The Laws of International Exchange

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Comparative costs

There is no proposition so central to orthodox theories of international trade as the so-called Law of Comparative Costs. From Ricardo to Hecksher-Ohlin to Samuelson, in one guise or another, the basic principle has remained unchanged. Even the relentless search of neoclassical economics for a state of perfect triviality has not emptied this particular principle of its content; from the time of its derivation by Ricardo to its current incarceration in an Edgeworth-Bowley Box, this law has continued to dominate the analysis of international trade. Even – and this is surely its greatest triumph to **date** – even its public exposure as having been all along the hidden law behind modern marriage has not (yet) led to its complete discreditation.[1]

It is not surprising that a principle capable of surviving "improvements' ' such as the above has managed to also withstand repeated attacks. Before we touch upon these attacks, however, it will be useful to briefly describe the law itself.

There are in fact two distinct propositions associated with this law, and the tendency to conflate the two has been a potent source of confusion in the literature.

Let us begin by considering a country in which cloth and wine are produced and sold at the price ratio $(p_c/p_w)_1$ in the domestic market. Across the channel is another country in which cloth and wine are also produced and sold locally, generally at a different price ratio $(p_c/p_w)_2$ than in the first country. Suppose the price ratios are different. Then, if the price of cloth relative to wine is lower in the first country than in the second, the price of wine relative to cloth must be lower in the second; that is, in each country one commodity will be *relatively* cheaper.[2]

The first proposition is a prescriptive one. It asserts that *if* each country were to export its relatively cheaper commodity and import the other, *and if* the terms of trade between cloth and wine were to settle between $(p_c/p_w)_1$ and $(p_c/p_w)_2$, then each country-as-a-whole would gain from trade. That is, by concentrating its production towards the relatively cheaper good and exporting part of that good in exchange for the other good, each country would end up better off, in the sense that through trade a given set of inputs could be translated into more outputs than before trade.

It is very important for our subsequent discussion to note that the above proposition in no way depends on the absolute costs of wine and cloth in the two countries. Thus, even if one of the two nations were absolutely more efficient in producing both commodities – so that both wine and cloth were absolutely cheaper in one country than in the other[3] – "trade can be beneficial if the country with the all-around inferior efficiency specializes in the lines of production where its inferiority is slightest, and the country with all-around superior efficiency specializes in the lines of its greatest superiority." (Yeager, 1966, p. 4) Therefore, this proposition argues that *if* under the right conditions (differences in pretrade relative prices, the "correct" pattern of exports, and an intercountry terms of trade in the "appropriate" range), each country, *no matter how backward its technology*, would benefit from trade. Absolute costs are of no moment; all that matters is relative costs. Hence the term "the principle of comparative advantage.''

Taken by itself, the first principle says nothing at all about what actually happens in international trade. In fact, it would appear to be largely

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irrelevant to the real process. Exports and imports, after all, are undertaken by capitalists for the sake of profit, not gains to the "nation." Profits, moreover, depend crucially on absolute money costs: the lower-cost producer is always in a position to beat out its rivals. In trade between two advanced countries, each country might be expected to have some absolutely efficient producers, so that in this case absolute advantage and comparative advantage coincide: each country will then have one commodity for which it is the lowest-cost producer and hence the exporter. But how could a backward country in competition with an advanced one possibly hope to enjoy the "gains from trade" when both its producers are the higher-cost producers'?

This is where the second proposition comes in. It is a descriptive proposition, for it asserts that in free trade the patterns of trade *will* in fact be regulated by the principle of comparative advantage – regardless of any absolute differences in levels of productive efficiency. The crucial element in this step, therefore, is the presence of some *automatic mechanism* that will cause free trade undertaken by profit-seeking capitalists to converge to this result.

The sum of the two propositions is what is generally called the "law of comparative costs": if permitted, free trade will end up being regulated by the principle of comparative (not absolute) advantage, and the resulting gains from trade will be shared among the trading partners.

In the original form given to it by David Ricardo, the crucial automatic mechanism was the relation between the quantity of money and the level of prices: the so-called *classical quantity theory of money*. In Ricardo's famous example, for instance, Portugal can produce both wine and cloth more cheaply than England. Trade between England and Portugal would therefore initially be all in one direction, with Portugal exporting both wine and cloth, which England would have to pay for directly in gold since its products were noncompetitive with Portugal's. But now the crucial equalizing mechanism comes into play: the outflow of gold from England is a decrease in its money supply and would therefore lower all money prices in England; similarly, the inflow of gold into Portugal would raise all money prices there. As long as the trade imbalance persisted, this mechanism would continue to make British wine and cloth progressively cheaper, and Portuguese wine and cloth progressively more expensive, until at some point England could undersell Portugal in *one* of the two commodities, leaving Portugal with the relative advantage in the other. The exact determination of the terms of trade was understandably not important to Ricardo, nor should it have been; the real point was that no nation need be afraid of free trade, for it humbles the mighty and raises the weak. Something like God, only quite a bit more reliable.

The more recent formulation of the law, the Hecksher-Ohlin-Samuelson *law of factor proportions*, leaves intact the basic principle set out by Ricardo. However, whereas Ricardo identified the real social cost of producing a commodity as the total labor-time that went directly or indirectly into production, the neoclassical formulation insists upon defining the social cost(s) of a commodity to the nation-as-a-whole as being the commodities it (the nation) must forego, at the margin, in order to produce an extra unit of the commodity in question. Since this concept of cost as opportunities foregone cannot be used if there are unemployed resources – for then any given commodity can be produced without the national individual (Uncle Sam) having to give up any others, that is, without any opportunity cost – neoclassical theory finds it necessary also to assume full employment. The assumption of full employment is therefore just the hidden dual of the concept of opportunity cost.

The second distinguishing characteristic of the neoclassical version is that, whereas Ricardo bases the patterns of international specialization on international differences in relative costs, whatever their origin, the Hecksher-Ohlin formulation attempts to tie the cost differences themselves to a single dominant factor: the national endowments of labor and capital. Thus, leaving absolute advantages aside, this approach would argue that, given any two countries, the capital-abundant country (the one having the higher national capital-labor ratio) would tend to be able to produce capital-intensive goods *relatively* more cheaply than the labor-abundant country. Conversely, the labor abundant country (the one having the lower national capital-labor ratio) would of course have the relative advantage in labor-intensive production. It follows therefore that capital-abundant countries (read industrialized capitalist countries) will and, for reasons of efficiency and the good of the world-as-a-whole, should, specialize in capital-intensive (secondary) products, exporting them in return for the labor-intensive (primary) products of the labor-abundant (underdeveloped capitalist) countries: In other words, the existing differences between developed and underdeveloped capitalist countries are *efficient* from the point of view of the world-as-a-whole. Poor Ricardo dared only to claim that free trade is better; neoclassical theory can boldly claim that international inequality is best. No wonder that Gary Becker

found in this analysis so convenient an explanation for institutionalized sexism (Becker, 1973, 1974).

What is perhaps most striking about the neoclassical approach is that it completely assumes away any possibility of absolute advantage on the part of any one country: wine production in England and wine production in Portugal are assumed to be characterized by exactly the same production function; similarly, cloth too has its own universal production function. The central thrust of Ricardo's argument was of course that free trade leads to gains even for countries that are absolutely inefficient in comparison to their trading partners; in the Hecksher-Ohlin version all this is sacrificed to the need to prove that patterns of international specialization are consequences of the various national "factor endowments." It is interesting to note, however, that when Leontief's famous empirical test of the Hecksher-Ohlin model appeared to refute it, "Leontief rationalized this result by hypothesizing that American labor is three times as productive as foreign labor" (Johnson, 1968, p. 89)[4] – that is, he resorted to the argument that the U.S. pattern of trade could be explained by its *absolute advantage* over its trading partners! A fuller discussion of Leontief's study is at the end of the next section, "Orthodox critiques."

In general, modern presentations of the law of comparative costs make no reference to the actual mechanisms by which the law is to be brought about. The emphasis is almost entirely on the gains from trade that would be achieved if trade were to be based on comparative costs; nonetheless, because these 'discussions are also intended to be descriptive, "the implicit assumption is [made] that the adjustment of money wage and price levels or exchange rates required to preserve international monetary equilibrium do actually take place . . ." (Johnson, 1968, p. 84) As we shall see later, in the second major section, modern derivations of comparative costs rely on what are essentially variants of Ricardo's mechanism: in all cases, the very nature of the desired solution requires monetary variables (price levels and/or exchange rates) to adjust in such a way as to transform absolute advantage into a comparative one. In all versions, therefore, given England's absolutely lower efficiency and hence initially higher costs of production, its ensuing trade deficit must somehow result in a lowering of English prices while Portugal's trade surplus must lead to a raising of its prices – until at some point each country has a cost advantage in only one commodity.

The critique of comparative costs consequently requires us to contrast four basic theories of money: the Hume specie-flow version of the quantity theory (Ricardo), the cash balances version of the quantity theory, the Keynesian determination of prices through the level of money wages, and Marx's theory of money. In order to do this, we need a common ground of some sort.

Fortunately for us, most of the history of international trade, and hence most of its theory, has been dominated by precious metals as the standards of both domestic and international money.[5] Thus, in discussions of the theories of international trade, we always find a common theoretical ground – their operation under the so-called gold standard (The discussion of fixed versus flexible exchange rates and their relation to the gold standard is reserved for the second major section). By contrasting various theories on this basis, differences in the theories themselves may be separated from differences in institutional arrangements. And because neither the Ricardian nor the neoclassical versions of the law of comparative costs claim to be dependent on any specific monetary institutions, the gold standard is a valid common ground. So much so, in fact, that the neoclassical treatment of the adjustment mechanism under the gold standard is virtually identical to that of Ricardo: "The adjustment mechanism under the gold standard . . . was more or less automatic in the sense that central banks were expected to react to gold outflows and inflows by more restrictive and less restrictive monetary policies, respectively, which would in turn react upon price and wage levels, lowering them in the deficit countries and raising them in the surplus countries. These price changes, in turn, were expected to shift expenditure from surplus to deficit countries, thus reducing and eventually eliminating the disequilibrium . . . the theory is correct in its broad outline even if its practice has been somewhat oversimplified" (Mundell, 1968, pp. 8-9).

We find, therefore, that, in spite of their much discussed differences, the fundamental structure of both the Ricardian and neoclassical versions of the law of international exchange is the same: in both cases it is relative advantage and not absolute which determines the pattern of trade: in both cases trade is mutually beneficial (or, at worst, not harmful) to each country viewed as a single classless entity; and, above all, in both cases the mechanism which brings about the successful operation of the law is essentially the same.

Orthodox critiques

The law of comparative costs, whatever its form, has always been associated with the advocacy of free trade: Ricardo's own development

of this principle was in fact part of his polemic against the corn laws (laws which prevented the free import of cheap corn into England), and from that time onward free traders of all kinds have based their own arguments on those of Ricardo. It is not surprising, therefore, to find that the primary thrust of critics has been to attack not so much that part of the law which argues that the pattern of trade will depend on comparative costs, as it has been to attack the proposition that free trade is efficient, mutually beneficial, and good for the world-as-a-whole.

Frank Graham, for instance, focuses on the assumption of constant cost, which he argues is essential to the operation of the law; thus, by working with combinations of increasing and decreasing costs, he is able to provide counterexamples in which free trade and specialization are harmful to every one of the countries involved (Emmanuel, 1972, p. XV).[6] In a similar vein, Keynesians often attack the assumption of full employment, which, as we have seen, is a necessary complement of the *neoclassical* versions of the law; here, it is possible to construct counterexamples in which hypothesized combinations of unemployment and inflation may under certain circumstances have a feedback effect on the operation of the law and thus counteract it.[7] Finally, there exists a whole series of modifications of the law, based on the analysis of international differences in taste, on the existence of tariffs and quotas, transportation costs, customs unions, and so on.

In spite of their apparent opposition to the law, all the above criticisms have this in common: *implicitly (and often explicitly), they accept the law us being theoretically valid on its own grounds*. Instead, they seek to modify one or more of these grounds so as to provide theoretical counterexamples. It is therefore not at all surprising that these criticisms are usually viewed not as refutations of comparative costs, but rather as its further development; typically, in neoclassical textbooks, the doctrine of comparative costs is presented as *the* fundamental principle underlying international trade, with the foregoing criticisms as extensions and concretizations of it.

Orthodox critics, however, have yet another recourse – attack by means of data. Here, the two examples most often cited are the results of Leontief s famous study (Leontief, 1953, 1956, 1958), now known as the "Leontief paradox," and those of the Arrow-Chenery-Minhas-Solow study, which gave rise to the so-called factor reversal issue (Arrow, et al., 1961). We will examine each in turn.

In the early 1950s, Leontief set out to empirically test the central proposition of the neoclassical version of the law of comparative costs. Beginning with the fact that the United States was by all accounts a capital-abundant country, Leontief reasoned that those goods which America exported should be more capital intensive than those which it replaced by imports. What he actually found, however, was just the opposite: "contrary to expectations United States exports are more labor-intensive . . . than United States imports" (Johnson, 1968. p. 88).

Neoclassical theory, it will be recalled, takes it for granted that, in accordance with Ricardo's law, each country will export the relatively cheaper commodity. What the Hecksher-Ohlin-Samuelson model seeks to do is to go one step further and argue that this relatively cheaper commodity will in fact be the one which uses proportionately more of the relatively abundant factor of production: hence the theoretical expectation that the capital-abundant country will export the capital-intensive commodity. In order to make the above links, however, it is necessary to assume away the possibility of absolute advantage. In neoclassical terms, this means that the production function for a given commodity, say wine, is assumed to be the same no matter whether wine is produced in England or in Portugal: thus wine *could* always be produced at the same cost everywhere. It is not surprising, therefore, that, when faced with the unexpected results of his study, Leontief was led to challenge precisely that assumption.

Leontief's challenge did not go unanswered for long. In 1961, Arrow, Chenery, Minhas, and Solow published a study in which they argued that cross-country comparisons of production functions did indeed indicate that American production was systematically more efficient than others: in other words, that the United States had an absolute advantage (Arrow, et al., 1961; see note 4 of this chapter). These results prompted an investigation of the properties of the Hecksher-Ohlin-Samuelson model when production functions differ across countries, which in turn led to the theoretical possibility that capital-abundant countries might export labor-intensive commodities (Minhas, 1962).

Distressing as these results are to the proponents of the Hecksher-Ohlin-Samuelson model, they have little bearing on the principle of comparative costs, for (as we have already noted) the model *begins* by assuming the Ricardian pattern of specialization according to comparative costs and then attempts to link this pattern to the "factor endowments" of the nations involved. At best, therefore, the above empirical and theoretical paradoxes merely sever the attempted link between national factor endowments and the pattern of trade. *They leave the Ricardian law untouched.*

Finally, we come to those critics who attack the law as being *no longer* valid, because one or more of its premises no longer hold in today's world. Here, we find that the empirical criticism of the law, and particularly of the efficacy of free trade, is based on modem developments such as the loss of wage and price flexibility, the demise of the gold standard, the death of competition, and systematic interference by governments? For our purposes, it is sufficient to note that this historical school of orthodox criticism (which, as we shall see shortly, has its Marxist counterparts) implicitly accepts the law as valid where its premises – primarily those involving competitive capitalism – can be taken to hold. On its own grounds (which in this case involve a particular historical epoch), the law is accepted as valid.

