties with big financial capital—Jews from Rhodes and Greeks in the former Belgian Congo, Pakistanis in Uganda, Kenya, and Tanzania. Why did it happen? Quite simply, because it was profitable. Not only is the textile industry an industry with a low organic composition both of capital and of labor, so that a low cost price can be achieved thanks to low wages, but also in these poor countries, just because they are poor, the entire consumption of textiles amounts essentially to two or three basic items, even the smallest market for which is enough to maintain an enterprise that specializes in them.

Nor was only textile production involved. A whole series of other light industries enjoying more or less the same advantages followed in the same way. Something that economists have said too little about is that there really was a wave of industrialization in the Third World between 1920 and 1960, with quite remarkable annual growth rates, ranging from 6 to 10 percent for gross industrial production and from 5 to 8 percent for net industrial production—percentages that were higher than those prevailing in the advanced countries, themselves higher than had ever been known before. Once the list of these branches was exhausted, however, saturation set in, and since 1950 we have seen a net slowing down that has brought to the fore again that famous "blocking" of development that is characteristic of capitalism in the peripheral countries.[20]

Why has this blocking happened? Why have the industries producing textiles, footwear, and food not been followed by those that produce the machinery they need, and the steel required to make this machinery? Why has not a copper refinery been set up in Katanga? Quite simply, because the wages and so the standard of living of the population of these countries being low, these consumer-goods industries have not developed extensively enough to provide adequate outlets for a local heavy industry, and also because this heavy industry would entail such high organic compositions both of capital and of labor that the low wages of the local

laborers would not compensate, by keeping down the cost of production of the product, for the extra costs of the fixed capital resulting from installation expenses, which are higher in these countries, and the extra cost resulting from the high "overseas" salaries payable to the foreign technicians who would be needed.

In the last analysis, and apart from some direct interference of a political or, in general, extraeconomic kind, which may considerably aggravate the tensions, what determines the blocking of development in the Third World, at bottom and in the long run, is the absence there of opportunities for new investment, the lack of profitable projects. Some international organizations explicitly complain about this when they often encounter difficulty in investing even the small amount of capital at their disposal, which they would like to invest, if only to justify their existence, and despite their subordination to imperialism.

Market forces thus seem adequate to explain the "blocking," and this is perhaps why the great metropolitan countries have in recent times allowed these forces to "take over" from the direct government of the former colonies, now surrendered.

It would, of course, be possible to blame imperialism and neocolonialism for not stepping outside the rules of the free-enterprise game and ensuring, by state action, regardless of and in contradiction to capitalist profit-seeking, a planned, locally centered process of development of the various countries of the Third World. That would mean, however, criticizing not imperialism but capitalism itself, and it would be absurd to blame imperialism for not having lavished all sorts of benefits on its victims.

We live under the capitalist mode of production, and this is the logic of that system: when a group of countries increases its national wage level, it gains and causes the rest of the world to lose in two ways—by buying their products cheaper while selling their own dearer, and by mechanizing, so as to suck in capital from the other countries and make it hard for them to mechanize and train their workers for more highly skilled work.[21]

THE ENCLAVES

Why is it that European capital in the United States and Australia, and United States capital in Canada, have benefited these countries by developing their economies, whereas in the Third World they have played a harmful role by forming enclaves? An enclave merely means a foreign

investment that refuses to participate in the country's process of expanded reproduction. In less learned terms, it is an investment that restricts itself to the self-financing of the branch in which it is installed and then, once this expansion has been accomplished, repatriates the whole of its profits.

The Société Générale de Belgique installed the Union Minière in the Congo and Canadian Petrofina in Canada. The former exploits copper mines, the latter oil wells. When the investment has reached its maximum potential, Canadian Petrofina uses its profits to establish a refinery: for this purpose it even increases its capital, or it sets up a sister company, inviting its Belgian shareholders to subscribe to this by sending back to Canada the dividends previously paid to them. For several years Canadian Petrofina refrains from paying any money dividend and instead grants stock dividend. This is not displeasing to the Belgian shareholders since, unlike dividends paid in money, a stock dividend is not subject to income tax. Then the company interests itself in the distribution of oil products and buys a network of selling points. Next, it sets up a petrochemical industry, followed by a works to produce tank cars; and, after that, what? Perhaps a chain of department stores, or else a shoe factory. If the company does not do this, its shareholders will, by instructing their bankers to use the product of their dividends to purchase a wide variety of shares on the Montreal stock exchange. The Belgian shareholders receive pieces of paper and credit notes and that satisfies them, but their capital is Canadianized.

In contrast to all this, the Union Minière du Katanga, once its program for equipping its copper mines is completed, ceases to expand and pays its dividends in money. It becomes an enclave. Why? Are we really to suppose that the heads of the Société Générale in Brussels are solely concerned to overdevelop Canada and "block" development in the Belgian Congo? The reality is different. The simple fact is that in Canada the high standard of living of the people, resulting from the high wage level, constitutes a market for all sorts of products, whereas wages and standard of living in the Congo are such that there is nothing there to interest any fairly large-scale capitalist—nothing except the extraction of minerals or the production of certain raw materials for export that have inevitably to be sought where they are to be found.

This situation is the effect, not the cause, of low wages, even though, once established, it becomes, through the capitalist logic of profit-seeking, a cause in its turn by blocking the development of the productive forces

and, consequently, the process of creating conditions propitious to trade-union struggle for the raising of wages.

Crippled and asymmetrical though it may be, however, "extraverted" development, by merely forming an enclave and not becoming integrated in a country's internal economic structure, does not actually *block* anything. If it had not been there, nothing else would have been there in its place. The underdeveloped countries would even have lost the income, however slight, that they derive through wages, taxes, and the sale of local products to the enclave.

Is this North American or Australian model of development the only one, or the best one; is it one that can be imitated in all possible circumstances? No, this model is neither the only one, nor the most efficient, and in certain circumstances it is not even practicable. It is the classical model of the capitalist road. It stands the world on its head. We begin with the end, with consumption, by creating a market actual or potential, which is sufficiently large. In this way capital is attracted, and the corresponding consumer goods are produced. When these industries become extensive enough, and their need for mechanization (owing to high wages) is great enough, a second market is created for capital goods, and this in turn attracts further capital, which establishes heavy industry. We keep on going upstream all the time. Like certain fish, capitalism can keep afloat and move forward only by swimming against the stream.

What has especially shocked people in my thesis is this idea that excessive unproductive consumption may not only not impoverish but even enrich a capitalist country. Many economists have failed to grasp what it is, distribution apart, that distinguishes the dynamic of a free competition economy from that of a planned economy. When the Soviet Union spends a rouble on armaments, that means one rouble, exactly, taken from its national income. But when the United States spends $30 billion a year on the war in Vietnam, not only is the national income of the United States not reduced by this, there is a good chance that it will be higher than it would have been without the war in Vietnam. Not only does this war enhance economic activity in the United States by causing existing factors to be employed that otherwise would have lain idle, it also causes a flow of European capital (Eurodollars) toward the United States, attracted by the opportunities for investment created or induced by the unproductive activity of supplying the war machine. This impoverishes the Europeans but enriches the Americans.

Bettelheim thinks that this is a petty-bourgeois argument—the myth of Malthus, Keynes, and the neomercantilists. In this connection he accuses the French Communist party and the French General Confederation of Labor of advocating a policy of high wages as a means of getting capitalism to work better. He is right, of course, that it is not the business of a workers' party or a trade union to act as technical consultants to capitalism and try to improve the system instead of overthrowing it.

But while this is one thing, it is quite another to take note of the existence of several sorts of capitalism, some of which *do* work better than others: a capitalism with periodical severe crises, and a capitalism that has gone for over 30 years now without any major crisis; a capitalism with 15 million unemployed, and a capitalism with full or near-full employment; a capitalism with a national income per head of 100 dollars, and a capitalism where it stands at 30 or 40 times as much. These are not Keynes's or anybody else's myths, but actual facts of the real world. To take them into account, when studying the system or when planning an action to overthrow it, is not to show oneself petty bourgeois or reformist in attitude; it is the proper business of the scientist and of the politician, even if they are the most "orthodox" of Marxists and the soundest of revolutionaries.

This model is not the only one. The socialist road is its symmetrical opposite. We begin by reducing ultimate consumption in order to release a surplus that can be found only inside the country, and we start straight away to set up the works to produce capital goods, which in turn will produce consumer goods, so as, at last, at the end of the process, to raise the standard of living and enable us to enjoy the fruits of this prolonged effort. It is a sure and harmonious road and, all other things being equal, it is the one that makes possible the highest growth rates. For no influx of capital from abroad can equal the full and rational mobilization of internal resources, without imbalance or wastage.

The capitalist road, on the other hand, finds its driving force in the very constraints of imbalance, in a sort of leapfrog movement. It proved successful in North America, under exceptional historical circumstances, in which British capital, derived from the direct plundering of India, could find no profitable investment in a Britain where wages were still low and the home market limited and flowed across the Atlantic to the New World, where wages were very high and the market a promising one. This road could still prove successful in certain cases—in Rhodesia, for instance, and perhaps in some other places—but it could fail lamentably elsewhere,

especially if it were not started off automatically on the basis of an historically given standard of living and if it resulted from a voluntarist decision and an artificial increase in wages—an assumption that, moreover, is in itself unrealistic.

Actually, as far as the underdeveloped countries of today are concerned, with the exception of the white African countries, this road seems to have become impossible in practice. It is certain that, in the absence of public aid or special privileges, private capitalists are now uninterested in pursuing a problematical enlargement of the market in the underdeveloped countries, resulting from an increase of a few pennies in the wages paid there, when they have available to them at home a huge market the steady expansion of which is nourished by a particularly effective trade-union struggle.

BETTELHEIM'S "PARADOX"

Are the wage earners in the advanced countries exploited more than those in the underdeveloped ones?

The argument of Charles Bettelheim, and of those who find this "paradox" fascinating, runs more or less like this. By exploitation we mean the appropriation of surplus value. Since surplus value is the difference between the time worked by the worker and the labor time needed to produce the goods he consumes, the degree of exploitation is simply the rate of surplus value, that is, the ratio between total labor time and "necessary" labor time. Now, total labor time is the same everywhere, regardless of whether the country in question is advanced or not. The eight-hour day is the only achievement of human progress that is practically universal. Therefore, if there is any difference in degree of exploitation, this can only consist in a difference in the "necessary" time.

But the necessary time is longer in the underdeveloped countries than in the advanced ones, and this not only in order to produce a unit of some particular article of working-class consumption, but even to produce the entire range of such goods, although the amount consumed by a worker in the advanced countries is substantially greater than that consumed by a worker in the poor ones. Let us reduce all the working-class consumer goods, on both sides, to a single item, e.g., flour. The American worker would then consume 20 kilos of flour a day, while the worker in an African country consumed only one kilo. Under the conditions of low productivity

prevailing in the African country, however, more time is needed to produce one kilo of flour than is needed in the United States to produce 20 kilos. Consequently, the rate of surplus value is lower and the worker in the underdeveloped country is less exploited than his equivalent in the United States.

Before starting to refute this argument, let us examine the consequences that follow from it:

1. The necessary time is longer in the underdeveloped countries. Granted. But then in the conditions described there is no reason why it should not be even longer than the total labor time, since, as we have seen, the latter is *institutionally* limited to eight hours a day. Actually, in the traditional sector of the economy, which supplies the workers' subsistence in these countries, the worker's standard of living is even lower than that of the worker in the export sector. Thus, if the latter contents himself with a kilo of flour a day, the former must content himself with less, though he still works his eight hours, or even more, since the labor laws do not always apply to him. This would mean that the value of a kilo of flour would represent not less but more than eight hours, so that the worker in the export sector who receives a kilo of wheat for a working day of eight hours would not only not produce any surplus value for his employer, would not merely not be exploited, he would be exploiting his employer! An unexpected but inexorable consequence . . .

2. Let us, however, ignore this extreme consequence, necessary though it be if the line of argument we are considering is followed to the end. Let us agree that the surplus value extracted from the workers in the underdeveloped countries is always positive, even though its rate be lower than that of the surplus value extracted from the workers in the advanced countries. The fundamental assumption made in *Unequal Exchange* is the tendency to equalization of the rate of profit on the world scale. This assumption may or may not be accepted. If it is not accepted, that is that, and there is no need for us to go on with the argument. If, however, it *is* accepted, and yet one is still convinced that the rate of surplus value is less in the underdeveloped countries than in the others, one must be logical and accept also that this equalization can be effected only through a transfer of surplus value from the latter to the former. This transfer can be made only by way of prices. Then it would be the underdeveloped countries that were exploiting the advanced ones. As worldwide exchanges of goods and services usually find equilibrium at these same prices, and

consequently there can be no other transfer in the opposite direction to make up for the first-mentioned, it must indeed be recognized that a net enrichment of the underdeveloped countries takes place, at the expense of the advanced ones—a conclusion that, let it be said in passing, would not be ill received by some neoclassical theoreticians.[22]

3. Let us now assume that in some underdeveloped country the goods consumed by the workers, or most of them, are imported from the advanced countries. This is actually so in some coastal areas, such as the Kinshasa region of the Congo, where communications with overseas countries are easier than with the interior of the country. According to the argument we are considering, a worker in a mine in the interior of the Congo, who lives on manioc and sweet potatoes, would then be less exploited than his fellow countryman working in a factory in Kinshasa, who eats wheaten flour and good imported potatoes, because it takes several hours to produce that manioc and those sweet potatoes in the interior of the Congo, but only a few minutes to produce this wheat in the United States or these potatoes in Belgium, the countries from which they are imported into the Congo. Here is another consequence of this "paradox."