In sum, we find that so far as orthodox criticism is concerned (whether it be theoretical, empirical, or historical), the basic principles of the doctrine of comparative costs emerge relatively unscathed.

Marxist critiques

Given Marx's exhaustive treatment of Ricardo' s theory of value, it would seem that Marxists long ago have extended his analysis in one way or another to deal with the Ricardian law of comparative costs. Curiously enough, this is not so: instead, the issue is seldom mentioned (Mandel, 1968; Sweezy, 1942). Where it is discussed, Ricardo's attempt to determine the limits of international exchange is acknowledged only implicitly by accepting one of his central conclusions: whereas the law of value regulates exchanges within a competitive capitalist economy, it does not do so between such economies (Sweezy, 1942, p. 289).

Why this striking silence? In part, it arises from the fact that Marx himself never directly accepts or rejects Ricardo's principle of comparative costs. This appears to be a puzzle until we realize that, to Marx, Ricardo's chapter on foreign trade is essentially a special analysis of *merchant capital:* "The great economists, such as Smith, Ricardo, etc., are perplexed over mercantile capital. . . . [W]henever they make a special analysis of merchant's capital, as Ricardo does in dealing with foreign trade, they seek to demonstrate that it *creates* no value (and consequently no surplus-value). But whatever is true of foreign trade, is also true of home trade" (Marx, 1967, Vol. III, p. 324, emphasis added).,

Historically, of course, merchant's capital precedes industrial capital. But in the capitalist mode of production it is industrial capital which is dominant; Marx's analysis therefore begins with the latter and only arrives at the former (merchant's capital) in Volume III of *Capital.* It is industrial capital which is involved in the production of commodities, and hence in the *creation* of value and surplus value. Merchant capital, on the other hand, is involved in the trading of commodities; it therefore accomplishes the *transfer* of value and of surplus value, nationally and internationally. It follows from this that in order to understand its role within capitalist (rather than precapitalist) modes of production, merchant capital can be introduced only after value and surplus-value have been properly developed. Moreover, because the essential circuit of merchant capital involves "buying cheap and selling dear," the question of the determination of prices is critical; and this in turn means that money the connection between value and price, surplus-value and profit – must be adequately developed prior to the analysis of merchant capital. This last point bears repetition: a correct analysis of the role of money is absolutely crucial to an understanding of the laws of commodity trade. This applies whether the trading is done nationally or internationally.

It was of course Marx's original intention to extend the analysis presented in the three volumes of *Capital* to the treatment of international trade and the world market, each to be dealt with in separate volumes (Marx, 1973, p. 54). But this never happened; instead, at the time of Marx's death even Volume III of *Capital* existed only as a "first extremely incomplete draft" (Marx, 1967, Vol. III, p. 2). Nonetheless, as I shall attempt to prove in this chapter, the development of the law of value in *Capital* contains all the necessary elements for its extension to international exchange. As we shall see, Ricardo's law of comparative costs follows immediately from his law of value and his theory of money; and Marx has provided us not only with detailed criticisms of Kicardo on both value and money, but also with his own formulations of these subjects. The principal task of this paper is, therefore, to attempt an extension of the Marxian law of value to international exchange.

The paucity of references in Marx to international commodity trade is, however. only part of the explanation for Marxist ambivalence on the subject. Another, equally important, part lies in the fact that ever since the publication of Lenin's *Imperialism* (Lenin, 1939) it has become a Marxist commonplace to assert that capitalism has entered its monopoly stage. Now, in the case of monopoly, it is widely accepted by Marxists and non-Marxists alike that laws of price formation must be abandoned (Sweezy, 1942, pp. 270-l): "the most serious aspect of

monopoly from an analytic point of view, is that the discrepancies between monopoly price and value are not subject to any general rules (Sweezy, 1942, p. 54). What remain therefore are the basic social relations of capitalist commodity productions, and it is to the various manifestations of these that the theory of monopoly capital turns.

Of course, once the laws of price formation in general are thrown out, the laws of international price formation necessarily follow. The focus shifts instead to the domestic and international rivalries of giant monopolies, to their political interaction with various capitalist states, and to the antagonisms and conflicts between these states themselves – in other words, to imperialism as an aspect of *monopoly* capitalism. The law of value, like competitive capitalism itself, fades into history.

It is beyond the scope of this chapter to attempt a proper construction of a Marxist concept of monopoly, so as to confront the views mentioned here. It must be noted, however, that even an *acceptance* of the aforementioned views in no way puts to rest the ambivalence among Marxists with regard to Ricardo's law, any more than it resolves the recurring conflicts on the transformation problem, the theory of wages, etc.; instead, it merely sidesteps them? Like their orthodox counterparts, these Marxist criticisms leave the law of comparative costs still standing – in the case of competitive capitalism, at least.

Emmanuel and unequal exchange

In recent years, this whole issue has been once again brought sharply into focus by Arghiri Emmanuel's challenging new work entitled *Unequal Exchange: A Study of the Imperialism of Trade* (Emmanuel, 1972). In this book, Emmanuel sets out to overthrow the pernicious doctrine of comparative costs by attacking what he argues is its most fundamental assumption – the immobility of capital between different countries. [10] In Ricardo's original derivation of the law, Emmanuel notes, Portugal is by assumption absolutely more efficient than England in both wine and cloth; hence, if Portugal and England were mere regions of the same nation, capital invested in Portugal would be considerably more profitable, so that eventually the absolute advantage of the Portuguese region would lead to the cessation of both wine and cloth production in the English region. But, says Ricardo, Portugal and England are separate nations, and in genera1 this erects significant barriers to the mobility of capital between them, barriers which he notes he would be "sorry to see weakened" (Ricardo, 1951, p. 136). In Ricardo, therefore, the analysis of flows between nations is essentially confined to *commodity* flows, and it is his contention that in this case Portugal's absolute advantage is of no lasting consequence; in the end, only relative advantage matters, so that each nation is assured of having at least one exportable commodity to specialize in.

Emmanuel accepts Ricardo's law on its own grounds (Emmanuel, 1972, pp. xxxii-iii). But, he argues, its fundamental structure results from the fact that Ricardo restricts his analysis to those situations in which only commodities flow between countries. The modern world, on the other hand, is characterized by massive international movements of *capital*, in addition to those of commodities (Emmanuel, 1972, p. xxxiv). To Emmanuel. therefore, the essential question is: how do the international movements of capital affect the previously valid Ricardian law of international exchange? In other words, what is the appropriate form of this law in the modern world?] [1] The emphasis on international capital movements is of course not unique to Emmanuel. In Marxist analysis of imperialism, for instance, the internationalization of capital plays an absolutely central role; even modern day proponents of the law of comparative costs often go on to treat the issue of foreign investment and international capital mobility. In general, however, these existing analyses treat capital flows as a factor strictly separate from the laws of international commodity trade (Kenen, 1968); what Emmanuel proposes to do instead, is to integrate this movement into the law itself and, by so doing, separate the determination of the laws of international exchange from any apologetic for free trade. To Emmanuel, "modern free trade" is characterized by both capital *and* commodity flows between nations. It is his avowed intention, moreover, to demonstrate that it is precisely the laws of this modern free trade, which, when applied to the trade between developed capitalist countries and the so-called Third World, [12] give rise to a variety of phenomena normally associated with the term "imperialism" : Imperialism is the highest stage of free competition. [13]

The first step in understanding Emmanuel's analysis is to pose the question: *why* does capital flow between countries? And the answer, of course, is because there exists a difference in profitability between the countries involved. So the question becomes, what are the intrinsic determinants of this difference?

Let us begin with the selling price. In general, international capital produces for the *world* market; if we ignore transportation costs (as

being secondary factors in determining the pattern of trade), then, no matter where production is located, the selling price for a given type of product is more or less the same – it is the world market price. Moreover, because commodities do flow between countries, technology is also internationally mobile: aside from transportation costs, a given type of plant and equipment can be located for more or less the same cost in any country accessible to international capital. [14] But if the selling price is more or less independent of the international location of production, and the cost of a given plant and equipment is too, then what gives rise to international differences in profitability? The answer, it would seem, could only be: the abundance of natural resources and/or the cheapness of wage labor.

As long as the question is posed in terms of *any* two countries accessible to international capital, it is not possible to narrow down the list of factors any further. What Emmanuel has in mind, however, is not the relation between just any two countries but rather the relation between developed capitalist countries of the world and the so-called Third World, that is, the underdeveloped, capitalist-dominated countries. And in terms of this division of the capitalist world, the overwhelmingly significant difference arises from the relative cheapness of wage labor in the Third World. The United States is at least as rich in natural resources as India, but it is not uncommon to find Indian wages to be one-twentieth those in the United States. Emmanuel estimates that "the average wage in the developed countries is about thirty times the average in the backward countries" (Emmanuel, 1972, p. 48). According to Emmanuel, therefore, capital flows from the developed to the underdeveloped capitalist countries primarily to take advantage of the enormous difference in the cost of labor-power.

We come now to Emmanuel's analysis of the effects of these international capital movements. Wages, it will be remembered, are enormously lower in the Third World, so that, other things being equal, profit rates for local capitalists would be very high. If local capitalists tended to reinvest heavily, or if through government action these profits could be taxed away and reinvested, high profit rates would imply a high rate of growth of Third World countries leading to rapid development, a narrowing gap between rich and poor countries, and, above all, domestic control of domestic resources. Whatever else was wrong, there would at least be no imperialism. [15]

But the actual pattern appears to be the exact opposite of the above; what we observe, Emmanuel notes, is stagnation, a widening gap between rich and poor countries, and widespread foreign domination of Third World countries (Emmanuel, 1972, pp. 262-3). The major cause of all this, he argues, is foreign investment: the very same low wage/high profitability combination which *could* make rapid development possible in the Third World is exactly the factor that also makes these countries so very attractive to foreign capital. Because foreign investment originates in countries in which the average rate of profit is much lower than it is in the Third World, foreign capitalists are generally willing to accept much lower rates of profit than local capitalists; they therefore invade local markets, driving out local capitalists, drawing down prices and thus lowering the average rate of profit in the Third World. In this way the surplus generated in the Third World is siphoned off by foreign capital, to the detriment of the Third World and to the benefit of the developed capitalist countries. As a consequence, in the developed capitalist world foreign investment leads to higher profit rates, higher prices, and higher growth: hence prosperity and full employment. In the Third World, on the other hand, the very same movement results in lowered prices, lowered profits, and lowered growth: hence stagnation, unemployment, and foreign domination (Emmanuel, 1972, p. 265).

It is Emmanuel's great merit to have revived the important issue of the laws of price formation in international exchange, and in particular to do so in a way that suggests that it is not necessary to abandon the laws of competition in order to be able to understand the intrinsic determinants of modem imperialism. But there are significant weaknesses in the manner in which' Emmanuel himself deals with this issue. To begin with, though he uses Marxist categories such as value and surplus-value, the methodological basis on which his work rests, and from which he derives his *implications,* is fundamentally different from Marx's; hence his political conclusions, though radical, are as different from Marx's as were, for example, those of a radical contemporary of Marx – Pierre-Joseph Proudhon.[16] This, and the fact that his analysis of imperialism runs counter to that of Lenin, has led to a largely hostile reaction to his work among some Marxists (Bettelheim, in Emmanuel, 1972; Pilling, 1973).

Many of the criticisms of Emmanuel are quite telling. But the challenge implicit in his work remains unanswered by those Marxists who are content to merely locate the distance between Emmanuel and Lenin. [17] These little exercises, however illuminating, manage to neatly avoid two central questions. First of all, at the level of abstraction that Marx maintains in his three vol-

umes of *Capital,* is it really true (as many Marxists appear to believe) that Ricardo's law of comparative costs is the international form of Marx's law of value? Second, is it true (as Emmanuel argues) that when the export of capital becomes significant the Marxian law of international value is transformed into Emmanuel's law of unequal exchange?

Posed in this way, these questions have exactly the same theoretical status as that of any other law developed by Marx in *Capital*. Marx lays bare the structure of capitalism on the basis of its "ideal" form, that of free competition, precisely because it is this form that gives the freest expression to the immanent laws of the system. It is on this basis that Marx derives exploitation, crises, concentration and centralization, and a host of other phenomena characteristic of capitalism. Is it not curious, then, that whereas free and equal exchange within a capitalist nation gives rise to all of these phenomena, it does not appear to do so when it takes place between capitalist nations? How is it that whereas Marx derives the unevenness of development within a capitalist nation on the basis of free competition, Marxists generally have to resort to monopoly to explain the unevenness of development *between* capitalist nations? These are the questions we turn to next.

Towards a Marxist law of international exchange

Over a period of many years, the phenomena of international uneven development have come to be extensively studied and well documented (Amin, 1974; Nayter, 1972; Jale, 1969; Magdoff, 1969; Payer, 1974). And, as we have seen, the existence of these phenomena has generally been attributed to the internationalization of capital – that is, direct investment by the rich capitalist countries in the Third World. According to standard Marxist analysis, this internationalization itself arises out of the monopoly stage of capitalism: for Emmanuel, on the other hand, it is merely a fuller development of the laws of competitive capitalism. In either case, the export of capital is the lynchpin of the theory of imperialism.

In addition to their common emphasis on international capital movements, both of the above theories of uneven development accept Ricardo's law of comparative costs as being valid on its own grounds. In fact, as we shall see, this law is in a sense the "hidden secret" of the above theories: the law insists that free trade between advanced and backward countries will be mutually beneficial and productive of even development. It is precisely because they are unable to refute this law that the above theories are forced to put the whole burden of uneven development on capital movements.

As long as Ricardo's law is left standing, the well-known phenomena of uneven development appear inexplicable without some additional factors: monopoly, foreign investment, political power, conspiracy, etc. Now it can hardly be denied that these factors exist and are important to any analysis of uneven development on a world scale. But the question is: are these factors in themselves the intrinsic causes, or does the cause lie elsewhere?

In this chapter it will be argued that the phenomena of international uneven development arise directly from the so-called free trade of commodities. That is, just as Marx derives the concentration and centralization of capitals (and hence their uneven development) from free and unrestricted commerce within a capitalist nation, so too is it possible to derive the phenomena of imperialism from free and unrestricted commerce between capitalist nations. Moreover, just as Marx's law of value is the basis for his analysis of uneven development within a capitalist nation, so too will the international form of this law be the basis of the analysis of uneven development among capitalist nations. What we will see, in effect, is that *Ricardo's law of comparative costs is false on its very own grounds.*

Once this great stumbling block has been overcome, the phenomena of imperialism will appear in an entirely new light. Free trade, rather than negating the inequalities between nations, will be seen to deepen them. The absolute advantages of the developed capitalist countries (such as Portugal in Ricardo's famous example) over the underdeveloped capitalist countries (England) will *not* be reduced to a comparative-advantage-for-all, as free traders have so long asserted. On the contrary, free trade itself will ensure that the advanced capitalist countries will dominate international exchange, and that the less developed nations will end up chronically in deficit and chronically in **debt.**

If in fact free trade is uneven development, then the question arises: what are we to make of the export of capital, which plays so prominent a part in most other theories of imperialism? Does it offset, or does it enhance, the inequalities arising from free trade?

The answer, it turns out, is that it does both. Foreign capital may improve an underdeveloped country's trading position (and hence offset its trade deficits) by modernizing and expanding its export capabilities; but this will be undertaken precisely under the control and domination of

foreign capital, and only insofar as it is to its own benefit. This, as we shall see, will have important implications.

A note on the structure of this chapter

In order to undertake the criticism of the law of comparative costs, we **must first see precisely** how it is derived. The second major section therefore contains a brief exposition of Ricardo's theory of value, his theory of money, and then of their interaction in the infamous law.

The next step is to set up a similar path in Marx. In the third major section, first Marx's theory of value (and his criticism of Ricardo's) is outlined, and then his theory of money (with his criticism of Ricardo's).

The first part of the fourth major section unites the two theories in overthrowing the Ricardian law of comparative costs: that is, we see that when taken together they imply a determinate theory of international exchange which flatly contradicts Ricardo's law *on* its very *own* grounds. It is in this section that the intrinsic cause of international uneven development is seen to be free trade itself, quite independently of the traditional villains such as monopoly, foreign investment, political power, etc.

The second half of the fourth major section takes up the question of the export of capital. Here, it becomes possible to see how and why it is the very unevenness of development (as it is reproduced and deepened by commodity trade), which in turn posits foreign investment as both **the** salvation *and* **at the same time the damnation** of the underdeveloped capitalist countries. It is also possible at this point to see not only why Emmanuel's analysis of imperialism is incorrect, but also why his proposed solution would be useless.

At all times it is important to keep in mind that the very structure of the theory of international trade necessitates an introduction to theories of value and theories of money before we can even begin the analysis of trade. Obviously, to do justice to Ricardo or Marx on either of these scores could easily require volumes. And yet, we must cover both value and money, in both authors, if we are to proceed at all!

Within the confines of a chapter this task can be undertaken only if one sticks to the bare essentials. Consequently, in what follows, brevity has been attempted in the exposition of Ricardo's and Marx's theories. Particularly when dealing with Marx, it is a great temptation to not only present and document the relevant structure of his analysis but to also defend it against the misrepresentations which are so popular (and so convenient) with orthodox theorists, or at least to contrast his analysis with theirs. Nonetheless, I have tried to avoid doing this: the primary comparison which can properly be made here, and that only in a largely expository way, is the one between Ricardo and Marx. The rest must await another occasion. But let this much be clear: what follows is definitely not in**tended as a mere exercise in the history of eco**nomic thought. So-called modem economic theories of value and money are no more capable of withstanding Marx's criticism than were the classical theories. In a sense, the opposition between Marx and Ricardo explored in this paper is the historical prelude to the more modern confrontation.

Ricardo's derivation of the law of comparative costs:

The Ricardian law of price. Ricardo held that the principal problem facing political economy in his day was the determination of the laws which regulate the distribution of the product of (capitalist) society among the three great classes: that is, the laws which determine "the natural course of rent, profit, and wages" (Ricardo, 1951, p. 5).

But very soon in the course of his work Ricardo realized that his analysis could not proceed without a theory of price:

> Before my readers can understand the proof I mean to offer, they must understand the theory of currency and of price . . . If I could overcome the obstacles in the way of giving a clear insight into the origin **and** law of relative or exchangeable value I should have gained half the battle. (Ricardo, 1951; pp. xiv-v)

Ricardo's battle was never completely won; the question of the law of relative prices was to trouble him to the very end. But it is a measure of his greatness that the problems he posed have persisted in one form or another down to the present.

In order to appreciate the gains made by Ricardo we must carefully follow his line of reasoning. The problem he set himself was the determination of the *laws* which regulate relative prices. Now of course he was well aware that the immediate determinants of market prices were supply and demand; but over the course of time the ceaselessly fluctuating interplay of supply and demand was itself regulated by a more fundamental principle: equal profitability. Thus, if as a result of market conditions a particular sector's rate of profit rose above the average rate, then the flow of capital would tend to be biased towards that sector, causing it to

grow more rapidly than demand, and driving down its market price to a level consistent with average profitability. Conversely, the sectors with low profitability would tend to grow less rapidly than demand, causing their prices and profitability to rise.

The classical economists were thus able to demonstrate that behind the continuously varying constellation of market prices there lay another set of more fundamental prices, acting as centers of gravity for market prices and embodying more or less equal rates of profit. The name given to these regulating prices in classical political economy was "natural prices," what Marx was to later call "prices of production." [18] Their discovery was the first great law of prices.

All this was well known long before Ricardo's time. What then was he searching for? Certainly not the means by which to calculate the prices of production. Ricardo exhibits many such calculations himself, in the process of investigating his greater problem; so it is clear that a system of calculation, no matter how elegantly set out in terms of matrices and vectors, would differ only in form from the arithmetic relations set out by Ricardo. *What Ricardo sought to do was something considerably more meaningful:* to get behind prices of production, to discover *their* "centers of gravity." That is, just as the market price of a commodity was shown to be regulated by its price of production, Ricardo sought to show that this regulating price was itself subject to a hidden governor – the total quantity of labor time required to produce the commodity, both in its direct production process and, indirectly, in the production of its means of production.

"In speaking . . . of the exchangeable value of commodities, or the power of purchasing possessed by any one commodity, I mean always that power which . . . is natural price" (Ricardo, 1951, p. *92).*

"The great cause of the variation in the relative value of commodities is the increase or diminution in the quantity of labour required to produce them" (Ricardo, 1951, p. 36).

There we have it: the *great* cause of the variations in the price of production of a commodity is the variation in the total labor time that goes, directly or indirectly, into its production. The total quantity of labor time was the center of gravity of the commodity's price of production, just as this price was itself the center of gravity of its market price. This was Ricardo's attempt to formulate a second great law of prices.

Let me illustrate the logic behind this. Sraffa (1960) has shown that if one unit of some commodity *A* requires l_a worker-hours for its direct production, $l_a^{(1)}$ for the production of its physical inputs (machines, raw materials), $l_a^{(2)}$ for the production of the inputs required to produce these inputs, and so on, then the total labor time λ_a required to produce one unit of commodity *A* is the sum of its direct labor requirement l_a, and its indirect labor requirements $l_a^{(1)}$, $l_a^{(2)}$, . . . etc. (Sraffa, 1963, pp. 34-5).

$$\lambda_a = l_a + (l_a^{(1)} + l_a^{(2)} + \ldots) \tag{13.1}$$

On the other hand, Sraffa points out that if w is the uniform wage rate, and r the uniform rate of profit, the price of production of commodity *A* is given by (Sraffa, 1960, p. 35)

$$\rho_a = w(l_a + (1 + r)l_a^{(1)} + (1 + r)^{(2)}l_a^{(2)} + \ldots) \tag{13.2}$$

The preceding equations illustrate the importance of direct and indirect labor requirements: their simple sum is the total labor requirement λ_a, and their weighted sum is the price of production ρ_a.

We come now to the critical point in the Ricardian argument. In effect, what Ricardo argued was that even though both the labor requirements and their weights (the wage-profit combinations w,r) enter into the calculation of prices of production, they are *not* equally important in causing *changes* in these prices.

Let us first consider changes in the equilibrium price weights w and r. First, as Sraffa so elegantly demonstrates, a rise in the wage rate w is necessarily accompanied by a fall in the rate of profit r (Sraffa, 1960, pp. 39-40) so far as relative prices are concerned. Therefore, Ricardo argued that on the average the opposing movements of these two weights would tend to cancel each other out (Ricardo, 1951, p. 35–6). Furthermore, it was his belief that in any case the wage rate, being such a fundamental social parameter, is only susceptible to relatively small variations (Ricardo, 1951, p. 36): it is, as Keynes was later to say, "sticky." Last, Ricardo was careful to point out that the *net* effect of a rise in the wage rate and a corresponding fall in the rate of profit varied from commodity to commodity: whereas, it might raise some prices of production, it would lower others, and leave others still unchanged, so that it would have no determinate effect on the *direction* of change of any given commodity price (Ricardo, 1951, p. 46).

We turn next to the remaining factor – changes in labor requirements. Since any one commodity is only one of literally hundreds of thousands, an improvement in its conditions of production is not likely to have much of an effect on the general social parameters w,r. Any such improvement *will,* however, in general reduce its price by lowering its total labor requirement λ_a: either it will reduce direct labor costs by lowering direct labor requirements l_a; or it will re-

duce costs of physical inputs used up by saving on their use, thus lowering indirect labor requirements $1_a^{(1)}$, $1_a^{(2)}$, . . . , etc.; or it will do both.

Of course, a lower price for commodity A might lower costs for other commodities, and hence their prices too. But it is intuitively plausible that these feedback effects will not in general be greater than the original, so that the *net* effect is a lowering of the commodity's price relative to the average: a reduction in the total labor requirement A, of a commodity would be associated with a reduction in its equilibrium price ρ_a.

> In estimating, then, the causes of the variations in the value of commodities, although it would be wrong wholly to omit consideration of the effect produced by a rise or a fall of real wages, it would be equally incorrect to attach much importance to it; and consequently, in the subsequent part of this work, although I shall occasionally refer to this cause of variation, I shall consider all the great variations which take place in the relative price of commodities to be produced by the greater or less quantity of labour which may be required from time to time to produce them. (Ricardo, 1951, p. 36)

Ricardo is true to his word. In the chapters that follow he ignores the secondary variations in prices by simply assuming that relative prices are more or less equal to relative labor-times. **Both the analysis of money and that of foreign** trade is conducted on this basis.

It should be very clear from the above, incidentally, that Ricardo's law of prices in no way depends on the "assumption of a single factor of production" (Johnson, 1968, p. 85), as is so often asserted. It is hard to believe that anyone who has ever read Ricardo can make this claim; even for a mind steeped in the marginalities of neoclassical thinking it must be difficult to con**front Ricardo and come away with nonsense like** that. [19]

The classical quantity theory of money. Having analyzed at great length the causes of the variations in relative prices, Ricardo then proceeds to the causes of variations in the *level* of (money) prices. For reasons outlined previously, we assume (as does Ricardo) that gold is the money commodity.

The money price of a commodity is of course its relative price expressed in terms of the money commodity; that is, its rate of exchange with gold. Thus, the price of steel is so many units of gold; normally, when gold is used as money, there arise special names for specific weights of it. In England around Ricardo's time, for instance, roughly a 1/4 ounce of gold was known as a pound (f). A quantity of steel exchanging for 1/2 of an ounce of gold would therefore be said to have a "price of £2."

By the Ricardian law of prices, all commodities exchange roughly in proportion to the total labor-times required for their production. It follows, Ricardo notes, that the money prices of commodities are determined by the quantities of the labor-times required for their production relative to the quantity of labor-time required for the production of gold. Of course, gold cannot have a money price in this sense, since it is money. But to Ricardo, the quantity of steel (or corn, or cloth, etc.) purchased by £1 (1/4 oz) of gold could be viewed as a "commodity price" of gold. He therefore often refers to the "value" of gold.

Suppose it takes 100 worker-hours to produce a ton of steel, and that in a given year 4,000 tons are produced. The steel will then require 400,000 worker-hours. If it takes 1/2 worker-hours to produce £1 (1/4 oz) of gold, then the money price of the year's steel output will be £800,000.

Steel, however, is only one of a whole range of commodities produced in a given year. During any one year, therefore, the same gold coin may change hands several times, being received by one person through the sale of a commodity and then being given over to someone else when it is used to buy another commodity. In this way the **same gold coin can function as money more** than once, in a given year. Let us say that on the average a coin changes hands five times a year; its velocity of circulation is then five.

Imagine now that the labor-time required for all the commodities produced in a given year is 40 million worker-hours. Since we stated previously that £1 (1/4 oz.> of gold requires 1/2 worker-hours, the money price of the society's yearly output will be £80 million. Moreover, if **the velocity of circulation of £ coins is indeed** five, this means that only 16 million gold coins, each weighing £1 (1/4 oz) will be required as money in that year.

Of course, the laws discussed so far apply only to prices of production. We know from the laws of market prices, however, that if a commodity's supply exceeds its demand, then the market price of the commodity will fall, that is, it will exchange for less of other commodities. If this law is also applied to money it leads straightaway to the proposition that when the quantity of gold coin exceeds the requirements of circulation (the demand for coin), the "price" of gold will fall. Now, since gold is money, it cannot have a money price; however, since it can be used **to Purchase anv** commoditv **on** the market.

it can be said to have literally thousands of "commodity prices," these being the quantities of the various commodities one can buy with £1 (1/4 oz) of gold. The quantity theory of money therefore asserts that when the quantity of gold coin exceeds the requirements of circulation, *all* the commodity prices of gold will fall; since this means that gold will purchase less of each commodity, it is equivalent to asserting that all money prices will rise.

If we consider England as a closed economy with gold produced within its borders, then the reduced price of gold – the higher prices of all other commodities – would, according to Ricardo's theory, result in reduced output from the goldmines. This reduction in the supply of gold would in turn eventually raise its price, so that once again gold would *exchange* against other commodities in proportion to their respective labor-times.

If instead, gold were produced in a foreign country like South Africa, then to say that the "price" of gold in England has been lowered is to say that its purchasing power over commodities has been reduced. Gold will therefore have different purchasing powers in different countries, and will flow out of England into countries where its "price" is higher; once again, the effect will be to lower the quantity of money in England, and hence raise the "price" of gold back towards its natural level. In this way the international flows of gold would lead to more or less the same purchasing power of (gold) money in all countries. This conclusion of the classical quantity theory of money is known as the doctrine of "purchasing power parity" (Johnson, 1968, p. 92).

The law of international exchange. The critical element in Ricardo's law of comparative cost is really the quantity theory of money, because it is *through* its operation that the law is derived. However, in order to follow Ricardo's analysis, we will also use his law of prices.

Let us begin by considering two commodities, cloth and wine, produced in England; cloth requires 100 worker-hours to produce, and wine 120 worker-hours. If, as in our previous examples, £1 (1/4 oz) of gold required 1/2 worker-hour to produce, then from Ricardo's law of prices the prices of production of cloth and wine would be more or less equal to their respective labor-times relative to that of gold. Cloth would sell at about £200, and wine at about £240, domestically.

Consider now the same two commodities in Portugal. The unit of money in Portugal we take to be an *escudo* (e.), roughly 1/6 of an ounce of gold; assuming the same labor-time for gold in all countries, one escudo (1/6 oz) of gold would then require 1/3 worker-hours to produce. If then in Portugal cloth took 90 worker-hours, and wine 80 worker-hours, their domestic prices of production would be roughly 270 e. and 240 e., respectively.

Table 13.1.

England			Portugal		
Cloth:	100 hrs	50 oz gold	45 oz gold	90 hrs	:Cloth
Wine :	120 hrs	60 oz gold	40 oz gold	80 hrs	:Wine

But note that both £'s and e.'s are merely different national money-names for quantities of gold. If England's payments to foreigners exceeded its receipts from them, that is, if it ran a balance of payments deficit, gold bullion would eventually have to be used to make up the difference.[20] Since both currency units are actually quantities of gold, and the international means of payment is in fact gold bullion, we can considerably simplify the exposition by expressing all prices directly in ounces of gold. Given that an ounce of gold requires two hours of labor-time, we have the following Ricardian tableau for England and Portugal (Table 13.1).

Clearly, in this initial situation Portugal's greater efficiency in production translates directly in an *absolute advantage* in trade. If transportation costs are not prohibitive, Portuguese capitalists will export both commodities. England will experience a continuing balance of trade deficit, which will have to be made up by shipping gold to Portugal.

According to Ricardo, it is at this point that the quantity theory of money becomes crucial. The outflow of gold from England is a decrease in its domestic supply of money, so that according to the quantity theory the gold prices of *all* English commodities will begin to fall. Conversely, the inflow of gold to Portugal will raise all prices there. As this happens, Portugal's competitive edge in international markets will gradually erode, even though it will of course have just as great an advantage in terms of efficiency as it did before. It is just that this greater efficiency will be increasingly offset by the rise in Portuguese prices relative to those in England.