Yet the reasoning based on the ratio between necessary time and total time seemed irreproachable, and it cannot be denied that productivity in the underdeveloped countries is so low that there must be cases where the time needed to produce the worker's basket of goods must indeed be longer than that needed to produce the basket of goods of the worker in the advanced countries, even if the second basket is ten or twenty times the size of the first. How has it been possible to deduce such fantastic consequences from apparently correct reasoning? Wherein lies the mistake?

The mistake lies in calculating the worker's necessary time on the basis of the *individual* value instead of social value of the subsistence goods. If, to produce a kilo of flour, of beans, or of potatoes, eight hours are needed in Africa and 20 minutes in Europe or the United States, the value of these goods is not 24 times greater there than here (while the price is the same or is even lower there than here, and the quality the same or even lower there than here).[23] The worker's necessary time is not determined by the individual value of the subsistence goods in a particular enterprise or a particular place, but by their *social* value *in the entire system under consideration.*

In the context of world economy, the only value that counts in measuring necessary time is *social* (world) value, and not the *individual* (national)

value of the goods represented by wages. If the African worker receives only the equivalent of a kilo of flour, while the American worker receives the equivalent of 20 kilos, the rate of surplus value, and consequently the rate of exploitation of the former, is several times as great as the rate of exploitation of the latter.[24] To say the opposite would be as ridiculous as to say, for instance, that a metal worker in Naples is less exploited than his mates in other parts of Italy if it turns out that he eats handmade spaghetti (made perhaps by old Neapolitan craftsmen who have survived mechanization and work wretchedly under conditions of very low productivity), though this spaghetti is neither better nor dearer than other kinds.

Here Charles Bettelheim pulls me up: what right have I, he wants to know, to argue in terms of world economy and world productivity? This is a "false abstraction."

Well, I argue in terms of world economy because I am seeking the laws of the formation of international value and the possible transfers of wealth from one country to another that may be hidden in the structure of this value. Furthermore, I argue in terms of world economy quite simply because I am replying to an argument that is based on comparing the rates of surplus value practiced in different nations, which implies application of the law of value on the world scale. If the nation were the only reality, and world economy a false abstraction, comparison between rates of surplus value and rates of exploitation in different nations would itself be meaningless.

Notes

1. Part of this paper was published in *Politique aujourd'hui* (January 1970), under the title: "Démystifier les antagonismes entre les nations."

2. Marx showed that in the initial period of capitalist relations commercial capital held predominance over industrial capital.

3. The same type of slavery was successfully adapted during the eighteenth and nineteenth centuries to a form of production very much more advanced than feudal or semifeudal peasant agriculture, namely, the plantation system.

4. It is the persistence of survivals of primitive community relations that today constitutes the real "dualism" in the economy of most of the underdeveloped countries.

5. Incidentally, this answers Bettelheim's argument about violence. When, in his preface to the French edition, Bettelheim says that it is not violence that gives birth to production relations, but the other way round, he simply forgets

primitive accumulation, which is described by Marx as beginning prior to capitalist relations and as consisting of direct plundering by crude violence.

6. Gunnar Myrdal has shown that the average income per capita in the underdeveloped countries of today is lower than that which existed in the advanced countries of today when they were in their preindustrial period.

7. Even if we allow for the ground rent, which inflates the value of agricultural produce, but which is nowadays regulated by the state in all advanced countries and is not very heavy, we arrive at orders of magnitude that are similar in the primary and secondary sectors. Other writers as well, such as Lewis and Ohlin, directly calculating the capital-output ratio, find it to be equal or higher in agriculture (the value of the land not included).

8. See, e.g., Jacques Freyssinet, *Le concept du sous-développement* (Paris, 1966), p. 156.

9. Bettelheim quotes a passage from Marx on the international division of labor imposed by British industry. There are, however, two phrases in this passage that he fails to quote, namely: "In this way East India was compelled to produce cotton wool, hemp, jute, and indigo for Great Britain": and further on: "just as Australia, for example, was converted into a colony for growing wool." (*Capital* [London, 1970], 1: 451). (In the French edition of *Capital*, Marx substitutes for the last five words: "a huge storehouse of wool for Britain"—Trans.)

These two countries thus occupied the same "place," assigned to both of them by the same "pole," and they have kept it. But whereas the former has remained poor and underdeveloped, the latter is today among the most advanced countries in the world.

10. Gunder Frank, *Capitalism and Underdevelopment in Latin America* (New York, 1967), p. 12.

11. Christian Palloix must be given credit at least for trying to discover the exact significance in economic terms of this "long-term advantage." He finds it, like many other Marxist economists before him, in the greater capacity to absorb capital that characterizes the secondary sector as compared with the primary one. But this assumption, applied thus sweepingly to entire sectors, outside of space and time, is contradicted by the facts (see the statistics quoted above). It would be valid if it were to be applied to a selection of particular branches of either sector, at a certain moment in their technical evolution. These are what I have myself accepted in my book as the only specializations that deserve to be described as "dynamic," while adding to their capacity to absorb capital their capacity to absorb more highly skilled labor. In this case, though, there is no necessary coincidence between these particular branches—which at any moment may just as likely be agricultural or mining branches as industrial ones—and the division of the world once for all, and according to a law that *reproduces* this division, into industrial countries and agricultural ones.

12. Not to mention that agriculture and stockbreeding are now themselves progressing toward the same status—obtaining their inputs, including even seed and cattle fodder, from transformative industry, and selling semifinished products to other branches of that same industry.

13. In 1952–1954 Japan's national income per capita was still only 190 dollars (United Nations, *Statistical Papers*, series E, no. 4).

14. Marx's own expression, in his "Address on the Question of Free Trade," 1848.

15. Since we are arguing about long-term developments, I leave indebtedness out of account, because if one day the service of the debt exceeds the inflow of new loans, then this excess will be payable only through a corresponding excess of exports of goods and services. I also leave gold out of account, since it cannot be regularly exported by a country unless this country possesses mines, and in that event gold is a commodity like any other.

16. It is quite a different question whether these ebbs and flows, open or hidden, have a cumulative effect that exceeds their immediate financial significance. If it is true, as I try to show in my book, that it is poverty and low wages that cause these transfers, then the latter, by impoverishing still further the country under consideration, "expand" the conditions for their future "reproduction" (cf. supra, pp. 130–3). But this observation does not detract from the role played by these transfers, any more than it contradicts their status as the primary determining element: quite the contrary.

17. Hypothetical though they are, these figures are not at all fantastic. Bettelheim himself estimates that wages in the advanced countries are between 20 and 30 times as high as in the underdeveloped ones. (See his article, "Les travailleurs des pays riches et pauvres ont des intérêts solidaires," in *Le Monde*, November 11, 1969.)

18. *Capital*, 1: 171. (Translation corrected on the basis of the German and the French versions—Trans.) When I emphasized this "historical and moral element," in order to show that the value of labor power is *predetermined* on an ethical and institutional basis, Bettelheim replied that Marx is here using the word "moral" in the same sense as when we speak of the "moral depreciation" of capital (see note 11 to his "Theoretical Comments," p. 318). He evidently omitted to notice that Marx introduces this passage about the value of labor power with the words: 'In contradistinction, therefore, to other commodities . . ." If the word "moral" were being used in the sense of nonmaterial, as Bettelheim supposes, this phrase would be pointless, since there is no commodity into whose value some nonmaterial and historical element does not enter. If, however, as I think, "moral" is here used with the meaning "ethical," this is indeed what distinguishes labor power from all other commodities.

19. At the end of the eighteenth century and the beginning of the nineteenth,

wages in North America were twice as high as in England and three times as high as in France. Yet at this period North America had no industries and had undergone no development.

20. Percentages taken from the manuscript of a work by Samir Amin, *L'accumulation a l'échelle mondiale* (since published by Editions Anthropos, Paris, 1970).

21. It was the low productivity of the immigrants and their high wages that stimulated mechanization in North America.

22. Let it be said at once that this is a conclusion that might not trouble either those who are interested only in the pre-established harmony of concepts, insofar as they would always be able to find a definition of the concept of exploitation such that even this conclusion was acceptable, and the intellect would still be satisfied. Let us be clear about this, however: are we trying to reconcile concepts with one another, or to make them compatible with reality and adequate for understanding it?

It could also be objected that a difference in organic composition may bring about compensatory transfers. Yes, if this difference is in the right direction. But it is not always so. The minerals exported by some underdeveloped countries come from branches the organic composition of which is higher than the bits of ironmongery, secondhand clothes, and other trumpery stuff that these countries import.

23. In short, and if we go to the root of the matter, the mistake is due to what used to be called a naturalistic conception of the law of labor value; this underlies all my differences with Charles Bettelheim, but it is too large a subject to be dealt with here.

24. The only thing to allow for being the difference in intensity of labor between these two workers—intensity being something different from productivity.

Appendix V
Some Keenly Contested Points

ESSENCE AND PHENOMENON

Since the French edition of this work appeared, a number of critics have alleged that there is a sharp break in my treatment of the transition from value to price of production. In my opinion—and I am going to try to prove the point—insofar as there is indeed such a break, it merely reflects a qualitative difference in reality itself.

Some of these critics argue as if price of production were a phenomenon of which "value" is the essence (or noumenon). They thus conceive the transition as a transition from the abstract to the concrete.[1] Others accept that price of production is an abstract magnitude that regulates concrete price, but they argue as though, behind the phenomenon, there were several levels of essences, arranged hierarchically—price of production being more abstract than concrete price, but less so than value, which then appears as a sort of essence of the essence, a second-degree essence. One group blames me for situating my analysis at the merely phenomenal level, while the other complains that I do not go far enough behind mere visible appearances.

Consciously or unconsciously, both of these tendencies are inspired—to differing degrees, greater in the second case, less in the first—by the wave of Neo-Hegelianism, or, rather, Neo-Kantianism, which is sweeping over France at the present time, and which takes the form of constructing systems of concepts that are autonomous and, in a sense, autarchic, and the validity of which consists in their internal coherence and their distinctive structure. According to this conception, any argument that tends either to harmonize the phenomenon and its concept or to set them in mutual contradiction is sacrilegious. No dialogue is possible, it is said, between the different levels.

Personally, I think that a concept is nothing more than an instrument of cognition, a means of reproducing the concrete in thought; therefore,

the measure of its validity is its power to grasp and apprehend reality, its effectiveness for cognition—in other words, its capacity to explain. As to what is "greater" and what is "less" in the realm of essences, I do not quite know what this means, and I am unable to join in this game, which, proceeding from the prime essence to the secondary essence, will doubtless bring us eventually to the quintessence.

MARKET PRICE AND WHAT DETERMINES IT

Price of production is in no way a phenomenon: it is neither observable, nor tangible, nor capable of being grasped by any operational calculation. It is not linked with the equilibrium of circulation but with that of production. It is an abstract price, and, as such, a pure concept, produced by thought, in the same way as value, for the purpose of understanding reality. The phenomenon is not price of production but concrete price, market price. As for market price, either it constitutes the sole reality, that of circulation, and there is nothing behind it, this being the marginalist conception; or it has behind it the backing of an abstract regulating magnitude that is anchored in the conditions of production and serves as its axis of gravitation, this being the conception held by the objectivists in general, and, in particular, by the Marxists.

According to Marxist theory, this axis of gravitation is either—depending on circumstances: an important qualification—the ratio between the *quantities* of the factors, which is called labor value, or the ratio between the rewards of these factors, which is called price of production.

There are thus, at the phenomenal level, two qualitatively distinct *cases*, and there must be, at the conceptual level, two essences, which by definition are always qualitatively distinct. Price of production is just as abstract, just as distant (in depth) behind what is visible, as value is, neither more nor less. The transition from one to the other can be made only by way of a qualitative leap, that very leap which my critics have discovered in my analysis.