Sooner or later in this process one of the two *English commodities* will become just competitive with its Portuguese counterpart. But which one? Well, in terms of efficiency, England always has an absolute disadvantage relative to Portugal in both commodities. But as all English prices fall and all Portuguese prices rise, the

English commodity with the *smallest* disadvantage will be the first to overtake its Portuguese rival. If we examine the Ricardian tableau, (Table 13.1) we find that English wine production is only 66 2/3 percent as efficient as its Portuguese rival (since Portuguese wine takes 80 hours and English wine takes 120 hours), whereas English cloth production is 90 percent as efficient as Portuguese* England's smallest disadvantage , its *relative* advantage, lies in cloth, and as English prices drop relative to Portuguese, it is English cloth which first becomes competitive. By the same token, it is clear that if England has an equal disadvantage in both sectors of production then both English commodities would become competitive at exactly the same point. Though trade could still take place under these circumstances, there would be no fixed basis fur specialization* Only if England has different disadvantages in the two commodities, that is, only if it has a relative advantage in one, can Ricardian trade take place?

Once England can compete in cloth, two-way trade will begin. This will improve England's trade picture, but it will probably not eliminate the deficit; price level movements will therefore continue to take place, strengthening England's international position and weakening Portugal's - *until finally at some point trade will more or less balance*, with each country exporting the one commodity in which it *now* has a relative advantage. If for some reason the adjustment process goes too far, to the point where even English wine undersells Portuguese, then the ensuing gold flows would reverse the price level **movements until once again relative advantage** reigned.

An important implication of the process of adjustment is that in the end each country's international terms of trade (the quantity of imports that can be bought with a unit of its exports) will necessarily be better than its domestic, In England, for example, the cloth on the market will be English cloth; but the wine available will generally be imported from Portugal. Those whose **unbounded patriotism would require them to in** sist on English wine will have to pay a higher price fur it than they would for the imported variety* Therefore, a unit of cloth, England's export commodity, will be worth more units of Portuguese wine than it will be of domestic wine simply because domestic wine costs more. Similarly, in Portugal, its export, wine, is worth more units of English cloth than it is of Portuguese cloth simply because the English cloth is cheaper.

The proposition just forwarded, on the terms of trade of each country has often been used as the basis of a proof that each nation-as-a-whole gains from trade. Thus it is said that England can get more wine for its cloth through trade than it can get domestically: trade is generally beneficial. Though Rieardo is careful to derive the laws of trade on the basis of its profitability to capitalists, when he turns to the analysis of the effects of trade he abandons the concept of classes and reverts to that of a nation-as-a-whole. Now, it is undeniable that the concept of a nation is both valid and necessary at some level of analysis; nations do exist and their interaction is a real process. But to assert that trade is beneficial to the nation-as-a-whole is simply to assert that '"what's good for General Motors is good for the US." Trade is undertaken by capitalists because they can make more profits that way; it is they who always gain. Even if this gain for the capitalists happens to spill over to workers in either country, which is certainly not necessary from the above analysis, one can only say that in this instance trade also benefits a particular set of workers. It is not possible to reduce the fundamentally antagonistic relations of classes to the bland homogeneity of a nation-as-a-wholes Christians are not in a position to cheer for lions as long as they are both booked to play in the Coliseum.

Modern derivations of the law, It should be obvious from the preceding derivation how crucial the "right" sort of monetary theory is to the derivation of the law of comparative costs. Any monetary theory which translates the initial trade deficit of the backward country into falling price levels (falling relative to the price level in **the advanced** country) **will do the trick. We need** therefore to say a bit about the modem derivations of this law.

Let us begin with a modern version of the quantity theory, based on the cash balance approach. The classical quantity theory argued that an outflow of gold from a country would lead to a fall in the money supply and hence in the price level. Here, it is argued that the decrease in the money supply implies a decrease in **the cash balances of individuals and firms;** in order to "not let their cash balances shrink too far," people in the deficit country curtail their consumption and investment spending, and this drop in aggregate demand in turn leads to lower prices and wages (Yeager, 1966, p. 64). The opposite movement takes place in the surplus country, and eventually absolute advantage gives way to comparative.

An alternate path to this same result is made **possible by tying the price level to the level of** money wages. In this version, since the competition of cheap cloth and wine from abroad means a reduction in domestic wine and cloth produc-

tion in the backward country, the resulting trade deficit will be associated with a rise in unemployment. Money wages in the backward country will consequently fall, and with them money prices; in the advanced country, the trade surplus is associated with expanded employment, a rise in money wages, and hence a rise in money prices. Even if money wages were relatively sticky downwards, the above result would hold since all that is required is a movement in *one* of the two price levels so as to arrive at the correct relative price levels. Once again, this leads to the eventual rule of comparative advantage (Amin, 1974, p. 47).

All discussions so far have been predicated in terms of the gold standard, in which the "ultimate" basis of international currency is a money commodity (which we call gold for convenience). In most theoretical discussions, the gold standard is treated as being equivalent to a regime of fixed exchange rates. The preceding modern derivations of comparative advantage are therefore also presented as holding true for the case of fixed exchange rates.

At the opposite theoretical extreme from fixed exchange rates, we are told, lies the notion of purely flexible exchange rates determined solely by the relative supplies and demands of the national currencies. Here it is possible that each nation will have a *fully independent monetary system* (Yeager, 1966, p. 104). In this case, the price levels in each country are "insulated" from external influences, and all adjustments are brought about through the exchange rate. In the backward country the trade deficit will imply a depreciation of the country's currency, which would make imports relatively more expensive to it and its exports relatively cheaper abroad. Since this process is assumed to have no limits, eventually the flexible exchange rate would settle at the level which made comparative advantage a reality.

We cannot consider the merits of these various derivations until we have examined Marx's theory of money. But it is useful to note even at this point that it is completely false to equate the notion of the gold standard with fixed exchange rates. As indicated at the end of this chapter, note 20, in actual fact the gold standard was a system of flexible exchange rates whose movements were *bounded* by limits determined by the costs of transporting gold. This meant that insofar as the "normal" variations of trade were concerned, the gold standard operated as if it were a system of purely flexible exchange rates. On the other hand, insofar as systematic imbalances were concerned, the exchange rate soon reached one of the two limits and it became cheaper to settle debts by shipping gold directly: in this mode, therefore, it operated like a system of fixed exchange rates. The theoretical notion of the two polar extremes of fixed versus flexible exchange rates thus have their origin in one-sided (and hence false) abstractions of the real process. We will return to this important point later on.

Marx's development of the laws of capitalist exchange

As the preceding discussion of Ricardo should have made clear, it is the interaction of the Ricardian theory of price with his theory of money which results in the law of comparative costs. Now, as we turn to Marx, we face the task of trying to present, in a few short pages, the essence of Marx's theories of price and money so that we may see what implications they in turn have for international exchange. Here, the overriding question is whether the international extension of Marx's law of value will indeed turn out to be the law of comparative costs (as has been generally assumed), or whether it will in fact turn out to be something quite different.

Marx's law of value has, of course, many points of comparison with Ricardo's analysis; often, through an emphasis on these common points, the impression is given that Marx was therefore a (major or minor) post-Ricardian classical economist. Such an impression is, however: completely misleading and can arise only through the *reduction* of Marx's analysis to only those points which overlap with Ricardo's. As long as one begins with Ricardo as the home base, all such comparisons are inevitably posed in Ricardian terms; Marx thus emerges as the cleverest Ricardian of them all.

Within the context of this brief exposition, it is hardly possible to do justice to even the notions of value and price in Marx, much less to the methodological break between Marx and the classical economists. Of necessity, many of the points we seek to cover are precisely points of comparison with Ricardo; nonetheless, the reader must be forewarned that the differences which do emerge are not merely variations on a Ricardian theme. On the contrary, it is exactly because Marx does *not* operate within a Ricardian framework that he is able to go beyond Ricardo's own analysis.[22]

Commodities. In the discussion of Ricardo's law of prices, the fundamental question seemed fairly well defined: what are the laws of the movements of prices of production?

What Ricardo perceives is that the "worth," the "exchangeable value," or commodities

bears an intrinsic connection to labor-time (Marx, 1969, pp. 164-7). This, says Marx, is Ricardo's greatest scientific merit (Marx, 1969, p. 166). But at the same time, rather than developing the various intermediary links between labor-time and price, Ricardo attempts instead to fuse the two together in his law of prices. His failure to adequately distinguish between labor-time and price is, according to Marx. the first great source of error in his analysis (Marx, 1969, Ch. X; pp. 106, 164, 174-6).

In addition to that, however, there is another problem. How can Ricardo attempt to analyze the effects of a uniform rate of profit on prices, asks Marx, when he nowhere discusses what determines the *level* of this rate of profit? And this in turn leads to an even more basic question. A uniform rate of profit is simply a way of saying that profits on different capitals are proportional to the size of these capitals: that is, each capital gets a share of total profit in proportion to its own size. But Ricardo nowhere discusses what determines the total profit in the first place. How then can he attempt to isolate the factors which regulate the movements of prices of production when he is missing a crucial ingredient – profit?

It is apparent to Marx that before one can arrive at the laws which govern price, one must first answer two prior questions: first, what is meant by price and how does it arise? And second, what is meant by profit, and how does it arise?

Since the concept of price refers to the exchange of commodities, Marx begins by examining what a commodity is. In all societies, he notes, human beings produce useful objects. It is only in a particular type of society, however, that the useful products of human labor are intended not for some direct social use but for exchange. And precisely because exchange is a social process which quantitatively compares and equates different products, in societies which produce for exchange the products of human labor acquire the property of having quantitative worth. No longer are they merely useful; they are now also valuable: they are *commodities.* As Marx expresses it, a commodity is both a use-value and an exchange value.

But when we say that a commodity is worth something, just what is implied? Suppose I say that in barter, a bushel of corn is worth a ton of iron, and also a yard of silk, and an ounce of gold, and so on. At first glance, what I appear to be saying is that there are many different quantitative expressions for the worth of a bushel of corn, depending on which other commodity (iron, silk, or gold) I choose to *measure* it by.

But there is a deeper problem here. In order for me to measure the worth of corn in terms of gold, for instance, gold must also be worth something itself. Otherwise I cannot say how much gold is equivalent to a bushel of corn. It is just like my saying that a stone weighs 10 grams; what I mean is that on a scale it takes ten pieces of iron called gram-weights to equal the weight of the stone. But clearly, in order for me to carry out this operation, both stone and iron must already possess the property of being heavy, of having weight; the gram-weights don't make stones heavy, they only measure the already existing heaviness of stones.

Exactly the same conclusion applies to quantitative worth. The factors which cause commodities to have quantitative worth in the first place must be carefully distinguished from the measurement of this worth. Measuring the worth of corn in iron will give a different result from measuring it in gold; but neither measure causes corn to possess quantitative worth. Rather, each merely expresses the preexisting worth of corn in terms of some particular commodity.

The question of price is therefore really a two-fold one: first, what is the cause of quantitative worth; and second, how is this worth actually expressed, measured, in exchange?

Value. If we look at society as a regularly reproduced set of social relations, it becomes very clear that the production and reproduction of the masses of useful objects which correspond to various social needs requires a definite, quantitative distribution of social labor. Each different useful product requires a concretely different type of labor; reproduction of the material basis of the society consequently requires the existence and reproduction of the appropriate quantities of different concrete labors. That is to say, social labor from the point of view of its capacity to produce different use-values is what Marx calls social-labor in its role as *concrete* labor (Marx, 1967, Vol. I, p. 46).

We noted earlier, however, that in commodity-producing societies each product, in addition to being useful, acquires the further property of being valuable. Hence, labor which produces commodities (i.e., objects intended for exchange) itself acquires a new property: namely, the capacity to create value or quantitative worth. In this role, moreover, all commodity-producing labor is qualitatively alike, since different types of labor differ only in their resulting amounts of value. The very same social conditions which make varied useful objects quantitatively comparable by reducing them to a common denominator, also make the corresponding labors quantitatively comparable. In the case of the useful objects, their common denominator is quantitative worth: in the case of

the labors, it is the capacity to result in quantitative worth. From the point of view of this latter property social labor is qualitatively alike and quantitatively comparable: it is what Marx calls social labor in its capacity as *abstract* labor. Abstract labor, that is, labor which is actually engaged in commodity production, is the cause of quantitative worth.[23] The total quantity of abstract labor required directly or indirectly for the production of a commodity Marx therefore calls the *intrinsic measure* of its quantitative worth, or its *value.*

The value of a commodity, the intrinsic measure of its exchange-value or worth, is the quantity of abstract labor-time necessary for the production of the commodity under average conditions. If looms, for instance, are made in one year by hand, and in a given year 100 looms are produced, SO by efficien t producers requiring 900 worker-hours per loom and 50 by inefficient producers requiring 1,100 worker-hours per loom, then the value of a loom in that year is 1,000 worker-hours. It is the average quantity of labor-time necessary, not as in Ricardo, the marginal, which counts here (Marx, 1967, Vol. I, p. 39).

Suppose the production of a bolt of cloth took 10 workers ten hours a day for one week (six days) to gather cotton seed, plant it, harvest the cotton, and with the aid of a loom, spin the cotton into cloth. Then the value of the cloth has two components: the living labor of the cloth worker, 600 worker-hours, which represents the value added in cloth production during one week; and that part of the value of the loom which is transferred to the cloth. But how is the latter to be determined? Well, if the loom was used up in one week then it is clear that all the value of the loom would be incorporated into the cloth, since from a social point of view the labor-time required to build the loom is the indirect social cost of producing cloth. If the loom lasted longer, say one year (50 weeks), then over one year it will be entirely used up and all of its value transferred to the 50 bolts of cloth produced in that period of time. On the average, therefore, the loom would transfer $1/50$ of its value each year to a bolt of cloth. Because the second case is basically the same as the first, we will simplify the exposition from now on by assuming a uniform period of turnover of one week. Then the value of the cloth is 1,600 worker-hours: 1,000 of these *transferred* by the loom as it is used up, 600 *added* by living labor.

If we designate the total value of any output produced in a given week as ***W,*** the value transferred by its means of production as C, and the value added by living labor as ***L,*** then:

$$C + L = W \qquad (13.3)$$

We turn now to the second aspect of price: how is quantitative worth actually expressed in exchange? To this Marx answers: in exchange, the quantitative worth of a commodity *must* necessarily take the form of money-price. Since exchange is the interchange of two commodities, at first glance it seems obvious that there are as many measures of a commodity's worth as there are other commodities to measure it by. And historically, where exchange is sporadic or irregular, this is in fact true. But as exchange spreads and develops, this variety of different possible measures increasingly becomes a barrier to the smooth functioning of the process; without a point of reference, the direct comparison of every commodity with every other becomes impossibly complex. Consequently it becomes increasingly necessary to settle on a given commodity out of all those available as the one commodity in which all other commodities express their worth; this special commodity therefore becomes the universal equivalent, the money-commodity. We will henceforth assume it is gold.