Whether these two cases have ever existed historically in their pure forms, or whether they are mere extreme cases thought up for the purpose of argument, is a problem of little relevance. Engels goes very far in alleging the historical reality of the first case, and my critics have been so kind as to point out to me the preface of Volume 3 of *Capital* [i.e. in English

editions the Supplement], which, they say, could have furnished an authoritative argument in support of my view.[2]

In this preface, after analyzing at length the exchange between peasants and craftsmen, from the breakup of the primitive commune, through the entire Middle Ages down to the rise of capitalism, Engels concludes: "In a word: the Marxian law of value holds generally, as far as economic laws are valid at all, for the whole period of simple commodity production, that is, up to the time when the latter suffers a modification through the appearance of the capitalist form of production. Up to that time prices gravitate toward the values fixed according to the Marxian law and oscillate around those values. . . . Thus the Marxian law of value has general economic validity for a period lasting from the beginning of exchange . . . down to the 15th century of the present era."[3]

What is rather odd is that my critics mention this passage from Engels in order then to attack it as being unique, in the sense of out of line, in Marxist writing. Yet this is what Marx himself wrote on the same subject: "The exchange of commodities at their values, or approximately at their values, thus requires a much lower stage than their exchange at their prices of production, which requires a definite level of capitalist development. . . . It is quite appropriate to regard the values of commodities as not only theoretically but also *historically prius* to the prices of production. This applies to conditions in which the laborer owns his means of production, and this is the *condition* of the land-owning farmer living off his own labor and the craftsman, in the ancient as well as in the modern world."[4]

Apart from a certain wealth of detail in the Engels passage, which I have not reproduced in my quotation—he goes so far as to assign an historical period of "five to seven thousand years" to the first case—there is no difference between what Engels wrote and the passage I have quoted from Marx himself.

Whether or not Marx and Engels were right or wrong on the real issue is of no importance here. What does need to be asked is why such men as they felt obliged to make use of an historical argument that is open to discussion in this way. The point is that in their day the Neo-Kantianism that I have mentioned earlier did not yet exist. The contemporaries of Marx and Engels wanted to know, not whether the concept of value and the concept of price of production were mutually compatible, but what was the use of the first concept—the "axis of gravitation" for prices, as Marx himself put it—to which the whole bulky first volume of

Capital was devoted, since Marx himself was obliged to show in Volume 3 that no price ever actually gravitates around value, but only around price of production.

To this objection, which a modern disciple of Louis Althusser would perhaps have brushed aside with contempt, by virtue of the internal and autarchical dynamic of concepts, Marx and Engels reply, in clear terms and using ordinary language, that if there are two distinct and even contradictory concepts, this is because there are two phenomena to be known, namely, market price in conditions of underdeveloped capitalism, which does indeed gravitate around value, and market price in conditions of developed capitalism, which gravitates around price of production.

As to what may be the actual historical validity of the first case, that is another question. I am willing to agree that the answer is not very clear, since we are dealing here with modes of production that are essentially precapitalist and largely noncommercial. It is nevertheless true that when we trace backward the course taken by the evolution of capitalism we observe that fixed capital becomes less and less important and to an increasing extent personally owned, while differences in the organic composition of capital become smaller and smaller, so that, at the far end of this process, it is legitimate, at least from the standpoint of methodology, and leaving aside all accidental impurities, to speak of a situation in which capital is either practically nonexistent or else equal, or proportionate, to wages.

To move forward from this situation to that of developed capitalism, in which inequality in the organic composition of capital becomes significant, an accumulation of quantitative changes is needed, leading at a given moment to the qualitative change whereby transition takes place from the gravitational field of value to that of price of production.

THE PROBLEM OF "TRANSFORMATION"

It is true, however, that several other passages in the third volume of *Capital*, and the very presentation of Marx's formulas in terms of the "transformation" of values into prices of production, could be interpreted as meaning a mere transition from one form of exchange value to the other, the content remaining unchanged. This content would then be the true essence, something like value in itself, absolute value, with price of production merely one of its avatars.

All this would be highly embarrassing if Volume 3 of *Capital* were a work as finished in character as Volume 1 and had been prepared for publication by Marx himself. But this is not the case. What Engels found, after Marx's death, as the manuscript of Volume 3, was only a bundle of first drafts and notes from reading. I leave to the Marxologists the task of deciding the intrinsic value of a publication effected under these conditions. One thing is certain, however. Having drafted this manuscript before he wrote Volume 2 and at about the same time as he was writing Volume 1, Marx let it lie until his death, that is, for over 20 years, doing nothing more about it. Engels was astonished at this and expressed his amazement in a letter to Laura Lafargue, on March 8, 1885.[5]

What is more, Marx composed his formulas of reproduction, both simple and expanded, in Volume 2, still on the basis of values, though he already had in his drawer his formula of the "transformation" of values into prices of production, and though it is hard to conceive the circulation of capital in general, and exchanges between sectors I and II, except on the basis of prices of production. Under these conditions it seems reasonable to wonder whether Marx was really certain of his price-of-production formulas, or whether he was keeping open the possibility of subsequently revising them. Such an attitude would strangely correspond to Ricardo's pessimism on the fundamental problem of political economy, namely, how to reduce commodities to a common denominator, once a second factor, namely, time, is added to labor—a pessimism he expressed in anguished terms in a manuscript written shortly before he died, and discovered only recently.[6]

In any case Marx's "transformation" formulas, as they have come down to us, are unsatisfactory. As Bortkiewicz showed, "transformation" must take place either completely or not at all. One cannot effect this transformation in the product (the output) without effecting it simultaneously in the inputs, that is, in constant and variable capital.

Bortkiewicz has never been refuted on this point, and I chose in Chapters 1 and 2 of my book to avoid dealing with this question, in order not to overload my text and also in order to keep to the structure of Marx's formulas, by treating the values of the inputs as having been previously "transformed" (supra, pp. 99 and 194). I thought it best to do this so as not to call in question the sanctified concept of "transformation," and because the practical conclusion of my demonstration, in regard to unequal exchange, was in any case not affected. In view of the reactions

provoked by my presentation of the matter, and the theoretical misunderstandings to which it has given rise, I am now convinced that I made a mistake.

For Bortkiewiecz's objection is no small thing. It affects the very principle of "transformation" even if Bortkiewicz himself did not realize this. Though he perceived the flaw in Marx's formulas, he did not himself manage to explain "transformation," any more than did all those who, like him, from Tugan-Baranovsky to Natalie Moszkowska, and including Hilferding, Charasoff, Boudin, and others, discussed or tried to correct Marx's price-of-production formulas. They all sought, on the one hand, to respect the internal constraints of the price-of-production system, while, on the other, retaining the fundamental determinations by quantities of labor, determinations that were essentially expressed in two equivalences, that of the sum of values with the sum of prices of production and that of the sum of surplus value with the sum of profit. All of them ended in a blind alley.

Eventually, Natalie Moszkowska proved mathematically that these two equivalences are irreconcilable, and the discussion, which had gone on for two decades, stopped there. She had shown that the equivalences were irreconcilable not through mathematical inadequacy but through logical contradiction, a contradiction that mathematics, being the shorthand of logic, is naturally unable to overcome.

"BORTKIEWICZ'S OBJECTION"

There is no point in recapitulating here the details of Bortkiewicz's complex mathematical proof. It will be enough to check the results, using his own numerical example.

Values												
		c		*v*		*m*				Rates of	
I	225	+	90	+	60	+	375			Surplus value	Profit
II	100	+	120	+	80	+	300			66·6%	29%
III	50	+	90	+	60	=	200				
	375	+	300	+	200	=	875				

Here we have a formula of simple reproduction, with equilibrium being ensured by the equality of the product of sector I with the sum of the

constant capital in all three sectors, the equality of the product of sector II with the sum of variable capital in all three sectors, and the equality of the product of sector III with the sum of surplus value in all three sectors.

Transformation into Price of Production, According to Marx

	c		*v*		*pr*			Rates of	
I	225	+	90	+	$93\frac{9}{27}$	=	$408\frac{9}{27}$	Surplus value	Profit
II	100	+	120	+	$65\frac{5}{27}$	=	$285\frac{5}{27}$	66·6%	29%
III	50	+	90	+	$41\frac{13}{27}$	=	$181\frac{13}{27}$		
	375	+	300	+	200	=	875		

This solution, says Bortkiewicz, is unacceptable, because it excludes constant and variable capital from the "transformation" process. The two equations: sum of surplus value = sum of profit, and sum of values = sum of prices of production have indeed been retained, but the formula at the end is no longer an equilibrium formula like the one at the beginning. The production of Sector I exceeds the sum of constant capital, and the productions of sectors II and III are less than the respective sums of variable capital and surplus value.

When he applies his formula of simultaneous transformation, Bortkiewicz arrives at the following result:

Price of Production, According to Bortkiewicz

	c		*v*		*pr*			Rates of	
I	288	+	96	+	96	=	480	Surplus value	Profit
II	128	+	128	+	64	=	320	62·5%	25%
III	64	+	96	+	40	=	200		
	480	+	320	+	200	=	1,000		

But if all that is involved is a mere alteration of form without any alteration of content, this solution is just as unacceptable. Bortkiewicz does indeed effect simultaneous transformation of inputs and outputs, and his final formulation is indeed an equilibrium formula that respects the constraints and coherences that are appropriate, *but the determinations by quantities of labor have vanished.* While the sum of profit appears in absolute terms as equal to the sum of surplus value, this has been made possible

in a formal way, by selecting a particular unit of reckoning that causes the sum of prices to be no longer equal to the sum of values, and the rates of surplus value and profit (62·5 percent and 25 percent, respectively) of the final formula to be no longer equal to those of the initial formula (66·6 percent and 29 percent, respectively). According to the value formula, the "necessary time" was three-fifths of the "total time." In the price-of-production formula the "necessary time" becomes 32/52 of the "total time." As for the rate of exploitation, this is reduced from two-thirds to five-eighths. Yet, if there is one thing that ought to have remained unchanged through a mere change of form it is the rate of exploitation.

Actually, what Bortkiewicz does has nothing to do with "transformation." In his final formula all trace of value as a time-measured *quantity* of labor has vanished. The figures no longer reduce the commodities in absolute terms to a substance that is common to them all while being different from them all, which is the fundamental principle of Marx's value. They merely express ratios.

The prices of production, 480, 320, 200, have nothing to do with units of labor: they are relative prices, which could be translated into francs, dollars, or pounds sterling, with as their only meaning: A = 480 B/320 = 480 C/200. Bortkiewicz has indeed calculated these ratios on the basis of the data in the first formula, but he has done this by manipulating these data not as absolute quantities of labor but as indices of other ratios, conditions that can be expressed by means of simultaneous equations. Since he had only two independent equations for three unknowns, he took the ratio of price of production to value in sector III as equal to one, in accordance with the traditional method, which means that when we have a number n of unknowns, $p_1, p_2 \ldots p_n$, and $n - 1$ equations, we cannot define each of the unknowns separately in terms of parameters, but we *can* define the ratios, $p_1/p_2, p_2/p_3 \ldots p_{n-1}/p_n$, in terms of these same parameters.

This means that the dream cherished by economists throughout the ages of finding a fixed standard for the value of commodities, the ratio to which of each commodity would give us an absolute value for this commodity, is unrealizable as soon as we have more than one factor of quantification and we abandon the *case* (whether this is historical or only theoretical matters little) in which the tools used by the independent producer are negligible or inalienable and the only factor in value is labor.

Bortkiewicz's failure, as I have said already, is not a failure in mathematics but in logic. It is useful, however, to study this failure because it shows us, in the precise and condensed form of mathematics, the nature of the logical contradiction that is involved. Ricardo came to grief over this, and with his legendary intellectual honesty he humbly acknowledged his helplessness in the manuscript to which I have referred.[7] Twenty years before his death, Marx sketched out an attempt at a solution and left it at that. In order to be loyal to the principle of the single standard and to that of absolute value, this solution results in "prices of production," and so in relative values that are not the true ones. Contrariwise, Bortkiewicz calculates the relative values correctly, but in order to do this he has to abandon completely the principle of absolute value measured in labor and start from a different basis.[8]

Bortkiewicz has neither been refuted as regards the criticism he made of Marx's solution nor corrected, in his turn, as regards what is incompatible in his own solution with the principle that a single substance which is inseparable from commodities provides us with a measure of absolute value. Since Bortkiewicz wrote, moreover, it has been hard to find two Marxist theoreticians who mean exactly the same thing when they speak about the problem of "transformation."

The reason is that what we have here is a false problem, in the sense that what is involved is a change not of form but of content. Therefore, we either seek to keep the content, which will be translated into mathematical language by the equations already mentioned—but then the elements that are to be transformed are not transformed, and the prices of production discovered in this way are not correct—or we calculate the prices of production correctly, but then we alter not only the form but the whole content as well, and this cannot be done without that "break" that my critics talk about.