Notice that money does not by itself cause commodities to have worth, any more than gram-weights cause stones to have weight. On the contrary, it is only because both gold and the other commoditics havc quantitativc worth (exchange-value) in the first place that we can express their worth in terms of gold. The money-price of a commodity is the "golden" reflection, the *external measure,* of its exchange-value. It is what Marx calls the *form* taken by value during exchange (Marx, 1967, Vol. I, pp. ***47-8).***

Price. We have already seen that value, the intrinsic measure of exchange-value or quantitative worth, and price, the external measure, are two very different things. Money-price is the manner in which the exchange process reflects value. This in itself implies that all the relations which intervene between the production of a commodity and its actual sale can give rise to further determinants of the precise form in which this reflection will take place. For instance, in general the market price of a commodity is an expression not only of the amount of abstract labor-time required for its production (its value) but also of the distribution of social labor – that is, of the correspondence between the amount of social labor devoted to the production of a given commodity and the amount necessary to supply the social need for this commodity. If at any moment this latter correspondence does not hold, it will show up in the process of exchange as a discrepancy between supply and demand; then even if on the average exchange is at

value it will not be so in this case. Market price will deviate from natural price.

Marx himself points out this and other possible discrepancies between value and price (Marx, 1972, pp. 61-2). But he notes, the only way in which we can proceed to actually determine any quantitative differences between value and price is to first proceed on the assumption that price directly reflects value that is, that supply and demand are balanced (so that market prices equal regulating prices, or natural prices) and that the money-price of a commodity is its value relative to the value of gold. In this way we can identify the structural determinants of the various steps in the movement from production to exchange, and hence of the transition from value to price. Only then can we show how these structural determinants can in turn give rise to more complex paths from value to price (Marx, 1967, Vol. I, p. 166, footnote 1).[24]

Surplus-value and profit. We come now to the second major criticism that Marx levels against Ricardo: his inadequate treatment of profit.

Let us begin by recalling that it takes 1,000 worker-hours of abstract labor-time to produce a loom by hand, and 600 additional worker-hours to use this loom in producing cloth: C = 1,000, **L = 600, W =** 1,600.

$$1000_C + 600_L = 1600_W = \textbf{value of cloth} \qquad (13.4)$$

But from the point of view of the capitalist, the matter looks very different. To him, the process starts with an investment of money M and ends with the sale of the loom for. another **sum of money** M'. **The difference between the** two, AM = $M' - M$, is that all important sum, profit. How does this have anything to do with labor-time, he asks?

Well, since exchange is in proportion to values, if the value of an ounce of gold is two worker-hours, then the money-price of the cloth must be 800 oz of gold. That gives us the end of the circuit of capital: **M' = 800 oz** of gold.

What about the beginning? From the point of **view of the capitalists, the initial investment** M goes to buy the inputs of the process. One part of **M,** which I will call M_C, goes therefore to buy a loom; since the value of a loom is 1,000 worker-hours, its price is 500 oz: M_C **= 500 oz** of gold.

The other input is, of course, labor. But what does it cost? Living labor, we have seen, transfers the value of the loom to the value of the product (cloth), and adds 600 worker-hours of **value in the process. If exchange is at values,** then the value-added by living labor is equivalent to 300 oz of gold-money. Clearly, if the labor input cost as much as 300 oz, then the capitalist's cost would be equal to his price: there would be no profit! For capitalist production to be profitable, workers must accept as wages the money equivalent of a value less than that which they themselves add to the product. But then, it would seem, exchange is no longer at values !

This paradox was in fact a major source of problems in classical political economy, and Marx considered the solution to it one of his great triumphs.[25] The way out, Marx shows, lies in the distinction between labor-time and labor-power. What workers sell in the market is their capacity-for-labor, not their labor time. The capitalist pays them a wage in return for the right to set them to work each day; but how long they work and how hard, how many hours of average labor-time the capitalist actually gets out of them, will depend on the struggle between capital and labor. Quite apart from the wage rate, the intensity of labor and the length of the working day have always been important battle grounds in the class struggle. The capacity-to-labor, what Marx calls labor-power, is therefore very different from labor-time: it is the sum of the mental and physical capabilities which a worker can put to use in production, and as such, its production and reproduction implies that workers must receive as wages enough money to buy their *means of subsistence:* food, shelter, education, and training – in short, whatever is necessary to reproduce themselves as workers. The value of labor-power, the social labor-time required for the reproduction of workers' capabilities, is therefore the value of **their means of subsistence.**

The paradox is now resolved. Workers enter production as inputs having a specific value; they leave production having added a quantity of value to the product through their labor-time. From the point of view of capitalist society, therefore, profit can only arise if the abstract labor-time socially necessary to sustain workers (the value of their labor-power) is less than the labor-time that they actually put in (the value **they add to production); in** other **words, if** workers produce *surplus-value.* Profit is the money equivalent, the money form of appearance of surplus-value. In the case of cloth production, the value added by 10 workers in a week is 600 worker-hours; if the value of their labor-power was 400 worker-hours, the surplus-value would be 200 worker-hours. Wages would be 200 oz of gold so that profit AM = $M' - M$ = 800 – (500 + 200) = 100 oz: profit **is the money equivalent of surplus-value.**

We can summarize all this diagramatically. Let V stand for the value of labor-power, and M_V for its money equivalent (the money-capital ex-

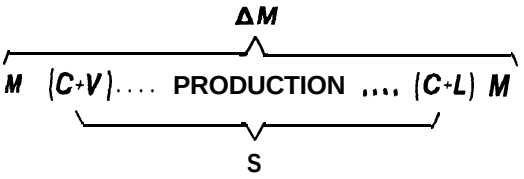

Figure 13.1

pended on wages). Since L is the value added by living labor, $L - V = S$ is the surplus-value produced by workers. In Figure 13.1, the circuit begins with a money investment A4 = M_C + M_V, with which the capitalist purchases means of production (a loom) having value C, and hires labor-power (10 workers) having value *V;* what 'emerges from the process of production is a product having value C + L, which then sells for its money-equivalent M'. The surplus-value S is thus reflected in its money-equivalent, the profit AM.

Prices of production. We have up to now assumed exchange in proportion to values, so that we may isolate the intrinsic determinants of price and profit. This is how Marx begins; but then he immediately goes on to point out that in general prices proportional to values would imply different rates of profit in different sectors.

Figure 13.1 illustrates the problem. If all money prices are proportional to values, then in every sector the money investment M will be proportional to the value cost C + V, and noney profits M will be proportional to surplus-value S. It follows from this that the money rate of profit *(AM/M)* in each sector will be *equal* to the corresponding value rate of profit:

$$(AM/M) = S/(C + V) = \frac{S/V}{C/V + 1} \qquad \textbf{(13.5)}$$

The expression for the value rate of profit obviously depends on the two ratios S/V and C/V. We therefore need to look at these a little more closely.

Recall that surplus-value S is the excess of the value added (L) by living labor over the value of its labor-power. Now, if the wage rate is the same for each worker (assuming that all labor is of the same skill level - the issue of skill differences is outside of the scope of this chapter), then the value of labor-power is the same for each; if in any given period each worker puts in the same amount of labor-time as any other, then each adds **the same value to the product.** Consequently, each worker produces the same amount of surplus-value. It follows therefore that in every sector the *proportions* of $L : S : V$ will be the same, though the respective size of each will vary with the number of workers employed.

This has two immediate consequences for the issue of profitability. First of all, the ratio *S/V,* the rate *of surplus-value,* will be the same in every sector. Second, since the proportion of $L : V$ is the same in every sector, the ratio *C/V,* the *organic composition of capital,* will in each sector be proportional to the ratio C/L. So whether or not C/V is, like *S/V,* the same in each sector will depend on whether or not *C/L* is the same.

The ratio C/L however, is in general not likely to be uniform across sectors. It is the ratio of the labor-time embodied in the means of production to the living labor-time required to transform these into the product; as such it reflects the technical conditions of production in each sector, and unless they are generally similar, it will vary from sector to sector. This in turn means that although the rate of surplus-value, *S/V,* is uniform across sectors, in general the organic composition, C/V, is not. From the expression for the rate of profit in equation 13.5 we can see that sectors with a high organic composition will have a low rate of profit, and vice versa. It is an inescapable implication therefore, that prices which are proportional to values will in general embody unequal rates of profit.

When prices are proportional to values, profit in any given sector is directly determined by the surplus-value produced in that sector alone; but then, as we have seen, rates of profit will differ from sector to sector. It follows therefore that if rates of profit are to be equalized, if high and low rates of profit are to be made equal to the social average, some sectors must get less profit, and others more, than that indicated by their respective surplus-values. This can only come about if prices of production deviate from direct prices in a systematic way so as to redistribute the total pool of surplus-value: in other words, in order that the equal rates of surplus-value in various sectors be realized in exchange as equal rates of money profit, the sale of products must actually take place at prices which differ systematically from direct prices.

Clearly, what is involved here is a change, a transformation, in the *form-of-value* (money price). But such a transformation can in no way alter the total sum of values or the total pool of surplus-value; the same products as before are circulated, only now at different prices which therefore entail a different sharing out of the pool of surplus value.

Marx deals with the transformation in the form-of-value in a simple and powerful way. Basically, he points out that when exchange is ruled by direct prices, sectors with higher than

average organic compositions *C/V* will have lower than average rates of profit, and vice versa (look at equation 13.5 to see why); from this Marx concludes that in order for each sector's profit rate to be equal to the social average, sectors with high organic compositions must therefore sell their products at prices above their respective direct prices, while sectors with low organic compositions must sell at prices below their respective direct prices. What takes place in the transformation from direct prices to prices of production is a kind of rotation of prices, with the average price as the (unchanged) center of rotation. The total sum of prices is unaltered, as is total profit; they remain directly proportional to the total sum of values and the total surplus-value respectively. Hence the average rate is simply equal to the value rate of profit, as in equation 13.5.

In his exposition, and in several other places, Marx notes the existence of what I call a feedback effect of the transformation just mentioned: since individual prices of production differ from direct prices, this also means that individual money investments, *M*, will in general differ from the corresponding value costs $C + V$ (Marx, 1967, Vol. III, pp. 161, 164-5). Such a feedback effect could make the relation between value magnitudes and their price forms more complex, Marx observes. But then he leaves this issue aside, clearly because he considers it to be of relatively minor importance in the process of deriving price from value and profit from surplus-value.

Marx's opponents immediately seized upon the incomplete nature of Marx's transformation, and, ever since then, this issue has been the focus of a long-running debate. Recently this debate has flared up once again, leading to some important new results which support the essential nature of Marx's derivations. It is entirely beyond the scope of this chapter to go into this matter in any depth; however, in a separate paper (Shaikh, 1977) I do treat this connection in detail. For our purposes here, three of its aspects are significant. First, that the procedure by which Marx transforms direct prices can be also viewed as the initial step in an iterative procedure for *calculating* the actual prices of production themselves. This helps establish a fruitful mathematical connection between Marx's procedure and further-developed prices of production. Second, it can be shown (in the case of three departments of production, at least) that for each sector both the actual and the regulating price of production deviate in the same direction from the sector's direct price, so too will be the actual price of production. (Seton, 1957, pp. 157-60) Last, it has been established that the transformed money rate of profit is directly related to the value rate of profit, though they need not be equal in magnitude.[26]

For most analyses, knowledge of the above connections is generally sufficient. In this chapter, therefore, I have used only direct prices and Marx's derivation of prices of production, on the implicit understanding of the connection between the latter and their further-developed form.

The theory of money. We began the analysis of price by noting that a commodity is a product of human labor which is not just useful but also valuable. This led us to examine the duality implicit in the notion of quantitative worth, which in turn led to the sharp distinction between value, the intrinsic cause of quantitative worth, and money-price, the measure or expression of this worth in terms of some universal equivalent (gold). In order for commodities to be equal in worth to some quantity of gold, that is, in order for them to have *money-prices*, they must already have worth: money does not cause worth, it only measures it.

It is a necessary consequence that the factors which determine how valuable a commodity will be in exchange, determine its money-price. And these factors, as we have seen, are the amount and distribution of social labor-time.

If the distribution of social labor is such that the commodities produced correspond to the various social needs, supply will equal demand, and the money-price of a commodity will equal its regulating price – direct prices if we assume exchange in proportion to values – prices of production at a higher level of analysis. In either case, it is the amounts of labor-time which determine these regulating prices.

If, on the other hand, the distribution of labor is not appropriate to various social needs, then the market price of a commodity will deviate from its regulating price, and a change will take place in the distribution of social labor so as to reduce the discrepancy between market and regulating prices. For the purposes of this analysis, therefore, we may leave out of consideration the constantly fluctuating market prices and focus directly on regulating prices.

In any given year, the sum of prices of all the commodities produced must equal the number of coins in circulation times the velocity of circulation. This, as Marx points out, is simply a *tautology*. In order to make it something more, we must embed it in a theoretical structure.

Let us begin by assuming that the regulating prices are direct prices. Then the price of any commodity is its value relative to that of gold, so that the sum of the prices of all the commodities

produced in a given year is given by their total value relative to the value of gold. Let TP stand for the sum of prices, TW for the sum of values, and ω_g for the value of a *unit* (an ounce) of gold, we can write

$$TP = (TW/\omega_g) \tag{13.6}$$

In this equation, the sum of (regulating) prices is the direct expression of the sum of values of commodities. If the velocity of circulation is k, then the amount of gold, G (in the form of one-ounce coins), which is required as a medium of circulation is

$$G = TP/k = [(1/k)(TW/\omega_g)] \tag{13.7}$$

The causation in this is very clear: the sum of the values of the commodities produced in a given period determines the sum of their money-prices, and this in conjunction with the velocity of circulation ,[27] determines the number of (1 oz) gold coins required for the circulation of the commodities (Marx, *1967,* Vol. I, p. 123, et passim).

Though the preceding relations were derived on the basis of direct prices, they are not the least bit altered when we move on to prices of production, for, as we have seen, the regulating prices of production that Marx derives have the same sum of prices as do direct prices. This means that as far as the sum of the prices of all commodities is concerned, the determination is the same whether we assume direct prices or. prices of production: the sum of prices equals the sum of values divided by the value of an ounce of gold. As a result, the quantity of gold required is the same in either case.

What happens then if there exist more gold coins than the required number? Well, the quantity G is the number of gold coins which circulate *because* they facilitate the circulation of commodities. Therefore any quantity of coin over and above this amount will be redundant in circulation: it will at first take the form of idle coin, excess coin (Marx, 1972, Ch. 2, Sec. 3a).[28]

But an excess supply of gold is a very different thing from an excess supply of any other commodity. All other commodities, in order to fulfill their function, must be sold, turned into gold through the alchemy of exchange; but gold itself does not have to be, in fact cannot be, sold. It *is* money, [29] the perfect and durable form of wealth which all other commodities seek to obtain. From the earliest stages of commodity production, therefore, gold circulating in the form of coin has existed side by side with noncirculating gold in the form of reserve coin, in the form of hoards, and in the form of luxury articles.