VARIANTS OF BORTKIEWICZ'S OBJECTION

Not a few Marxist researchers have applied themselves to this problem, however. Several writers tried to improve on Bortkiewicz's solution, on the basis of the same numerical formula in value terms that I reproduce below. They all came to grief upon the same contradiction. Here are the most typical of their solutions:

Values

	c		*v*		*m*			Rates of Surplus value	Rates of Profit
I	225	+	90	+	60	=	375	66·6%	29%
II	100	+	120	+	80	=	300		
III	50	+	90	+	60	=	200		
	375	+	300	+	200	=	875		

Price of Production According to Boudin[9]

	c		*v*		*pr*			Rates of Surplus value	Rates of Profit
I	180	+	60	+	64	=	304	66·6%	26·6%
II	80	+	80	+	$42\frac{2}{3}$	=	$202\frac{2}{3}$		
III	40	+	60	+	$26\frac{2}{3}$	=	$126\frac{2}{3}$		
	300	+	200	+	$133\frac{1}{3}$	=	$633\frac{1}{3}$		

Price of Production According to Tugan-Baranovsky[10]

	c		*v*		*pr*			Rates of Surplus value	Rates of Profit
I	180	+	60	+	60	=	300	62·5%	25%
II	80	+	80	+	40	=	200		
III	40	+	60	+	25	=	125		
	300	+	200	+	125	=	625		

Price of Production According to N. Moszkowska[11]

	c		*v*		*pr*			Rates of Surplus value	Rates of Profit
I	252	+	84	+	84	=	420	62·5%	25%
II	112	+	112	+	56	=	280		
III	56	+	84	+	35	=	175		
	420	+	280	+	175	=	875		

Boudin's formula is no more correct than Marx's, even though he effects the simultaneous transformation of *c* and *v*. Boudin manages to retain, despite the "transformation," the same rate of surplus value, and indeed, as I have said, if all that were involved was a mere alteration in form, this rate ought to be retained. But he succeeds in keeping this rate unchanged

only at the expense of the other equations in the formula, and his final formula, just as with Marx, is not an equilibrium formula.

All the others arrive at a correct final formula, with all the appropriate equilibria, but they are unable to retain the same rate of surplus value and the same rate of profit. The "necessary time" is not the same, either in absolute or in relative terms, as in the starting formula. This alone proves that what is involved is no mere "transformation."

Böhm-Bawerk perceived and summed up very well this weakness in the Marxist "transformation" concept. The average rate of profit results, he said, from total surplus value, that is, the difference between the value of the social product and the amount of wages paid out: but as wages are themselves derived from prices of production, surplus value must be determined by an element other than value. No reply has hitherto been found for this argument, and none can be found so long as prices of production continue to be regarded as a mere change of form, and so long as it is supposed that within their own formula the quantities of labor still determine all the elements in the system—that is, *so long as the attempt is made to go from one principle to the other while retaining the first principle present and active within the second.*

How does it come about that, apart from Boudin's solution, the others, though correct, yet differ among themselves? This is a simple matter of the unit of reckoning employed. Bortkiewicz uses for this purpose the product of Sector III (money). Since the value of this product is higher than its price, owing to its low organic composition, all the prices are multiplied by the same coefficient (eight-sevenths), and the sum of prices exceeds the sum of values by that amount. Tugan-Baranovsky, however, takes as his unit of reckoning 1·4 of a unit of labor, and all his prices are reduced accordingly. Natalie Moszkowska, who offers the most elegant solution, takes the unit of labor as her unit of reckoning, and so in her case the sum of prices of production is equal to the sum of values. Even in her solution, however, it is to be noted that the unit of labor functions only as a unit of reckoning, as is proved by the fact that the essential determinations by "necessary time" and the rate of surplus value have disappeared here, too.[12]

That what is involved is merely the choice that is made of a unit of reckoning is proved by the method employed by Tugan-Baranovsky, who calculated the other way, starting from prices in order to arrive at values. He, like Hilferding, believed that equality of the rates of surplus value was essential to the Marxist claim that profit is determined by unpaid labor.

On that basis Hilferding rejected all the formulas that did not respect this equality—that is, all the correct ones. Tugan-Baranovsky, on the contrary, recognizing that there could be no doubt that any correct solution of the "transformation" problem must rule out this equality, concluded that the Marxist proposition was ill-founded.

It was Natalie Moszkowska who stated the problem in the most apposite terms: "*Individual prices show only the exchange ratios between commodities. They are by nature relative and not, like value, absolute. The level of absolute prices can be determined only by choosing a unit of reckoning.*" (I would myself put it like this: it is not possible to construct the concept of absolute price except by having recourse to *some* unit of reckoning.)

If we compare the advantages of the different units of reckoning we find that conversion into units of labor is, from the methodological standpoint, much more precise than conversion into any other unit, for, as I shall show later, out of all the factors labor alone is homogeneous, physically and *independently* of prices, or can be assumed to be so. If we choose this unit of reckoning, we obtain the equation: *sum of values = sum of prices*, but only as a formal, *ex post* equation, obtained by virtue of the very choice we have made. As such, this equation tells us nothing about the determination of prices by values—all the less because its very existence rules out the other equation, that of rates of surplus value, which is the prime constituent element in this determination.

DIRECT CALCULATION IN PRICES OF PRODUCTION

Many Marxists agree that there is no reason why one should not calculate prices of production directly, without going through the value stage, but they consider that for methodological and historical reasons it is preferable to retain this stage. This was Conrad Schmidt's position, for instance.

Paul Sweezy acknowledges explicitly that from the formal standpoint it is possible to "skip" values, not only in studying the various elements of the economic system, *but also in studying the system as a whole*. However, he says, the advantage of the method that begins with values consists in the fact that in this way we avoid incurring any danger of concealing the fact that profit originates as a deduction from total social labor. Calculation in price terms, he explains, obscures the social relations of capitalist production. Since profit is calculated in proportion to total capital, the idea may arise that capital is somehow "productive."[13]

An anti-Marxist might answer that this line of argument begs the question. First, one states that labor alone produces value. Then one calculates the exchange value of commodities as though labor alone produces value. In this way one arrives at exchange values that are unreal. So then one "transforms" them into prices of production that do correspond to reality but that differ *essentially* from the first set. The very principle of this "transformation" is the intervention of a second factor in exchange value, namely, capital. At this point, however, instead of admitting this and purely and simply dropping those "Mark I" exchange values, one takes for granted precisely that which needs to be proved, namely, that labor is the only factor in value, and says: since this is true, everything must be done to bring it to the surface and make it visible. That means that one has to go through the stage of the value formulas, even though they do not correspond to any reality, simply because this is the only way of making visible a different "reality," the esoteric reality of the Marxists.

It is easy to understand, therefore, why Marx, Engels, Conrad Schmidt, and others did not consider this argument adequate and asserted that the values of the first formula do indeed correspond to an historical reality, that of underdeveloped capitalism, simple commodity relations, craft production, and so on.

In order to avoid this contradiction, many Marxists have adopted a solution that, so to speak, makes things easy for them. They identify price of production with concrete price and put the divergence between value and price of production on the same footing as the divergences between the axis of gravitation, whichever this may be (value or price of production), and the market price. Thus, Eduard Bernstein, arbitrarily likening prices of production to market prices, blames Marx for leaving other market tendencies out of account and not treating all the "deviations" together. Yet the divergence, whether positive or negative, between values and prices of production has nothing in common with the divergences between the axis of gravitation (value or price of production) and actual prices. The former is structural and based on the laws of movement of the system; the latter are conjunctural and due to imperfections in competition.[14]

It remains true that one may very well begin by assuming, for pedagogical and methodological reasons—what Marx means when he says that value precedes price of production *theoretically*—the existence of one factor only, labor (or two factors, but proportionate to each other, which

comes to the same thing), in order later to proceed to a nonproportional plurality of factors. There remains also the *historical* priority of simple labor value, which I have already discussed at some length.

Nevertheless, the price-of-production formula expresses not a mere change of form but a qualitative change (a break), since, from the moment that a second factor comes into play, we move from one gravitational field to the other. It is no longer a matter of reducing commodities to a *single* common property, *physically given*. We now have two common properties, and we can effect the reduction only if we can find a property common to these two common properties. This intermediate common property, which enables us to quantify the sum of the factors, and thereby to quantify the commodities themselves, and to explain the equation *one quarter of wheat = x kilos of iron* (the first question that Marx asks in *Capital*) is found if we remember that, beneath the appearance of each factor—labor, machinery, land, etc.—there is concealed, under capitalist conditions, an established "claim" to a primary share in the social product, a claim that is called wages, profit, rent, etc. The price-of-production formulas are constructed not in terms of labor and capital, as irreducible things in themselves, but in terms of wages actually paid (variable capital) and profit, things that are perfectly reducible to one another, as shares in a given entity, the economic product of society.

If this were not so, if socially necessary labor injected into commodities a substance, a thing in itself, which gave them an absolute value that the capitalists subsequently chose, for reasons of their own, to redistribute among themselves, then it would be Hilferding and Tugan-Baranovsky who were right: at all costs we must retain, in the price-of-production formulas, not merely the equation between the sum of prices and the sum of values, but also the equation between the sum of profit and the sum of surplus value. Otherwise, we should be repudiating the Marxist theory of value. Unfortunately, these two equations are mutually incompatible.

Sweezy says: "The entire social output is the product of human labor. Under capitalist conditions, a part of this social output is appropriated by that group in the community which owns the means of production. This is not an ethical judgment, but a method of describing the really basic economic relation between social groups. It finds its most clear-cut theoretical formulation in the theory of surplus value."

There is a certain ambiguity in this passage. The antagonism between

classes over the distribution of the social product is, of course, not an ethical idea but an adequate description of reality. But the statement that "the entire social output is the product of human labor," insofar as it suggests the idea that this product *belongs* to the workers, is indubitably ethical (without being necessarily false on that account).

It seems to me that one ought first to define "the entire social product." If what is meant is use values, Marx himself declared somewhat forcibly (in his discussion of the Gotha Programme) that labor is not at all the only factor involved. If what is meant is exchange values, it is hard to see how one can *add up* these values, which are only ratios, and besides, the "transformation" into price of production itself shows that there are at least two factors in exchange value. If what is meant is "value" on its own, as the common, homogeneous substance contained in all commodities, then one can certainly say that this substance is created by labor alone, but by saying this one merely repeats the first premise, namely, that labor is the only common property of commodities that explains their quantitative equivalence in exchange.

It will be observed that under conditions of advanced capitalism this concept of a common property explains neither quantitative exchange, since this is carried out in accordance with prices of production, nor the equilibrium of production, since this is governed not by the quantities of labor but by equalizations of the rewards of factors, equalizations that are obtained through the mechanism of the transfer of factors from branch to branch. Then we are told that this concept is nevertheless useful for something: it provides grounds for, or illustrates, the idea that the entire "social product" belongs to the workers. As I have already pointed out, however, this is an ethical idea, and not an apprehension of reality. The reality is that neither profit nor wages are engendered by the process of circulation, but by that of production, and that, on the other hand, these two magnitudes are inversely proportional to each other, which fact gives rise to an inevitable antagonism between the classes, since the share taken by one can increase only at the expense of the share taken by the other. It is this and this alone that enables us to go from economic laws and categories to historical ones. This can be shown and illustrated, however, without resorting to the "transformation" quibble.

AN INDEPENDENT "PRICE-OF-PRODUCTION" FORMULA

Let us assume a capitalist system in which the social product consists only of two commodities, A and B, which serve both as consumer goods and as means of production. Both inputs and outputs are made up solely of these two products.

At the start of the production cycle our system possesses a certain amount of A and a certain amount of B, and since the entire stock of commodities belongs institutionally to the capitalists, these amounts constitute the capital available—equipment, materials for work, consumer goods for the workers, all necessary for production but not necessarily to be consumed in a single production cycle.

Let us assume that branch A possesses 70A and 35B, of which 6A+ 1B enters into production as raw material and depreciation of fixed equipment, while branch B possesses 20A + 45B, of which 16A enters into production. Our society also has at its disposal 500 hours of simple labor (assumed to be homogeneous), 200 of which are used up in branch A and 300 in branch B. With these *physical* quantities, branch A produces 32A and branch B 21B. Let us finally assume that the real wage (the basket of goods) corresponding to each hour of labor is (A + 2B)/100.

These physical data give us the following picture:

Capital invested	Constant capital consumed	Variable capital	Profit	Production
70A + 35B	(6A + 1B)	+(2A + 4B) +	?	= 32A
20A + 45B	(16A)	+(3A + 6B) +	?	= 21B
90A + 80B	(22A + 1B)	+(5A + 10B)	+(5A + 10B)	=(32A + 21B)

This first presentation already shows us something of great importance: the fundamental difference between labor and profit. The former is a priori a homogeneous factor (or is assumed to be so, the reduction of complex to simple labor being considered as having been accomplished) and can thus be included in our equations *before* the problem of prices has been solved, and so without a fresh unknown being added.