The very nature of commodity production, the unceasing fluctuations of market prices and quantities, requires that every commodity owner have on hand a reserve of money to accommodate day to day variations. Consequently, the first manifestation of a persistent excess of coin over the needs of circulation will be the buildup of these reserves above the requisite levels; but then this superfluous gold, being necessary neither for immediate circulation nor for its anticipated variations, will be withdrawn altogether from the vicinity of the sphere of exchange. It will either enter into hoards or it is transformed into articles of luxury:

> We have seen how, along with the continual fluctuations in the extent and rapidity of the circulation of commodities and in their prices, the quantity of money current unceasingly ebbs and flows. This mass must, therefore, be capable of expansion and contraction. At one time money must be attracted in order to act as circulating coin, at another, circulating coin must be repelled in order to act again as more or less stagnant money. In order that the mass of money, actually current, may constantly saturate the absorbing power of the circulation, it is necessary that the quantity of gold and silver in a country be greater than the quantity required to function as coin. This condition is fulfilled by money taking the form of hoards. (Marx, 1967, Vol. I, p. 134)

In countries where commodity production is still primitive, hoards take the form of private accumulations of gold scattered throughout the country. But as commodity production, and hence the banking system, develops and expands, hoards become concentrated in the reservoirs of banks (Marx, 1972, pp. 136-7). Under these circumstances, excesses or deficiencies of gold money relative to the needs of circulation manifest themselves as increases or decreases of bank reserves.[30]

Hoards in the form of bank reserves, however, are very different from private hoards: to the bank, an excess of bank reserves over the legally required minimum is a supply of idle bank-capital, money-capital which could be earning profit for the bank but is instead lying fallow. An increase in bank reserves is therefore generally accompanied by a decrease in the rate of interest as the banks strive to convert reserves into capital. Conversely, a drop in bank reserves below the legal minimum tends to lead to a rise in the rate of interest. Rather than raising the price level, the immediate effect of an excess of gold-money is to lower the rate of interest: "If this export [of capital] is made in the form of precious metal, it will exert a direct *influence* upon the money-market and with it upon the interest rate . . ." (Marx, 1967, Vol. III, p. 577).

But now it might be asked: surely the fact that the bank puts this extra money into circulation via a lowering of the rate of interest also implies that effective demand is thereby raised? And if so, won't this in turn imply that as a consequence of this higher effective demand prices will eventually rise – so that in the end the quantity theory is right after all? Marx's answer is unequivocal: no.

We begin by noting that an increased supply of gold can indeed lead to an increase in effective demand, either insofar as it is spent by its original owners, or indirectly because it will expand bank reserves and hence the supply of loanable money-capital, which will tend to drive down interest rates, which may in turn increase capitalist borrowing for investment.[31] However, even though this increase in effective demand may temporarily increase prices of some commodities, and hence raise profits in some sectors, it must eventually lead to an expansion of production to meet the new demand. And as production expands prices will fall until (all other things being equal) they regain their original levels. In this case the sum of prices of all commodities will have increased, not because the level of prices has increased, but because the mass of commodities thrown into production has itself increased. Thus, insofar as a pure increase in the supply of gold does generate an increase in effective demand (i.e., insofar as it does not simply expand bank reserves or go into the production of luxury articles) it will also generate an increased need for circulating gold coin.

It is important to note at this point that to Marx, the notion of a capitalism that tends to be more or less at full employment is a vulgar fantasy. First of all, Marx notes that it is an inherent tendency of capitalism to *create* and maintain a relative surplus population of workers – the reserve army of the unemployed (Marx, 1967, Vol. I, Ch. 25). Second, even with a given pattern of fixed capital (plant and equipment), expansion of production can easily be undertaken by extending and/or intensifying the working time in a given working day (Marx, 1967, Vol. II, p. 258). Last, it is an intrinsic requirement of capitalist commodity production, which is regulated only by the constant fluctuations of the circulation process, to maintain stocks of various commodities so that the exigencies of circulation may be met without disrupting the continuity of the production process. It is precisely because of these possibilities that the continuity of the production process is possible alongside constantly varying levels of production and sale. (Marx, 1973, pp. 582–6)

> It is extremely important to grasp this aspect of circulating and fixated capital as *specific characteristic forms* of capital generally, since a great many phenomena of the bourgeois economy – the period of the economic cycle, . . . the effect of new demand; even the effect of new gold-and-silver producing countries on general production – [would otherwise] be incomprehensible. It is futile to speak of the stimulus given by Australian gold or a newly discovered market . . . [if] it were not in the nature of capital to be never completely occupied . . . At the same time, [note] the senseless contradictions into which the economists stray – even Ricardo – when they presuppose that capital is always fully occupied . . . (Marx, 1973, p. 623)

Having located Marx's criticism of Ricardo's theory of money,[32] we can now turn to its implications for gold flows generated by changes in the balance of international trade. In the case of a surplus, for instance, there will be a net inflow of gold into the country and a consequent increase in the country's supply of gold. Insofar as this leads to an increase in effective demand, production will expand, and with it the needs of circulation. Part of the increased gold supply will therefore go to meet the expanded requirements of circulation, part will pile up in bank reserves, and part will be absorbed in the expanded production of luxury articles made of gold. In addition, once we take international trade into account, a part of the surplus gold may be re-exported in the form of foreign loans in search of interest rates, or as foreign investment in search of surplus-value. These last two possibilities, as we shall see shortly, become important in a Marxian analysis of international exchange.

In any case, Marx emphatically rejects the notion that a "pure" increase in the supply of gold will in general lead to an increase in prices:

> It is indeed an old humbug that changes in the existing quantity of gold in a particular country must raise or lower commodity-prices within this country by increasing or decreasing the quantity of the medium of circulation. If gold is exported, then, according to the Currency Theory, commodity-prices must rise in the country importing this gold, and decrease in the country exporting it . . . But, in fact, a decrease in the quantity of gold raises only the interest rate, whereas an increase in the quantity of gold lowers the interest rate; and if not for the fact that the fluctuations in the interest rate enter into the determination of cost-prices, or in the determination of demand and supply, commodity-prices would be wholly unaffected by them (Marx, *Capital*, 1967, Vol. III, Ch. XXXIV, p. 551)

It should be noted at this point that Marx's

theory of money implies not only a rejection of the Hume specie-flow mechanism on which Ricardo's results were based, but also rejection of the various modern versions (discussed in the fourth part of the second major section) which have replaced it.

The cash balance approach, for instance, relied on a fall in effective demand in the backward country to lead to a fall in money prices. But this connection between effective demand and the permanent level of prices is precisely what Marx denies. Similarly, the price level of commodities being determined by their value relative to that of gold, the money wage cannot permanently influence the price level: the Keynesian price theory therefore will not work either.

That brings us back once again to the possibility of purely flexible exchange rates. As noted in the fourth part of the second major section, the actual gold standard operated with a flexible exchange rate bounded by limits (gold-points) based on the costs of transporting gold. This meant that in its normal variations it was a system of flexible exchange rates, whereas in its "limited" mode it operated as a fixed exchange rate system.

It is out of this long experience that orthodox theory falsely abstracted fixed and flexible exchange rates as two separate regimes. In this context purely flexible exchange rates are presented as a mechanism whereby in theory a world capitalist system can be made up of fully "independent" national currencies (Yeager, 1966, p. 104). As a theoretical possibility this idea has always had an uneasy existence: the history of currency "floats" strongly suggests only a limited flexibility (Yeager, 1966, pp. 176–80), and the history of the international money system is very much a history of increasing monetary integration, not separation. In a sense, the notion of a purely flexible exchange rate determined solely by supply and demand considerations is one more manifestation of the general neoclassical method in which all "prices" are determined only by supply and demand. In opposition to this, Marx's method very much emphasizes the intrinsic limits to these apparent variations: in the case of prices, these arose from labor-times; in the case of exchange rates, from the existence of the money commodity (as in gold-points).

The law of value in international exchange

Perhaps the most fundamental result to emerge from Marx's criticism of Ricardo is the crucial distinction between value and price. Money price, to Marx, is the external measure of the value of a commodity. The very nature of commodity production requires not only that every commodity be assessed in terms of some universal equivalent (hence the necessity of money), but also that this assessment be contingent on a series of factors, ranging from the vagaries of supply and demand to the social limits imposed by reproduction (hence the ultimate regulation of market prices by value).

Marx's analysis of the exchange of commodities within a nation is thus characteristically distinct from Ricardo's. In what follows we shall see that it is these very same differences which necessarily imply an equally distinct Marxian analysis of international exchange.

Comparative costs reexamined. We begin once again with the familiar Ricardian tableau (Table 13.2). Portugal is absolutely more efficient in both branches of production, and given the value of gold[33] as two worker-hours per ounce, this greater efficiency translates directly into an absolute cost advantage. Portuguese capitalists will therefore export both cloth and wine, and England will have to counterbalance its ensuing trade deficit by shipping gold to Portugal.

According to Ricardo, the gold outflow from England would lower all prices there, since it would lower the domestic supply of money; conversely, the gold inflow into Portugal would raise the prices of all Portuguese commodities. As we have seen, this process implies that sooner or later English cloth would undersell its Portuguese counterpart, so that in the end two-way trade would always reign. No nation need fear trade, for it benefits all.

But the mechanism which leads us to this harmonious conclusion rests squarely upon the operation of the classical quantity theory of money, And this we know to be false. Let us therefore begin again.

Because of their absolute advantage, Portuguese capitalists in both branches are able to undersell their English competition. Portuguese cloth and wine invade English markets, and English gold begins to flow back to Portugal. In England, therefore, the supply of gold decreases, while in Portugal it increases.

It is at this point that Marx's theory of money becomes critical. In contrast to Ricardo, Marx

Table 13.2.

	England		Portugal		
Cloth:	100 hrs	50 oz gold	45 oz gold	90 hrs	:Cloth
Wine:	120 hrs	60 oz gold	40 oz gold	80 hrs	: Wine

expressly denies any link between pure changes in the supply of gold and the level or prices.

Instead, according to Marx's analysis, the primary effect of an outflow of gold from England will be to diminish the supply of loanable money-capital. On the other hand, as English cloth and wine production succumbs to foreign competition, the demand for money-capital will also decrease. Nonetheless, when these sectors have reached their minimal size (there will always be Englishmen who will *never* buy from foreigners), the continuing drain of gold will tend to raise the rate of interest; insofar as this curtails investment, production of other commodities will decline. In England therefore, the drain of bullion will lead to lower bank reserves, curtailed production, and a higher rate of interest.

In Portugal, the effects are just the opposite. As gold flows into Portugal, part of it will be absorbed by the expanded circulation requirements of cloth and wine production; part will be absorbed in the form of luxury articles; and the rest will be absorbed in the form of expanded bank reserves. This last effect will increase the supply of loanable money-capital, lowering interest rates and tending to expand production in general. Thus, in Portugal, the inflow of gold will raise bank reserves, expand production, and lower the rate of interest.

What we find therefore is that according to Marx's analysis England's absolute disadvantage will be manifested in a chronic trade deficit, *balanced* by a persistent outflow of gold. On the other hand, Portugal's greater efficiency in production will manifest itself in a chronic trade surplus, balanced by a persistent accumulation of gold.

Obviously such a situation cannot continue indefinitely. [34] If we stick to commodity flows alone, then as English bank reserves decline, so too will the credibility of the English £; eventually, the £ must collapse, and with it the trade between England and Portugal.

The end need not come in such a straightforward manner, however. We noted earlier that as English reserves shrink, the rate of interest in England will rise; conversely, as money-capital piles up in Portugal, the rate of interest there will fall. At some point, therefore, it will be to the advantage of Portuguese capitalists to lend their money-capital abroad, in England, rather than at home. When this happens, short-term financial capital will flow from Portugal to England;[35] England's rate of interest would then reverse itself and begin to fall, while Portugal's would rise, until at some level of short-term capital flows the two would be equal.

It may seem that at this point the situation would be balanced: England running a chronic trade deficit which it covers by means of short-term international borrowing, and Portugal running a trade surplus which enables its capitalists to engage in international lending. But of course this is not quite correct: capitalist loans are made in order to get profit (in the form of interest). Thus England would have to eventually pay back not only the original loan, but also the interest on it. The *net* effect must be an *outflow* of gold from England, albeit at a later date. All other things being equal,[36] the piper must be paid: in the end, beset by chronic trade deficits and mounting debts, England must eventually succumb.

The foregoing results take on an unpleasantly familiar ring when we express them in terms of developed and underdeveloped capitalist countries. Curiously enough, in Ricardo's example England corresponds to the *under*-developed capitalist country (UCC), its generally lower efficiency being the reflection of its lower level of development. Portugal, on the other hand, corresponds to the developed capitalist country (DCC).

Cast in these terms, we may say: *in free trade, the absolute disadvantage of the underdeveloped capitalist country will result in chronic trade deficits and mounting international borrowing. It will be chronically in deficit and chronically in debt.*

In our analysis so far, we have assumed only two commodities, so that an absolute advantage implies greater efficiency in producing both: otherwise it would obviously be a relative advantage. But when we consider the whole range of products possible in both countries, then it becomes evident that in spite of a *general* superiority in production, the DCC may nonetheless produce certain commodities at a greater cost than the UCC, and yet others not at all. Since we are still considering direct prices, the only possible exports of the underdeveloped country will conform precisely to these types: commodities it can produce at a lower value and/or those commodities peculiar to it only.[37] On the whole, these types of commodities will reflect some specific local advantages great enough to overcome the UCC's generally lower level of efficiency: a good climate, an abundance of particular natural resources, a propitious location, and so on; lower wages, however, will not matter here, since in the case of direct prices the level of wages affects profits but has no effect on prices. Under these circumstances, then, the underdeveloped country will be able to eke out a few exports; although, of course, its overall trade will still be in deficit, and its position still that of a debtor nation. Trade will serve not to eliminate inequality, but to perpetuate it.

This result is'not substantially modified by the consideration of prices of production. Since within a given country the average price of production is equal to the average direct price, the overall advantage of the **DCC** remains unchanged. What may change, however, are the trading positions of individual sectors. Within each country, sectors with high organic compositions will have prices of production above their direct prices, and sectors with low compositions, prices of production below their direct prices; but this dispersion effect holds true in both countries, to differing degrees, so that it is quite possible that in either country some previously marginal sectors may enter international competition while others drop out.

What we are left with, therefore, is that in general the developed capitalist country will dominate trade because its greater efficiency will enable it to produce most commodities at absolutely lower values, and hence, to sell them on the average at absolutely lower prices of production.

Above all, it must be kept in mind that these results represent the automatic tendencies of free and *unhampered* trade among capitalist nations at different levels of development. It is not monopoly or conspiracy upon which uneven development rests, but free competition itself: free trade is as much a mechanism for the concentration and centralization of international capital as free exchange within a capitalist nation is for the concentration and centralization of domestic capital. We will return to this point after we consider the effects of direct investment.

Incidentally, it is worth remarking that trade between capitalist nations with more or less the same level of development will have a characteristically different pattern. Suppose we consider the example lying at the heart of the Hecksher-Ohlin-Samuelson model, in which both capitalist countries possess the same technology and level of productivity – so that absolute advantage is impossible. In this limiting case, factors such as climate, location, availability of resources, experience, inventions, and above all the competitive struggle among capitalists, become all important. We would expect a more or less balanced pattern of trade in this case, with a large variety of goods being produced in both countries, and with the advantage in particular commodities shifting back and forth in the short-run. This is quite different from the structural imbalance of DCC-UCC trade.

The effects of direct investment. It is traditional in the analysis of international trade to separate commodity flows from flows of capital (direct investment). The law of comparative costs is then used to justify the patterns of commodity trade, while direct investment is treated (separately) as a transfer of savings from the rich capitalist nations to their poor relatives.[38] The underdeveloped capitalist nations thus emerge as doubly blessed: the overwhelming productive superiority of the developed nations is manifested only in the cheapness of their exports, while their incomparably greater wealth manifests itself as a mass of capital eager and willing to go over there and help spread freedom, equality, property, and Coca-Cola.