Capital and profit, however, are not homogeneous *before* the price stage. We know that the total amount of profit is equivalent to 5A + 10B because,

using homogeneous magnitudes, we obtain: 32A + 21B − [(22A + 1B) + (5A + 10B)] = 5A + 10B. We know, too, that this profit has to be shared between the two branches in the proportion of 70A + 35B for the first and 20A + 45B for the second, but we cannot say what this proportion is until we have found what are the values (prices) of A and B respectively. As, on the other hand, we cannot find these values without knowing what this proportion (the rate of profit) is, we have here an additional unknown:

$$r = \frac{5A + 10B}{90A + 80B}$$

which can be determined only *at the same time as* prices.[15]

The foregoing illustrates the point that if we want to solve the problem of quantifying commodities while basing ourselves exclusively on the conditions of production, the only magnitude we are obliged to rely upon is wages, as the first deduction that is made from the social product, profit being merely a residue. If we lack this magnitude, if wages are not "given," if they do not constitute an *independent variable*, then the problem of defining value on an objectivist basis is insoluble, and no abstract equilibrium price (of production) can be found. In this case all that is left to us is the marginalist solution, which gives us the momentary concrete equilibrium price on the market.

If we bring the additional unknown, the rate of profit r, into our formula:

Capital invested	Constant capital consumed	Variable capital	Profit	Production
70A + 35B	(6A + 1B)	+(2A + 4B)	+(70A + 35B)r=	32A
20A + 45B	(16A)	+(3A + 6B)	+(20A + 45B)r=	21B
90A + 80B	(22A + 1B)	+(5A + 10B)	+(5A + 10B)	= 32A + 21B

we have three unknowns—A, B, and r—and two independent equations.[16] It is thus impossible to give absolute values to A and B. If, however, we confine ourselves to determining the rate of exchange between the two commodities, i.e., the ratio A/B, we can consider one of them as equal to unity, e.g., B = 1 (which amounts to saying that we take B as the money

commodity), and then we have two unknowns, A and r, and two equations.

From this we obtain:

$$r = 1/10\ (10\%)$$
$$A/B = 1/2, \text{ or } A = B/2.$$

These ratios are the only ones possible, and we have been able to fix them on the basis of the *physical data* of production, without reference to circulation.

Actually, these equations constitute a price-of-production formula unencumbered by the ambiguity of "transformation." Everything is clear: the "value added" or "net product" of society is equal to 10A + 20B, and workers and capitalists share this fifty-fifty. (In Marxist terms, the rate of surplus value is 100 percent.) It is clear, too, that the share taken by one of the parties cannot increase without diminishing the share of the other. This shows us that the class antagonism cannot be eliminated and takes us beyond the realm of political economy. We also see in these equations that this rate of surplus value, combined with the ratios between the variable capital and the total capital invested (organic composition), that is, two extraeconomic data, one social and institutional and the other technical, govern the rate of profit, and thereby the equilibrium prices (prices of production) of commodities.

Whether reproduction is simple or expanded depends on the way the capitalists spend their share.

At the close of the production cycle, society, that is, the capitalists, possess:

Initial capital		90A + 80B	
Consumed as constant capital	22A + 1B		
Consumed by the workers	5A + 10B	27A + 11B	
Residual fixed capital		63A + 69B	
Output of the cycle		32A + 21B	
Total at the close of the cycle		95A + 90B	95A + 90B

If the capitalists consume all their profit, 5A + 10B, they are left with the same initial capital, 90A + 80B, to begin a second cycle at the same level as the first.

If the capitalists consume only one-fifth of their profit, A + 2B, they

are left with a capital of 94 A + 88B, which exceeds the initial capital by (4A + 8B), the equivalent of four-fifths of the profit, with which they can begin a new production cycle on an expanded basis.

Similarly, it is directly visible in these equations, without another series having to be presented, that any increase in wages, if it is general, will reduce *r* and thereby will reduce the relative price of A (higher organic composition) and increase the relative price of B (lower organic composition), and, if this is *local*, will increase the price of the branch (region or country) in which it is applied. This last mentioned case is that of *unequal exchange*.

Nothing now prevents us from transforming the relative prices A = B/2 into absolute prices by means of some unit of reckoning. If, in view of what I have previously said on this point, we choose an hour of labor as our unit of reckoning, then, since 10A + 20B = 500 and A = B/2, it follows that A = 10 and B = 20, and then we obtain a real price-of-production formula expressed in hours of labor:

Capital invested	*c*		*v*		*pr*		Price of production	Rate of profit
1,400	80	+	100	+	140	=	320	10%
1,100	160	+	150	+	110	=	420	
2,500	240	+	250	+	250	=	740	

Now, to generalize; society possesses an indefinite number of commodities, A, B . . . K; A_a, A_b . . . A_k are the quantities of A; B_a, B_b . . . B_k the quantities of B, and so on down to K, which enter into the capital invested in A, B . . . K, each of these terms being higher than or equal to zero. A'_a, A'_b . . . A'_k are parts of A_a, A_b . . . A_k, B'_a, B'_b . . . B'_k parts of B_a, B_b . . . B_k, and so on down to K, all these terms being higher than or equal to zero, and entering into the material consumption or consumption by the workers in branches A, B . . . K. A is higher than or equal to the sum of A′, B is higher than or equal to the sum of B′, and so on down to K. p_a, p_b . . . p_k are the unit prices of A, B . . . K, and *r* is the rate of profit.

Accepting that one of the commodities is the money commodity, equal to the unit of value, or, what comes to the same thing, concerning ourselves only with the relative prices, that is, the ratios A/B, A/C . . . A/K, we have to know $k - 1$ ratios, plus the rate of profit, which gives us *k* unknowns for *k* independent equations:

See text page 405

Capital invested	$(c + v)$		Profit		Price of production
$A_a p_a + B_a p_b + \ldots + K_a p_k$	$(A'_a p_a + B'_a p_b + \ldots + K'_a p_k)$	$+$	$(A_a p_a + B_a p_b + \ldots + K_a p_k)r$	$=$	$A p_a$
$A_b p_a + B_b p_b + \ldots + K_b p_k$	$(A'_b p_a + B'_b p_b + \ldots + K'_b p_k)$	$+$	$(A_b p_a + B_b p_b + \ldots + K_b p_k)r$	$=$	$B p_b$
,	,		,		,
,	,		,		,
$A_k p_a + B_k p_b + \ldots + K_k p_k$	$(A'_k p_a + B'_k p_b + \ldots + K'_k p_k)$	$+$	$(A_k p_a + B_k p_b + \ldots + K_k p_k)r$	$=$	$K p_k$
$\Sigma 1$	$\Sigma 2$	$+$	$(\Sigma 3 - \Sigma 2)$	$=$	$\Sigma 3$

$$r = \frac{\Sigma 3 - \Sigma 2}{\Sigma 1}$$

It will be noticed that in the general case set out above I have added *c* and *v* together. Actually, nothing forbids us to do this, since the quantities of each product taken separately, which are consumed as material inputs of production (constant capital consumed), and which are consumed by the workers, are homogeneous quantities *before* any reduction by prices takes place. This is merely a question of more compact presentation. My solution is based, moreover, on the assumption of an "ultra-real" wage, namely, a wage directly determined by a certain set of goods. There is no reason why I should not abandon this assumption in favor of another, more realistic one, namely, that the labor contract can lay down in advance only a semi-real wage, so to speak, expressed in a certain number of units of a particular commodity that fulfils the function of general equivalent (the money commodity). In this case, if K is the money-commodity and w_a, w_b, . . . w_k are the quantities of K distributed to the workers of A, B, . . . K (quantities known before the determining of relative prices), we have the result shown on page 408.

The number of unknowns and the number of equations remain the same and equal to each other.

At first sight this solution is reminiscent of Piero Sraffa's, and there are indeed many similarities between them.[17] I have, moreover, deliberately utilized the same symbols, wherever possible. Nevertheless, there are considerable differences between the two solutions.

In my model wages is the independent variable. It is expressed in terms of a single commodity, the money-commodity. I have called it a semi-real wage because its *real* counterpart, the definite assortment of goods consumed by the worker, is not and cannot be given *ex ante* but is ultimately dependent on prices, which are in their turn dependent on the organic composition of the industries producing the workers' consumer goods as compared with that of the other industries. Sraffa starts his analysis by also taking wages as the independent variable. But he looks for an "ultra-real" wage representing either an assortment of "specified necessaries" or an abstract, mathematical fraction of the net social product. Then, all of a sudden, in §44 of Chapter 5, he admits that such a wage cannot be given from outside the system, and with just a few words about a rate of profit "susceptible of being determined from outside the system of production, in particular by the level of the money rates of interest", he passes on, declaring bluntly that henceforth the rate of profit will be treated as the independent variable, without offering any further

Total capital	c		v		Profit		Price
$A_a p_a + B_a p_b + \ldots + K_a$	$(A'_a p_a + B'_a p_b + \ldots + K'_a)$	$+$	w_a	$+$	$(A_a p_a + B_a p_b + \ldots + K_a)r$	$=$	$A p_a$
$A_b p_a + B_b p_b + \ldots + K_b$	$(A'_b p_a + B'_b p_b + \ldots + K'_b)$	$+$	w_b	$+$	$(A_b p_a + B_b p_b + \ldots + K_b)r$	$=$	$B p_b$
′	′	$+$	′	$+$	′	$=$	′
′	′	$+$	′	$+$	′	$=$	′
$A_k p_a + B_k p_b + \ldots + K_k$	$(A'_k p_a + B'_k p_b + \ldots + K'_k)$	$+$	w_k	$+$	$(A_k p_a + B_k p_b + \ldots + K_k)r$	$=$	K

explanation. It seems to me that this is a deadly blow dealt by Sraffa himself to his own attempt at rehabilitating classical theory.

Besides that, there is another difference. Sraffa, after having, throughout the greater part of his work, adopted Marx's simplifying assumption about the consumption of constant capital in a single production cycle (velocity of turnover equal to unity), and in this way arrived at results that only this assumption makes possible, abandons it eventually, in Chapter 10, only in order to treat the whole of fixed capital as an input and what is left of it at the close of the cycle as an output. Thus, a machine is seen as being wholly consumed during the production cycle, and the undepreciated part of it reappears as a product at the close of the cycle. In this way each branch, in addition to its specific production, reproduces, so to speak, all the means of production that it utilizes in a sort of joint production. This assumption, as useless as it is cumbersome, leads Sraffa's analysis, which in principle is unassailable, into inextricable complications and eventually, it seems to me, into a blind alley.

[Since the French edition of this book was published, some of my critics, particularly Theo van de Klundert, Professor at the School of Economics at Tilburg (Holland), have referred to "joint production" as an essential point in connection with depreciation of fixed capital. It is true that my model above is built on the assumption that depreciation is *independent* of the rate of profit, and this is contrary to what happens in a market economy. But this simplification can be easily abandoned without Sraffa's joint production equations becoming necessary. Here is another numerical example where depreciation does depend on the rate of profit and where nevertheless the problem is solved without the "joint production" fiction.

Just as in the first model above, A and B are all-purpose goods. The life of all equipment is supposed to be 3 years. Symbols A^0, B^0, stand for new A or B; A^1, B^1, for one-year-old A or B; A^2, B^2, for two-years-old A or B. δ is the symbol for depreciation. B is at the same time the money-commodity, and $p_b = 1$.

Let us then suppose that

	Fixed capital		*Circulating capital*
Sector I needs:	$28{\cdot}82A^1 + 2B^1$	and	$6A^0 + 1B^0$
Sector II needs:	$13{\cdot}37A^0 + 5B^2$	,,	$16A^0$

and that $w_a = 5B^0$ and $w_b = 7{\cdot}5B^0$

We therefore have six independent equations:

(1) $28{\cdot}82\delta_{a^1}+2\delta_{b^1}+6p_{a^0}+1+5+(6p_{a^0}+28{\cdot}82p_{a^1}+1+2p_{b^1})r = 32p_{a^0}$

(2) $13{\cdot}37\delta_{a^0}+5\delta_{b^2}+16p_{a^0}+7{\cdot}5+(29{\cdot}37p_{a^0}+5p_{b^2})r = 21$

(3) $p_{a^1} = p_{a^0}\left(1 - \dfrac{r}{(1+r)^3 - 1}\right)$

(4) $p_{b^1} = 1 - \dfrac{r}{(1+r)^3 - 1}$

(5) $p_{b^2} = \left(1 - \dfrac{r}{(1+r)^3 - 1}\right)\left(1 - \dfrac{r}{2r + r^2}\right)$

(6) $\delta_{a^1} = p_{a^0}\left(1 - \dfrac{r}{(1+r)^3 - 1}\right)\left(\dfrac{r}{2r + r^2}\right)$

and six unknowns: p_{a^0}, p_{a^1}, p_{b^1}, p_{b^2}, δ_{a^1}, r

(The other unknowns, δ_{a^0}, δ_{b^0}, δ_{b^1}, δ_{b^2}, are reducible to one or the other of these six primary unknowns, as follows:

$$\delta_{a^0} = p_{a^0} - p_{a^1}$$
$$\delta_{b^0} = p_{b^0} - p_{b^1}$$
$$\delta_{b^1} = p_{b^1} - p_{b^2}$$
$$\delta_{b^2} = p_{b^2})$$

Solution: $p_{a^0} = 0{\cdot}5$ $\quad r = 0{\cdot}1$ $\quad p_{a^1} = 0{\cdot}34894$

$p_{b^1} = 0{\cdot}69789$ $\quad p_{b^2} = 0{\cdot}36556$ $\quad \delta_{a^1} = 0{\cdot}16616$

and: $\delta_{a^0} = 0{\cdot}15105$ $\quad \delta_{b^0} = 0{\cdot}30211$

$\delta_{b^1} = 0{\cdot}33233$ $\quad \delta_{b^2} = 0{\cdot}36556$

The problem is solved without any joint-production interference, and it is obvious that nothing prevents us from generalizing with "k" products, "n" years, and "kn" equations.