The preceding section has demonstrated that the law of comparative costs is invalid *even on* its *own grounds*. The concentration and centralization which is inherent in capitalist production is as much a part of world capitalism as it is of any single national entity; no form of exchange, be it national or international, can do more than to give vent to the fundamental laws of capitalist production. Rather than negating the inequality of development, commodity trade affirms and reinforces it.

But then what are we to make of the existing analyses of the effects of direct investment?

On one hand, orthodox economic analysis argues that direct investment "redistributes world savings' ' (Kenen, 1968, p. 29) from the rich capitalist nations to the poor ones, which tends to eliminate international inequality by slowing down the growth of the investing countries and speeding up the growth of the recipient countries. As such, might it not offset the inequality-widening effects of commodity trade?

On the other hand, as I outlined earlier, both conventional Marxist analysis and that of Emmanuel rely heavily on the export of capital as being the critical factor in modern imperialism. But both analyses are based on an explicit acceptance of comparative (instead of absolute) advantage, a law which we now know to be incorrect. To what extent, therefore, does the overthrow of this law also modify either or both of the above theories of imperialism?

These issues lead us directly to the central question of this section: how does the consideration of direct investment modify the previously derived law of international exchange? In order to answer this, we begin by developing the determinants of foreign investment.

Let us recall the results of merchant capital (i.e., commodity) flows: on the average, the absolutely greater productive efficiency of the DCC translates into lower international prices for its products. If we consider products whose consumption is common to both,[39] the DCC will dominate trade, with the UCC managing to eke out exports only in those sectors where local

advantages such as climate, availability of resources, etc. are so great as to offset their generally lower efficiency.

We must keep in mind the elements of this relationship. The DCC has the advantage precisely because it has a more developed structure of production, two aspects of which are of importance here: first, a superior technology; and second, a work-force more conditioned to capitalist production. The UCC, on the other hand, has an inferior technology and a work-force which is still new to wage-labor. The greater efficiency of production in the DCC is therefore due partly to the superior technology, and partly to the higher direct productivity of its work-force. The term, "direct productivity," refers to the fact that even when both work-forces use the same technology, the work-force of the DCC is likely to be able to produce more output, because of its greater conditioning to capitalist production, its greater familiarity with machines, etc.

On the basis of these differences, then, merchant-capital will facilitate trade between the two countries in those commodities which are of use in either country. But note that so long as the differences in development manifest themselves in the above-stated ways, the means of production of the two countries will not be among the traded commodities: each country's capitalists will use means of production consistent with its general level of development.

Merchant capital necessarily carries with it the possibility of modernization, however: the capitalists within the UCC may (and do) switch over to the superior technology of the DCC. But there are many factors which militate against this: the vastly greater cost and scale of advanced techniques, the complex interdependence required among different techniques for any one to be viable, and the greater socialization required of the work-force. For these reasons, modernization from the inside as an inherent tendency of trade relations is usually overwhelmed by another more powerful inherent tendency: *modernization* from the outside, or direct investment.[40]

Precisely those factors which work against modernization from the inside tend to work in favor of direct investment: capitalists from the DCC have much larger capitals available for investment, are familiar with modern techniques, have access to all the necessary skilled workers. But the most important factor which favors direct investment, as we shall see, is the low level of wages in the UCC.

During the analysis of commodity trade, wage differences did not appear to be an important factor. In the case of direct prices, price is determined immediately by value: wages affect only the rates of profit. In the case of prices of production, because the wage rate affects the average rate of profit, it can affect the extent to which individual prices of production deviate from direct prices; but the average price is still directly connected to value. Up to this point, therefore, it has been necessary to focus on differences in productive efficiency as the most important manifestations of uneven development, even though differences in wage rates between DCC and UCC are just as symptomatic of the disparity between their levels of development, Once we admit the possibility of international movements of industrial capital, however, wage disparities between capitalist nations become an important factor in their own right.

Consider the case of an individual capital in the DCC. If we ignore transportation costs, then the same price rules everywhere. Thus, it will take more or less the same amount of gold to build and supply a given type of plant anywhere in the world: the sole difference between countries will therefore arise from the differing costs of labor-power; that is, from the combined effects of the differences in direct productivity and the differences in wage rates.

In *Unequal Exchange . . .* , Arghiri Emmanuel points out that though the direct productivity of labor is generally lower in the UCC, the wage rate is much lower still: whereas the direct productivity "of the average worker in the underdeveloped areas is 50 to 60 percent of that of the average worker in the industrialized areas . . . the average wage in the developed countries is about 30 times the average wage in the backward countries" (Emmanuel, 1972, p. 48). This means that although it takes roughly twice as many workers in the UCC to produce the same output from a given plant than it would at home, each worker costs the developed country's capitalist only 1/30 of what workers cost at home; the net effect is that the average wage bill of a plant located in the UCC would be 1/15 of what it would be at home: cheap labor attracts foreign investment.

It must he emphasized at this point that cheap labor is not the only source of attraction for foreign investment. Other things being equal, cheap raw materials, a good climate, and a good location (if transportation costs are taken into account) are also important in making individual sectors of production attractive to foreign capital. But these factors are specific to certain branches only; cheap wage-labor, on the other hand, is a general social characteristic of underdeveloped capitalist countries, one whose implications extend to all areas of production, even those yet to be created.

One immediate consequence of considering

direct investment is that the export industries of the UCC emerge as the prime targets of foreign capital. As we have already seen, when we treat flows of merchant capital, the only sectors of the UCC capable of surviving are those whose products have no foreign counterparts, so that they face no competition from imports, and those which do face foreign competition but can overcome it due to local advantages such as plentiful raw materials, etc., which enable them to offset their generally inferior technology and lower labor productivity. The latter group of sectors, if they exist at all, become the export sectors of the UCC. And once the possibility of foreign investment is taken into account, these export sectors become leading candidates for foreign takeover: even if foreign capitalists had to ship over workers from their own country their superior technology would still enable them to take advantage of the cheap raw materials, etc., to make exceptional profits; in addition, since labor in the UCC is available at a lower net cost,[41] the export sectors begin to appear even more attractive to foreign investors.

The sectors confined solely to domestic production are not exempt from this process, however. Insofar as there exist within this group certain industries in which the superior technology of foreign capital and the lower net cost of domestic labor power enables the capitalists from the DCC to make higher profits there than they would at home, these industries too will be prey to the foreign invasion.

In all the sectors subject to this discipline, foreign capital enters because by selling at or even below the existing prices, it can enjoy a higher rate of profit than the rate which rules at home. The existing prices, however, are the prices of production of these sectors, embodying the average rate of profit in the UCC. At first glance therefore, it would seem that direct investment would only flow from the DCC to the UCC if the former's average rate of profit was higher than the latter's – because of the lower wage, for instance, in the UCC. But this is not *necessary at all*. By modernizing from the outside, foreign capital lowers the cost-price of a commodity and so raises its profitability. Thus even if the national rate of profit in the UCC were below that of the DCC, the sectors modernized by foreign capital could still yield for it a higher rate than either national average.[42]

Regardless of the actual differences in the average rates of profit of the two countries, therefore, foreign capital will seek to enter those particular industries in which it can enjoy a higher profit (at the going prices) than it would at home. As it does so, however, the competition among foreign capitals for these excess profits will lead to an increase in the supply of the commodities produced, driving down their prices and hence reducing the excess profits which attracted them in the first place. No matter where this process stops, it is clear that it will end up lowering the prices of the chosen industries until the foreign capital invested in them earns the same rate of profit as it would at home.

From the point of view of local capital the effects of foreign investment will generally be disastrous. The prices which existed before the modernization from the outside were prices of production embodying the average rate of profit in the UCC. When these prices are driven down by the influx of foreign capital, the domestic capitalists will be forced out – out of business, into yet unaffected areas or into new industries created in response to the needs of the foreign dominated sectors.

We have up to now confined ourselves to analyzing the effects of direct investment on industries already existing in the UCC. Given that only a few industries would survive the rigors of commodity trade, the question that arose was: will direct investment help offset the devastation of competition from foreign imports, or will it make matters worse?

From the point of view of local capital, the answer seems unambiguous: worse! Struggling to exploit their workers in peace, they find themselves beset by foreign devils: first their industries are ruined by cheap imports, and then those that survive are taken over by foreign capital! It is no wonder that protectionism becomes their religion.

The invasion and takeover of existing industries in the UCC does not, however, exhaust the possibilities inherent in direct investment. It must be remembered that all capitals compete against each other. This means that when capital from the DCC takes the form of foreign investment it competes not only with capital from the UCC but also with capital still at home. Where it can take advantage of the cheap labor in the UCC, new capital in the DCC can set itself up in *opposition to existing home industries*, by opening plants abroad and exporting the (cheaper) products.

We see, therefore, that attraction of cheap labor for foreign capital can be detrimental not only to local capitals in the UCC but also to certain capitals in the DCC. It is for this reason that the cry for protectionism resounds on *both* sides of the development gap. Where merchant capital dominates, or where foreign investment is still no threat to home capital, then only the plaintive wail of UCC capitalists is heard in favor of protectionism. But when foreign investment develops to the point of competing with home

production itself, the protection quickly becomes the reality of the day. Only the free traders remain, tirelessly selling the patent medicine of comparative costs.

From a nationalist point of view, the effects of direct investment on the UCC seem mixed. We have seen that merchant trade will be dominated by the DCC; the UCC will emerge as perpetually in debt and perpetually in deficit.

Insofar as foreign capital invades the surviving industries, it adds insult to injury by increasing the dependence of the UCC on the developed capitalist world. Direct investment, it is true, does lower prices and modernize industry; but, as Emmanuel emphasizes, lowered prices of exports are actually a loss to the nation-as-a-whole, since they constitute a deterioration of the terms of trade and hence a worsening of the trade balance. Moreover, for Emmanuel the important point would be that both modernization and the lowered prices are in fact mechanisms by which the surplus-value produced by workers from the UCC is in fact transferred to the foreign capitalists. This, he argues, further widens the gap between developed and underdeveloped countries; by strengthening the rich and weakening the poor: "wealth begets wealth . . . Poverty begets poverty" (Emmanuel, 1972, p. 131).

What Emmanuel does not see, however, is that foreign investment may also transplant industries from the DCC to the UCC, because of the advantages of cheap labor. lnsofar as this happens, the export capability of the UCC is strengthened (albeit under the aegis of foreign capital) by the addition of these new sectors. This side of foreign investment will tend to improve the underdeveloped nation's balance of trade, and create new avenues of employment for its labor.

The fundamental error in Emmanuel's analysis, however, is much more basic: because he accepts the law of comparative costs as being correct on its own grounds, he is forced to put the whole blame for international inequality on the effects of direct investment. Since he identifies the lower wages of the UCC as the basic factor leading to foreign investment, Emmanuel must argue that *the solution to the problem of uneven development is to equalize wages between countries.* By so doing, the flow of industrial capital from the DCC to the UCC would cease, and with it all the deleterious effects which arise from it.

But we know that in fact Ricardo's law of comparative costs is wrong: quite independently of direct investment, commodity trade by itself will result in the penury of the underdeveloped capitalist country. If anything, direct investment can be an "offset" of a sort, albeit one which eventually intensifies the unevenness of development: inflows of foreign capital, even though they may be eventually repaid many times over in outflows of profit, are nonetheless an important source of long-term borrowing to offset the chronic trade deficits, ones which are generally preferable to the volatile financial capital flows upon which short-term borrowing is based, Moreover, as noted above, direct investment can lead to the creation of new industries in the UCC, which can help reduce its trade deficit as well as increase employment within the country.

The basic point, which Emmanuel's proposed solution completely misses, is that you are damned if you do, and damned if you don't. What Emmanuel sees as an inequality between nations is in fact the international manifestation of the inequality between capitals which is inherent in the *necessarily* uneven development of capitalist relations of production. Concentration and centralization as inherent tendencies of capitalist development are just as valid internationally as they are nationally. In either case, the patterns of exchange are symptoms, not causes, of these fundamental laws, The international equalization of wage rates can no more solve the problem of uneven development in capitalism than can the suppression of a symptom cure the disease. The problem lies with capitalism, not its symptoms: to argue for the same wage everywhere is in reality to argue that the *exploitation* of workers should be equal in all countries[43] - without reference to race, color, creed, or national origin! Democratic, no doubt, but limited in its implications.

Summary and conclusions

The purpose of this chapter has been to work towards the treatment of the laws of international exchange from the Marxist perspective. This is a theoretical task, one which has its roots in the law of value as it is developed in the successive volumes of *Capital.* As such, this analysis is not a substitute for the concrete reality of international trade or of its historical development. No attempt is made, for instance, to explain the historical roots of uneven development; nor is primitive accumulation ever treated. Instead, the point is to uncover the sorts of forces which are inherent in the international interactions of capitalist nations precisely so that we may be better- prepared to deal with their concrete existence.

Perhaps the most enduring proposition in the

analysis of international trade has been the so-called law of comparative costs, which, as we have seen, has generally been accepted by orthodox economists and Marxists alike as being valid on its own grounds. In all of its various disguises, this so-called law has asserted that when it came to international trade between capitalist nations, inherent inequalities will be negated. Thus even if one of two nations could only produce all commodities at a higher price than the other, it would nonetheless end up exporting some and importing others. No nation, however humble, need ever fear "free trade," for, like bourgeois justice, it is blind to differences in station. Or so the story goes, anyway.

But it turns out that aside from the multitude of proofs about the "optimality" of specialization according to comparative costs, the real heart of the matter lies in the assertion that the basic thrust of international trade is to actually bring about such specialization. And the automatic mechanism which supposedly accomplishes this, we found, was the operation of the various orthodox theories of money.

The second part of this chapter therefore presented the development of the principle of comparative costs in its original (and basically unaltered) form: that of David Ricardo. Only then were modern derivations of this law presented. It was important in this section to show that the so-called law was a logical outcome of the conjunction of Ricardo's theory of value with his theory of money; this enabled us to establish that the locus of a critique of the law lay in its antecedents – not in the law itself.

In his analysis of Ricardo, Marx provides us precisely with the necessary critiques of Ricardo's theories of value and money. Moreover, in his own work he treats these subjects under the developments of the law of value. The third section of this chapter presented Marx's critique of Ricardo as well as his own treatment of value, price and money. This has a double consequence: the critiques of these antecedents of the su-called law of comparative costs provides us with a basis for a critique of the law itself; and Marx's own development of the law of value provides us with the basis for an adequate treatment of the laws of international exchange. And when this is done the law of comparative costs is seen to be *impossible* precisely on its own grounds. Rather than finding, as Ricardo did, that Portugal and England will each end up specializing in one commodity – in spite of Portugal's absolute superiority in the production of both – we find that Portugal will necessarily export both. England, the *underdeveloped* capitalist country in this example, will end up with a persistent trade deficit balanced by gold outflows and/or short-term borrowing.

When this result is expressed in terms of its real content, we can say: free trade will ensure that the underdeveloped capitalist country will be chronically in deficit and chronically in debt. It is *absolute* advantage, not comparative, which rules trade.

This result represents the extension of Marx's law of value (which in Marx subsumes a theory of money) to the realm of the international exchange of commodities. But as Marx points out, these commodities are capitalistically produced commodities, the commodity-form of various national capitals. As such, the interchange of commodity-capitals among nations carries with it the seeds of other forms of international capital, such as financial capital (foreign borrowing/lending), and direct investment.