Of course, in this example, constant efficiency of the equipment is assumed. There remains the case of "falling productivity or increasing maintenance and repairs" (Sraffa). These variations may either be considered as given ex ante, or not. If they are *not* given ex ante, Sraffa's joint-production equations cannot solve the price problem *in a "classical" pattern, that is to say, on the cost-of-production side*, any more than mine can. If they *are* given, this will mean some physical variation in the material inputs (circulating capital) on the one hand, some *quantitative* difference in the production of the specific commodity of the process, on the other. We shall only have to introduce these differences in the equations (3), (4), (5), (6) above. The system will still be determined

with as many equations as unknowns. (If there was a *qualitative* difference, there could be no uniform price of A^0 and B^0 and the system would be undetermined, with more unknowns than equations from any cost-of-production point of view.)

To solve my numerical example above, Sraffa would add four separate processes, two for sector I, where A^1 and B^1 would be employed in *different proportions* to produce A^0, and two for sector II, where A^0 and B^2 would be employed in *different* proportions to produce B^0. What proportions? If these proportions are *consistent* with the four depreciation equations given above (perhaps modified to allow for "falling productivity and increasing maintenance and repairs"), Sraffa's additional equations will not introduce any new conditions and therefore they will not be *independent* equations. If they are *not consistent*, then either my depreciation equations will still be valid and the system will be *overdetermined*, having four more equations than unknowns, or the depreciation equations will be no longer valid, which means that the production conditions expressed by these equations will then be deprived of determining power on prices. In this last case it is no longer the value of the means of production that determines the value of the product, but the value of the product which determines the value of the means of production, in the glorious line of post-Walrassian economics. Sraffa himself is aware of this outcome and even admits it more or less explicitly in some places (cf. §83).]

THE LAW OF VALUE

Does the distinction I have hitherto made between the two axes of gravitation of actual prices, that of quantities of labor, in the case of underdeveloped capitalism, and that of the rewards of the factors, in the case of more highly developed capitalism, mean that there are two laws of value, which is how my thinking on this matter has been interpreted by some critics? Not at all. The law of value means simply the distribution of society's resources among the different branches of economic activity through the mediation of equivalence between products in a society made up of independent producers.

Allocation of the means of production is the fundamental problem in any human community. How it is solved depends, however, on who in the given community wields the power of economic decision. If this power is

wielded by society itself as a whole, the problem will be solved on the basis of cost to society. If it is wielded by the independent producer, it will be solved on the basis of cost to the producer.

Cost to society embraces all those factors the utilization of which imposes a burden on society. Thus, it includes not only labor, living and past, not only all the factors that nature provides freely but in limited quantities, but also, and this is important, something that corresponds to capital: the employment of accumulation funds, as against their depreciation or consumption, that is, *time*.

Let us assume that, in order to satisfy the same social need, a socialist society can choose between two lines of production, A and B. Production A requires 10 hours of living labor and 10 hours of past labor (raw materials, etc.), and a machine that cost 50 hours of labor and will become depreciated in five production cycles has to be used. Thus:

Living labor				10
Past labor:	Circulating constant capital	10		
	Depreciation of machine 50:5	10	20	30

In production B, 10 hours of living labor and 10 hours of past labor are also required, but a machine has to be used that cost 100 hours of labor and depreciates in ten production cycles. Thus:

Living labor			10	
Past labor:	Circulating constant capital	10		
	Depreciation of machine 100:10	10	20	30

On both sides the sum of the labor involved, living and past, is equal to 30, and yet the choice to be made is not at all a matter of indifference to this society. All other things being equal, it will undoubtedly choose the first line of production.

This preference constitutes a distinct factor that is not *directly* reducible to labor. What is reducible, hour for hour, is the past labor actually consumed in production. But this is not what is involved here: what we have here is the immobilization of past labor for a certain period of time, *the duration of its embodiment in new production.*[18]

The better to understand the specific nature of this factor, let us make a comparison over a period of ten production cycles, at the end of which the whole of the past labor embodied in the fixed capital has, in both cases, been completely consumed:

Production A			Production B		
Living labor:		100	Living labor		100
Past labor:			Past labor:		
Circulating constant capital	100		Circulating constant capital	100	
2 machines at 50	100	200	1 machine	100	200
		300			300

Over the period as a whole, the totals of living and past labor actually expended are the same, and nothing has been left. Nevertheless, here, too, production A costs society less than production B, solely because in the latter the fixed equipment, costing 100 hours of labor, must be available at the beginning of the period, whereas in the former only half of it has to be available at the beginning, and the other half not until halfway through the period.

This is the same factor that underlies profit in the capitalist mode of production. The fact that it appears in two opposite modes of production proves that it is independent of social production relations. What is, however, a simple social relation, specifically peculiar to the capitalist mode of production, is the *appropriation* of this factor by a certain social group, the owners of the means of production.

It is not, though, this ownership that per se gives rise to profit, for which it is the necessary but not the sufficient condition. Somebody owns a machine. This fact does not yet in itself confer upon him the right to any profit. If the owner of the machine sells it, he receives in return its value (or its price of production) and no extra profit. Moreover, the value of the machine passes just as it is into the value of the product, without either increasing or decreasing. It passes by way of depreciation, not profit. What confers the right to an additional profit is the fact of *not selling* the machine, of renouncing the possibility of immediately realizing its value, and agreeing, by setting it to work, to realize this only in successive fractions over a certain number of production cycles, and so over a certain period of time.[19]

The objection may perhaps be made that in my example the social cost of the two productions, A and B, is equal, being 300 on each side, for the total amount of past and living labor expended in production in a period of ten years, and that the fact that society prefers production A to production B because of the time factor does not detract in the least from the

determining of "social cost," and thereby of value, by the labor factor alone.

In the particular case of my example, this objection may seem well-founded, since one of the two factors is the same on each side. Let us assume the following case, however:

Production A			Production B		
Living labor		100	Living labor		90
Past labor:			Past labor:		
Circulating constant capital	100		Circulating constant capital	100	
2 machines at 50	100	200	1 machine	100	200
		300			290

Here, the cost in labor is less in B than in A. Since, on the other hand, the two products are assumed to satisfy the same social need, we should have to conclude, if labor were the sole factor, that the social cost of B is also less than that of A. Yet nothing is less certain. Everything depends on how we estimate the time factor. Product B consumes (during ten years) only 290 hours of labor altogether (living and past), whereas product A consumes 300. In order to produce B, however, 100 hours of past labor have to be tied up all through the period (as fixed capital), whereas to produce A it is sufficient to tie up 50. This means that, in order to start producing A, it is sufficient to have already accumulated the product of 50 hours of labor, whereas to start producing B one has to have accumulated 100: that is in the second case society is obliged to save, accumulate, make sacrifice, for a longer period before it can undertake production B and start thereby to economize one hour of living labor per annum.

Which, in *this* case is the product that costs more, whether to the independent producer or to society? Here is the answer:

1. As far as the independent producer is concerned, it depends on the rate of wages and the rate of profit. Since these rates are fixed independently of "objective" economic conditions, they bring about results incompatible with the social optimum.

2. As far as society is concerned, this depends on the estimate that society itself makes of its need for accumulation: in the last analysis, on

the extent of the sacrifice that the current generation will accept for the benefit of future generations, that is, on how much it wants to consume at once, and thus on the real incomes (wages) that it decides to distribute—and so, by subtraction, on the rate of accumulation (rate of profit) it fixes for itself.

The same two factors are thus present on both sides. It is only the rate of their relative intervention that differs, as a result of the vicissitudes of blind competition and disruptive class struggle, on the one hand, and on the other, in accordance with an overall estimate (whether good or bad matters little) of society's interests.

The *technical* difficulty (or even the technical impossibility) of making the second calculation does not affect in the least the role played by *time* as a factor. Even if in practice we were to find it impossible to say, in regard to the example given above, which product cost less to society, our taking account of the second factor would nevertheless enable us to say that the answer is not *necessarily* product B—nor, of course, product A, either—and thus to state a truth. And we could say this because we had correctly established the functions in the mathematical sense, even if actual measurement proved impossible; whereas on the basis of the labor factor alone we should have been obliged to say automatically that it is the cost of product B that is the smaller, and so to state an untruth.

However, political economy has striven to find something firmer than that. "Natural" factors were sought that would be immediately and objectively reducible to a common standard of measurement, regardless of man and the "rates" with which he labels these factors, whether there is competition or not: a common standard of measurement that would constitute the basis for absolute value. This has been the aspiration of economists throughout the ages. Unfortunately, such a standard does not exist. The natural factors—labor, time, land—are reducible *only by man and his "historical" evaluations.* All that we can aspire to is to arrive at an evaluation that is more "objective," or, rather, that is more social in its structure and basis, than, for example, the outcome of a strike.

And so, lacking "natural" reduction of the two factors to a common standard of measurement, we choose one of them, namely, the labor factor—and here we are on firm ground because this factor is homogeneous (or easily conceivable as such) and directly gives us quantities. The trouble is that this firmness is purely ontological, and to take one's stand thereon one has to believe in it.

In any case it follows from what has been said that an integrated society will take account of all the factors that are burdensome to it. If, however, economic decisions are taken by independent producers, these will reckon only with the factors that are burdensome to them, that is, those that are accompanied by a "claim" on the part of their owner to a share of the social product.

Thus, there are factors that enter into the social cost but not into the independent producer's cost. These include the natural factors, which, though available in limited quantities, are not capable of being appropriated, or at any rate, for whatever reason, are not appropriated (together with certain factors, which, though produced by human labor [the infrastructure], are placed free of charge by the community at the disposal of the enterprise).

There are also, however, factors that enter into the independent producer's cost and yet do not exist as social costs. These include factors of pure alienation, pure transfer from one economic subject to another, taxes, royalties, goodwill, various forms of absolute rent, and so on.

It is not only the sort of factor involved that is different, depending on which calculation is being made, "social" or "private." There is also the rate at which the factors intervene. Society as a whole will make its decision in accordance with the quantities of the factors available, but the independent producer has to make his decision in accordance with their prices.

The first kind of calculation is direct, and, provided no technical error is made, gives the optimum result by definition, whereas the second is indirect and insofar as it diverges from the first, gives a suboptimum result. *It is the allocation of the factors and the social (national or international) division of labor on the basis of this second calculation that constitutes the law of value.*

We thus see that this law is a single law, which does not change when we move from labor value to price of production, since in both cases it is the individual cost that determines the allocation of the factors and the social division of labor. What changes is the elements making up this cost.

In the case (whether hypothetical or real) where the independent producer has only one factor to reward, namely, his own labor, and/or, perhaps, the labor of a wage earner (but with his own profit proportionate to this, if so), it is clear that the physical quantities of this factor (calculated on the basis of its time-measured unit) are sufficient for the use values

produced to be reducible to a common denominator—not because these quantities of labor constitute a *substance* that, like the ether of the physicists, permeates the commodity (as a very widely held "naturalist" conception of value would have it), but quite simply because the independent producer has the "right" to change his form of activity and deprive the market of his production if he is not satisfied with the rate of exchange, and he will be satisfied only when the market rewards *his* factor at the same rate as other independent producers receive. This can happen only if commodities are exchanged in accordance with the *quantities* of this factor.[20]

In the case in which the independent producer has to reward several factors, in quantities that are not mutually proportionate, his individual cost, and so the price that satisfies him, can only be that which results from the weighting of the quantities of the different factors by means of their rate of reward. In both cases, however, it is the law of value, the *competitive optimum*, that determines the allocation of factors and the division of labor in society, since it is only when this optimum is attained that transfers cease to be made from one branch to another.

The question arises as to whether the competitive optimum really diverges from the social optimum. The marginalists and neoclassicists of all trends answer with a categoric no. Their argument is based precisely on the assumption that the prices of factors are prices just like other prices, that is, they are *dependent* variables, determined by consumer demand, and so by social need, on the one hand, and on the other, by the marginal productivity of the factors, and so by their relative scarcity. Since society itself possesses no other method of determination for quantifying and reducing the (qualitatively different) factors that enter into social cost, the indirect calculation made by the independent producer leads, according to this conception, to the same result and is therefore just as much an optimum as that which an ideal society would carry out, using an ideal technique of direct calculation. (A subsidiary conclusion is this: since such ideal conditions of centralized calculation cannot, in fact, exist, the competitive optimum is the only one possible.)