The question of direct investment is particularly important, since its analysis plays so important a role in various theories of trade. Orthodox theory, for instance, finds direct investment to be a means of closing the gap between rich and poor capitalist countries, on the grounds that it transfers savings from the developed countries to the underdeveloped ones. Marxist theories of imperialism, on the other hand, have traditionally derived the major phenomena of uneven development from direct investment; in this regard Emmanuel, too, makes the export of capital pivotal in his theory of imperialism.

But all these analyses of direct investment are based on an acceptance of Ricardo's law of comparative costs. Since the central result of this paper is the overthrow of this law, and the subsequent location of many of the phenomena of imperialism – previously attributed to the export of capital – in the workings of commodity trade alone, it became imperative at that point to extend the analysis to incorporate the effects of direct investment.[44]

In the second part of this chapter's final section, this question was taken up. There, it was found that though foreign capital can provide an offset to chronic balance of trade deficits, in part because of the capital inflow and in part through the modernization and expansion of the export sectors, it does so only at the expense of an eventual capital outflow (surplus-value transferred out in the form of repatriated profits), declining terms of trade, and increased foreign domination. Instead of negating international inequality, therefore, foreign investment tightens the grip of the strong over the weak not merely through monopoly or state power, but through "free" competition itself.

There are many aspects of this analysis which need to be developed further in order to be theoretically capable of tackling the concrete history of trade among capitalist nations. Let me briefly cite two major areas to be investigated.

First, there is the question of a fuller development of Marx's theory of money to account for different forms of money and credit, so that we may trace their effects on the previously derived laws of money. This is a complex and controversial task, in which not only must the tangled history of monetary phenomena be theoretically absorbed, but also the various modern (Keynesian, monetarist) theories of money be confronted. In recent times there has been a rapid reawakening of interest in distinguishing a Marxist theory of money from its various orthodox counterparts, and a growing number of people are now focusing on this task (de Brunhoff, 1967; Foley, 1975).

Second, there is the question of distinguishing monopoly from concentration and centralization. It was Marx's concern to show that concentration and centralization are immanent tendencies of capitalist development, fostered precisely by what Marx calls the "competition of capitals;" it has been the intention here to demonstrate that precisely the same thing occurs internationally, for precisely the same reasons. To some Marxists, however, concentration and centralization imply monopoly; and monopoly being the *opposite* of free competition, it signals the end of the law of value and the beginning of the era of monopoly capital (Sweezy, 1942, p. 54). I would argue, however, that this notion of monopoly is inadequate; it stems largely from orthodox theory, whose analysis is located in the sphere of *circulation*, and refers to the ability of individual capitalists to control and influence the conditions of purchase and sale. As I outlined in the third section of this chapter, Marxian analysis is located primarily in production and reproduction; as such, it is not a question of the will of individual capitalists, but of the limits imposed upon them by those sets of relations which define the capitalist mode of production.[45] The analysis of the manner in which these limits manifest themselves is what the term law of value means in Marx; in this regard, the competition of capitals is not to be understood as the opposite of monopoly, and the era of monopoly capital need not be severed from the law of value:

> In practical life we find not only competition, monopoly and the antagonism between them, but also the synthesis of the two, which is not a formula but a movement. Monopoly produces competition, but competition produces monopoly. Monopolists are made from competition; competitors become monopolists . . . the more the mass of the proletariat grows as against the monopolists of one nation, the *more desperate competition becomes between monopolists of different nations.* The synthesis is of such a character that monopoly can only maintain itself by continually entering into the struggle of competition. (Marx, 1971, p. 152, emphasis added)

In any case, these are concerns to be followed up elsewhere. The central focus here has been the manner in which the inherent tendencies of capitalist development manifest themselves internationally. The law of uneven development, of the concentration and polarization of wealth which characterizes capitalism, can be seen to manifest itself in the form of a widening gap between poor and rich capitalist nations – not due to some external factor or political conspiracy, but precisely as the necessary form of development of free trade. This gap and its attendant consequences are symptoms, not causes: the cure must address itself to the disease.

Notes

1 Sexism is proved to be both rational and efficient: men and women enter the marriage market with various initial endowments consisting of home-capital and market-capital: men being in general relatively more endowed with market-capital, and women with home-capital, they specialize to their mutual advantage in market and home activities respectively (Becker, 1973, 1974). The potential of this fantastic analysis is, I feel, not even approached by Becker's use of it. What about blacks and whites? Nazis and Jews? Surely there is much more work still to be done.

2 $(p_c/p_w)_J \equiv$ relative price of cloth to wine in country J. Then if $(p_c/p_w)_1 < (p_c/p_w)_2$, $(p_w/p_c)_2 < (p_w/p_c)_1$.

3 One definition of absolute efficiency would be that if both countries had the same currency and the same level of money wages, the more efficient producers would have lower costs.

4 Similarly the scalar differences in production functions in different countries for the same good can also be interpreted as indexes of absolute advantage (Arrow, et al., 1961).

5 This is a period that by most accounts dominates the history of capitalism up to at least 1914, and by some accounts up to the 1960s. In any case, the period under consideration is one in which precious metals function as the ultimate international money; this by no means excludes the phenomena associated with token money and credit money. Though I do not develop the different forms of money here, the analysis outlined here can be extended to deal with token and credit money *based* on a commodity money (gold, silver, etc.).

6 Graham's examples, in a manner similar to Leontief s anomolous results, have come to be sanctified under the name of Graham's paradox.

7 Properly speaking, neo-Keynesian analysis seeks to trace the short-run consequences of changes in patterns of trade, rather than attempting to specify the actual determinants of trade. It is therefore often presented as a *complement* to the law of comparative costs.

8 Barrat-Brown surveys various arguments blaming "sectionalist monopoly and obstructionist principles," "postcolonial nationalism and self-imposed autarchy," "trade union action," and the inequality of "bargaining power" between developed and underdeveloped capitalist countries, for the historical inapplicability of free trade arguments (Bar-rat-Brown, 1974, pp. 32, 35, 38, 233).

9 It might be added that a satisfactory resolution of the problem of price formation in competitive capitalism (the so-called transformation problem) may well point the way to a better treatment of monopoly. An inadequate understanding of the former would almost surely hinder the development of a satisfactory understanding of the latter.

10 "The behavior of labor remains a matter of indifference for the application of the law of comparative advantage, the sole condition, both necessary and sufficient, for this proposition being the mobility of capital" (Emmanuel, 1972, pp. xxxi-ii).

11 Emmanuel does not abandon the law of comparative costs, even for the modern world. Rather, he sees the modern law to be the sum of two processes; first, the formation of international prices of production via international equalization of the rate of profit; and second, specialization according to comparative costs, where comparative cost ratios are determined precisely by the international prices of production. In Chapter 6 of *Unequal Exchange* . . . , he illustrates the effects of unequal exchange on the pattern of specialization. assuming throughout that this pattern is based ultimately on comparative costs.

12 The term Third World is used occasionally throughout this chapter in deference to its widespread popularity. It is, however, a very misleading term in that it suggests a separation between the poor *capitalist* countries and world capitalism.

13 Emmanuel particularly emphasizes stagnation, poverty, a widening "development gap," and declining terms of trade for Third World countries (Emmanuel, 1972).

14 It is clear from Emmanuel's analysis that capitalists are free to use the best technique of production available. On page 6 I he refers to the example of page 63, which assume the same technology in both countries (Emmanuel, 1972).

15 Emmanuel's analysis tends to be posed in terms of nations as the primary units, not classes.

16 It is worth remembering that Proudhon's *philosophy of poverty* also depends on a notion of equal exchange.

17 It is interesting to note that Marx's reaction to Ricardo, for example, is critical, appreciative, and nonpolemic. This is different from Marxist critics of Emmanuel (who might rightly be called a neo-Ricardian).

18 The natural prices of Ricardo and the prices of production of Marx currently go by a variety of names, the most common being "long-run equilibrium" prices. We will stick to Marx's terminology here.

19 Adam Smith of course postulated a precapitalist law of prices in which relative prices equalled relative labor-times. In that sense, one could claim that Smith dealt with a case in which there were no *capitalists.* But this has nothing to do with ignoring means of production, which is what neoclassical assertions about Ricardo and Smith amount to.

20 In fact, the gold standard operated with exchange rates which could vary within certain limits. These limits, called gold-points, determined whether it was cheaper to change local currency into foreign currency via the exchange-rate, or to buy gold with the local currency and spend the gold abroad. The basic determinant of the gold-points was the cost of transporting gold-bullion from one country to another.

21 In neoclassical presentations, the comparison is between price ratios of cloth and wine in each country, rather than efficiency of production. But the conclusion is the same.

22 Althusser discusses the methodological break between Marx and the classical economists (Althusser, 1970).

23 The distinction between concrete labor and abstract labor is related to (though different from) the distinction between productive and unproductive labor. In both cases the properties of value (and surplus value) producing labor are at the heart of the distinction.

24 The case of rent is a good example of this method. Land is not a product of human labor and consequently has no value; yet land has a price. A clear contradiction in Marx's theory of value, it would seem. Not at all, Marx replies. One of the necessary steps in the theoretical transition from value to price is the formulation of the concept of rent. Once it is understood how value determines rent, and it is seen that the price of land is nothing but rent capitalized (percent-discounted) into a sum of money, then rather than contradicting the law of value the price of land affirms it!

25 Marx mentions his treatment of surplus-value independently of its fetishistic forms (interest, rent, profit) as one of the "three fundamentally new elements of' *Capital* (Marx to Engels, January 8, 1868).

26 See Morishima, 1973, Chs. 5, 6; and Shaikh, 1973, Ch. IV, Sec. 4. In both of these, it is established that there is a monotonic relationship between the money rate of profit r and the Marxian rate of surplus-value s/v, for given conditions of production. Of course, the Marxian value rate of profit $s/(c + v)$ is also a monotonic function of s/v, for given production conditions. Thus the money rate of profit is a monotonic function of the value rate.

27 The velocity of circulation of money is actually the rate at which commodities enter and drop out of circulation. But because money remains within circulation, and commodities enter to be sold and leave when consumed, it is the money which appears to cause, rather than measure, the movement of the commodity.

28 Marx distinguishes reserve funds of coins, which are really *within* the sphere of circulation from hoards, in which gold leaves circulation altogether. It is the reserve funds of coins which *first* manifest an excess of coin (Marx, 1972, p. 137).

29 Of course, gold bars may appear to be sold for an equal weight of gold in the form of coins; but this is only a change of form from bullion to coin. It is not a sale since there is no price involved: an ounce of gold is an ounce of gold regardless of its shape. The same conclusion applies to the sale of gold for paper money which is backed by gold. In this case the paper is a token of a quantity of gold equal to that which it buys. Marx discusses the illusions to which token money gives rise (Marx, 1972).

30 It is important to note that in Marx's analysis, hoarding arises out of *structural* reasons specific to commodity production and/or capitalist commodity production. In Keynesian analysis, hoarding is ultimately based on *psychological* propensities.

31 There is no automatic link in Marx's analysis between a fall in the rate of interest and an expansion in the level of investment. Investment depends ultimately on the possibility of making profits; a lower rate of interest raises the *net* profitability of investments financed out of borrowing. But this does not by itself imply an automatic expansion of investment.

32 Marx also notes that it is the empirical association of price rises with the discovery of new gold mines which leads to the idea that the increased supply of gold *causes* the higher prices. Yet, as he points out, the discovery of a new, more productive gold mine lowers the unit value (w_g) of an ounce of gold, and thus raises the price level. This by itself means that more gold would be needed for circulating even the same mass of commodities. This implies a rise in the sum of prices due to a rise in the price level, with a corresponding rise of gold in circulation. A portion of the new gold is thus absorbed by this increased need for circulating gold.

In addition, as outlined in the text, the remaining new gold will tend to raise effective demand and hence production. In this case the sum of prices rises because output rises, and this in turn requires more gold to be in circulation.

On the surface, therefore, what we will observe in such circumstances is a rise in price *accompanied* by a rise in the supply of precious metals extant in the world. To the quantity theorists this correlation becomes causation; the rise in price is *attributed* to the rise in the supply of gold (Marx, 1972, 160-65).

33 The value of any commodity is the *average* amount of labor-time required for its production. As such, gold produced in various countries will have a value representing the average of the differing amounts of labor-time required in the different countries (and mines). This distinction between individual labor-time required and the social average (value) plays an important role in Marx's analysis of rent and surplus profit. Whether the individual labor-times refer to differing conditions of production of gold (different mines) within one country or between countries, does not matter as far as the value of gold is concerned.

34 We exclude the case where England is also a producer of gold (directly or through colonies), since that is obviously a special circumstance. If we treat gold production as taking place in a third country (South Africa), then the only way for England to *acquire* gold is through exports to South Africa. But given the conditions of this example, in which England is at a disadvantage in both (exportable) commodities, it is Portugal which will export to South Africa, not England.

35 Under the gold standard, in the event of a drain of gold, the central bank of a country would frequently make money scarce precisely in order to raise the interest rate and attract short-term foreign capital (Marx, 1967, Vol. III, Ch. 35, p. 575).

36 The crucial point of free trade arguments is precisely that, all *other things being equal,* trade will benefit all parties concerned.

37 Commodities whose production is peculiar to a single nation are really subsumed under the category of commodities which can be produced at a lower cost in that nation than elsewhere. Therefore, from now on we will refer only to the latter more general category.

38 This is the orthodox analysis of the *effects* of direct investment even though it is generally acknowledged that the factor-price equalization theorem (derived from the Hecksher-Ohlin-Samuelson model of commodity trade) eliminates any *reason* for international capital flows. According to this theorem, commodity trade alone will equalize wage and profit rates in all countries, so that there will be no advantage in foreign investment.

39 In this analysis we ignore the creation of consumption patterns, even though they represent an important aspect of the internationalization of capital.

40 This by no means implies that it is impossible for a particular underdeveloped capitalist country to modernize from the inside, any more than it is impossible for a particular small capitalist to make the leap into the big-time. I am only concerned to analyse the overwhelming tendencies of free trade and competition among capitalist nations within this chapter's scope.

41 Net cost here refers to the fact that the lower direct productivity of labor-power in the UCC is more than offset by even lower wage rates.

42 Suppose the average rate of profit in the UCC was 10 percent. Then if copper had a cost-price M = 100 oz of gold, its price of production (before direct investment) would be M^1 = 110 oz. Now, even if the average rate of profit in the DCC was 15 percent, foreign capital would attempt to enter copper production in the UCC if through modernization it could lower the cost-price of copper to say 80 oz – because then, at or even under the going price of copper of 110 oz, this foreign capital could receive a rate of profit above the 15 percent it would get at home.

43 This, too, is logically impossible. The standard of living (the real wage) of workers in any country must ultimately be limited by the level of development of its forces of production. By what magic will the Indian worker be able to achieve the same standard of living as the U.S. worker? The total social product per capita in India – by any conceiv-

able index – is lower than the real wage of the U.S. worker. Even if Indian workers were to consume their whole social product, real wage differences would not be wiped out – but of course Indian capital would be. Thus the incentive for foreign investment – wage differences – would remain, while the competition – the local capitalists – would be long gone!

44 As noted earlier, the location of uneven development in free trade itself implies that we must be more precise in distinguishing imperialism as a stage in capitalist development from uneven development as an immanent process in all stages. This task cannot be attempted here. I thank John Weeks for pointing this out to me.

45 "The will of the capitalist is certainly to take as much as possible. What we have to do is not to talk about his *will*, but to enquire into his *power*, the limits of that power, and the *character of those* limits" (Marx, 1970, p. 190).

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