This argument is irrefutable unless one attacks its fundamental assumption regarding the prices of factors. However, as soon as this is rejected and it is acknowledged that the rate at which one of the factors is rewarded, namely, the principal factor, labor power, is an *independent* variable, something "given" for each country at each period, as Marx puts it, an

extraeconomic datum—whether this be purely biological, as the old classical writers thought, or moral and historical, as Marx thought (this expression of his embracing the class struggle and the relation of forces at any particular moment)—then the marginalist argument collapses, for there is no theoretical reason why a wage that is predetermined in this way should be compatible with the optimum combination of momentary consumer demand with the quantities of the factors available at the same moment. In mathematical terms, with the predetermination of wages we have one more equation as compared with the number of unknowns, or one unknown less as compared with the number of equations, and the marginalists' problem becomes insoluble.[21]

For my critics, however, wages are not an independent variable, but depend on the productivity of labor, itself determined by the law of the uneven development of capitalism.

THE VALUE OF LABOR POWER AND THE PRODUCTIVITY OF LABOR

To set up the productivity of labor as the determining element in the value of labor power, and so of wages, is an idea that is diametrically opposed to the Marxist, or even to any objectivist, conception of value. The productivity of labor is merely the use value of labor power, its utility, and its marginal productivity is merely its marginal utility. It is quite normal for the marginalists to see this utility as what determines the price of labor. For Marxism, however, wages are not the price of labor but the price of labor power, and the value of labor power is determined, like that of any other commodity, not by the conditions of its consumption but by those of its production. Now, the productivity of labor relates to the *consumption* of labor power (this is productive consumption, of course, but consumption, nevertheless), and not to its production. It is just as much out of place for a Marxist to say that more productive labor is worth more than less productive labor as it would be for him to say, for example, that a visit to the cinema is worth more than a beefsteak because it is more useful or more pleasant.

Here we have a fundamental aspect of Marxism that bears directly upon the class struggle, and it was around this point that Marx disputed with Carey and Bastiat, and later Engels and Paul Lafargue with Leroy-Beaulieu.

The advocates of pre-established harmonies, basing themselves on this very premise that productivity of labor determines wages, tried to show that, despite momentary divergences, the essential interests of the working class and the capitalists converge in the long run, because the development of the productive forces and the subsequent growth in the productivity of labor determine a steady rise in the worker's real wages. Marx came out very strongly against this conception. The capitalist, he pointed out, does not buy labor, but labor power. He pays the cost of reproducing this labor power, and that is all. Whatever surplus may result from an increase in the productivity of labor belongs to the capitalist, not to the worker. On the contrary, indeed, Marx declared, increased productivity of labor, far from having an upward effect on wages, has a downward effect, and he lists the reasons why.[22]

Characteristic in this connection is Marx's analysis of piece wages, a classical instance of a fallacious phenomenon, since the way the rate of payment is fixed presents the appearance of a link between wages and productivity. In fact, Marx points out, piece wages are merely a misleading form of time wages. When wages in a certain factory are fixed at 10 francs per article produced, this merely means that, the normal wages for a day's labor being, say, 100 francs, it has been worked out that the average worker can produce 10 articles a day. Starting from that basis, differentiation takes place in accordance with the intensity of each man's labor. The worker who, *using the same equipment*, produces 15 articles a day, receives 150 francs, while the one who produces only 8 receives only 80 francs. Suppose, however, that a new machine is invented which increases the average worker's productivity from 10 to 20 articles a day. It would be absurd, says Marx, to imagine that the worker's wages would then suddenly be doubled. Quite simply, the piece rate would be reduced from 10 francs to 5 francs, and Marx even quotes various cases heard before the British courts relating to this matter.[23]

Already, when discussing the general form of the free-wage relationship, a few pages earlier, Marx had written at length about this illusion. What was not possible previously, because nobody would have thought of determining the amount of food given to the slave by the results of his labor, or the duration of labor service by the fertility of the lord's land, has now become possible, thanks to the general form of wages.

"Hence, we may understand," he says, "the decisive importance of the transformation of value and price of labor power into the form of wages, or

into the value and price of labor itself. This phenomenal form, which makes the actual relation invisible, and, indeed, shows the direct opposite of that relation, forms the basis of all the juridical notions of both laborer and capitalist, of all the mystifications of the capitalistic mode of production, of all its illusions as to liberty, of all the apologetic shifts of the vulgar economists."[24]

And Engels writes to Lafargue, on August 11, 1881, to demand of Beaulieu: "in what respect the wage worker gains an advantage in seeing his productivity increase, when the product of that productivity does not belong to him and when his wage is not determined by the productivity of the machine."[25]

"NATIONAL VALUE" AND "INTERNATIONAL VALUE"

On the basis of this mistaken position, that the productivity of labor determines the value of labor power and, therefore, wages, some of my critics make a curious distinction between "national" and "international" value and blame me for jumping from one to the other.[26]

According to this conception, though labor is indeed homogeneous within the national setting, it is not so within the international setting. How can we compare—Christian Palloix asks, for example—one hour of an African farmer's labor with one hour of a Detroit worker's labor? Why, we can do this in the same way as we compare one hour of a Detroit worker's labor with one hour of the labor of a hairdresser, or a house-painter, in New York.

The problem of how to reduce labor power to its elements is exactly the same in the national and in the international setting, that is, it is independent of productivity. If you employ construction workers, a certain period of their labor time, with a certain degree of skill and a certain intensity of labor (*intensity*, not productivity), is worth the same as any other period of the same length, with the same degree of skill and the same intensity, regardless of the fact that, depending on the particular building site, or the particular *region*, some of these workers happen to be employed to push wheelbarrows and others to operate giant excavators.

The source of this mistake seems to be a false interpretation of Chapter 22 of Volume 1 of *Capital* on "National Differences of Wages." In this short chapter Marx speaks first about differences in the *intensity* of labor in different countries. What is referred to here is a reduction coefficient,

which does indeed have to be allowed for, and which I allow for in my price-of-production formula. Marx goes on to speak of the special case where "the more productive national labor reckons also as the more intense." This is the case "so long as the more productive nation is not compelled by competition to lower the selling price of its commodities to the level of their value."[27]

What is involved here is obviously the case in which several countries produce and export *the same article*, under conditions of unequal productivity, and this case differs in no way from that in which several enterprises within the same country produce the same article at different costs. We then make the distinction between the individual and the social value of one and the same commodity. The former corresponds to the national value and the second to the international value of a given commodity.[28]

Just as there are cases when the more productive enterprise (in the same country) "is not compelled by competition to lower the selling price of its commodities to the level of their value" (or of their price of production), so there are cases when the country that is most productive in a certain branch is not compelled by competition to accept such a price reduction. What cases are these? Quite simply, those cases in which competition cannot operate because of the immobility of a certain factor, that is, owing to some natural or institutional monopoly, either inside a country or between different countries. Inside a country this difference between individual and social value is always reflected in the creation of a rent in favor of the more productive enterprises. Outside, it may be reflected either in a true rent, or, as a result of the immobility of the labor factor, that is, the monopoly position held by the nation's organized labor, in a quasirent, in the form of a difference in wages.

This special case of the production and export of one and the same article by several countries does not affect in any way my proposition regarding unequal exchange, which relates to exchange relations between two groups of countries—the advanced countries, on the one hand, and the underdeveloped ones, on the other—each of which specializes in different branches. As between different branches of production the productivity of labor cannot be compared, and talk about the difference between national "value" and international "value" is meaningless.[29]

But, my critics object, there are always articles that are produced in both groups of countries at the same time, with different levels of productivity. These common articles can serve, therefore, as the intermediate link for a general comparison between the productivity of labor in the different nations.[30]

There are indeed such commodities, and it is this common standard of measurement that provides the basis for Ricardo's theory of comparative costs. Do we really want to go back to this theory, despite the absence of its fundamental presupposition, the immobility of capital? Very well, then. Let us see what follows as regards the unequal level of the productivity of labor between different countries.

In Ricardo's example one of the two countries is more productive than the other *in every way*, since in all the branches considered its cost in quantity of labor is less, even though to unequal degrees, than that of the other country. But Ricardo's example is unrealistic, not because he chooses Portugal as the more productive country—that makes no difference—but because he assumes this country to be more productive in both articles at once. In reality not only are differences in productivity *unequal*, but one country is *more* productive in some branches and yet *less* productive in others.[31]

While England produces a unit of cloth in 10 hours of labor, Portugal spends perhaps 40 hours to achieve the same result. No doubt. But don't forget that, while Portugal produces a unit of wine in 20 hours, England, despite her higher technical level, would need, in order to cultivate grapes in hothouses and thereby produce wine, to spend a quantity of labor that would be a multiple of the labor needed for this purpose in Portugal, higher than the multiple of English labor that Portugal would need in order to produce cloth.

This is more or less generally the situation regarding the center and the periphery in the world of today. Labor is more productive in the center as far as industrial products are concerned, owing to the means of production available there, but it is still more productive in the periphery as far as agriculture and mineral products that are exported are concerned, owing to the natural factor (not to mention the fact that in most export branches the means of production are in no way inferior technologically to what is available in the center).

Under present-day conditions it would certainly be very expensive for the periphery to make its own automobiles or television sets, but comparatively less so than it would be for the center to cultivate coffee or to raise elephants for their ivory.[32]

Let us then modify Ricardo's model in order to make it reflect this reality:

	A (Industrial product)	B ("Exotic" product)
Center	10 hours	180 hours
Periphery	40 hours	20 hours

The periphery is only a quarter as productive as far as the industrial product is concerned, but it is nine times as productive in the "exotic" product. The geometrical mean between 1/4 and 9 is 3/2.[33]

The zone of indeterminacy within which the rate of exchange, A:B, must fluctuate extends from 1/18, which is the ratio in the center, to 2, which is the ratio in the periphery. Between these limits it is demand that determines price. As there is no reason why demand should *always* be more favorable for *all* the products of the center, which are many and various, and less favorable for all the equally many and various products of the periphery, there is no reason either why the long-term price index should be closer to the upper limit than to the lower one. According to the law of large numbers this index should tend toward the (geometrical) mean between the two limits. This mean between 1/18 and 2 is 1/3, which gives us 3A = B.[34]

If we now assume that each of the two groups has 1,000 hours of labor at its disposal, after specialization they will produce:

	A	B
Center	100	
Periphery		50

Since the rate of exchange is 3A = B, by exchanging 60A for 20B the distribution table becomes:

	A	B
Center	40	20
Periphery	60	30

which gives a ratio of national income per head of 3 to 2 in favor of the periphery, corresponding exactly to the mean of the productivity of labor in these two nations, as worked out above.

Consequently, if it were really comparative productivity that determined wages and incomes in general, the underdeveloped countries should have a wage level and a standard of living higher than those of the advanced countries, since their advantage in the exported article is usually greater than their disadvantage in the imported one.[35]

NATIONAL "APPROPRIATION"

However, let us grant that the opposite is the case. Let us assume that the productivity of labor is on the average greater at the center than at the periphery, and that this difference is due to the uneven development of the productive forces, and so, in the first place, to the machinery, and equipment generally, available at the center. Who owns all this splendid machinery and equipment, which ensures this high level of productivity in the advanced countries?

At the present time we have to face the fact that it belongs not to the workers but to the capitalists, and the argument, brought against my thesis, which tends to justify difference in wages by difference in productivity, bears a curious resemblance to the classical argument used by the capitalist, justifying profit by reference to the productivity of the means of production—but with something lacking, though; namely, acceptance of the legitimacy of the status quo.

Marxists do not endorse this status quo. They have shown, and rightly, that while profit arises from capital, capital itself arises from previously made profit, and that even if we go right back to the very first capital and grant that this was the fruit of the harder work or greater thrift of its owner, it would be absurd to make the proletarians of today suffer the consequences of an original sin committed by some distant ancestor. Furthermore, they have shown that it is not true that the original capital was the fruit of work and thrift: history proves that it resulted from earlier direct plundering of producers, from what is called primitive accumulation. And the Marxists have spread this knowledge so effectively that they have convinced everyone, including the proletarians of the Third World, so that now, in the same machine in which the Detroit worker sees his forebears' toil embodied, the worker of the Third World can legitimately see

the sweat and blood of his own forebears "embodied" just as clearly, if not more so, in the copper from Katanga, the tin from Bolivia, and the rubber from Indonesia of which this machine is made.

To whom, then, do these so highly efficient instruments rightfully belong? They should belong, one would be tempted to say, to those who work with them. The trouble is that even in the most advanced countries there are very few people who actually work with them. Not only the hairdresser and the housepainter whom I have mentioned already, not only the book keeper, the butcher's assistant, the newsvendor, and so on, but even factory workers in other branches, or merely in other parts of the same country, have little to do with these instruments of production in which so much past labor is "embodied." The question must again be asked: to which workers ought the (unevenly) developed productive forces to belong? Which workers' wages should be determined by them? Those of the area where these forces are located? Those of the branch of production or the enterprise that possesses them?

No, my critics do not go so far as that! It would be too ridiculous to propose paying a metal worker in Detroit 40 or 50 times as much as a shoemaker in some Midwestern township, on the grounds that the former works with a giant power press whereas the latter uses only a little sewing machine for joining pieces of leather. My critics are also aware that "Ivory Coasts" and "Congos" are to be found not in Africa alone. There are such places inside even the most advanced countries, in North America no less than in France.

In the end my critics are forced back to the idea that the workers who deserve to benefit from these means of production are those who happen to be nationals or residents of the countries where the means of production in question are to be found. This is a strange conclusion indeed to a line of criticism that, seeking to take a revolutionary Marxist stand, shook with indignation at the alleged tendency of my work to undermine the *international* solidarity of the proletariat.

At the Fifth Congress of the Communist International, Manuilsky, speaking on the national and colonial question said: "Bourgeois theory has adapted the conception of private property to the modern state. According to the theory of bourgeois state law, all wealth and natural resources are the property of that nation which lives where they are found. The formation of the Soviet Union has brought forward a new theory, in which the question of borders is of secondary importance. In our state, a man

from Murmansk has the same right to the Black Sea ports and the Donets coalfield as a peasant from Poltava or a Donets miner."[36]

Bourgeois theory? Bourgeois law? Not at all! According to my critics, the conception attacked by Manuilsky represents the last word of revolutionary Marxism! In fact, however, it is not even a matter of bourgeois law. That law, by virtue of which the bourgeois class profits from the development of the productive forces, played a certain role in history, within the limits of which it was progressive and rational. What is involved here is something quite irrational and backward-looking, namely, hereditary privilege.

What is being claimed is that men's standard of living should be differentiated in accordance with the geographical placing of machines, and the lines followed by the political frontiers that surround these places. Whether or not a man gets enough to eat, whether his expectation of life is to be 30 years or 60 years, whether he and his like are to be 100 percent literate or only 15 percent—all this is to depend on whether or not there are machines within the same frontiers as himself, regardless even of whether, in his own economic activity, his own trade, he has anything to do with these machines. And this is what Charles Bettelheim calls "harsh reality." It must be said that this "reality" is not harsh for everyone concerned.

Notes

1. Cf. Christian Palloix, "La question de l'échange inégal," *Table ronde du C.E.R.M.*, May 30, 1970.

2. Cf. "Theoretical Comments" by Charles Bettelheim, *supra*, p. 426, and Palloix, "La question de l'échange inégal," p. 14.

3. Karl Marx, *Capital* (Moscow, 1966), 3: 899–900.

4. Ibid., p. 177.

5. *Engels-Lafargue Correspondence* (Moscow, 1959), 1: 271.

6. "Absolute Value and Exchangeable Value," written in August 1823 and published by Piero Sraffa in his edition of Ricardo's *Works* (Cambridge, 1951-1955), 4: 361–412.

7. As he also does in his letter to MacCulloch of June 13, 1820: "I sometimes think that if I were to write the chapter on value again . . . I should acknowledge that the relative value of commodities was regulated by two cases instead of by one, namely by the relative quantity of labour necessary to produce the commodities in question and by the rate of profit for the time that the capital re-

mained dormant and until commodities were brought to market. Perhaps I should find the difficulties nearly as great in this view of the subject as in that which I have adopted."

8. On the contradiction between absolute and relative value, see Werner Hofmann, *Wert und Preislehre* (Berlin, 1964). The author did me the honor of sending me his manuscript, and at that time I expressed my disagreement with him on this problem. I now acknowledge gladly that I was mistaken.

9. Louis B. Boudin, "Mathematische Formeln gegen Karl Marx," *Neue Zeit*, 25, no. 1 (1906–1907): 528.

10. M. I. Tugan-Baranovsky, *Soziale Theorie der Verteilung* (Berlin, 1913).

11. Natalie Moszkowska, *Das Marxsche System* (Berlin, 1929).

12. This discussion started up again in 1942, with the publication of *The Theory of Capitalist Development*, by Paul Sweezy, who put forward a solution that was new, but subject to restrictive and special conditions. Winternitz offered, in an article published in the *Economic Journal*, June 1948, a solution that is exactly the same as Moszkowska's, though apparently he did not realize this. In the March 1956 issue of the same journal, Ronald Meek set out an original solution in which he formally dropped the condition of equivalence between the sum of values and the sum of prices of production, in favor of equivalence between the sum of surplus-value and the sum of profits.

Naturally, these three recent solutions succeed no better than the old ones discussed above in ensuring the invariability of the rate of surplus value after "transformation." Yet it is this invariability that would alone save the thesis according to which prices of production are merely another "form" of the same content that was analyzed in Volume I of *Capital*, since the most essential element in this content, namely, the ratio between necessary labor-time and unpaid labor-time, is itself modified.

Marx was aware of this. In Chapter 9 of Volume III of *Capital* he wrote: "As for the variable capital, the average daily wage is indeed always equal to the value produced in the number of hours the labourer must work to produce the necessities of life. But this number of hours is in its turn *obscured* by the deviation of the prices of production of the necessities of life from their values." (My emphasis, A. E. Marx's own word, *verfälschen*, means "falsify" rather than "obscure," as the standard English version, here quoted, renders it.)

13. Cf. Paul M. Sweezy, *The Theory of Capitalist Development* (New York, 1956), pp. 128–130.

14. Robert Guihéneuf carries this method so far that, in his work on *Le problème de la théorie marxiste de la valeur* (Paris, 1952), he regularly uses the word "price," on its own, instead of "price of production." If I have read his book attentively, the expression "price of production" nowhere appears in it; except, of course, where he quotes Marx.

15. At first sight this seems to contradict the passage in Chapter 1 of my book where I say that capital is "directly and completely homogeneous since by its very nature it is always abstract" (cf. *supra*, p. 13). However, this contradiction is only apparent, because what is *given* here is not capital and its profit but the material foundations for these. It is prices that make possible the transition from these heterogeneous concrete objects to homogeneous abstract magnitudes.

16. In appearance, the addition of $r = 5A+10B/90A+80B$ means that these are three equations, but there are only two *independent* ones.

17. Piero Sraffa, *Production of Commodities by Means of Commodities* (Cambridge, 1963).

18. Simple addition of past labor to living labor, without taking account of the coefficient represented by this duration, that is, without allowing for the relative importance of fixed capital, has led in the Soviet Union and other East European countries to the absurdity of "own costs" and all that squandering of equipment denounced in the various "economic reforms" discussed between 1963 and 1967. This does not, of course, mean that everything proposed or applied in these reforms was justified.

19. The Marxists would perhaps have won their dispute with the marginalists more easily if they had recognized that *time* is indeed a factor that is independent of social production relations, while showing that the appropriation of this factor by a certain social class *is* dependent on a certain historical mode of production, instead of digging in on a position impossible to maintain, namely, that labor is the only factor that creates exchange value or value.

20. The discussion between Guihéneuf and Goblot was interesting in this connection. The latter said that a trader does not give any thought to the quantity of human effort that a product represents. Guihéneuf replied that on that basis the earth would never have ceased to be "flat and motionless." Thus, for Guihéneuf, value is a property that is just as natural and inherent in the case of the commodity as are its shape and its rotatory movement in the case of the earth. He forgets that the earth has no need of man and his thinking to be mobile and spherical, whereas commodities can neither be exchanged nor have value unless men and their thinking intervene. This does not mean, of course, the thinking of the economist when he reasons about the behavior of the trader, but what goes on in the head of the trader himself when he is thinking about his business while actually engaged in it; in other words, his *praxis*. "Ninety per cent of all the mistakes, misunderstandings and brain-torturings," wrote E. A. Preobrazhensky, "which occur when our young people study Marx result from a naturalistic conception of the law of value. Having grasped in a formal way that the categories signify relations between people, many stubbornly revert to a conception of them as real categories . . ." (*The New Economics* [Oxford, 1965], p. 149).

"The relations (between commodities) in an *exchange transaction*," wrote Plekhanov, "merely express the relations between the *workers* (as producers of commodities) *in the social process of production*. The value of commodities thus merely expresses the relation between the labor of their producer and the whole production process. It follows that value is a social production relation. People often think of it as though it were a property inherent in things, but this is an illusion" (Plekhanov's own emphasis. "Le facteur économique, 1897-98," in *Oeuvres philosophiques* [Moscow], 2: 276).

According to Lenin, this was the very first step that Marx took beyond the classical political economy of Adam Smith and Ricardo. "Where the bourgeois economists saw a relation between things (the exchange of one commodity for another) Marx revealed a *relation between people*. The exchange of commodities expresses the connection between individual producers through the market." (Lenin's own emphasis. "The Three Sources and Three Constituent Parts of Marxism," March 1913, *Collected Works* [London, 1940], 19: 26).

21. The marginalists themselves argue explicitly that any extraeconomic fixing of wages through political or trade-union action brings about a sub-optimum situation. The question then arises, however—what can be the point of such a theory in a world where wages are always, everywhere, and without any exception fixed by extraeconomic procedures? What is still more surprising is that Charles Bettelheim accepts my critique of the international division of labor on the basis of comparative costs and yet rejects any idea that wages could be an independent variable, and even goes so far as to say categorically that wages are a price like any other (cf. "Les travailleurs des pays riches et pauvres ont des intérêts solidaires," *Le Monde*, November 11, 1969). Yet the only argument that gives foundation to my critique of the international division of labor is just this, that wages constitute an independent variable. If this is not so, and wages are a price like any other, my critique falls to the ground, and the international division of labor based on comparative costs must mean a world optimum situation, as argued by Ricardo, on the one hand, and by Heckscher and Ohlin, on the other. For it is enough to accept that the relative scarcity of factors determines their prices, for costs compared on the basis of their prices to be seen as leading to optimum results.

22. Cf. "Arbeitslohn" ("The Wages of Labor"), Brussels lectures, December 1847, in Marx, *Oeuvres de Karl Marx: Economie* (Paris, 1968), 2: 160–164.

23. *Capital* (London, 1970), vol. 1, ch. 21.

24. Marx, *Capital*, 1: 540.

25. *Engels-Lafargue Correspondence*, 1: 233.

26. What is meant here is "value" in the Marxist sense, that is, as the socially necessary quantity of labor, and not "value" in the everyday sense of exchange value of price. In regard to this latter sense, I have myself made the distinction

between national and international value and have spoken in the text of the specificity of international value.

27. Marx, *Capital*, 1: 560.

28. Cf. *supra*, pp. 135–137, where I have already discussed this question.

29. Not only implicitly but explicitly as well, Marx refers to this special case of unequal productivity within the same branch: "The different quantities of commodities *of the same kind* [my emphasis, A. E.], produced in different countries in the same working time, have, therefore, unequal international values . . ." (*Capital*, 1: 560). What is odd is that the critics who refer to this chapter as a source of arguments against my thesis, and even go so far as to quote the above phrase (e.g., André Granou, in *Politique aujourd'hui* [February 1970]), pay no attention to the words: "of the same kind."

30. This was the argument put forward by P. Boccara at the Round Table discussion held by the C.E.R.M. in Paris on May 30, 1970.

31. In most cases, at least, See below, note 35.

32. It could be objected that we ought not to compare productivity in relation to what might be produced, but only in relation to what actually is produced. Why not, though? What a country produces depends on the ratio between the country's productivity and that at which the article in question could be produced elsewhere. If this is not so, then an institutional compensatory factor must be present that makes it possible to produce even with a poorer level of productivity. This may take the form of low wages, so that wheat can be produced in Greece at the same time as in Canada, despite the huge difference in productivity, or it may take the form of subsidies or tariff barriers enabling oil to be produced in the United States at the same time as in the Middle East, or sugar in France at the same time as in Cuba, despite equally substantial differences in productivity the other way round.

33. It is indeed the geometrical mean that must be taken, since we are dealing with proportions, not absolute magnitudes.

34. I think I have already adequately shown, in the main body of this book, the insubstantiality of the argument that ascribes the long-term worsening of the terms of trade of the underdeveloped countries to a permanent deficiency in demand and need not go over this ground again. Here, I am simply ignoring this element.

35. This does not mean that the formula given above corresponds to every case of exchange between advanced and underdeveloped countries, taken separately, country by country, nor that Ricardo's formula is unrealistic in every case. Pairs of countries may be found where one is more productive than the other in *all* the branches involved in their mutual exchanges, that is, pairs that fit Ricardo's formula instead of mine. If, however, we wish to study the relations between the advanced countries as a whole (the center) and the underdeveloped

countries as a whole (the periphery), I think we must take account of the fact that the algebraical mean advantage of the productivity of the periphery as regards exported goods is greater than the corresponding advantage held by the center. Even if this were not so, however, the fact that there is at least one pair of countries where this situation can be shown to exist, and that, despite this fact, wages, both real and nominal, are higher in the advanced country than in the underdeveloped one, decisively destroys the argument according to which the difference in wages between one country and another is due to the differences in mean productivity between the commodities exported and imported by the countries concerned.

36. It is true that this was said in 1924, when the inhabitants of the Soviet Union had not much wealth to live on. No representative of that country would allow himself to speak in this way nowadays at any international communist gathering.

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